U.S. Geological Survey Western Ecological Research Center

Prepared in cooperation with San Diego Association of Governments (SanDAG)

Multi-Taxa Database Data Dictionary

Techniques and Methods 16–B1

Cover: Schematic showing multi-taxa data dictionary.

Overlay photographs: (Left) Red diamond rattlesnake (*Crotalus ruber*) at San Mateo Creek, San Diego County, California. Photograph taken by Chris W. Brown, U.S. Geological Survey, Western Ecological Resource Center San Diego Field Station, April 24, 1999.

(Top) California red-legged frog (*Rana draytonii*) at San Francisquito Canyon, Los Angeles County, California. Photograph taken by Chris W. Brown, U.S. Geological Survey, Western Ecological Resource Center San Diego Field Station, July 10, 2002 .

(Right) Blainville's horned lizard (*Phrynosoma blainvillii*) at Torrey Pines State Natural Reserve, San Diego County, California. Photograph taken by Chris W. Brown, U.S. Geological Survey, Western Ecological Resource Center San Diego Field Station, July 26, 1999.

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By Elise Watson, Carlton J. Rochester, Chris W. Brown, Donn A. Holmes,
Stacie A. Hathaway, and Robert N. Fisher

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Contents

Acknowledgments	iii
Abstract	1
Introduction	1
Background	1
Structure of the Database	2
Purpose and Organization	2
SECTION I: DATA TABLES	3
Survey Data Table Suite	3
Site Data Table Suite	3
Species Data Table Suite	4
Habitat Data Table Suite	4
SECTION II: FIELD DEFINITIONS	5
PART 1. MAIN DATA TABLES	5
AbundanceEstimates Table	5
Actions Table	6
Affiliate Table	6
Affiliate_Affiliate Table	7
Affiliate_Communication Table	8
Aquatic Habitat Table	8
Basking Areas Table	9
Behaviors Table	10
Capture Table	10
ChemicalObservation Table	11
ChemicalTreatment Table	11
Citation Table	12
Citation_Collection_Affiliate Table	13
Collection Table	13
Collection_Affiliate Table	14
Communication Table	15
DistanceTo Table	15
Disturbance Table	16
EggmassCounts Table	17
ElectronicFileInfo Table	17
ElectronicFileInfo_Keywords Table	18
EstimateSeries Table	18
ExternalReleaseTracking Table	18
FileRepositories Table	19
FocalSpeciesList Table	19
Funding Table	19
FundingPrograms Table	20
GrantMgtActions Table	20
GrantMgtActions_Actions Table	21
HabitatObservation Table	21

HabitatObservation_Feature Table	22
HabitatObservation_GroundCover Table	23
HabitatObservation_LandUse Table	23
HabitatObservation_SedChemical Table	24
HabitatObservation_Substrate Table	24
HabitatObservation_Vegetation Table	25
IndivAnimals Table.....	25
IndividualAnimalIdentifier Table.....	27
Keywords Table.....	28
Lab Results Table	28
LandManagement Table	28
Maintenance Table.....	29
Maintenance_Affiliate Table.....	30
MaintenancePoints Table.....	30
ManagementActivities Table	30
ManagementPlans Table.....	31
MgmtActivityMonitoring Table	31
MgtPlanDetails Table	32
MgtProjectStatus Table	32
ModeledHabitatSuitability Table	33
NestCreationDetails Table.....	33
NestEntranceDetails Table.....	34
NestID Table	34
NestMorph Table	35
ObservationDetectionMethods Table.....	35
ObservationVerificationTable.....	36
OccupancyEstimates Table.....	36
Person_Org Table	37
PhotoInfo Table	37
PhotoInfo_Actions Table	38
PhotoInfo_HabitatObservations Table	38
PhotoInfo_IndivAnimals Table.....	38
PhotoInfo_MgtActivities Table	39
PhotoInfo_SurveyEventSite Table.....	39
PhotoInfo_TaxaObDetails Table	39
PlantEnhancementDetails Table	40
PlantHierarchy Table.....	40
PlantObservationDetails Table	41
PopulationEstimates Table	42
Project_Keywords Table.....	42
Project_Project Table.....	43
ProjectID Table.....	43
Protocol Table.....	43
Refugia Table	44
Reserve Table	44

Reserve_Site Table	45
RoadsTrails Table	45
Site Table	46
Site_Project Table	46
Site_Site Table	46
Site_SiteThreatType Table	47
SiteMaintenance Table	47
SiteMetadata Table	48
SoilPhysicalObservation Table	48
SourceXY Table	49
SpatialFeature Table	50
SpatialFeature_CLDB Table	50
SpeciesHabitatFeature Table	51
Spheroid Table	51
Stakeholders Table	51
Stakeholder_Projects Table	52
Study_Keywords Table	52
StudyPersonnel Table	52
SuccessCriteria Table	52
SurveyDescription Table	53
SurveyDescription_EstimateSeries Table	53
SurveyDescription_Project Table	54
SurveyDescription_Site Table	54
SurveyEvent Table	54
SurveyEvent_Affiliate Table	55
SurveyEvent_Site Table	56
SurveyEvent_SpatialFeature Table	56
SurveyMethod Table	57
TargetVegCommunities Table	57
TaxaObservation Table	57
TaxaObservationDetails Table	58
TelemetryDetails Table	59
TerrestrialHabitat Table	60
Traps Table	62
Trauma Table	62
WaterPhysicalObservation Table	62
WeatherObservation Table	63
WithinSurveyEffortLost Table	64
PART 2. LOOK UP TABLES	65
Actions Table Look Ups	65
luCHWRHabitat	65
Affiliate Table Look Ups	65
luAffiliate Type	65
luCountry	66
luState	66

Aquatic Habitat Table Look Ups	66
luExtentInundation.....	66
luStreamOrder	66
luStreamOrderMethodID	66
luWaterFlow.....	66
luWaterSource	66
Basking Areas Table Look Ups	67
luBaskingAreas.....	67
luBaskingAreasContext	67
Behaviors Table Look Ups	67
luBehavior	67
Collection Table Look Ups	67
luCollectionType.....	67
luCurationStatus	67
luPreservationMethod	67
TissType	67
Collection_Affiliate Table Look Ups	68
luCollectionUses	68
luReturnExpected	68
DistanceTo Table Look Ups	68
luDistanceToType.....	68
luEstMethod.....	68
EstimateSeries Table Look Ups	68
luGender	68
luLifeStage	68
luParameterType.....	68
FocalSpeciesList Table Look Ups.....	69
luFocalSpeciesPurpose	69
luPopulationDesignation	69
Funding/FundingProgram Table Look Ups	69
luFundingType.....	69
GrantMgtActions Table Look Ups	69
luFundingAction	69
HabitatObservation Table Look Ups.....	69
luCHWRHabitat	69
luRoadSurface.....	69
Permanency.....	70
HabitatObservation_Feature Table Look Ups.....	70
luHabitatFeatureType	70
HabitatObservation_GroundCover Table Look Ups.....	70
luGroundCover	70
HabitatObservation_LandUse Table Look Ups.....	70
luLandUse.....	70
HabitatObservation_SedChemical Table Look Ups.....	70
luSedimentationChemical	70

HabitatObservation_Substrate Table Look Ups	71
luSubstrate	71
luSubstrateContext	71
HabitatObservation_VegetationTable Look Ups	71
luHabitatObsVegContext	71
luHabitatVegetationType	71
IndivAnimals Table Look Ups	71
luAgePelage	71
luDisposition	71
luFate	72
luPubicSymphysis	72
luShwear	72
luTeats	72
IndividualAnimalIdentifier Table Look Ups	72
IDType	72
Keywords Table Look Ups	72
luKeywordType	72
Maintenance Table Look Ups	72
luFacilityType	72
luMaintType	73
luMaterialType	73
MaintenancePoint Table Look Ups	73
luMaintPointType	73
ManagementActivities Table Look Ups	73
luActivityType	73
MgmtActivityMonitoring Table Look Ups	73
luMonitoringType	73
MgtPlanDetails Table Look Ups	74
luMgtType	74
MgtProjectStatus Table Look Ups	74
luMgtProjectStatus	74
luMilestoneType	74
NestEntranceDetails Table Look Ups	74
luDirection	74
ObservationDetectionMethods Table Look Ups	74
luDetectionMethod	74
ObservationVerification Table Look Ups	74
luVerifMethods	74
PhotoInfo Table Look Ups	75
luPhotoQuality	75
luPhotoType	75
PlantEnhancement Table Look Ups	75
luIrrigationMethods	75
luPlantingForms	75

PlantHeirarchy Table Look Ups	75
luHeightClass.....	75
PlantObservationDetails Table Look Ups.....	75
luAgeMetric	75
luEstMethod.....	75
luDensityUnit	76
luObGrowthForm.....	76
luPlantObDetailType.....	76
luPlantSizeClass.....	76
ProjectID Table Look Ups	76
luProjectCategory.....	76
Refugia Table Look Ups.....	76
luRefugiaContext.....	76
luRefugiaType	76
RoadsTrails Table Look Ups	77
luFreqofTravel.....	77
luRoadsTrailsAccess.....	77
luRoadsTrailsEdge	77
luRoadsTrailsType	77
Site Table Look Ups	77
luCounty.....	77
luSiteQuality.....	77
Site_Site Table Look Ups	77
luSiteRelationshipType.....	77
Site_SiteThreatType Table Look Ups.....	78
luSiteThreatType	78
SoilPhysicalObservation Table Look Ups.....	78
luSoilMethod	78
luSoilTextureClass	78
luSoilUnit	78
SourceXY Table Look Ups.....	78
luXYCoordType	78
SpatialFeature_CLDB Table Look Ups.....	78
luSFCLDBMethod.....	78
SpeciesHabitatFeature Table Look Ups.....	79
luFeatureType	79
luHabSuitability	79
luRelativeAbundance	79
StudyPersonnel Table Look Ups.....	79
luAffiliateRole	79
SurveyDescription Table Look Ups.....	79
luStudyType.....	79
luSourceType.....	79

SurveyDescription_Site Table Look Ups.....	79
luMSCPLandDesignation.....	79
SurveyEvent Table Look Ups.....	80
ConstrainBy	80
luSurveyableAreaUnit.....	80
luStudyType.....	80
UnitEffort	80
SurveyEvent_Affiliate Table Look Ups.....	80
luAffiliateRole	80
SurveyEvent_Site Table Look Ups.....	80
luAmtSurveyedUnit.....	80
SurveyEvent_SpatialFeature Table Look Ups	80
luSESFRelationship.....	80
SurveyMethod Table Look Ups.....	81
luSurveyMethod.....	81
TaxaObservation Table Look Ups	81
luAbundanceCategory	81
luHistoricalPresence.....	81
luRemovalIntroductionValues.....	81
luSpeciesDetected	81
luTaxaRole.....	81
Taxa	82
TaxaObservationDetails Table Look Ups.....	82
luCountMethod.....	82
luDetectionMethod.....	82
luGender	83
luLifeStage	83
luTrapType	83
luHabitatFeatureType	83
TelemetryDetails Table Look Ups	83
luLocationClass.....	83
TerrestrialHabitat Table Look Ups	83
luPhenology	83
luStructure	83
luTreeSize.....	84
luVegetationStandSize.....	84
WaterPhysicalObservation Table Look Ups	84
Hardness	84
Transparency.....	84
TranspMeth.....	84
TurbUnits	84
WaterColor.....	85

WeatherObservation Table Look Ups	85
luBarometerTrend	85
luDirection	85
luMoonPhase	85
luObsTiming	85
luSkyObservation	85
luWindBeaufortScale	85
SECTION III: LOOK UP DOMAIN TABLES	86
ConstrainBy	86
Hardness	86
IDType	86
luAbundanceCategory	86
luActivityType	87
luAffiliateRole	87
luAffiliateType	87
luAgeMetric	87
luAgePelage	87
luAmtSurveyedUnit	87
luBarometerTrend	87
luBaskingAreas	87
luBaskingAreasContext	88
luBehavior	88
luCollectionType	88
luCollectionUses	88
luCountMethod	88
luCountry	89
luCounty	92
luCurationStatus	128
luCWHRHabitat	129
luDensityUnit	130
luDetectionMethod	130
luDirection	131
luDisposition	131
luDistanceToType	131
luEstMethod	131
luExtentInundation	131
luFacilityType	131
luFate	131
luFeatureType	131
luFocalSpeciesPurpose	131
luFreqofTravel	131
luFundingAction	132
luFundingType	132
luGender	132
luGroundCover	132

luHabitatFeatureType	132
luHabitatObsVegContext.....	133
luHabitatVegetationType	134
luHabSuitability	134
luHeightClass.....	134
luHistoricalPresence.....	134
luIrrigationMethods.....	134
luKeywordType.....	134
luLandUse.....	134
luLifeStage	134
luLocationClass	136
luMaintPointType	136
luMaintType	136
luMaterialType.....	137
luMgtProjectStatus	137
luMgtType.....	137
luMilestoneType.....	137
luMonitoringType	137
luMoonPhase.....	137
luMSCPLandDesignation.....	137
luObGrowthForm	137
luObsTiming.....	137
luParameterType.....	137
luPhenology	137
luPhotoQuality	137
luPhotoType	138
luPlantingForm.....	138
luPlantObDetailType	138
luPlantSizeClass.....	138
luPopulationDesignation	138
luPreservationMethod	138
luProjectCategory.....	138
luPubicSymphysis.....	138
luRefugiaContext.....	138
luRefugiaType	138
luRelativeAbundance	138
luRemovalIntroductionValues.....	139
luReturnExpected.....	139
luRoadSurface.....	139
luRoadsTrailsAccess.....	139
luRoadsTrailsEdge	139
luRoadsTrailsType.....	139
luSedimentationChemical	139
luSESFRelationship.....	140
luSFCLDBMethod.....	140

luShwear	140
luSiteQuality	140
luSiteRelationshipType	140
luSiteThreatType	140
luSkyObservation	141
luSoilMethod	141
luSoilTextureClass	141
luSoilUnit	141
luSourceType	141
luSpeciesDetected	141
luState	141
luStreamOrder	142
luStreamOrderMethodID	142
luStructure	142
luStudyType	142
luSubstrate	143
luSubstrateContext	143
luSuveyableAreaUnit	144
luSurveyMethod	144
luTaxaRole	144
luTeats	145
luTrapType	145
luTreeSize	145
luVegetationStandSize	145
luVerifMethod	146
luWaterFlow	146
luWaterSource	146
luWindBeaufortScale	146
luXYCoordType	147
Permanency	147
TissType	147
Transparency	147
TranspMethod	147
TurbUnits	148
UnitEffort	148
WaterColor	148
Appendix 1. Entity Relationship Diagram of All Database Tables	149
Appendix 2. Entity Relationship Diagram of Tables Associated with Survey Events	149
Appendix 3. Entity Relationship Diagram of Tables Associated with Sites	149
Appendix 4. Entity Relationship Diagram of Tables Associated with Taxa Observations	149
Appendix 5. Entity Relationship Diagram of Tables Associated with Habitat Observations	149

Conversion Factors

International System of Units to U.S. customary units

Multiply	By	To obtain
Length		
centimeter (cm)	0.3937	inch (in.)
millimeter (mm)	0.03937	inch (in.)
meter (m)	3.281	foot (ft)
kilometer (km)	0.6214	mile (mi)
kilometer (km)	0.5400	mile, nautical (nmi)
meter (m)	1.094	yard (yd)

Supplemental Information

Concentrations of chemical constituents in water are given in either milligrams per liter (mg/L) or micrograms per liter ($\mu\text{g/L}$).

Abbreviations

ARMI	Amphibian Research and Monitoring Initiative
ATV	All Terrain Vehicle
CDFW	California Department of Fish and Wildlife
CLDB	Conserved Lands Database
CWRH	California Wildlife Habitat Relationship
DAR	Distance angle rate
dB	decibels
DBH	diameter breast height
DBS	Database Management System
EtOH	Ethanol
FIPS	Federal Information Processing Standard
FTU	Formazin Turbidity Unit
GPS	Global Positioning System
Hg	Mercury
ITIS	Integrated Taxonomic Integration System

kph	kilometers per hour
MCL	Maximum Carapace Length
µg/g	micrograms per gram
MRD	minimum redundancy
MSCP	Multiple Species Conservation Plan
MTX	Multi-Taxa database
NAAMP	North American Amphibian Monitoring Program
NPS	National Park Service
PDA	personal digital assistant
PIT	passive integrated transponder
NA	Not applicable
Ng/ul	nanograms per microliter
NTU	Nephelometric Turbidity Units
QAQC	Quality Assurance/ Quality Control
SanDAG	San Diego Association of Governments
SDSU	San Diego State University
sec	seconds
T/F	True/False
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator
VARCHAR	variable characters
VIE	Visible Implant Elastomer
Y/N	Yes/No

Multi-Taxa Database Data Dictionary

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Abstract

The conservation of biological resources relies on the successful management of ecological and physiological research data. The Western Ecological Research Center of the U.S. Geological Survey is working with researchers, land managers, and decision makers from non-government organizations and city, county, state, and federal resource agencies to develop data management methods. Access to the most current and applicable research data available in making sound decisions to conserve species diversity is foundational. We sought to accomplish several goals in developing the data management strategy used in the Multi-Taxa database. Data persistence and availability are primary goals of well-developed databases. By documenting and sharing the structure and definitions of Multi-Taxa database, we hope to further the successful management of these crucial data.

Introduction

Background

Successful management of biological resources relies on successful management of ecological and physiological research data. In California, the Western Ecological Research Center of the U.S. Geological Survey (USGS) is working with researchers and city, county, state, and federal resource agencies to develop strategies to supply data that meet management needs. We designed the Multi-Taxa database (MTX) described in this document to help meet the needs of resource managers in California and the western region while providing utility to researchers. We hope that others can benefit from understanding our database design.

Land managers and regulators rely on access to the most current and applicable research data available in making sound decisions to conserve species diversity. Integrated data management allows researchers, agencies, and consultants to share information regarding their independent research, inventory, and monitoring projects. We examined several

data management strategies from local, regional, and federal partners to determine how to meet the needs of the managers. We consulted with federal and university researchers and statisticians to incorporate study design needs and capabilities and to ensure data of highest value were considered in our database strategy. Together, these concepts provided a basis on which a strategy could be developed.

We sought to accomplish several goals in developing the data management strategy used in the MTX database. One of the main goals was to develop a stringent database to provide a platform that could meet the needs of the managers and still provide flexibility for researchers. Peer reviewed and established protocols from wildlife agencies were thoroughly examined to develop data consistency. We provided for multiple data entry and recall tools to meet the demands of different study designs, including full digital data collection utilizing handheld computers with standardized forms, queries, and reports. Coupled with sound science, this strategy of integrated data management is of great benefit to the researchers and an invaluable tool to land managers.

Data persistence is a primary goal of well-developed relational databases. Having a robust relational database with well defined fields, relationships, and metadata allows the data to be useful long after the study for which it was originally collected has been completed. Relational databases can easily be managed with ever-evolving software. This capability, combined with the ability to quickly create backups and export data in multiple standard formats, such as comma or tab delimited text files, increases data persistence.

Databases like MTX can be used to export formatted data for many purposes. The Multi-Taxa database has been used to compile USGS data required by California scientific permits and to contribute to the National Wildlife Health Center lab results database that processes tissue sample data from the national Amphibian Research and Monitoring Initiative program (ARMI), which uses MTX for data management. The relational structure of these kinds of databases allows flexibility in developing reports and sharing data among researchers, and the permission system supports access restrictions on data until proper review has been conducted according to USGS procedures.

Staff from several local and state agencies contributed to the early design of the MTX. The initial architecture of the MTX was influenced by the National Park Service's Inventory and Monitoring Program. Proposed database design, structure, and data fields were reviewed by staff from the California Department of Fish and Wildlife Biogeographic Data Branch, the U.S. Fish and Wildlife Service, and the National Park Service, as well as by U.S. Geological Survey biologists.

Structure of the Database

The MTX is a relational database, in which subject specific data tables are linked to each other using common fields ("foreign keys"). The MTX has several advantages for data storage. Data that are stored in the MTX are immediately accessible, given the proper access rights. The data can be reduced easily through simple query tools provided with many database applications ranging from shareware to industrial application software. The data can be queried repeatedly for multiple values across many fields at a very quick pace, without having to physically examine the entire dataset (either paper or spreadsheet) to look for representative values and types of data. By separating the spatial and temporal information and creating relationships between the categories of field data, collection errors can often be avoided. For example, errors such as recording an individual surveyor in multiple locations at the same time or twice entering the survey of a single location at a single time can be easily assessed or even not permitted. Relationships also clarify the associations among kinds of data. Particular data may pertain to a specific location at a specific time or they may have a larger spatial or temporal extent pertaining to multiple sites or surveys, which may be obscured when the data are in spreadsheet format. For example, many studies store data in single spreadsheets where relatively static site-specific data (for example, habitat type, slope, and aspect) are included and repeated for each survey. As well, survey specific covariates (for example, weather and water quality) can be repeated across locations or species observations in a survey. The

structure of this database ensures that site covariate data will not be stored as survey covariates and vice versa.

Data and user security are integral to the structure of the database, with access permissions built into the database itself. In the case of the MTX, all access to data is managed through user accounts synchronized with the federal individual log-in system. User access is granted by the data steward for each project. Users are never allowed direct access to a table; instead, specific data are selected, filtered, and presented through database coding, according to the design requirements of each data view. User access is linked to the data on a by-record-basis in order to make use of current and future applications to collect, review, and retrieve data.

Purpose and Organization

This document is intended to provide basic information on the structure and contents of the MTX database. Section I lists the principle data tables and their purposes. Tables are presented within their subject matter groups or "suites," such as Project Management related, Survey related, Site related, and so forth. Within each suite, the tables are presented in order of hierarchy of relatedness. Section II contains the definitions for all fields within the main tables (Part 1) and look-up tables (Part 2), which are presented alphabetically. Information on data types, field lengths, integer decimal places (Decimal Places), null requirements (Required Field), and Primary Key identification also is included with each field definition. Section III lists the domain values for each look-up table, which also are accessible by hyperlink functions in Section II. Hyperlinks allow the reader to jump directly to the associated look up table or field domain. In addition, the Navigation Window provides links to the main document sections as well as the ability to move forward or back in the document. Finally, in the appendix section, one can find a collection of diagrams that depict the relationships among all of the tables. These diagrams are commonly referred to as Entity Relationship Diagrams.

SECTION I: DATA TABLES¹

Survey Data Table Suite

Table Name	Purpose	GoTo
SurveyEvent	The SurveyEvent table stores detailed information about the survey being conducted, including start and end dates and times, surveyors, recorders, survey effort and constraints. This table is able to store multiple observers in a way that they can be referenced in the species detection tables of the database.
SurveyEvent_Site	The SurveyEvent_Site table connects SurveyEvent records to Site records. This table also contains additional data fields for survey-specific site information.
WeatherObservation	The WeatherObservation table stores data on weather conditions for the survey at a given point.
TelemetryDetails	The TelemetryDetails table stores information collected from satellite transmitters attached to animals. The data in this table are taken directly from the satellite output file.

Site Data Table Suite

Table Name	Purpose	GoTo
Site	The Site table contains data that describe the location of the site. It includes site name, subsites and sub-subsites. The SiteID is carried down to the data entry tables below it, including those in other data suites.
SiteMetadata	The SiteMetadata table contains additional data about the Site.
Site_SiteThreatType	The Site_SiteThreatType table contains Site specific threat information.
SpatialFeature	The SpatialFeature table stores descriptive information about the location of an observation, such as waypoint names or, if it is a revisit of a historical location, where a species was observed.
SourceXY	The SourceXY table stores data specific to the geographic location where data are being collected. This table contains information on the coordinate types and collection methods.
LandManagement	The LandManagement table contains information about the Land Managers for a site.
SiteMaintenance	The SiteMaintenance table stores data on maintenance needs and maintenance performed on the site. Disrepair or ongoing repair at a site may influence survey data and may be responsible for data abnormalities. This table records the dates of maintenance issues to account for this in the survey data.
Disturbance	The Disturbance table stores data collected on any disturbances observed during a survey.
Traps	The Traps table stores information on traps used in surveys, such as trap identifier, time placed and removed from site and bait information.
RoadsTrails	The RoadsTrails table records the presence of roads and/or trails that exist on or near a given site. Associated characteristics are also recorded for the given date.

¹This section describes only the tables relevant to data entry and does not include the additional tables that serve as lookup or administrative tables

Species Data Table Suite

Table Name	Purpose	GoTo
TaxaObservation	The TaxaObservation table stores general data about the species that has been detected, including if it is a target species, and can store negative data for that species as well (that is, Species X was a target species of the survey but was not detected). This table also stores observer/recorder information.
TaxaObservationDetails	The TaxaObservation table stores specific data about the animal species that has been detected including age class, gender and number of individuals of that category.
IndivAnimals	The IndivAnimal table stores data in reference to a specific animal during a specific sample event, such as weight, length, mass and identification number/label.
IndividualAnimalIdentifier	The IndividualAnimalIdentifier table stores identification information for captured animals that are tagged by some method (pit tag, toe clip, and so forth). Also noted is when an individual animal's ID value or type has been changed or corrected.
PlantObsevationDetails	The PlantObservationDetails table stores specific data about a plant species that has been detected including counts, areal estimates and physical characteristics.
Trauma	The Trauma table stores data on any evidence of trauma observed on an individual animal.
Behaviors	The Behaviors table stores data on the behavior of observed taxon.
PhotoInfo	The PhotoInfo table stores information about photos of sites, habitats, or observed animals.
Collection	The Collection table stores data on physical items taken from the field, including whole or part(s) of an animal or plant, soil and water samples. Quantity and storage location of the item(s) are recorded here. The table allows for multiple collections to be associated with an individual animal.
Collection_Affiliate	The Collection_Affiliate table stores tracking information if a sample has been sent to a person outside the USGS for identification or research purposes.
LabResults	The LabResults table stores information on lab results after samples have been processed.

Habitat Data Table Suite

Table Name	Purpose	GoTo
HabitatObservation	The HabitatObservation table stores data on the general habitat conditions at a given location, including vegetation types, slope and aspect, substrate and surrounding land use.
HabitatObs_Feature	The HabitatObs_Feature table stores data about land features observed within the habitat.
HabitatObs_GroundCover	The HabitatObs_GroundCover table stores data about the ground cover observed within the habitat.
HabitatObs_LandUse	The HabitatObs_LandUse table stores data about the land use of the observed habitat.
HabitatObs_SedChemical	The HabitatObs_SedChemical table stores data about the chemicals found in the sediment within the habitat.
HabitatObs_Substrate	The HabitatObs_Substrate table stores data about the substrate observed within the habitat.
HabitatObs_Vegetation	The HabitatObs_Vegetation table stores data about the vegetation observed within the habitat.
TerrestrialHabitat	The TerrestrialHabitat table stores data about the terrestrial habitat within a site.
AquaticHabitat	The AquaticHabitat table stores data on aquatic characteristics of a habitat.
BaskingAreas	The BaskingAreas table stores data about basking areas for animals observed within the habitat. These data are typically collected for Western Pond Turtle surveys.
Refugia	The Refugia table stores data about potential refugia habitat observed. These data are typically collected for Western Pond Turtle surveys.
ChemicalObservation	The ChemicalObservation table stores data on the water chemistry of water samples collected during a survey, which may often be filled in after the survey, when lab results return.
WaterPhysicalObservation	The WaterPhysicalObservation table stores data on the physical characteristics of water observed within the habitats studied.
SpeciesHabitatFeature	The SpeciesHabitatFeature table stores information on a stated FeatureType's suitability for the species observed.

SECTION II: FIELD DEFINITIONS

PART 1. MAIN DATA TABLES

AbundanceEstimates Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
95ciHigh	decimal	10	0	N	N	The upper bound of a 95 percent confidence interval around the population estimate, should be greater than or equal to 'pop_est'.
95ciLow	decimal	10	0	N	N	The lower bound of a 95 percent confidence interval around the population estimate, should be less than or equal to 'pop_est'.
AEID	varchar	50	0	Y	Y	Abundance Estimates record identifier.
CaptureProbability	decimal	8	7	N	N	An estimate of the individual capture probability (p-hat).
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ESID	varchar	50	0	Y	N	Associated EstimateSeries record identifier.
Gamma1	decimal	6	5	N	N	An estimate of the probability that an individual that is part of the population was not available for sampling during the sampling period (gamma prime).
Gamma2	decimal	6	5	N	N	An estimate of the probability that an individual unavailable for sampling in the previous year is still unavailable in the current year (gamma double prime).
Notes	varchar	250	0	N	N	Notes about the abundance estimate.
NumberCaught	int	0	0	N	N	Number of animals included in estimates.
PopEstError	decimal	15	5	Y	N	An estimate of the standard error associated with the population estimate.
PopulationEstimate	decimal	15	5	Y	N	An estimate of the number of individuals in the population (N-hat). Use the superpopulation estimate if temporary emigration has been estimated.
Program	varchar	50	0	N	N	The name of the software used to produce the parameter estimate.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecaptureProbability	decimal	8	7	N	N	An estimate of the probability of recapturing an individual that has been previously captured(c-hat).
Season	varchar	15	0	N	N	Season for which estimate was calculated.
Version	varchar	25	0	N	N	Numers or letters identifying the version of the software.
Year	varchar	25	0	N	N	The year(s) to which this estimate applies.

Actions Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ActionEndDate	datetime	0	0	N	N	End date of action.
ActionID	bigint	19	0	Y	Y	Action record identifier.
ActionName	varchar	50	0	N	N	Name of the action.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Description	varchar	255	0	N	N	Description of the action.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
InitiationDate	datetime	0	0	N	N	Date action initiated.
ManagementActivityID	bigint	19	0	Y	N	Associated ManagementActivity record identifier.
Methods	varchar	255	0	N	N	A summary of the methods used.
Notes	varchar	255	0	N	N	Notes about the action.
Operative	int	0	0	N	N	Person or organization that carried out the action.
ProtocolID	int	0	0	N	N	Associated Protocol record identifier.
QAQC_Notes	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
TargetHabitatType	varchar	3	0	N	N	Habitat, based on updated vegetation classification system, which action pertains to. See luCWHRHabitat .
TargetSpecies	varchar	25	0	N	N	Integrated Taxonomic Integration System (ITIS) taxonomic serial number or assigned identifier of plant, animal, or vegetation community that action pertains to. See http://www.itis.gov/ for plant or animal species information.
Type	varchar	25	0	N	N	Type of action/activity carried out.

Affiliate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Address1	varchar	100	0	N	N	Affiliate's first line of address.
Address2	varchar	100	0	N	N	Affiliate's second line of address.
Affiliate_Initials	varchar	10	0	N	N	Affiliate's initials.
AffiliateID	int	0	0	Y	Y	Affiliate record identifier.
AffiliateRecord-Validated	bit	0	0	N	N	Indicates if the Affiliate record has been validated.
AffiliateTypeID	int	0	0	Y	N	Type of organization affiliate belongs to. See luAffiliateType .
CDFGPermitNum	varchar	25	0	N	N	CDFW (formerly CDFG) Permit number issued to affiliate.
CellPhone	varchar	20	0	N	N	Affiliate's cell phone number.
City	varchar	50	0	N	N	Affiliate's address city.
CountryCode	char	2	0	N	N	Affiliate's address country abbreviation. See luCountry .

Affiliate Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EMail	varchar	320	0	N	N	Affiliate's email address.
Extension	varchar	4	0	N	N	Affiliate's phone number extension.
Fax	varchar	20	0	N	N	Affiliate's fax number.
FirstName	varchar	50	0	N	N	Affiliate's first name.
FWSPermitNum	varchar	25	0	N	N	USFWS permit number issued to affiliate.
InternationalAddress	varchar	255	0	N	N	Affiliate's international address.
LastName	varchar	255	0	Y	N	Affiliate's last name.
LoginName	varchar	20	0	N	N	Affiliate's login name for MTX.
MiddleInit	varchar	1	0	N	N	Affiliate's middle initial.
Organization	varchar	100	0	N	N	Affiliate's organization.
Phone	varchar	20	0	N	N	Affiliate's phone number.
PostalCode	varchar	50	0	N	N	Affiliate's address postal zip code.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SourceOfRecord	varchar	50	0	N	N	Source of the Affiliate record information.
StateCode	char	2	0	N	N	Affiliate's address state abbreviation. See luState .
StatusCode	char	1	0	Y	N	Current status of affiliate, A = Active; I = Inactive.
Title	varchar	50	0	N	N	Affiliate's title.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
Website	varchar	255	0	N	N	Affiliate's website address.

Affiliate_Affiliate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateAffiliateID	int	0	0	Y	Y	Affiliate_Affiliate record identifier.
AffiliateID	int	0	0	Y	Y	Associated Affiliate record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
MailToAffiliateID	int	0	0	Y	Y	Affiliate record identifier of person mailings should be directed to.
ParentAffiliateID	int	0	0	Y	Y	Affiliate record identifier of parent affiliate (such as organization that person belongs to).
StatusCode	varchar	2	0	N	N	Current status of affiliate, A = Active, I = Inactive.

Affiliate_Communication Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	Y	Y	Affiliate record identifier.
CommunicationID	bigint	19	0	Y	Y	Communication record identifier.

Aquatic Habitat Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AquaticHabitatID	varchar	50	0	Y	Y	AquaticHabitat record identifier.
ChannelWidth	decimal	9	2	N	N	The width of the channel between the top of the natural banks, in meters.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ExtentInundationID	int	0	0	N	N	Percent range of site covered in water. See luExtentInundation table.
FishBarrierHeight	decimal	10	4	N	N	Height of fish barrier in meters.
FloodPlain	varchar	20	0	N	N	The relatively level area of land bordering a stream channel and inundated during moderate to severe floods. The level of the flood plain is generally about the stage of the 1 to 3 year flood.
FloodProneWidth	decimal	9	2	N	N	The width measured at an elevation which is determined at twice the maximum bankfull depth (1 to 50 year flood); measured in meters.
FlowDirectionCode	varchar	3	0	N	N	Abbreviation of direction of water flow.
HabitatObservationID	varchar	50	0	N	N	Associated HabitatObservation record identifier.
IsFishBarrierPresent	int	0	0	N	N	Y/N. If Fish Barrier present in area surveyed.
IsFishBarrierStart	int	0	0	N	N	Y/N. If Fish Barrier starts in area surveyed.
Notes	varchar	250	0	N	N	Notes about the aquatic habitat observation.
NumberPlungePools	varchar	10	0	N	N	Estimated number of plunge pools (pools formed by cascading water) that occurred along the site.
NumberWettedBraids	int	0	0	N	N	Number of wetted braids (areas where water flows in a braided pattern around islands and bars, dividing and reuniting as it flows downstream) at site.
PercentOverhead Canopy	varchar	10	0	N	N	Percentage of area of the stream covered by the topmost vegetative cover. Can be calculated by estimating the average percent of the sky visible between 45 degree upward angles of the bank.
PercentReachWith DeepPool	varchar	10	0	N	N	Percent-range of reach with deep pooling water.
PercentReachWith MedPool	varchar	10	0	N	N	Percent-range of reach with medium pooling water.
PercentReachWith Riffles	varchar	10	0	N	N	Percent-range of reach with riffles visible in water.

Aquatic Habitat Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
PercentReachWithRuns	varchar	10	0	N	N	Percent-range of reach with running water.
PercentReachWithShallowPool	varchar	10	0	N	N	Percent-range of reach with shallow pooling water.
PercentWetLengthOfSurvey	varchar	10	0	N	N	Percent-range for length of survey that is wet.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
StreamOrderID	int	0	0	N	N	Stream size based on a hierarchy of tributaries. See luStreamOrder table.
StreamSlopeDegrees	decimal	10	4	N	N	Slope of stream in degrees.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WaterAerialExtent	decimal	10	4	N	N	Extent of area of water feature in square meters.
WaterAverageDepth	decimal	10	4	N	N	Average depth of water feature in meters.
WaterAverageLength	decimal	10	4	N	N	Average length of water feature in meters.
WaterAverageWidth	decimal	10	4	N	N	Average width of water feature in meters.
WaterDepth	decimal	10	4	N	N	Water depth at the point in meters.
WaterFlowID	int	0	0	N	N	Flow rate of the water. See luWaterFlow table.
WaterLength	decimal	10	4	N	N	Length of water feature in meters.
WaterMaxDepth	decimal	10	4	N	N	Maximum depth of water feature in meters.
WaterMaxLength	decimal	10	4	N	N	Maximum length of water feature in meters.
WaterMaxWidth	decimal	10	4	N	N	Maximum width of water feature in meters.
WaterSourceCode	varchar	2	0	N	N	Origin of water body. See luWaterSource table.
WaterVelocity	decimal	10	4	N	N	Velocity of water in meters/second.
WaterWidth	decimal	10	4	N	N	Width of water feature in meters.

Basking Areas Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
BaskingArea	varchar	20	0	N	N	Area above the surface of the water where sunny space is available for animals to rest and sun themselves (for example, rocks, sunny banks). See luBaskingAreas table.
BaskingAreasID	varchar	50	0	Y	Y	BaskingAreas record identifier.
Context	varchar	20	0	N	N	Area within habitat where basking area is observed. See luBaskingAreasContext table.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservationID	varchar	50	0	N	N	Associated HabitatObservation record identifier.
Hierarchy	int	0	0	N	N	Ranking of basking area.

Basking Areas Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Behaviors Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Behavior	varchar	50	0	N	N	Behavior of observed taxon. See luBehavior .
BehaviorsID	varchar	50	0	Y	Y	Behaviors record identifier.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DirectionOfBehavior	decimal	4	1	N	N	Decimal degree direction of behavior.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TaxaObservation DetailsID	varchar	50	0	N	N	Associated TaxaObservationDetails record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Capture Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AirwayClear	char	3	0	N	N	Was the airway clear for the capture.
CapID	varchar	50	0	Y	Y	Capture record identifier.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EyeOintment	char	3	0	N	N	Was eye ointment applied to capture.
IAID	varchar	50	0	N	N	Associated IndivAnimal record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TimeAmbulatory	datetime	0	0	N	N	Time that capture was ambulatory or capable of movement.
TimeDown	datetime	0	0	N	N	Time that capture was immobilized.
TimeNotTractable	datetime	0	0	N	N	Time that capture was not under control.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

ChemicalObservation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ANC	int	0	0	N	N	Acid Neutralizing Capacity: ability of water to resist changes in pH.
Chloride	decimal	4	1	N	N	Concentration of chloride in the water to nearest 0.001 mg/L.
Chlorophyll	decimal	4	1	N	N	Concentration of chlorophyll (mg/L).
COID	varchar	50	0	Y	Y	ChemicalObservation record identifier.
Conductivity	int	0	0	N	N	A measure of the ability of a solution to carry an electrical current.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Nitrate	decimal	4	1	N	N	Concentration of nitrate in the water to nearest 0.001 mg/L.
Nitrogen	decimal	4	1	N	N	Nitrogen concentration to nearest 0.1 mg/L.
Notes	varchar	255	0	N	N	Notes.
ObservationDate	datetime	0	0	N	N	Date and time this water chemistry observation was made.
ObservedByAffiliateID	int	0	0	N	N	ID of person making observation. See Affiliate table .
pH	decimal	4	1	N	N	An expression of the intensity of the basic or acid condition of a liquid; may range from 0 to 14, where 0 is the most acid and 7 is neutral, measured to the nearest 0.01.
Phosphates	decimal	5	3	N	N	Concentration of phosphates in water (mg/L).
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Salinity	int	0	0	N	N	The concentration of dissolved salts in water (ppt).
SiblingID	varchar	50	0	N	N	Record identifier of associated record.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
TotalAlk	decimal	4	1	N	N	Total alkalinity in water (ppm).
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

ChemicalTreatment Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AppEquipment	varchar	25	0	N	N	Equipment/vehicle used to apply the chemical.
AppliedBy	int	0	0	N	N	Affiliate who applied the treatment.
AppLocContext	varchar	25	0	N	N	General area within habitat that treatment occurred.
AppMethod	varchar	25	0	N	N	Method used to apply chemical.
AreaTreated	numeric	8	4	N	N	Acreage of the area treated.
ChemicalApplied	varchar	25	0	N	N	Name of herbicide/pesticide/insecticide.

ChemicalTreatment Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ChemicalTreatmentID	varchar	50	0	Y	Y	ChemicalTreatment record identifier.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	255	0	N	N	Notes about the treatments.
NumPlantsTreated	int	0	0	N	N	Number of plants/animals treated.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
QtyChemicalApplied	numeric	8	4	N	N	Amount of chemical applied.
Rate	numeric	8	4	N	N	Rate of application.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SitePrepMethods	varchar	255	0	N	N	Describe what was done to the area to prep it for the chemical treatment.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
TaxaID	char	6	0	N	N	Taxonomic Serial Number (www.itis.gov) of taxon that was treated.
TreatmentType	varchar	15	0	N	N	Type of chemical applied to species.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Citation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ArticleDate	Smalldatetime	0	0	N	N	Date of publication.
ArticleName	varchar	250	0	Y	N	Name of article.
ArticleType	varchar	50	0	Y	N	Type of publication (tech report, journal, and so forth).
ArtNotes	varchar	200	0	N	N	Notes in reference to article.
AuthorID1	varchar	50	0	N	N	Primary author.
AuthorID2	varchar	50	0	N	N	Secondary author.
AuthorID3	varchar	50	0	N	N	Tertiary author.
AuthorID4	varchar	50	0	N	N	Quaternary author.
AuthorID5	varchar	50	0	N	N	Pentanary author.
CitationID	varchar	50	0	Y	Y	Citation record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EFIID	bigint	19	0	N	N	Associated ExternalFileInfo record identifier.
PubCity	varchar	50	0	N	N	City of publication.
PubCountry	varchar	50	0	N	N	Country of publication.

Citation Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
PublisherName	varchar	100	0	N	N	Name of publisher.
TechName	varchar	200	0	N	N	Name of office producing technical report.

Citation_Collection_Affiliate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CitationID	varchar	50	0	Y	Y	Citation record identifier.
CollectionAffiliateID	int	0	0	Y	Y	Collection_Affiliate record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.

Collection Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AmtWaterFiltered	decimal	7	2	N	N	For filter collection types, records how many milliliters of water were pumped through the filter.
BoxName	varchar	10	0	N	N	Box ID within freezer.
CollectionID	varchar	50	0	Y	Y	Collection record identifier.
CollectionType	varchar	10	0	N	N	Description of physical type of collection. See luCollectionType .
ColumnName	varchar	10	0	N	N	Column ID within freezer.
CompactingShelf	varchar	20	0	N	N	Name of San Diego Field Station compacting shelf where collection is stored.
ConvertedToDNA	bit	0	0	N	N	If true, tissue was converted to DNA.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
CurationStatus	varchar	15	0	N	N	Current lab-workflow stage for this collection. See luCurationStatus .
CurrentStorageMedium	varchar	30	0	N	N	Description of container currently used to store collected item.
Depleted	bit	0	0	N	N	If true, entirety of collection has been used; nothing left.
DNAConcentration	decimal	5	1	N	N	Concentration of DNA used in extraction. Measured in nanograms per microliter or (ng/ul).
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FieldTag	varchar	20	0	N	N	Alpha-numeric value found on the tag attached to some types of collections. Often referred to as the “RNF number” by the San Diego Field Station.
Freezer	varchar	20	0	N	N	Name of San Diego Field Station freezer where collection is stored.

Collection Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
FromCollectionID	varchar	50	0	N	N	CollectionID of collection from which this portion of collection was taken.
GeneratedID	varchar	50	0	N	N	Unique alpha-numeric value generated at the site of collection, used to identify this collection of tissue, voucher, swab, or other. This value is used to mark the vial or other container used to store the collection and is retained through the lifetime of the specimen and data record.
IAID	varchar	50	0	N	N	Associated IndivAnimals record identifier.
Notes	varchar	250	0	N	N	Notes about the Collection record.
OriginalStorageMedium	varchar	30	0	N	N	Description of container originally used to store collected item.
PreservationCondition	char	1	0	N	N	Rating of physical condition.
PreservationMethod	char	1	0	N	N	Method used to preserve collected item. See luPreservationMethod .
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Rack	varchar	10	0	N	N	Rack ID within freezer.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
RowName	varchar	10	0	N	N	Row ID within freezer.
TissueTypeID	char	2	0	N	N	TissueType record identifier. See TissType .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WPOID	varchar	50	0	N	N	Associated Water PhysicalObservation record identifier.

Collection_Affiliate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	Y	N	Associated Affiliate record identifier.
CollectionAffiliateID	int	0	0	Y	Y	Collection_Affiliate record identifier.
CollectionID	varchar	50	0	Y	N	Associated Collection record identifier.
CollectionUse	varchar	25	0	N	N	Use of the collected sample for the affiliate who requested it. See luCollectionUses .
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
CustodianRefID	varchar	30	0	N	N	The reference ID used by the entity that is or was in possession of collection item.
DateEnd	datetime	0	0	N	N	Date item expected to return, if return is expected.
DateReturned	datetime	0	0	N	N	Date item is actually returned, if return is expected.
DateStart	datetime	0	0	N	N	Date item sent to affiliate.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the Collection_Affiliate record.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.

Collection_Affiliate Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ReturnExpected	varchar	10	0	N	N	If true, item is expected to be returned by DateEnd. See luReturnExpected .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Communication Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CommunicationID	bigint	19	0	Y	Y	Communication record identifier.
Communication-Text	varchar	5000	0	N	N	The content of the communication, limited to 5000 characters if necessary.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.

DistanceTo Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Direction	numeric	3	0	N	N	Measured in compass degrees.
Distance	numeric	7	2	N	N	Measured in meters.
DistEstMethod	varchar	20	0	N	N	How the distance was measured. Methods include actual measurement while in the field, estimated (ball-parked), or already known from a map or similar. See luEstMethod .
DTID	varchar	50	0	Y	Y	DistanceTo record identifier.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
DistEstMethod	varchar	20	0	N	N	How the distance was measured. Methods include actual measurement while in the field, estimated (ball-parked), or already known from a map or similar. See luEstMethod .
DTID	varchar	50	0	Y	Y	DistanceTo record identifier.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the DistanceTo record.
OtherItem	varchar	75	0	N	N	Description of feature/object/item to which direction and distance is being recorded. Optional, as measurement could be to a TaxaObservation record instead.
PODID	varchar	50	0	N	N	Optional foreign key, as this record may relate to a PlantObservationDetails instead.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.

DistanceTo Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Taxa	varchar	50	0	N	N	Reference to TaxaObservation record to which direction and distance is being recorded. Optional, as measurement could be to Other Item instead.
TODID	varchar	50	0	N	N	Optional foreign key, as this record may relate to a TaxaObservationDetails record instead.
Type	varchar	30	0	N	N	What the distance measurement refers to: another animal or plant, water, food source, or some physical object. See luDistanceToType .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Disturbance Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Currentness	varchar	25	0	N	N	Estimation of how recently disturbance occurred or is occurring (ongoing, previous day, previous week, historic, other).
DateEnded	datetime	0	0	N	N	Date disturbance ended, if known.
DBDiffFrm Bkgnd	decimal	6	2	N	N	Decibel levels over background.
Disturbance	varchar	50	0	N	N	The specific disturbance.
DisturbanceID	varchar	50	0	Y	Y	Disturbance record identifier.
Duration	varchar	25	0	N	N	Estimation of how long disturbance lasted.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Extent	varchar	50	0	N	N	Extent of the disturbance in metric provided.
Metric	varchar	50	0	N	N	Metric by which disturbance is measured (DB, meters, other).
Notes	varchar	250	0	N	N	Notes about the Disturbance record.
Origin	varchar	50	0	N	N	Source of the disturbance.
PointID	varchar	50	0	N	N	SpatialFeature record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	N	N	Site record identifier.
SurveyEventID	varchar	50	0	N	N	SurveyEvent record identifier.
Type	varchar	50	0	N	N	Type of disturbance (visual, audible, physical, other).
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

EggmassCounts Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Count	int	0	0	Y	N	Count of egg masses.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
ECID	bigint	19	0	Y	Y	EggmassCounts record identifier.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ESID	varchar	50	0	Y	N	EstimateSeries record identifier.
Notes	varchar	250	0	N	N	Notes about the eggmass count.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Season	varchar	15	0	N	N	The season of the year to which the estimates apply.
Year	varchar	25	0	N	N	The year to which this count applies.

ElectronicFileInfo Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AccessLevel	char	10	0	N	N	Code used to specify what level of access is required to obtain this file; the specifics of this method not presently implemented.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EFIID	bigint	19	0	Y	Y	ElectronicFileInfo record identifier.
FileDescription	varchar	200	0	N	N	Description of the file, provided by the user.
FileOwner	int	0	0	N	N	Associated Affiliate record identifier to identify the owner of the file.
FRID	bigint	19	0	N	N	Associated FileRepository record identifier.
InternalFileName	varchar	100	0	Y	N	The name the file while it is managed in this system; used to avoid naming conflicts.
Notes	varchar	250	0	N	N	Notes.
OriginalFileName	varchar	100	0	Y	N	The name of the file when it was added to the system, as provided by the user.
PhotoID	varchar	50	0	N	N	Associated PhotoInfo record identifier, if this record is related to a PhotoInfo record.
URL	varchar	250	0	N	N	The web address of the file, if applicable.

ElectronicFileInfo_Keywords Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EFIID	bigint	19	0	Y	Y	Associated ElectronicFileInfo record identifier.
KeywordID	bigint	19	0	Y	Y	Associated Keyword record identifier.

EstimateSeries Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ESID	varchar	50	0	Y	Y	EstimateSeries record identifier.
LifeStageID	int	0	0	N	N	Life stage of animal observed. See luLifeStage .
Model	varchar	255	0	N	N	Notes regarding how occupancy was modeled in this observation/case.
Notes	varchar	250	0	N	N	Notes about the estimate series record.
NumberOfSites Sampled	int	0	0	N	N	Number of sites sampled in inference area.
NumberOfSites Total	int	0	0	N	N	Total number of sites in inference area.
Parameter	varchar	50	0	Y	N	Parameter studied. See luParameterType .
PEID	varchar	50	0	Y	N	Associated PopulationEstimates record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Sex	int	0	0	N	N	Sex of species observed. See luGender .
TaxaID	varchar	25	0	Y	N	Taxonomic Serial Number (www.itis.gov) of species estimate is applied to.
Use	bit	0	0	Y	N	Indicates whether or not this time series should be included in a national synthesis.

ExternalReleaseTracking Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ApprovalBy	int	0	0	N	N	Affiliate who approved the release of the dataset.
Comments	varchar	250	0	N	N	Comments regarding the dataset that was released.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DATE	datetime	0	0	N	N	Date the dataset was submitted to external source.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ExternalReleaseID	varchar	50	0	Y	Y	ExternalReleaseTracking record identifier.

ExternalReleaseTracking Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ExternalSite	varchar	50	0	N	N	Site that the dataset was submitted to.
ProjectID	varchar	12	0	N	N	Project record identifier of study that dataset is part of.
ReleaseNotice	varchar	100	0	N	N	Link to Intent of Dataset Use PDF document.
SurveyDescriptionID	int	0	0	N	N	SurveyDescription record identifier of study that dataset is part of.
View_ StoredProcedure	varchar	100	0	N	N	Name of view/stored procedure that outputs requested data.

FileRepositories Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FRID	bigint	19	0	Y	Y	FileRepositories record identifier.
OurLoginName	varchar	100	0	N	N	Username used to access repository.
OurPassword	varchar	50	0	N	N	Password used to access repository.
RepositoryName	int	0	0	Y	N	Affiliate record identifier identifying the location where the file is managed.
RepositoryPOC	int	0	0	Y	N	Affiliate record identifier of the point of contact at the repository.

FocalSpeciesList Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FocalSpeciesPurpose	varchar	40	0	N	N	Purpose of the focal species studied in study. See luFocalSpeciesPurpose .
FSLID	varchar	50	0	Y	Y	FocalSpeciesList record identifier.
PopulationDesignation	varchar	10	0	N	N	MultiSpecies Conservation Plan (MSCP) Population designation. See luPopulationDesignation .
SurveyDescriptionID	int	0	0	Y	N	Associated SurveyDescription record identifier.
TaxaID	varchar	25	0	Y	N	Taxonomic Serial Number (www.itis.gov) of target species.

Funding Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AmountFunded	money	19	4	N	N	Amount awarded by grant, contract, or other funding source.
AwardDate	datetime	0	0	N	N	Date funding agreement executed.

Funding Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FundingDuration	int	0	0	N	N	Duration of the funding.
FundingEntity	int	0	0	N	N	Agency that awarded the grant, contract, or other funding source.
FundingID	bigint	19	0	Y	Y	Funding record identifier.
FundingPOC	int	0	0	N	N	Agency Point of Contact.
FundingProgramID	int	0	0	N	N	Associated FundingProgram record identifier.
FundingTypeID	int	0	0	N	N	Type of funding for project. See luFundingType .
FundName	varchar	100	0	Y	N	Name of the grant, contract, or funding source.
FundNumber	varchar	10	0	Y	N	Grant, contract, or other funding source number.
ProjectID	varchar	12	0	N	N	Associated Project record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of quality-analysis/quality-control.
Recipient	int	0	0	N	N	Person/Agency that received the funding.
RecipientPOC	int	0	0	N	N	Recipient Point of Contact.

FundingPrograms Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FundingEntity	int	0	0	N	N	Agency that awarded the grant, contract, or other funding source.
FundingProgramID	int	0	0	Y	Y	FundingProgram record identifier.
FundingTypeID	int	0	0	N	N	Type of funding. See luFundingType .
FundingYear	numeric	4	0	N	N	Year of funding.
Notes	varchar	255	0	N	N	Notes about the Funding Program.
ProgramName	varchar	50	0	N	N	Name of the program.
ProgramPOC	int	0	0	N	N	Program Point of Contact. See Affiliate table .
ProposalDueDate	datetime	0	0	N	N	Due date of proposal for Funding Program.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RFPDate	datetime	0	0	N	N	Due date of request for proposals (RFP).

GrantMgtActions Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AdminAction	int	0	0	N	N	Administrative action associated with management action. See luFundingAction .
BillingAmount	money	19	4	N	N	Billing amount for management action.

GrantMgtActions Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
BillingDate	datetime	0	0	N	N	Billing date for management action.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FundingID	bigint	19	0	Y	N	Associated Funding record identifier.
GrantMgtActionID	int	0	0	Y	Y	GrantMgtAction record identifier.
Notes	varchar	255	0	N	N	Notes about the action.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.

GrantMgtActions_Actions Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ActionID	bigint	19	0	N	N	Associated Action record identifier.
Cost	money	19	4	N	N	Total estimated cost of this action, including labor, equipment, and supplies.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
GMAAID	int	0	0	Y	Y	GrantMgtAction_Action record identifier.
GrantMgtActionID	int	0	0	N	N	Associated GrantMgtAction record identifier.
Hours	decimal	7	2	N	N	Total estimated labor hours to complete this action.
Notes	varchar	200	0	N	N	Notes about the action.

HabitatObservation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AspectDirection Code1	varchar	3	0	N	N	First most dominant aspect direction at the site.
BankDisturbance Evidence	varchar	100	0	N	N	Description of evidence suggesting bank disturbance.
BeaverActivity Evidence	varchar	100	0	N	N	Description of evidence suggesting beaver activity.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DistanceToRoad	int	0	0	N	N	Distance in meters to the nearest road.
DistanceToWater	decimal	8	2	N	N	Distance to nearest water source, measured in meters.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EditNotes	varchar	50	0	N	N	Notes about the updated record.
Elevation	int	0	0	N	N	Elevation, in meters, of habitat.

HabitatObservation Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
HabitatObservationID	varchar	50	0	Y	Y	HabitatObservation record identifier.
HistDataRecordID	varchar	50	0	N	N	The original primary key value, for legacy records that have been migrated into this database.
IsVisualLivestock Present	int	0	0	N	N	T/F. If there is visual evidence of livestock in habitat.
IsWaterPresent	int	0	0	N	N	T/F. If there is water in the habitat.
LivestockPresence Evidence	varchar	100	0	N	N	Evidence of livestock presence.
Notes	varchar	1,000	0	N	N	Notes about the habitat observation.
PointID	varchar	50	0	N	N	SpatialFeature record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Remarks	varchar	250	0	N	N	Additional remarks about the habitat observation.
RipCWHRHabitat Code	varchar	3	0	N	N	California Wildlife Habitat Relationship System code for riparian areas. See luCWHRHabitat table.
RipHabitatTaxaID	varchar	25	0	N	N	Associated taxa record identifier of the riparian habitat.
RoadSurfaceCode	varchar	2	0	N	N	RoadSurface Code. See luRoadSurface table.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SlopeDegrees	int	0	0	N	N	A measure of the angle of the ground with respect to the plane of the horizon. Measured by dividing the “rise” (difference in elevation between the highest to the lowest point) by the “run” (the length of the distance between the highest to the lowest point).
StandingWaterPercent	int	0	0	N	N	Percentage of standing water at the site.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UplCWHRHabitatCode	varchar	3	0	N	N	California Wildlife Habitat Relationship System code for upland areas. See luCWHRHabitat table.
UplHabitatTaxaID	varchar	25	0	N	N	Associated taxa record identifier of the upland habitat.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WaterPermanency	char	1	0	N	N	Estimate of how permanent or transitory the water source is (based on prior knowledge or maps). See Permanency table.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.

HabitatObservation_Feature Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.

HabitatObservation_Feature Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
HabitatFeatureTypeID	int	0	0	Y	Y	Type of feature observed within habitat. Used to record features of note within a habitat (for example, provides beneficial habitat, survey waypoints, and so forth). See luHabitatFeatureType table.
HabitatObservationID	varchar	50	0	Y	Y	Associated HabitatObservation record identifier.
NumFeatures	int	0	0	N	N	Number of features observed.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

HabitatObservation_GroundCover Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
GroundCoverID	int	0	0	Y	Y	Type of ground cover observed within habitat. See luGroundCover table.
GroundCoverPercent	int	0	0	N	N	Percentage of habitat with identified ground cover.
HabitatObservationID	varchar	50	0	Y	Y	Associated HabitatObservation record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

HabitatObservation_LandUse Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservationID	varchar	50	0	Y	Y	Associated HabitatObservation record identifier.
LandUseID	int	0	0	Y	Y	The primary function of the land. See luLandUse table.
LandUsePercent	char	10	0	N	N	Percentage of habitat with identified land use.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

HabitatObservation_SedChemical Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Chemical Concentration	decimal	10	6	N	N	Concentration of the chemical in the sediment.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservationID	varchar	50	0	Y	Y	Associated HabitatObservation record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Sedimentation ChemicalID	int	0	0	Y	Y	Chemical found in the sediment within the habitat. See luSedimentationChemical table.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

HabitatObservation_Substrate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservationID	varchar	50	0	Y	N	Associated HabitatObservation record identifier.
HabitatObsSubstrateID	varchar	50	0	Y	Y	HabitatObsSubstrate record identifier.
Hierarchy	int	0	0	N	N	Ranking of substrate observations.
Notes	varchar	255	0	N	N	Notes about the substrate observation.
PercentRange	varchar	10	0	N	N	Percent range that the identified substrate is found within the habitat.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SubstrateContextCode	varchar	2	0	Y	Y	Type of environment within the site where substrate was found. See luSubstrateContext table.
SubstrateID	int	0	0	Y	Y	Type of substrate (surface composition) observed within habitat. See luSubstrate table.
SubstratePercent	decimal	4	1	N	N	Percentage of observed substrate.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

HabitatObservation_Vegetation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Context	varchar	20	0	N	N	General area of habitat in which vegetation was observed. See luHabitatObsVegContext table.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservation ID	varchar	50	0	Y	N	Associated HabitatObservation record identifier.
HabitatObsVegID	varchar	50	0	Y	Y	HabitatObs_Vegetation record identifier.
HabitatVegetation TypeID	int	0	0	Y	Y	Type of vegetation found within habitat. See luHabitatVegetationType table.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
VegetationMax Height	decimal	10	4	N	N	Maximum height of observed vegetation.
VegetationType Percent	int	0	0	N	N	Percentage of identified vegetation observed within habitat.
VegType PercentRange	varchar	10	0	N	N	Range (min to max) in percentages of the vegetation type.

IndivAnimals Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AbnormalDesc	varchar	200	0	N	N	Description of abnormalities observed on animal.
Age	varchar	2	0	N	N	Age of animal. See luAgePelage table.
AgeDetMethod	varchar	50	0	N	N	Description of method used to determine age of individual animal.
Atmarg	numeric	2	0	N	N	The number of the marginal scute (scute/scale located along the edge of a turtle's carapace) where the greatest width was measured.
AtmargWidth	numeric	4	0	N	N	Width of carapace at the Atmarg location.
BodyGirth	int	0	0	N	N	Distance around the animal's body at the widest point.
BodyLength	decimal	5	1	N	N	For anurans, this is measured from tip of the snout to the tip of the urostyle, unless otherwise noted in protocol and/or metadata.
BodyTemp	decimal	5	1	N	N	Body temperature of the animal in Celsius.
CarapaceHeight	decimal	5	1	N	N	Distance between the lowest and highest points of a turtle (in mm).
CarapaceWidth	decimal	5	1	N	N	Width at the widest part of the carapace, usually between the eighth and ninth marginal scutes (in mm).
CementumRidge	int	0	0	N	N	Measurement of ridge in millimeters.
ChestCirc	decimal	5	1	N	N	Circumference of chest in mm.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Disposition	varchar	10	0	N	N	Disposition of animal when observed (for example, alive, dead). See luDisposition table.

IndivAnimals Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Ear	decimal	4	1	N	N	Length of ear in mm. Measurement from the notch of the ear to the longest part of the pinna.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Fate	varchar	15	0	N	N	What happened to individual after capture? See luFate table.
ForeFootLength	decimal	4	1	N	N	Length of forefoot in mm. Measurement from the back of the heel to the tip of the longest toe plus nail.
ForeFootWidth	decimal	4	1	N	N	Width of forefoot in mm.
HeadCirc	decimal	4	1	N	N	Circumference of the head in mm.
HindFoot	decimal	4	1	N	N	Length of hindfoot in mm. Measurement from the back of the heel to the tip of the longest toe plus nail.
HindFootWidth	decimal	4	1	N	N	Width of hindfoot in mm.
HistDataRecordID	varchar	50	0	N	N	The original primary key value, for legacy records that have been migrated into this database.
IAID	varchar	50	0	Y	Y	IndivAnimals record identifier.
IANotes	varchar	255	0	N	N	Notes about the individual animal record.
JawCirc	decimal	18	0	N	N	Circumference of the jaw in mm.
Lactating	char	1	0	N	N	Y/N. Is the animal lactating?
MalformDesc	varchar	200	0	N	N	Description of any malformities.
Mass	decimal	7	2	N	N	Weight of the animal in grams.
MCL	numeric	4	0	N	N	Carapace length (mm) at the midline; straight line distance between the anterior edge of the nuchal and posterior (ventral) edge of the supracaudal scute, measured with calipers.
MoltLine	char	10	0	N	N	Line on bird where molting is visible, used in determination of maturity.
MoltType	char	10	0	N	N	Type/Stage of molting.
MouthCondition	int	0	0	N	N	The condition of the mouth of the individual (normal, abnormal).
NeckCirc	decimal	4	1	N	N	Circumference of the neck in mm.
Nesting	char	1	0	N	N	Y/N. Is the animal nesting?
NewGrowth	bit	0	0	N	N	Whether new growth is present or not on tortoise carapace.
NumCostal	int	0	0	N	N	Number of costal grooves.
NumIntercostal	int	0	0	N	N	Number of intercostals grooves.
PelageDesc	varchar	200	0	N	N	Description of pelage (body hair) of animal.
Perforate	char	1	0	N	N	Y/N. For female animals only, presence of opening in the vagina indicating that she has been penetrated.
PhotoTaken	char	1	0	N	N	Y/N. Was a photo of the animal taken?
PlastronLength	decimal	5	1	N	N	Distance from the anterior-most part of the plastron to the posterior-most part, measured along the midline (in mm).
PLN	numeric	4	0	N	N	Length of the plastron from the gular notch to the anal notch
PLT	numeric	4	0	N	N	Length of the plastron from the tip of the gular to the tip of the caudal scute
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
Pregnant	char	1	0	N	N	Y/N. Is the animal pregnant?
PubicSymphysis	char	3	0	N	N	Status of the pubic symphysis joint. See luPubicSymphysis table.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.

IndivAnimals Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Recapture	char	1	0	N	N	Y/N. Has the animal been captured previously during sample period?
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Residency	char	1	0	N	N	Residency condition (wintering, territory, rookery).
Scrotal	char	1	0	N	N	Y/N. For males only, is the scrotum visible, swollen or descended.
Sex	int	0	0	N	N	Sex of the animal.
Shwear	numeric	1	0	N	N	Degree of shell wear observed on tortoise shell. See luShwear .
SpermPlug	char	1	0	N	N	Y/N. For female animals only, presence of sperm plug (goosey film) over the vagina after penetration.
TailLength	decimal	5	1	N	N	Tail length of the individual animal in mm, measurement from the base of the rump to the tip of the last vertebrae. Hair is not included.
TaxaObservationDetailsID	varchar	50	0	Y	N	Associated TaxaObservationDetails record identifier.
Teats	char	2	0	N	N	Condition of teats. See luTeats table.
TissueSample	char	1	0	N	N	Y/N. Whether tissue sample was taken.
TotalLength	decimal	5	1	N	N	Total length of the individual animal in mm, measured from beginning of snout to tip of tail.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
Width_M3	numeric	4	0	N	N	Width of the tortoise at the posterior edge of the third marginal scute.
Width_M4	numeric	4	0	N	N	Width of the tortoise at the middle of the fourth marginal scute.
Width_M78	numeric	4	0	N	N	Width of the tortoise at the seam between the 7th and 8th marginal scutes.
ZygoBreadth	decimal	3	1	N	N	Greatest distance between the outer margins of the zygomatic arches.

IndividualAnimalIdentifier Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
IAID	varchar	50	0	N	N	Associated IndivAnimal record identifier.
IDType	char	10	0	N	N	Type of tag or identification marker used on animal. See IDType table.
IDValue	varchar	250	0	N	N	Identification number of animal/tag.
IndivAnimalIDID	varchar	50	0	Y	Y	IndividualAnimalIdentifier record identifier.
IsChange	char	1	0	N	N	Y/N. Is the current IDValue a new value?
Notes	varchar	200	0	N	N	Notes about the animal identifier.
OldIDType	char	10	0	N	N	Former type of tag or identification marker used on animal. See IDType table.

IndividualAnimalIdentifier Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
OldIDValue	varchar	250	0	N	N	Former identification number of animal/tag.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Keywords Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Keyword	varchar	50	0	Y	N	Keyword.
KeywordID	bigint	19	0	Y	Y	Keywords record identifier.
Type	varchar	25	0	N	N	Optional way to classify and/or organize the keywords into lists, and so forth. See luKeywordType .

Lab Results Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AnalysisDate	date	0	0	N	N	Date the lab analysis was conducted.
CollectionID	varchar	50	0	N	N	Associated Collection record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Ct	decimal	6	3	N	N	Count.
DNACopiesCount	decimal	17	7	N	N	Number of copies of DNA.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
LabID	int	0	0	N	N	AffiliateID of the Lab that conducted the analysis.
LabRefID	varchar	30	0	N	N	ID that lab assigned to sample.
LabResultsID	varchar	50	0	Y	Y	LabResults record identifier.
Notes	varchar	250	0	N	N	Notes about the lab results.
Result	varchar	50	0	N	N	Result value from analysis.
Test	varchar	50	0	N	N	Test performed by lab.
Trial	int	0	0	N	N	For tests that are run multiple times, this is the number representing to which test in the sequence of tests this result is associated.

LandManagement Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	N	N	Associated Affiliate record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.

LandManagement Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
LandManagementID	varchar	50	0	Y	Y	LandManagement record identifier.
ManagementEnd	datetime	0	0	N	N	Date management of this site by this affiliate ended.
ManagementStart	datetime	0	0	N	N	Date management of this site by this affiliate began.
Notes	varchar	100	0	N	N	Notes about the Land Management record.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Role	varchar	50	0	N	N	Describes the role the affiliate plays in the management of the site.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.

Maintenance Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FacilityTypeID	int	0	0	N	N	Type of facility. See luFacilityType .
MaintArea	numeric	10	4	N	N	Area of maintenance area.
MaintenanceID	varchar	50	0	Y	Y	Maintenance record identifier.
MaintHistory	varchar	255	0	N	N	History of maintenance activities.
MaintHistoryYear	numeric	4	0	N	N	Year that historical maintenance occurred.
MaintLength	numeric	8	2	N	N	Length of maintenance area.
MaintNeed	varchar	255	0	N	N	Description of maintenance needed.
MaintTypeID	int	0	0	N	N	Type of maintenance conducted. See luMaintType .
MaintWidth	numeric	8	2	N	N	Width of maintenance area.
MaterialHeight	numeric	8	2	N	N	Height of the maintenance material.
MaterialLength	numeric	8	2	N	N	Length of the maintenance material.
MaterialTypeID	int	0	0	N	N	Type of material used for maintenance. See luMaterialType .
MaterialWidth	numeric	8	2	N	N	Width of the maintenance material.
Notes	varchar	255	0	N	N	Notes about the habitat maintenance efforts.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SurveyEventID	varchar	50	0	Y	N	Associated Survey Event record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Maintenance_Affiliate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	Y	N	Person or entity who conducted the maintenance.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Maintenance_AffiliateID	bigint	19	0	Y	Y	Maintenance_Affiliate record identifier.
MaintenanceID	varchar	50	0	Y	N	Associated Maintenance record identifier.
MaintenanceRole	varchar	25	0	N	N	Role of affiliate involved in the maintenance activity.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

MaintenancePoints Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
MaintenanceID	varchar	50	0	Y	N	Associated Maintenance record identifier.
MaintenancePointID	varchar	50	0	Y	Y	Maintenance Point record identifier.
MaintPointNum	int	0	0	N	N	Maintenance Point number.
MaintPointType	varchar	15	0	N	N	Type of maintenance point. See luMaintPointType .
PointID	varchar	50	0	N	N	Associated Spatial Feature record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

ManagementActivities Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ActivityTypeID	int	0	0	N	N	Type of management activity. See luActivityType .
ActualEndDate	datetime	0	0	N	N	True end date of management activity.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.

ManagementActivities Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Goals	varchar	255	0	N	N	Goals set forth for this management activity.
ManagementActivityID	bigint	19	0	Y	Y	ManagementActivity record identifier.
MgtPlanDetailID	bigint	19	0	Y	N	Associated MgtPlanDetail record identifier.
POC	int	0	0	N	N	Point of Contact.
PostactivityConditions	varchar	255	0	N	N	Describe the habitat conditions after management activity completed.
PreactivityConditions	varchar	255	0	N	N	Describe the habitat conditions before management activity started.
ProposedEndDate	datetime	0	0	N	N	Proposed end date of management activity.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
StartDate	datetime	0	0	N	N	Start date of management activity.

ManagementPlans Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ManagementPlanID	bigint	19	0	Y	Y	ManagementPlan record identifier.
Manager	int	0	0	N	N	Affiliate ID of person who manages the plan. See Affiliate table .
MgtPlanDesc	varchar	255	0	N	N	Description of the management plan.
MgtPlanName	varchar	255	0	Y	N	Name of the management plan.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.

MgmtActivityMonitoring Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ManagementActivityID	bigint	19	0	Y	N	Associated ManagementActivity record identifier.
MgtActivityMonitoringID	bigint	19	0	Y	Y	MgtActivity Monitoring record identifier.
PropMonitoringTypeID	int	0	0	N	N	Proposed monitoring type. See luMonitoringType .
PropSurveyArea	numeric	8	2	N	N	Proposed survey area.
PropSurveyNum	int	0	0	N	N	Proposed number of surveys.
PropYearsMonitoring	int	0	0	N	N	Proposed years of monitoring.

MgmtActivityMonitoring Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Required	bit	0	0	N	N	Y/N. Is the monitoring activity required as part of the management plan?

MgtPlanDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Comments	varchar	255	0	N	N	Comments about the Management plan details.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Description	varchar	255	0	N	N	Description of the management plan.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EndDate	datetime	0	0	N	N	End date of the management plan.
ManagementPlanID	bigint	19	0	Y	N	Associated ManagementPlan record identifier.
MgtPlanDetailID	bigint	19	0	Y	Y	MgtPlanDetail record identifier.
MgtTypeID	int	0	0	Y	N	Type of management. See luMgtType .
POC	int	0	0	N	N	Point of Contact. See Affiliate table .
ProjectID	varchar	12	0	N	N	Associated Project record identifier.
Purpose	varchar	255	0	N	N	Purpose of the management plan.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
StartDate	datetime	0	0	N	N	Start date of the management plan.

MgtProjectStatus Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
CurrentMilestone	smallint	5	0	N	N	Current project milestone to be achieved.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
MgtPlanDetailID	bigint	19	0	Y	N	Associated MgtPlanDetail record identifier.
MgtProjectStatusID	bigint	19	0	Y	Y	MgtProjectStatus record identifier.
MilestoneDate	datetime	0	0	N	N	Date of current milestone.
MilestoneTypeID	smallint	5	0	N	N	Type of milestone expected for project. See luMilestoneType .
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Status	varchar	15	0	N	N	Status of the management project. See luMgtProjectStatus .
TotalMilestones	smallint	5	0	N	N	Total number of milestones expected for project.

ModeledHabitatSuitability Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	N	N	Associated Affiliate record identifier.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Method	varchar	50	0	N	N	Description of model used.
ModeledHabitatSuitabilityID	varchar	50	0	Y	Y	ModeledHabitatSuitability record identifier.
ModelRank	varchar	30	0	N	N	Rank of the model.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	N	N	Associated site record identifier.
TaxaID	varchar	25	0	N	N	Taxonomic Serial Number (www.itis.gov) of species that model was created for.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

NestCreationDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ConstructionType	varchar	25	0	N	N	Type of construction used to create nest.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Depth	numeric	8	2	N	N	Depth of the nest.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Height	numeric	8	2	N	N	Height of the nest.
InstallType	varchar	25	0	N	N	How the nest was installed.
Length	numeric	8	2	N	N	Length of the nest.
LocationSelection Reason	varchar	255	0	N	N	Reason the location of the nest was chosen.
NestAction	varchar	15	0	N	N	Action that occurred at the nest.
NestCreationDetail ID	bigint	19	0	Y	Y	NestCreationDetail record identifier.
NestID	varchar	50	0	N	N	Associated Nest record identifier.
NestName	varchar	50	0	N	N	Name of the nest.
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.

NestCreationDetails Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
SiteSlope	numeric	5	2	N	N	Slope at the site of the nest.
TaxaObservationID	varchar	50	0	Y	N	Associated TaxaObservation record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
Width	numeric	8	2	N	N	Width of the nest.

NestEntranceDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Database username of person who created record.
CreatedBy	varchar	64	0	Y	N	Date and time when record was created.
CreatedDate	datetime	0	0	Y	N	Date and time when record was most recently updated.
EditDate	datetime	0	0	N	N	Database username of person who most recently updated record.
EditedBy	varchar	64	0	N	N	Database username of person who created record.
EntranceDirection	varchar	3	0	N	N	Abbreviation of direction that entrance faces. See luDirection .
EntranceNumber	int	0	0	N	N	Number of entrances.
NestCreationDetail ID	bigint	19	0	Y	N	Associated NestCreationDetail record identifier.
NestEntranceDetail ID	bigint	19	0	Y	Y	NestEntranceDetails record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

NestID Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Database username of person who created record.
CreatedBy	varchar	64	0	Y	N	Date and time when record was created.
CreatedDate	datetime	0	0	Y	N	Date and time when record was most recently updated.
EditDate	datetime	0	0	N	N	Database username of person who most recently updated record.
EditedBy	varchar	64	0	N	N	Database username of person who created record.
NestDescID	varchar	50	0	Y	N	NestDescription identifier.
NestID	varchar	50	0	Y	Y	NestID record identifier.
NestIdentifier	char	5	0	N	N	Unique identifier of nest.
NestIDNum	varchar	50	0	Y	N	NestID number.
Notes	varchar	200	0	N	N	Notes about the nest.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

NestMorph Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Date and time when record was created.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DirectionsToNest	varchar	200	0	N	N	Directions to locate the nest.
DistEdgClump	decimal	6	1	N	N	Distance from nest to the nearest edge of the vegetation clump.
DistEdgHabitat	decimal	6	1	N	N	The distance of the nest to the nearest edge of the habitat.
DistEdgRiparian	decimal	6	1	N	N	Distance of nest to nearest edge of riparian habitat.
DistH2O	decimal	6	1	N	N	Distance of nest to nearest waterbody.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HostPlantDB	decimal	6	2	N	N	Diameter of plant stalk at breast height in centimeters.
HostPlantDia	decimal	6	2	N	N	Overall diameter of host plant at its widest, at nest height.
HostPlantHeight	decimal	6	2	N	N	Height of host plant.
HostPlantTSN	char	6	0	N	N	Taxonomic Serial Number (see www.itis.gov) of host plant.
IndivAnimalIIDID	varchar	50	0	N	N	Associated IndivAnimalID record identifier.
NestDepth	decimal	6	2	N	N	Depth of the nest.
NestDescID	varchar	50	0	Y	Y	NestMorph record identifier.
NestDia	decimal	6	2	N	N	Diameter of the nest.
NestHeight	decimal	6	2	N	N	Height of the nest.
Notes	varchar	200	0	N	N	Notes about the nest.
PointID	varchar	50	0	Y	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TaxaObservationID	varchar	50	0	N	N	Associated TaxaObservation record identifier.
Territory	varchar	50	0	N	N	Territory in which nest is located.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

ObservationDetectionMethods Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DetectionMethodID	int	0	0	Y	N	Method used to detect species. See luDetectionMethod .
DetectionMethod-Order	int	0	0	Y	N	Order of detection method.
DetecTopMethod-Notes	varchar	200	0	N	N	Notes about the method used to detect the species.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ObservationDetectionMethodsID	varchar	50	0	Y	Y	ObservationDetectionMethods record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.

ObservationDetectionMethods Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TaxaObservation-DetailsID	varchar	50	0	N	N	Associated TaxaObservationDetails record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

ObservationVerificationTable

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	Y	N	AffiliateID of person who verified the species identification.
IsVerified	char	1	0	N	N	Is the species observation verified? Y/N
Notes	varchar	255	0	N	N	Notes about the species observation verification.
ObVerificationID	varchar	50	0	Y	Y	ObservationVerification record identifier.
TaxaObservationID	varchar	50	0	Y	N	Associated TaxaObservation record identifier.
VerificationMethod	varchar	50	0	N	N	Method used to verify species observation. See luVerifMethods .

OccupancyEstimates Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Detectability	decimal	6	5	N	N	Estimate of the probability of detecting a species that is present during a survey.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ESID	varchar	50	0	Y	N	EstimateSeries record identifier.
Notes	varchar	250	0	N	N	Notes about the occupancy estimate.
NumberUnits	int	0	0	N	N	Total number of units for which detected/not detected data were recorded. For example, if occupancy of grid cells is estimated, how many grid cells were sampled?
OEID	varchar	50	0	Y	Y	Occupancy Estimates record identifier.
Program	varchar	50	0	N	N	The name of the software used to produce the parameter estimate.
Psi_hat	decimal	6	5	N	N	Estimate of the proportion of units occupied.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Se_detect	decimal	6	4	N	N	Standard error of the estimate of detectability.
Se_psi	decimal	6	5	N	N	Standard error of the estimate of the number of units occupied.
Season	varchar	15	0	N	N	Season for which estimate was calculated.
Version	varchar	25	0	N	N	Text or numbers indicating the version of the software.
Year	varchar	25	0	N	N	The year(s) to which this estimate applies.

Person_Org Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EffectiveEndDate	datetime	0	0	N	N	The ending date of the relationship between the person and the organization.
EffectiveStartDate	datetime	0	0	N	N	The beginning date of the relationship between the person and the organization.
Notes	varchar	200	0	N	N	Notes.
OrganizationID	int	0	0	Y	N	Associated Affiliate record identifier referencing the organization in the relationship.
PersonID	int	0	0	Y	N	Associated Affiliate record identifier referencing the person in the relationship.
POID	bigint	19	0	Y	Y	Person_Org record identifier.

PhotoInfo Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	Y	Y	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	N	Y	Database username of person who created record.
CreatedDate	datetime	0	0	N	Y	Date and time when record was created.
DirectionOfCamera	decimal	4	1	N	N	Direction toward which camera is pointing, using 0 to 360 degrees, where 0 is north.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FrameNumber	varchar	25	0	N	N	Frame number of photo, taken from camera.
MediaLabel	varchar	25	0	N	N	Identifier used on media.
NumPhotos	int	0	0	N	N	Number of photos taken of a single subject.
Photographer	int	0	0	N	N	Affiliate record identifier, identifying the photographer of the photo.
PhotoID	varchar	50	0	Y	Y	Unique photo identifier.
PhotoLocation	varchar	200	0	N	N	Physical location of photo (machine: directory).
PhotoName	varchar	50	0	N	N	Name of photo/photo file.
PhotoNotes	varchar	200	0	N	N	Notes regarding this photo.
PhotoQualityID	int	0	0	N	N	Description of photo's quality. See luPhotoQuality table.
PhotoTypeID	int	0	0	N	N	Description of physical storage media of photo. See luPhotoType table.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PhotoInfo_Actions Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ActionID	bigint	19	0	Y	Y	Associated Actions record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
PhotoID	varchar	50	0	Y	Y	Associated PhotoInfo record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.

PhotoInfo_HabitatObservations Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservationID	varchar	50	0	Y	Y	Associated HabitatObservation record identifier.
PhotoID	varchar	50	0	Y	Y	Associated PhotoInfo record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PhotoInfo_IndivAnimals Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
IAID	varchar	50	0	Y	Y	Associated IndivAnimals record identifier.
PhotoID	varchar	50	0	Y	Y	Associated PhotoInfo record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PhotoInfo_MgtActivities Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Management-ActivityID	bigint	19	0	Y	Y	Associated MgtActivities record identifier.
PhotoID	varchar	50	0	Y	Y	PhotoInfo record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.

PhotoInfo_SurveyEventSite Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
PhotoID	varchar	50	0	Y	Y	Associated PhotoInfo record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	Y	Y	Associated Site record identifier.
SurveyEventID	varchar	50	0	Y	Y	Associated SurveyEvent record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PhotoInfo_TaxaObDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
PhotoID	varchar	50	0	Y	Y	Associated PhotoInfo record identifier.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TaxaObservationDetailsID	varchar	50	0	Y	Y	Associated TaxaObservationDetails record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PlantEnhancementDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
IrrigationMethodID	int	0	0	N	N	Method used to water plantings. See luIrrigationMethods .
IrrigationYears Planned	numeric	5	2	N	N	Number of years that irrigation is planned.
Notes	varchar	255	0	N	N	Notes about the plant enhancement project.
PatchDensity	numeric	16	2	N	N	Density of the patch.
PatchNumber	bigint	19	0	N	N	Designated number of the patch.
PatchSize	numeric	16	5	N	N	Size of the patch.
PlantEnhancementDetailID	bigint	19	0	Y	Y	PlantEnhancementDetail record identifier.
PlantingArea	numeric	16	5	N	N	Area of designated spot for plant enhancement activities.
PlantingDensity	numeric	16	2	N	N	Spacing of plantings.
PlantingFormID	int	0	0	N	N	Form of the plant being planted. See luPlantingForms .
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TaxaObservationID	varchar	50	0	Y	N	Associated TaxaObservation record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PlantHierarchy Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
BasalPerimeter	int	0	0	N	N	Perimeter of the plant at its base.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HeightClass	varchar	15	0	N	N	Height class of the plant. See luHeightClass .
Heirarchy	char	2	0	N	N	Hierarchy of plant observation.
Notes	varchar	200	0	N	N	Notes about the plant hierarchy.
PercentCovered	varchar	15	0	N	N	Percent cover of the plant within the site/habitat.
Phenology	char	6	0	N	N	Phenology of the plant.
PHierarchyID	varchar	50	0	Y	Y	PlantHierarchy record identifier.
PODID	varchar	50	0	N	N	Associated PlantObservationDetails record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.

PlantHierarchy Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TaxaObservationDetailsID	varchar	50	0	N	N	Associated TaxaObservationDetails record identifier.
TaxaObservationID	varchar	50	0	N	N	Associated TaxaObservation record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

PlantObservationDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Age	decimal	4	1	N	N	Age of plant, measured in metric provided in AgeMetric.
AgeMetric	varchar	25	0	N	N	Metric used to measure plant age (years, months, days). See luAgeMetric .
Area	decimal	12	4	N	N	Area of the habitat/site that plant occurs.
CanopyHeight	numeric	5	2	N	N	Canopy height, measured in meters.
Created	datetime	0	0	N	N	For Pendragon PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Density	decimal	12	4	N	N	Density of the plant observed.
DensityUnit	varchar	20	0	N	N	Unit of measurement of density value. See luDensityUnit .
DetailType	varchar	20	0	Y	N	Describes the context of the plant observation, such as individual or patch/stand. See luPlantObsDetailType .
Diameter	decimal	4	1	N	N	Diameter of plant, measured in centimeters.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HeightObserved	decimal	0	3	N	N	Height from ground where associated plant observation occurred, measured in meters.
Hit	int	0	0	N	N	Point along transect where observation occurred.
LLDepth	numeric	4	0	N	N	Leaf litter depth, measured in mm.
Notes	varchar	250	0	N	N	Notes about the plant observation.
NumberEstMethod	varchar	20	0	N	N	Method used to estimate the number of plants. See luEstMethod .
NumberOfIndividuals	decimal	9	1	N	N	Actual number of individuals.
ObGrowthForm	varchar	25	0	N	N	Growth form of plant taxon observation. See luObGrowthForm .
PlantHeight	decimal	6	3	N	N	Height of plant, measured in meters.
PODID	varchar	50	0	Y	Y	PlantObservationDetails record identifier.
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	For Pendragon PDA compatibility.
SizeClass	int	0	0	N	N	Size class of plant (cm). See luPlantSizeClass .
Structure	int	0	0	N	N	Structure of plant observed.
Substrate	char	6	0	N	N	Type of substrate observed at point.

PlantObservationDetails Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TaxaObservationID	varchar	50	0	Y	N	Associated TaxaObservation record identifier.
UnitID	int	0	0	N	N	For Pendragon PDA compatibility.
UserName	varchar	64	0	N	N	For Pendragon PDA compatibility.

PopulationEstimates Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ARMITier	varchar	10	0	N	N	The ARMI program can record from which tier of the conceptual pyramid the associated estimates are linked.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
IncludeOnWebsite	bit	0	0	Y	N	Flag to indicate if this Project data should be included on ARMI website.
InferenceArea	varchar	50	0	Y	N	The site that represents the area of inference for the estimates.
Notes	varchar	250	0	N	N	Notes.
PEID	varchar	50	0	Y	Y	PopulationEstimates record identifier.
PopEstName	varchar	250	0	Y	N	The name of the EstimateSeries; it should reflect the combination of the Study and Inference Area.
ProjectID	varchar	12	0	N	N	If an Estimate is developed from a Project, as opposed to an individual Study, the ProjectID for the Project is recorded here.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Status	varchar	20	0	N	N	Description of current stage of this population estimate, such as planned, active, non-active, etc.
StudySite	varchar	50	0	N	N	Name of the site where the survey(s) occurred. If multiple sites were surveyed, the site that represents the sub-sites collectively is represented here, and all the sub-sites are linked to this collective site via the Site_Site table.
SurveyDescription ID	int	0	0	N	N	If an Estimate is developed from a single study, as opposed to a project, the SurveyDescriptionID for the study is recorded here.
YearsActive	varchar	250	0	N	N	Years that site was active.

Project_Keywords Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
KeywordID	bigint	19	0	Y	Y	Related Keywords record identifier.
ProjectID	varchar	12	0	Y	Y	Related ProjectID record identifier.

Project_Project Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ChildProjectID	varchar	12	0	Y	Y	ProjectID of child project (sub-project).
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the relationship between the associated projects.
ParentProjectID	varchar	12	0	Y	Y	Project ID of parent project (main project).
ProjectProjectID	bigint	19	0	Y	Y	Project_Project record identifier.

ProjectID Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Category	varchar	25	0	N	N	Type/category of project. See luProjectCategory .
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Description	varchar	1,000	0	N	N	Description of the project.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Goals	varchar	250	0	N	N	Goals of the project.
Internal	bit	0	0	N	N	Y/N. Internal project.
Notes	varchar	250	0	N	N	Notes about the project.
ProjectID	varchar	12	0	Y	Y	Project record identifier.
ProjectName	varchar	100	0	Y	N	Official name of the project.
ProjectRecordPOC	int	0	0	N	N	Affiliate ID of person who created this record and has knowledge of its purpose.

Protocol Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CitationID	varchar	50	0	N	N	Citation record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EFIID	bigint	19	0	N	N	Associated ExternalFileInfo record identifier.
IsSubProtocol	char	1	0	N	N	Y/N. Is this protocol a sub-protocol of a larger protocol?
ParentProtocolID	int	0	0	N	N	Protocol record identifier of parent protocol.
ProtocolDescription	varchar	1,000	0	N	N	General description of protocol.
ProtocolFull	image	2,147,483,647	0	N	N	Complete protocol document.
ProtocolID	int	0	0	Y	Y	Protocol record identifier.
ProtocolName	varchar	100	0	Y	N	Official name of protocol.

Protocol Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ProtocolRecordValidated	bit	0	0	N	N	Denotes whether the protocol has been validated by staff.
ProtocolSourceReference	varchar	100	0	N	N	Citation of protocol.
ProtocolURL	varchar	255	0	N	N	Website address of protocol document.
SourceOfRecord	varbinary	50	0	N	N	Data source of the Protocol record.
Version	varchar	50	0	N	N	Number or indicator of version.
VersionByAffiliateID	int	0	0	N	N	Person who wrote the version of the protocol.
VersionDate	datetime	0	0	N	N	Date this version of the protocol was published.

Refugia Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Context	varchar	20	0	N	N	General area of habitat where refugium is located. See luRefugiaContext table.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HabitatObservationID	varchar	50	0	Y	N	Associated HabitatObservation record identifier.
Hierarchy	int	0	0	N	N	Ranking in terms of number of Refugia.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
RefugiaID	varchar	50	0	Y	Y	Refugia record identifier.
RefugiaType	varchar	20	0	N	N	Any material that provides shelter, cover, or hiding place, (for example, rocks, rock crevices, woody debris). See luRefugiaType table.
RelativeAbundance	varchar	10	0	N	N	Relative amount of feature observed. See luRelativeAbundance table.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Reserve Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Note	varchar	255	0	N	N	Note about the reserve.

Reserve Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
Reserve	varchar	50	0	Y	N	Name of the reserve.
ReserveID	int	0	0	Y	Y	Reserve record identifier.

Reserve_Site Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ReserveID	int	0	0	Y	Y	Associated Reserve record identifier.
SiteID	varchar	50	0	Y	Y	Associated Site record identifier.

RoadsTrails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Access	varchar	30	0	N	N	Description of how and why road/trail is used. See luRoadTrailsAccess .
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DistanceToSite	decimal	5	1	N	N	Distance from road/trail to site, measured in meters.
Edge	varchar	30	0	N	N	Composition of interface between the road/trail and the site. See luRoadTrailsEdge .
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FrequencyTraveled	varchar	30	0	N	N	How often the road/trail is used, likely estimated. See luFreqofTravel .
Notes	varchar	250	0	N	N	Notes.
ObservationDate	datetime	0	0	N	N	Date of this observation.
PercentAreaOfSite	int	0	0	N	N	Percent of surface of site covered by road/trail.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
RoadsTrailsID	varchar	50	0	Y	Y	RoadsTrails record identifier.
SiteID	varchar	50	0	N	N	Associated Site record identifier.
Type	varchar	30	0	N	N	General type and construction of road/trail. See luRoadTrailsType .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
Width	decimal	3	1	N	N	Width of road or trail, measured in meters.

Site Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CountyID	smallint	5	0	N	N	CountyID of Site. See luCounty .
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
InitiationDate	datetime	0	0	N	N	Date of initiation of site.
Notes	varchar	300	0	N	N	Notes about the site.
NumberOfTrapArrays	int	0	0	N	N	Number of Trap arrays established at site.
PAOInfo	varchar	200	0	N	N	Applicability of site for Predicted Actual Occupancy analysis.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteCode	varchar	50	0	N	N	Code used on PDAs for site.
SiteDescription	varchar	300	0	N	N	Description of the site.
SiteHistory	varchar	300	0	N	N	History of the site.
SiteID	varchar	50	0	Y	Y	Site record identifier.
SiteName	varchar	100	0	Y	N	Name of the site.
SiteNameValidated	bit	0	0	Y	N	When True, site name has been reviewed and approved by management.
SiteProperName	varchar	100	0	N	N	Site Proper name.
SiteQualityID	int	0	0	N	N	Overall quality of site. See luSiteQuality .
SiteQualityRemarks	varchar	255	0	N	N	Remarks about the site quality.
SiteRemarks	varchar	255	0	N	N	Remarks about the site.
SiteSelectionMethod	varchar	300	0	N	N	How the site was selected.
SiteSelectionReason	varchar	300	0	N	N	Why the site was selected.
SpatialFeatureID	varchar	50	0	N	N	SpatialFeature record identifier.
TerminationDate	datetime	0	0	N	N	Date of termination of site.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Site_Project Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ProjectID	varchar	12	0	Y	Y	Associated Project record identifier.
SiteID	varchar	50	0	Y	Y	Associated Site record identifier.

Site_Site Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ChildSiteID	varchar	50	0	Y	N	Site record identifier for the child site.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.

Site_Site Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the parent child site relationship.
ParentSiteID	varchar	50	0	Y	N	Site record identifier for the parent site.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
RelationshipType	varchar	20	0	N	N	Identifies the relationship between the parent and child site. See luSiteRelationshipType .
SiteSiteID	bigint	19	0	Y	Y	Site_Site record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Site_SiteThreatType Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	Y	Y	Site record identifier.
SiteThreatRemarks	varchar	255	0	N	N	Remarks about the threat to the site.
SiteThreatTypeID	int	0	0	Y	Y	Threat to the site. See luSiteThreatType table.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

SiteMaintenance Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AmountNeeded	varchar	100	0	N	N	Can further define Maintenance Needed by quantifying it.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DateClosed	datetime	0	0	N	N	Date site was closed due to maintenance need.
DateNeeded	datetime	0	0	N	N	Date the maintenance is needed.
DateOpened	datetime	0	0	N	N	Date site was opened after maintenance.
DatePerformed	datetime	0	0	N	N	Date the maintenance was performed.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
MaintenanceNeeded	varchar	200	0	N	N	Description of the type of maintenance needed at the site.

SiteMaintenance Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
MaintenancePerformed	varchar	200	0	N	N	Description of maintenance performed.
Notes	varchar	250	0	N	N	Notes about the maintenance record.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	N	N	Associated Site record identifier.
SiteMaintenanceID	varchar	50	0	Y	Y	SiteMaintenance record identifier.
SpatialFeatureID	varchar	50	0	N	N	Associated SpatialFeature record identifier.
SurveyEventID	varchar	50	0	N	N	Associated SurveyEvent record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

SiteMetadata Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Drainage	varchar	50	0	N	N	The area of land that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HUC	varchar	20	0	N	N	Hydrologic Unit Code. Classification system developed by USGS. See http://water.usgs.gov/GIS/huc.html .
Permanency	char	1	0	N	N	An estimate of how permanent or transitory the water source is (based on prior knowledge or maps).
SiteAccessibility	varchar	50	0	N	N	Accessibility of the site.
SiteID	varchar	50	0	Y	Y	Associated Site record identifier.
SiteLength	decimal	10	2	N	N	Length of the site, in meters.

SoilPhysicalObservation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Clay	numeric	8	4	N	N	Amount of clay found within the soil.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Method	varchar	30	0	N	N	Method used to analyze the soil. See luSoilMethod .
Notes	varchar	255	0	N	N	Notes about the soil physical observation.
ObservationDate	datetime	0	0	N	N	Date/time of the observation.
ObservedByAffiliateID	int	0	0	N	N	Affiliate who sampled/collected the soil.
OsmoticPotential	numeric	8	4	N	N	Osmotic potential of the soil sample.
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier.

SoilPhysicalObservation Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Sand	numeric	8	4	N	N	Amount of sand found within the soil.
SiblingID	varchar	50	0	N	N	Record identifier of associated record.
Silt	numeric	8	4	N	N	Amount of silt found within the soil.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SoilDepth	numeric	6	2	N	N	Depth of soil, measured in centimeters.
SPOID	varchar	50	0	Y	Y	SoilPhysicalObservation record identifier.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
TextureClass	varchar	20	0	N	N	Texture classification of soil/soil sample. See luTextureClass .
Unit	varchar	20	0	N	N	Unit of measurement of soil sample. See luSoilUnit .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

SourceXY Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Datum	varchar	20	0	N	N	Name of datum used to represent shape and offset of coordinates.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ElevationMeters	int	0	0	N	N	Elevation in meters.
EPE	decimal	5	2	N	N	Estimated Position Error. Error associated with the coordinates determined by a GPS device, in meters.
HDOP	varchar	10	0	N	N	Horizontal Dilution of Precision. Calculated by a GPS device, provides the strength of satellite geometry when determining the GPS location, in meters.
MWKTstring	varchar	1,000	0	N	N	Multipoint Well Known Text String. String of coordinates recorded for mapping of habitats.
Position	char	2	0	N	N	Source position NMGA string.
ProxyRadius Meters	int	0	0	N	N	Dilution of coordinate precision used for reporting locations of sensitive species.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SpatialFeatureID	varchar	50	0	Y	Y	SpatialFeature record identifier. Referred to as PointID in some tables.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
XCoord	decimal	16	8	N	N	Numeric value of vertical coordinate's position.
XYCoordTypeID	int	0	0	N	N	Name of coordinate system used. See luXYCoordType table.
YCoord	decimal	16	8	N	N	Numeric value of horizontal coordinate's position.

SpatialFeature Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Area	decimal	14	2	N	N	For polygons, the area measured in square meters.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Description	varchar	250	0	N	N	Description of the observed spatial feature.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Historic_area_located	bit	0	0	N	N	Y/N. Was the historic area located?
Historic_description	bit	0	0	N	N	Y/N. Does a historic description of this feature exist?
Historic_XY_correct	bit	0	0	N	N	Y/N. Were the historic X and Y coordinates correct?
Name	varchar	100	0	N	N	Name of observed spatial feature.
Notes	varchar	250	0	N	N	Notes about the spatial feature.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SpatialFeatureID	varchar	50	0	Y	Y	SpatialFeature record identifier. Referred to as PointID in some tables.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WayPoint	varchar	20	0	N	N	Waypoint identifier.

SpatialFeature_CLDB Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DateRelevant	datetime	0	0	N	N	The date the decision was made that this SpatialFeatureID should be linked to this LandID
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
LandID	varchar	10	0	Y	N	Link to locally managed Conserved Lands database (CLDB); specifically the CONSERVED_LAND table's unique LandID field.
Method	varchar	30	0	N	N	The method by which the association between SpatialFeatureID and LandID was made. See luSFCLDBMethod .
Notes	varchar	250	0	N	N	Notes about the spatial feature CLDB record.
SFCLDBID	bigint	19	0	Y	Y	SpatialFeature_CLDB record identifier.
SpatialFeatureID	varchar	50	0	Y	N	Associated SpatialFeature record identifier.

SpeciesHabitatFeature Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
FeatureCount	int	0	0	N	N	Number of species-specific features observed at site.
FeatureRange	varchar	10	0	N	N	Relative amount of feature at site. See luRelativeAbundance table.
FeatureType	varchar	20	0	Y	N	Type of feature being used or has potential to be used by observed species. See luFeatureType table.
HabitatObservationID	varchar	50	0	Y	N	Associated HabitatObservation record identifier.
HabSuitability	char	1	0	N	N	Suitability of habitat feature for species. See luHabSuitability table.
Notes	varchar	255	0	N	N	Notes about the species-specific habitat feature observation.
PotentialNestSites	varchar	10	0	N	N	Relative abundance of potential nesting sites for species. See luRelativeAbundance table.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SpeciesHabitatFeatureID	varchar	50	0	Y	Y	SpeciesHabitatFeature record identifier.
TaxaID	varchar	25	0	Y	N	Taxonomic Serial Number (www.itis.gov) of species related to habitat feature.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Spheroid Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
SID	char	1	0	Y	Y	Spheroid record identifier.
Spheroid	varchar	15	0	Y	N	Spheroid reference for site coordinates.

Stakeholders Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the stakeholder.
PointOfContact	int	0	0	N	N	Specific person who is the point of contact for the stakeholder.
Stakeholder	int	0	0	Y	N	Entity or person who is a stakeholder in one or more projects.
StakeholderID	bigint	19	0	Y	Y	Stakeholder record identifier.

Stakeholder_Projects Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ProjectID	varchar	12	0	N	N	Associated ProjectID record identifier.
StakeholderID	bigint	19	0	N	N	Associated Stakeholders record identifier.
StakeholderProjectID	bigint	19	0	Y	Y	Stakeholder_Projects record identifier.

Study_Keywords Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
KeywordID	bigint	19	0	Y	Y	Associated Keywords record identifier.
SurveyDescriptionID	int	0	0	Y	Y	Associated SurveyDescription record identifier.

StudyPersonnel Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	Y	N	Associated Affiliate record identifier.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the study personnel.
Role	varchar	50	0	N	N	Role of person involved in the study. See luAffiliateRole .
SPID	bigint	19	0	Y	Y	Study Personnel record identifier.
SurveyDescriptionID	int	0	0	Y	N	Associated SurveyDescription record identifier.

SuccessCriteria Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Description	varchar	255	0	N	N	Describe the general criteria used to determine success of efforts.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ManagementActivityID	bigint	19	0	Y	N	Associated ManagementActivity record identifier.

SuccessCriteria Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Notes	varchar	255	0	N	N	Notes about the Success Criteria.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
SCNumber	int	0	0	N	N	Number identifier of success criteria
SpecificTaxa	char	6	0	N	N	TaxaID to which the success criteria pertains.
SuccessCriteriaID	bigint	19	0	Y	Y	Success Criteria record identifier.

SurveyDescription Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CompletionDate	datetime	0	0	N	N	Date surveys were completed.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
CurrentStage	varchar	25	0	N	N	The current stage of the study.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
GeneralLocation	varchar	50	0	N	N	Associated record identifier of site that study was generally located in.
HypotheticalQuestionNotes	varchar	300	0	N	N	Hypothetical question notes.
InitiationDate	datetime	0	0	N	N	Date surveys were initiated.
ProtocolID	int	0	0	Y	N	Associated Protocol record identifier.
SourceOfRecord	varchar	25	0	N	N	Original source of the survey description record.
SourceType	int	0	0	N	N	Distinguish the original source of the data. See luSourceType .
StudyName	varchar	150	0	N	N	Name of the study.
StudyType	varchar	40	0	N	N	Type of study conducted. See luStudyType .
SurveyDescriptionID	int	0	0	Y	Y	Survey Description record identifier.
SurveyDescriptionRecordValidated	bit	0	0	N	N	Y/N. Has this record been validated?
SurveyNotes	varchar	500	0	N	N	Survey notes.
SurveyObjectives	varchar	500	0	N	N	Survey objectives.

SurveyDescription_EstimateSeries Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	char	10	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ESID	bigint	19	0	Y	Y	Associated EstimateSeries record identifier.
SurveyDescriptionID	int	0	0	Y	Y	Associated Survey Description record identifier.

SurveyDescription_Project Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ProjectID	varchar	12	0	Y	Y	ProjectID record identifier.
SurveyDescriptionID	int	0	0	Y	Y	Survey Description record identifier.

SurveyDescription_Site Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Active	bit	0	0	N	N	Identifies if the site is to be part of the study analyses.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Include	bit	0	0	N	N	True, if the site should appear on the current Site List for this study. Typically used to manage the ever-changing site list throughout the field season, in order to keep the list a manageable size on data entry tools.
MSCPLand Designation	varchar	10	0	N	N	Designation of the land in the Multiple Species Conservation Plan (MSCP). See luMSCPLandDesignation .
Notes	varchar	250	0	N	N	Notes about the study and site relationship.
SDID	int	0	0	Y	Y	SurveyDescription_Site record identifier.
SiteID	varchar	50	0	Y	Y	Associated Site record identifier.

SurveyEvent Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ActionID	bigint	19	0	N	N	Associated Action record identifier.
AutomatedSurvey	varchar	25	0	N	N	For surveys using some type of automated instrument for making observations, general type of measurements being collected; such as water, weather, frog calls, and so forth.
ConstrainedBy	char	4	0	N	N	Metric by which survey was constrained (for example, time or area). See ConstrainBy table.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DeviceID	varchar	25	0	N	N	For surveys using some type of automated instrument for making observations, the unique name or ID of the individual device.
DeviceType	varchar	25	0	N	N	For surveys using some type of automated instrument for making observations, the general class of this device; such as HOBO, tidbit, ARU, and so forth.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.

SurveyEvent Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EffortValue	decimal	20	5	N	N	Numeric value of the effort.
EndTime	datetime	0	0	N	N	Date and time survey ends.
HistDataRecordID	varchar	50	0	N	N	The original primary key value, for legacy records that have been migrated into this database.
HistDatasetName	varchar	50	0	N	N	The name used to refer to the original dataset, for legacy records that have been migrated into this database.
ParentSE	int	0	0	N	N	Parent SurveyEvent record identifier. Used if survey is a subsurvey.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Remarks	varchar	250	0	N	N	Remarks about the survey.
StandSizeObserved	numeric	10	0	N	N	Size of the stand observed during survey.
StartTime	datetime	0	0	Y	N	Date and time survey begins.
Subsurvey_conducted	bit	0	0	N	N	Whether or not a sub-survey was conducted.
SurveyableArea	numeric	8	2	N	N	Area of Site that is surveyable (excluding areas not surveyable due to some constraint).
SurveyableAreaUnit	varchar	20	0	N	N	Unit of surveyable area. See luSurveyableAreaUnit .
SurveyArea	decimal	20	5	N	N	Survey area in square meters.
SurveyDescriptionID	int	0	0	Y	N	Associated SurveyDescription record identifier.
SurveyEventID	varchar	50	0	Y	Y	SurveyEvent record identifier.
SurveyNotes	varchar	255	0	N	N	Notes about the survey.
SurveyPeopleNumber	int	0	0	N	N	Number of people conducting survey.
TrackingID	varchar	50	0	N	N	Survey event identifier, or label, created and used by people in the field and office (opposed to SurveyEventID, which is unique value generated by computer applications and used as primary key column).
Type	varchar	25	0	N	N	Type of survey event. See luStudyType .
UnitEffortID	char	2	0	N	N	Unit in which effort is measured. See UnitEffort table.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

SurveyEvent_Affiliate Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateID	int	0	0	Y	Y	Associated Affiliate record identifier.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ObserverOrder	int	0	0	N	N	Order of observers in the survey event.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.

SurveyEvent_Affiliate Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Role	varchar	50	0	Y	Y	Role of person associated with this survey. See luAffiliateRole .
SurveyEventID	varchar	50	0	Y	Y	Associated SurveyEvent record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

SurveyEvent_Site Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AmountSurveyed	varchar	25	0	N	N	Amount of site surveyed.
AmountSurveyedUnit	varchar	15	0	N	N	Unit of measurement used to quantify the AmountSurveyed value. See luAmtSurveyedUnit .
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
NextRevisit_InMonths	int	0	0	N	N	When the next visit will occur, in months.
Notes	varchar	250	0	N	N	Notes about the SurveyEvent_Site record.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Remarks	varchar	250	0	N	N	Remarks about the site or survey during this survey event.
SiteID	varchar	50	0	Y	Y	Site record identifier.
SiteResurveyable	bit	0	0	N	N	Y/N. Is the site resurveyable?
SurveyEventID	varchar	50	0	Y	Y	SurveyEvent record identifier.
SurveySiteVisit Number	int	0	0	N	N	Visit number of site during survey.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

SurveyEvent_SpatialFeature Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the SurveyEvent_SpatialFeature record.
Relationship	varchar	20	0	N	N	How the survey event record is related to the spatial feature record. See luSESFRelationship .
SpatialFeatureID	varchar	50	0	Y	Y	SpatialFeature record identifier.
SurveyEventID	varchar	50	0	Y	Y	SurveyEvent record identifier.

SurveyMethod Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
MethodOrder	int	0	0	Y	N	Order/Heirarchy of SurveyMethod used during a Survey.
SMID	varchar	50	0	Y	Y	SurveyMethod record identifier.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
SurveyMethod	varchar	30	0	Y	N	Method used to detect a taxon during the survey. See luSurveyMethod .

TargetVegCommunities Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Notes	varchar	250	0	N	N	Notes about the target vegetation community record.
QAQC_Notes	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
SurveyDescriptionID	int	0	0	Y	N	Associated SurveyDescription record identifier.
TaxaID	varchar	25	0	Y	N	Taxonomic Serial Number (www.itis.gov) of Target Vegetation Community.
TVCID	bigint	19	0	Y	Y	TargetVegCommunitites record identifier.

TaxaObservation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AbundanceCategory Code	varchar	2	0	N	N	How abundant the individuals of this species were found to be during this observation. See luAbundanceCategory table.
AerialExtent	int	0	0	N	N	Extent of area of taxon in square meters (only applies to vegetation).
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HistDataRecordID	varchar	50	0	N	N	For migrated records, primary key value from original source.
HistDataSetName	varchar	50	0	N	N	For migrated records, name of dataset from legacy source.
HistoricalPresence	varchar	10	0	N	N	Status of species at this location regarding whether it is considered native, exotic or invasive. See luHistoricalPresence .
IdentifiedByAffiliate	int	0	0	N	N	Affiliate who identifies or confirms identification of the animal or plant, when different from observer.
IdentifiedByDate	datetime	0	0	N	N	Date plant or animal was identified.

TaxaObservation Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Notes	varchar	255	0	N	N	Notes about the observation.
ObservedByAffiliate	int	0	0	N	N	Affiliate who observed the animal or plant.
PercentExtent	int	0	0	N	N	Percent extent of taxon observation (only applies to vegetation).
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of quality-analysis/ quality-control.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
Remarks	varchar	250	0	N	N	Remarks about this observation.
RemovalIntro ValueID	int	0	0	N	N	Taxon removal or introduction value. See luRemovalIntroductionValues .
SiblingID	varchar	50	0	N	N	Associated observation record identifier. Could be an associated weather or habitat record, etc.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SpeciesDetected	numeric	1	0	N	N	Whether a species was detected/not detected/not surveyed for. See luSpeciesDetected .
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
TaxaID	varchar	25	0	N	N	Taxonomic Serial Number (www.itis.gov) of species. See Taxa table.
TaxaObservationID	varchar	50	0	Y	Y	TaxaObservation record identifier.
TaxaRoleID	int	0	0	N	N	Role that this taxon plays regarding the survey (e.g. target species, incidental observation). See luTaxaRole .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

TaxaObservationDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CountMethodID	int	0	0	N	N	How the taxon was counted. See luCountMethod table.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DetectionCondition Rating	int	0	0	N	N	Subjective viewing conditions on a scale of 0 to 4.
DetectionMethodID	int	0	0	N	N	How the observed taxon was detected. See luDetectionMethod .
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
GenderID	int	0	0	N	N	Gender of taxon. See luGender table.
HistDataRecordID	varchar	50	0	N	N	The original primary key value, for legacy records that have been migrated into this database.
LifeStageID	int	0	0	N	N	Life Stage of taxon. See luLifeStage .
LocationWithinSite	varchar	25	0	N	N	Descriptive category of portion of site where observation occurred, i.e., subjectively defined zone, or generalized habitat category. Used to distinguish portions of a site from one another with various criteria; can be used as a covariate in occupancy.
Notes	varchar	250	0	N	N	Notes about the observation.

TaxaObservationDetails Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
NumberOfIndividuals_Exact	int	0	0	N	N	The exact number of individuals observed.
NumberOfIndividuals_HighEst	int	0	0	N	N	The upper bound of estimated number of individuals observed.
NumberOfIndividuals_LowEst	int	0	0	N	N	The lower bound of estimated number of individuals observed.
ObservationDate Time	datetime	0	0	N	N	Date and time of observation.
PointID	varchar	50	0	N	N	SpatialFeature record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
TaxaObservationDetailsID	varchar	50	0	Y	Y	TaxaObservationDetails record identifier.
TaxaObservationID	varchar	50	0	Y	N	Associated TaxaObservation record identifier.
TOSpecHabitatFeatureTypeID	int	0	0	N	N	Taxa observation specific habitat feature type. See luHabitatFeatureType .
TrapID	varchar	15	0	N	N	Trap identifier.
TrapType	varchar	35	0	N	N	Type of trap used to capture taxon. See luTrapType table.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

TelemetryDetails Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Altitude	decimal	7	2	N	N	Argos ptt reference altitude (DIAG).
APBest	numeric	4	0	N	N	Best signal strength during pass (DIAG).
APFreq	decimal	8	2	N	N	Interpolated freq at Doppler inflection (DIAG).
AzFrmDply	decimal	14	10	N	N	Great-circle compass bearing (degrees) from the deployment location; as reported by device.
Azimuth	decimal	6	2	N	N	Great-circle compass bearing (degrees) to next loc.
BothTest	varchar	30	0	N	N	Which 3 directionality tests passed in 'Best Hybrid'.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DaysDply	numeric	4	0	N	N	Number of elapsed days since deployment date; as reported by device.
DeltaHr	decimal	6	2	N	N	Number of hours since previous pass; as reported by device.
Dist2Dply	decimal	14	10	N	N	Great-circle distance (kilometer [km]) from deployment location; as reported by device.
Distance	decimal	6	2	N	N	Great-circle distance (km) from previous location.
Dur	int	0	0	N	N	Duration (sec) between first and last message (DIAG).
Duty	int	0	0	N	N	Unique number for all records within a duty cycle.
DutyLocs	numeric	3	0	N	N	Total number of passes/locations within duty cycle.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
First	bit	0	0	N	N	Flag for first data record for a given animal; as reported by device.

TelemetryDetails Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
GT120	numeric	2	0	N	N	Number of messages with signal strength <120dB (DIAG).
iqx	decimal	3	1	N	N	Indicates residual error on the frequency calculation.
iqy	decimal	3	1	N	N	Indicates transmitter oscillator frequency drift between the two satellite passes.
Latest	bit	0	0	N	N	Flag for most recent data record for an animal; as reported by device.
LC94	varchar	2	0	N	N	Location classification based upon type of location (Argos or GPS), estimated error, and number of messages received during the pass. See luLocationClass .
NLoCrank	decimal	9	3	N	N	Weighting for best LC94 within duty cycle.
NMess	numeric	3	0	N	N	Number of messages received during overpass (DIAG).
NoPC	numeric	1	0	N	N	How many location plausibility checks (0-4) gave a positive result.
Pick	bit	0	0	N	N	1/0 flag denoting best LC94 within duty cycle.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
Rate	decimal	6	2	N	N	Rate of movement (km/hr) from previous location.
SampSize	numeric	5	0	N	N	Total number of records for respective animal.
Sen1	numeric	3	0	N	N	Internal temperature of the unit, 8 bits, values between 0-255.
Sen2	numeric	3	0	N	N	Battery voltage, 8 bits, values between 0-255.
Sen3	numeric	3	0	N	N	A counter that increments by one on each transmission.
Sen4	numeric	3	0	N	N	Activity. The higher the number, the greater the activity.
SpatialFeatureID	varchar	50	0	Y	Y	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
Switch	numeric	1	0	N	N	Location Choice: 0=primary 1=alternate 3=primary 4=alternate.
WeedBoth	bit	0	0	N	N	1/0 flag 1= reject amending DAR loc with MRD anchors.
WeedDist	bit	0	0	N	N	1/0 flag 1= reject based on minimum redundancy MRD.
WeedRate	bit	0	0	N	N	1/0 flag 1= reject based on distance-angle-rate DAR

TerrestrialHabitat Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AnnualGrassPercent	int	0	0	N	N	Percent of annual grass present in habitat.
ConiferHeight	int	0	0	N	N	Height of coniferous trees in habitat.
ConiferPercent	int	0	0	N	N	Percent of coniferous trees present in habitat.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
DrySoilPercent	int	0	0	N	N	Percent of soil that is dry in habitat.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
ForbPercent	int	0	0	N	N	Percent of forbs present in habitat.
GrassPercent	int	0	0	N	N	Percent of grass present in habitat.
GroundPhenology	varchar	10	0	N	N	Seasonal timing of biological status of ground cover in habitat. See luPhenology table.

TerrestrialHabitat Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
GroundStructure	varchar	15	0	N	N	Overall structure of ground in habitat. See luStructure .
HabitatObservationID	varchar	50	0	Y	N	Associated HabitatObservation record identifier.
HardwoodHeight	int	0	0	N	N	Height of hardwood trees in habitat.
HardwoodPercent	int	0	0	N	N	Percent of hardwoods present in habitat.
HerbaceousVegetationHeight	decimal	15	4	N	N	Height of herbaceous vegetation in habitat.
LeafLitter	int	0	0	N	N	Percentage of leaf litter present in habitat.
LowShrubVegetation Height	decimal	10	4	N	N	Height of low shrub vegetation in habitat.
MedVegCoverPercent	int	0	0	N	N	Percent of medium vegetation cover present in habitat.
MoistSoilPercent	int	0	0	N	N	Percent of soil that is moist in habitat.
Notes	varchar	250	0	N	N	Notes about the terrestrial habitat.
OpenGroundPercent	int	0	0	N	N	Percent of open ground present in habitat.
OverstoryPercent	int	0	0	N	N	Percentage of the area of the habitat covered by low growth vegetation, not including the overhead canopy cover.
PerennialGrassPercent	int	0	0	N	N	Percent of perennial grass present in habitat.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SandyPatchesPercent	int	0	0	N	N	Percent of sandy patches present in habitat.
SaturatedSoilPercent	int	0	0	N	N	Percent of soil that is saturated in habitat.
ShortHerbaceousCoverPercent	int	0	0	N	N	Percent of short herbaceous cover in habitat.
ShortVegCoverPercent	int	0	0	N	N	Percent of short vegetation cover present in habitat.
ShrubPhenology	varchar	10	0	N	N	Seasonal timing of biological status of shrubs in habitat. See luPhenology table.
ShrubStructure	varchar	15	0	N	N	Overall structure of shrubs in habitat. See luStructure .
ShrubTreePercent	int	0	0	N	N	Percent of shrub trees present in habitat.
SoilMoisturePercent	int	0	0	N	N	Percent of soil that is moist.
SoilpH	decimal	10	4	N	N	pH of soil.
TallHerbaceousCover Percent	int	0	0	N	N	Percent of tall herbaceous cover in habitat.
TallVegCoverPercent	int	0	0	N	N	Percent of tall vegetation cover present in habitat.
TerrestrialHabitatID	varchar	50	0	Y	Y	TerrestrialHabitat record identifier.
TotalNonNativeVeg Percent	int	0	0	N	N	Percent of non-native vegetation present in habitat.
TotalVegetationCoverPercent	int	0	0	N	N	Percent of total vegetation cover present in habitat.
TreePhenology	varchar	10	0	N	N	Seasonal timing of biological status of trees in habitat. See luPhenology table.
TreeSizeID	int	0	0	N	N	Range of measurements of tree diameter measured at breast height (DBH), in inches. See luTreeSize table.
TreeStructure	varchar	15	0	N	N	Overall structure of trees in habitat. See luStructure .
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
VegetationStandSizeID	int	0	0	N	N	Size of vegetation stands present in habitat. See luVegetationStandSize table.
WoodyDebris	int	0	0	N	N	Percentage of woody debris present in habitat.

Traps Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
BaitFrequency	varchar	30	0	N	N	Frequency that trap was baited.
BaitType	varchar	30	0	N	N	Type of bait used to lure animals into trap.
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EndTime	datetime	0	0	N	N	Time trap was closed.
Notes	varchar	100	0	N	N	Notes about the trap.
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
StartTime	datetime	0	0	N	N	Time trap was opened.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
TrapLabel	varchar	30	0	N	N	Trap label or identifier.
TrapsID	varchar	50	0	Y	Y	Traps record identifier.
TrapType	varchar	35	0	N	N	Type of trap used in survey.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.

Trauma Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
IAID	varchar	50	0	N	N	Associated IndivAnimal record identifier.
Notes	varchar	250	0	N	N	Notes about the trauma observation.
TraumaID	varchar	50	0	Y	Y	Trauma record identifier.
TraumaLocation	varchar	50	0	N	N	Location of trauma upon subject.
TraumaType	varchar	50	0	N	N	Type of trauma observed.

WaterPhysicalObservation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
Discharge	decimal	6	2	N	N	Rate of discharge in cubic feet per second.

WaterPhysicalObservation Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
DO	decimal	4	1	N	N	The concentration of oxygen dissolved in water, to nearest 0.1 mg/L.
DOC	decimal	4	1	N	N	The concentration of organic compounds dissolved in water.
DOSat	decimal	4	1	N	N	Percent saturation of dissolved oxygen in water, can be >100 percent.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
HardnessID	char	1	0	N	N	Categorical levels of water hardness. See Hardness table.
Notes	varchar	255	0	N	N	Notes about the Water Physical observation.
ObservationDate	datetime	0	0	N	N	Date and time this water chemistry observation was made.
ObservedByAffiliateID	int	0	0	N	N	ID of person making observation. See Affiliate table.
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiblingID	varchar	50	0	N	N	Record identifier of associated record.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SS	int	0	0	N	N	Suspended Sediment: concentration in water (mg/L).
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
TDS	int	0	0	N	N	Total Dissolved Solids: concentration of total dissolved material in water (mg/L).
Transparency	char	1	0	N	N	Categorical description of how clear or silted the water is. See Transparency table.
TranspDistance	decimal	5	2	N	N	Measurement of how far one can see through water; meters.
TranspMeth	char	1	0	N	N	Quantitative transparency method used. See TranspMeth table.
TranspValue	decimal	7	2	N	N	Transparency value to the nearest 0.01m.
Turbidity	decimal	5	1	N	N	Quantitative turbidity value to nearest 0.1; describe unit of measure (NTU, FTU) in TurbUnits.
TurbUnits	char	1	0	N	N	Turbidimeter units used for Turbidity measurement. See TurbUnits table.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WaterColor	varchar	10	0	N	N	The color of the water as observed from above. See WaterColor table.
WPOID	varchar	50	0	Y	Y	WaterPhysicalObservation record identifier.

WeatherObservation Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AirTemp	decimal	5	1	N	N	Air temperature taken to nearest 0.1 degree Celsius.
BarometerTrend	varchar	10	0	N	N	Direction in which barometric readings are going.
BarPressure	int	0	0	N	N	Barometric pressure (mm Hg).
CloudCoverPct	int	0	0	N	N	Percent of sky covered with clouds, (0-100).
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.

WeatherObservation Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
GeneralDescription	varchar	100	0	N	N	General description of the weather.
Humidity	int	0	0	N	N	Percent relative humidity, (0-100).
MoonPhaseCode	varchar	2	0	N	N	Code for the phase of the lunar cycle. See luMoonPhase table.
MoonVisible	char	1	0	N	N	Y/N. Whether or not the moon is visible.
Notes	varchar	255	0	N	N	Notes about the weather observation.
ObsDateTime	datetime	0	0	N	N	Observation Date and Time.
ObservedByAffiliateID	int	0	0	N	N	AffiliateID of person who made Weather observation.
ObsTiming	varchar	10	0	N	N	Timing of the observation relative to the survey, or where on a scale the observation occurred. See luObsTiming table.
PointID	varchar	50	0	N	N	Associated SpatialFeature record identifier. Referred to as PointID in some tables.
PreviousDay Precipitation	smallint	5	0	N	N	Amount of rain that fell on previous day measured in mm.
QAQC_Note	varchar	255	0	N	N	Reason for change made to record during QAQC review.
QAQC_Status	varchar	20	0	Y	N	Describes current stage of QAQC.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
RoadTemp	decimal	5	1	N	N	Average of road temperatures taken to nearest 0.1 Celsius.
SiblingID	varchar	50	0	N	N	Record identifier of associated record.
SiteID	varchar	50	0	Y	N	Associated Site record identifier.
SkyObservationID	int	0	0	N	N	Sky conditions. See luSkyObservation table.
SoilTemp	decimal	5	1	N	N	Average of soil temperatures taken to nearest 0.1 Celsius.
SurfaceTemp	decimal	5	1	N	N	Average of surface temperatures taken to nearest 0.1 Celsius.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WaterTemp	decimal	5	1	N	N	Water temperature taken to nearest 0.1 degree Celsius.
WeatherObservationID	varchar	50	0	Y	Y	WeatherObservation record identifier.
WindBeaufortScaleID	int	0	0	N	N	Wind speed, using the Beaufort wind scale. See luWindBeaufortScale table.
WindDirectionCode	varchar	3	0	N	N	Abbreviation for cardinal direction from which wind is coming. See luDirection table.
WindSpeed	decimal	5	1	N	N	Wind speed in kph.
WindSpeedAverage	decimal	5	1	N	N	Average wind speed in kph.

WithinSurveyEffortLost Table

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Created	datetime	0	0	N	N	Pendragon PDA field, for PDA compatibility.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.

WithinSurveyEffortLost Table—Continued

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
DateClosed	datetime	0	0	N	N	Date the trap or array was closed.
DateReopened	datetime	0	0	N	N	Date the trap or array was reopened.
DisturbanceID	varchar	50	0	N	N	Associated disturbance record identifier of disturbance that caused closure.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
EffortLost	varchar	75	0	N	N	The amount of survey effort lost due to the disturbance to the trap or array.
Notes	varchar	250	0	N	N	Notes about the survey effort loss record.
RecordID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
SiteID	varchar	50	0	Y	N	Associated Site record identifier of site where disturbance occurred.
SiteMaintenanceID	varchar	50	0	N	N	Associated SiteMaintenance record identifier of maintenance done to site in response to disturbance.
SurveyEventID	varchar	50	0	Y	N	Associated SurveyEvent record identifier.
UnitID	int	0	0	N	N	Pendragon PDA field, for PDA compatibility.
UserName	varchar	64	0	N	N	Pendragon PDA field, for PDA compatibility.
WithinSurveyEffortLostID	varchar	50	0	Y	Y	WithinSurveyEffortLost record identifier.

PART 2. LOOK UP TABLES

Actions Table Look Ups

luCHWRHabitat

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CWHRHabitat	varchar	50	0	N	N	California Wildlife Habitat Relationship (CWRH) System habitat type.
CWHRHabitatCode	varchar	3	0	Y	Y	California Wildlife Habitat Relationship System code.
CWHRHabitatDesc	varchar	250	0	N	N	Description of California Wildlife Habitat Relationship System habitat type.
CWHRHabitatGroupID	int	0	0	Y	N	CWHRHabitatGroup record identifier. Field currently under review.

Affiliate Table Look Ups

luAffiliate Type

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateType	varchar	50	0	Y	N	Type of organization affiliate belongs to.
AffiliateTypeID	int	0	0	Y	Y	AffiliateType record identifier.
Description	varchar	255	0	N	N	Description of the organization.

luCountry

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Country	nvarchar	255	0	Y	N	Full name of country.
CountryCode	char	2	0	Y	Y	Two letter country code.
CountryCodeA3	char	3	0	N	N	Three letter country code.

luState

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
State	varchar	50	0	Y	N	State in which the site is located.
StateCode	char	2	0	Y	Y	Two letter abbreviation of the State.

Aquatic Habitat Table Look Ups

luExtentInundation

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ExtentInundation	varchar	30	0	Y	N	Percent range of site covered in water.
ExtentInundationID	int	0	0	Y	Y	ExtentInundation record identifier.

luStreamOrder

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
StreamOrder	varchar	100	0	Y	N	Stream size based on a hierarchy of tributaries.
StreamOrderID	int	0	0	Y	Y	StreamOrder record identifier (hierarchy based).
StreamOrderMethodID	int	0	0	Y	N	StreamOrderMethod record identifier. See luStreamOrderMethodID table below.

luStreamOrderMethodID

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
StreamOrderMethod	varchar	25	0	Y	N	Method used to determine stream order/hierarchy.
StreamOrderMethodID	int	0	0	Y	Y	StreamOrderMethod record identifier.

luWaterFlow

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of water flow rate.
WaterFlow	varchar	20	0	Y	N	Flow rate of the water.
WaterFlowID	int	0	0	Y	Y	WaterFlow record identifier.

luWaterSource

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
WaterSource	varchar	30	0	Y	N	Origin of water body.
WaterSourceCode	varchar	2	0	Y	Y	WaterSource record code.

Basking Areas Table Look Ups

luBaskingAreas

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
BaskingArea	varchar	20	0	Y	Y	Area above the surface of the water where sunny space is available for animals to rest and sun themselves (for example, rocks, sunny banks).

luBaskingAreasContext

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Context	varchar	20	0	Y	Y	Area within habitat where basking area is observed.

Behaviors Table Look Ups

luBehavior

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Behavior	varchar	50	0	N	Y	Behavior of observed taxon.

Collection Table Look Ups

luCollectionType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CollectionType	varchar	15	0	Y	Y	Description of physical type of collection.

luCurationStatus

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CurationStatus	varchar	15	0	Y	Y	Current lab-workflow stage for this collection.

luPreservationMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	20	0	Y	N	Description of medium used to preserve the physical specimen.
PresMethodID	char	1	0	Y	Y	PreservationMethod record identifier.

TissType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TissueDesc	varchar	50	0	Y	N	Description of tissue type.
TissueTypeID	char	2	0	Y	Y	TissueType record identifier.

Collection_Affiliate Table Look Ups

luCollectionUses

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CollectionUse	varchar	25	0	Y	Y	Use of the collected sample for the affiliate who requested it.

luReturnExpected

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ReturnExpected	varchar	10	0	Y	Y	Is the item expected to be returned to the original lab, or status of returned item.

DistanceTo Table Look Ups

luDistanceToType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Type	varchar	30	0	Y	Y	What the distance measurement refers to: another animal or plant, water, food source, or some physical object.

luEstMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
EstMethod	varchar	20	0	Y	Y	Method used to estimate species observed.

EstimateSeries Table Look Ups

luGender

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of gender.
Gender	varchar	30	0	Y	N	Gender of taxon.
GenderID	int	0	0	Y	Y	Gender record identifier.

luLifeStage

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	350	0	N	N	Description of life stage.
LifeStage	varchar	20	0	Y	N	Life Stage of taxon.
LifeStageID	int	0	0	Y	Y	LifeStage record identifier.

luParameterType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Parameter	varchar	50	0	Y	Y	Parameter to which the estimate applies.

FocalSpeciesList Table Look Ups

luFocalSpeciesPurpose

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
FocalSpeciesPurpose	varchar	40	0	Y	Y	Purpose of the focal species studied in study.

luPopulationDesignation

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
PopulationDesignation	varchar	10	0	Y	Y	Multiple Species Conservation Plan (MSCP) Population designation.

Funding/FundingProgram Table Look Ups

luFundingType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
FundingType	varchar	50	0	N	N	Type of funding for project.
FundingTypeID	int	0	0	Y	Y	FundingType record identifier.

GrantMgtActions Table Look Ups

luFundingAction

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the funding action.
FundingAction	varchar	25	0	Y	N	Administrative action associated with management action.
FundingActionID	int	0	0	Y	Y	FundingAction record identifier.

HabitatObservation Table Look Ups

luCHWRHabitat

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CWHRHabitat	varchar	50	0	N	N	California Wildlife Habitat Relationship (CWHR) System habitat type.
CWHRHabitatCode	varchar	3	0	Y	Y	California Wildlife Habitat Relationship System code.
CWHRHabitatDesc	varchar	250	0	N	N	Description of California Wildlife Habitat Relationship System habitat type.
CWHRHabitatGroupID	int	0	0	Y	N	CWHRHabitatGroup record identifier. Field currently under review.

luRoadSurface

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of RoadSurface condition.
RoadSurface	varchar	50	0	Y	N	Level of moisture on road surface in observed habitat.
RoadSurfaceCode	varchar	2	0	Y	Y	RoadSurface identifier code.

Permanency

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Permanency	varchar	40	0	Y	N	Permanency of water body.
PID	char	1	0	Y	Y	Permanency record identifier.

HabitatObservation_Feature Table Look Ups

luHabitatFeatureType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of habitat feature type.
HabitatFeatureType	varchar	30	0	Y	N	Type of feature observed within habitat.
HabitatFeatureTypeID	int	0	0	Y	Y	HabitatFeatureType record identifier.

HabitatObservation_GroundCover Table Look Ups

luGroundCover

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
GroundCover	varchar	50	0	Y	N	Type of ground cover observed in habitat.
GroundCoverCode	varchar	5	0	N	N	GroundCover abbreviation/code.
GroundCoverID	int	0	0	Y	Y	GroundCover record identifier.

HabitatObservation_LandUse Table Look Ups

luLandUse

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Landuse	varchar	50	0	Y	N	The primary function of the land.
LanduseCode	varchar	3	0	N	N	Abbreviation/code of land use.
LanduseID	int	0	0	Y	Y	Landuse record identifier.

HabitatObservation_SedChemical Table Look Ups

luSedimentationChemical

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of the chemical found in the sediment.
SedimentationChemical	varchar	50	0	Y	N	Chemical found in the sediment within the habitat.
SedimentationChemicalID	int	0	0	Y	Y	SedimentationChemical record identifier.

HabitatObservation_Substrate Table Look Ups

luSubstrate

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the observed substrate.
Substrate	varchar	100	0	Y	N	Type of substrate (surface composition) observed within habitat.
SubstrateCode	varchar	2	0	N	N	Code/abbreviation of observed substrate.
SubstrateID	int	0	0	Y	Y	Substrate record identifier.

luSubstrateContext

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the Substrate Context.
SubstrateContext	varchar	30	0	Y	N	Area within habitat that substrate was found.
SubstrateContextCode	varchar	2	0	Y	Y	SubstrateContext abbreviation/code.

HabitatObservation_VegetationTable Look Ups

luHabitatObsVegContext

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Context	varchar	20	0	Y	Y	General area of vegetation observation in habitat.

luHabitatVegetationType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
HabitatVegetationType	varchar	100	0	Y	N	Type of vegetation found within habitat.
HabitatVegetationType Code	varchar	5	0	N	N	Abbreviation/code of HabitatVegetation Type.
HabitatVegetationType ID	int	0	0	Y	Y	HabitatVegetationType record identifier.

IndivAnimals Table Look Ups

luAgePelage

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AgePelageCode	char	2	0	Y	Y	Abbreviation of age of animal.
Description	varchar	25	0	Y	N	Age of animal.

luDisposition

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Disposition	varchar	10	0	Y	Y	Disposition (e.g. alive, dead) of animal.

luFate

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Fate	varchar	15	0	Y	Y	What happened to individual after capture?

luPubicSymphysis

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	15	0	N	N	Status of the pubic symphysis joint.
PubicSymID	char	3	0	Y	Y	PubicSymphysis record identifier.

luShwear

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	250	0	N	N	Description of the shell wear age class.
ShwearID	numeric	1	0	Y	Y	Shell Wear age class.

luTeats

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	15	0	Y	N	Condition of teats.
TeatsID	char	2	0	Y	Y	Abbreviation of condition of teats.

IndividualAnimalIdentifier Table Look Ups

IDType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	30	0	Y	N	Type of tag or identification marker used on animal.
IDType	varchar	2	0	Y	Y	IDType record identifier.

Keywords Table Look Ups

luKeywordType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Type	varchar	25	0	N	N	Optional way to classify and/or organize the keywords into lists, etc.

Maintenance Table Look Ups

luFacilityType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the facility.
FacilityType	varchar	25	0	Y	N	Type of facility.
FacilityTypeID	int	0	0	Y	Y	FacilityType record identifier.

luMaintType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the maintenance type.
MaintType	varchar	25	0	Y	N	Type of maintenance conducted.
MaintTypeID	int	0	0	Y	Y	MaintType record identifier.

luMaterialType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the material type.
MaterialType	varchar	25	0	Y	N	Type of material used for maintenance.
MaterialTypeID	int	0	0	Y	Y	MaterialType record identifier.
Notes	varchar	255	0	N	N	Notes about the material type.
Supplier	int	0	0	N	N	Associated Affiliate record identifier of person/organization who supplied material.

MaintenancePoint Table Look Ups

luMaintPointType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	50	0	N	N	Description of the maintenance point type.
MaintPointType	varchar	15	0	Y	Y	To what the maintenance point/spatial feature refers (fence beginning point, fence end point, and so forth).

ManagementActivities Table Look Ups

luActivityType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ActivityType	varchar	50	0	Y	N	Type of management activity.
ActivityTypeID	int	0	0	Y	Y	ActivityType record identifier.
Description	varchar	255	0	N	N	Description of the management activity type.

MgmtActivityMonitoring Table Look Ups

luMonitoringType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the type of monitoring.
MonitoringType	varchar	25	0	Y	N	Proposed monitoring type.
MonitoringTypeID	int	0	0	Y	Y	MonitoringType record identifier.

MgtPlanDetails Table Look Ups

luMgtType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the management type.
ManagementType	varchar	50	0	Y	N	Type of management.
MgtTypeID	int	0	0	Y	Y	MgtType record identifier.

MgtProjectStatus Table Look Ups

luMgtProjectStatus

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	Y	N	Description of the management project status.
Status	varchar	15	0	Y	Y	Status of the management project.

luMilestoneType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	50	0	N	N	Type of milestone used to gauge the success of the project.
MilestoneTypeID	smallint	5	0	Y	N	Milestone Type record identifier.

NestEntranceDetails Table Look Ups

luDirection

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Direction	varchar	20	0	Y	N	Cardinal direction.
DirectionCode	varchar	3	0	Y	Y	Abbreviation for cardinal direction.

ObservationDetectionMethods Table Look Ups

luDetectionMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
DetectionMethod	varchar	50	0	Y	N	How the observed taxon was detected.
DetectionMethodCode	char	3	0	Y	N	Code for Detection Method.
DetectionMethodID	int	0	0	Y	Y	DetectionMethod record identifier.

ObservationVerification Table Look Ups

luVerifMethods

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
VerifMethod	varchar	50	0	Y	Y	Method used to verify the species identification.

PhotoInfo Table Look Ups

luPhotoQuality

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
PhotoQuality	varchar	50	0	N	N	Description of photo quality.
PhotoQualityID	int	0	0	Y	Y	PhotoQuality record identifier.

luPhotoType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
PhotoType	varchar	50	0	Y	N	Description of physical storage media of photo.
PhotoTypeID	int	0	0	Y	Y	PhotoType record identifier.

PlantEnhancement Table Look Ups

luIrrigationMethods

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the irrigation method.
IrrigationMethod	varchar	25	0	Y	N	Method used to water plantings.
IrrigationMethodID	int	0	0	Y	Y	IrrigationMethod record identifier.

luPlantingForms

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the planting form.
PlantingForm	varchar	25	0	Y	N	Form of the plant being planted.
PlantingFormID	int	0	0	Y	Y	PlantingForm record identifier.

PlantHeirarchy Table Look Ups

luHeightClass

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
HeightClass	varchar	15	0	Y	Y	Height class of the plant.

PlantObservationDetails Table Look Ups

luAgeMetric

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AgeMetric	varchar	25	0	Y	Y	Metric used to measure plant age (years, months, days).

luEstMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
EstMethod	varchar	20	0	Y	Y	Method used to estimate species observed.

luDensityUnit

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
DensityUnit	varchar	20	0	Y	Y	Unit of measurement of density value.

luObGrowthForm

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ObGrowthForm	varchar	25	0	Y	Y	Growth form of plant taxon observation.

luPlantObDetailType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of the detail type.
DetailType	varchar	20	0	Y	Y	Describes the context of the plant observation, such as individual or patch/stand.

luPlantSizeClass

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
SizeClass	int	0	0	Y	Y	Size class of plant in cm.

ProjectID Table Look Ups

luProjectCategory

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of the category.
ProjectCategory	varchar	25	0	Y	Y	Category of project being conducted.

Refugia Table Look Ups

luRefugiaContext

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Context	varchar	20	0	Y	Y	Type of environment within the site where refugium is located.

luRefugiaType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
RefugiaType	varchar	20	0	Y	Y	Any material that provides shelter, cover, or hiding place, (for example, rocks, rock crevices, woody debris).

RoadsTrails Table Look Ups

luFreqofTravel

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
FrequencyTraveled	varchar	30	0	Y	Y	How often the road/trail is used, likely estimated.

luRoadsTrailsAccess

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
RoadTrailsAccess	varchar	30	0	Y	Y	Description of how and why road/trail is used.

luRoadsTrailsEdge

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Edge	varchar	30	0	Y	Y	Composition of interface between the road/trail and the site.

luRoadsTrailsType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Type	varchar	30	0	Y	Y	General type and construction of road/trail.

Site Table Look Ups

luCounty

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
County	varchar	50	0	Y	N	County Name.
CountyAbbreviation	char	3	0	Y	N	Three letter abbreviation of county name.
CountyFIPSCode	smallint	5	0	N	N	Federal Information Processing Standard (FIPS) code of county.
CountyID	smallint	5	0	Y	Y	County record identifier.
StateCode	char	2	0	N	N	Two letter State Code (abbreviation).

luSiteQuality

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
SiteQuality	varchar	50	0	Y	N	Overall quality of site.
SiteQualityDescription	varchar	350	0	N	N	Description of the site quality.
SiteQualityID	int	0	0	Y	Y	SiteQuality record identifier.

Site_Site Table Look Ups

luSiteRelationshipType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
RelationshipType	varchar	20	0	Y	Y	Identifies the relationship between the parent and child site.

Site_SiteThreatType Table Look Ups

luSiteThreatType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the threat.
SiteThreatType	varchar	50	0	Y	N	Threat to the site.
SiteThreatTypeID	int	0	0	Y	Y	SiteThreatType record identifier.

SoilPhysicalObservation Table Look Ups

luSoilMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Method	varchar	30	0	Y	Y	Method used to analyze the soil.

luSoilTextureClass

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TextureClass	varchar	20	0	Y	Y	Texture classification of soil/soil sample.

luSoilUnit

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Unit	varchar	20	0	Y	Y	Unit of measurement of soil sample.

SourceXY Table Look Ups

luXYCoordType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the Coordinate Type.
XYCoordType	varchar	30	0	Y	N	Name of coordinate system used.
XYCoordTypeID	int	0	0	Y	Y	XYCoordType record identifier.

SpatialFeature_CLDB Table Look Ups

luSFCLDBMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Method	varchar	30	0	Y	Y	The method by which the association between SpatialFeatureID and LandID was made.

SpeciesHabitatFeature Table Look Ups

luFeatureType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
FeatureType	varchar	20	0	Y	Y	Type of feature being used by observed species.

luHabSuitability

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
HSID	char	1	0	Y	Y	HabitatSuitability record identifier.
Suitability	varchar	15	0	Y	N	Suitability of habitat for species.

luRelativeAbundance

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
RelativeAbundance	varchar	10	0	Y	Y	Relative amount of feature observed.

StudyPersonnel Table Look Ups

luAffiliateRole

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateRole	varchar	50	0	Y	Y	Role of person associated with this survey.
Description	varchar	255	0	N	N	Description of the affiliate role.

SurveyDescription Table Look Ups

luStudyType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
StudyType	varchar	40	0	Y	Y	Type of study conducted.

luSourceType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	75	0	N	N	Distinguishes the original source of the data.
SourceTypeID	int	0	0	Y	Y	SourceType record identifier.

SurveyDescription_Site Table Look Ups

luMSCPLandDesignation

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
MSCPLandDesignation	varchar	10	0	Y	Y	Designation of the land in the Multiple Species Conservation Plan (MSCP).

SurveyEvent Table Look Ups

ConstrainBy

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ConstrainedBy	char	4	0	Y	Y	Metric by which survey was constrained.
ConstraintDefinition	varchar	50	0	Y	N	Definition of constraint.

luSurveyableAreaUnit

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
SAUnit	varchar	20	0	Y	Y	Unit used for surveyable area determination.

luStudyType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
StudyType	varchar	40	0	Y	Y	Type of study conducted.

UnitEffort

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
UnitEffort	varchar	30	0	Y	N	Unit effort of the survey.
UnitEffortID	char	2	0	Y	Y	UnitEffort record identifier.

SurveyEvent_Affiliate Table Look Ups

luAffiliateRole

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AffiliateRole	varchar	50	0	Y	Y	Role of person associated with this survey.
Description	varchar	255	0	N	N	Description of the affiliate role.

SurveyEvent_Site Table Look Ups

luAmtSurveyedUnit

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AmountSurveyedUnit	varchar	15	0	Y	Y	Unit of measurement used to quantify the AmountSurveyed value.

SurveyEvent_SpatialFeature Table Look Ups

luSESFRelationship

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Relationship	varchar	20	0	Y	Y	Identifies the relationship between the SurveyEvent record and an associated SpatialFeature record (actual start/end, and so forth).

SurveyMethod Table Look Ups

luSurveyMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	250	0	N	N	Description of the survey method.
SurveyMethod	varchar	30	0	Y	Y	Method used to detect a taxon during the survey.

TaxaObservation Table Look Ups

luAbundanceCategory

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
AbundanceCategory	varchar	50	0	Y	N	Abundance category for a group of plant specimens based on spatial presence.
AbundanceCategoryCode	varchar	2	0	Y	Y	Abbreviation of abundance category.
Description	varchar	255	0	N	N	Description of the abundance category.

luHistoricalPresence

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
HistoricalPresence	varchar	10	0	Y	Y	Status of species at this location regarding whether it is considered native, exotic, or invasive.

luRemovalIntroductionValues

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of the removal or introduction value.
RemovalIntroValue	varchar	25	0	Y	N	Method used to remove or introduce a species into the habitat.
RemovalIntroValueID	int	0	0	Y	Y	RemovalIntroductionValue record identifier.

luSpeciesDetected

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	20	0	N	N	Whether a species was detected/not detected/not surveyed for.
SDCode	numeric	1	0	Y	Y	luSpeciesDetected code record identifier.

luTaxaRole

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of the taxon's role.
TaxaRole	varchar	30	0	Y	N	Role that this taxon plays regarding the survey (for example, target species, incidental observation).
TaxaRoleCode	varchar	2	0	N	N	Code associated with taxa role.
TaxaRoleID	int	0	0	Y	Y	TaxaRole record identifier.

Taxa

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Abbreviation	varchar	10	0	N	N	Taxon abbreviation.
Author	varchar	80	0	N	N	Author who first named taxon.
AuthorInfraSpecies	varchar	80	0	N	N	Author of the infraspecific name.
Code1	varchar	50	0	N	N	Taxon species code.
CommonName	varchar	100	0	N	N	Common name of taxon.
CreatedBy	varchar	64	0	Y	N	Database username of person who created record.
CreatedDate	datetime	0	0	Y	N	Date and time when record was created.
EditDate	datetime	0	0	N	N	Date and time when record was most recently updated.
EditedBy	varchar	64	0	N	N	Database username of person who most recently updated record.
Genus	varchar	40	0	N	N	Genus of taxon.
IsUncommon	smallint	5	0	N	N	Y/N. Is the taxon uncommon?
Notes	varchar	200	0	N	N	Notes about the taxon record.
Source	varchar	25	0	N	N	Source entity of the TaxaID.
Species	varchar	40	0	Y	N	Species of taxon.
SubSpecies	varchar	40	0	N	N	Subspecies of taxon.
TaxaClass	varchar	50	0	N	N	Class of taxon.
TaxaFamily	varchar	50	0	N	N	Family of taxon.
TaxaID	varchar	25	0	Y	Y	Taxonomic Serial Number used by ITIS.gov. See www.itis.gov .
TaxaKingdom	varchar	20	0	N	N	Kingdom of taxon.
TaxaOrder	varchar	50	0	N	N	Order of taxon.
TaxaPhylum	varchar	35	0	N	N	Taxonomic phylum of the species.
TaxaSubOrder	varchar	35	0	N	N	Taxonomic suborder of the species.
TaxaSubPhylum	varchar	35	0	N	N	Taxonomic subphylum of the species.
Variety	varchar	40	0	N	N	Taxon variety (plants).

TaxaObservationDetails Table Look Ups

luCountMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
CountMethod	varchar	30	0	Y	N	How the taxon was counted.
CountMethodID	int	0	0	Y	Y	CountMethod record identifier.
Description	varchar	255	0	N	N	Description of count method.

luDetectionMethod

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
DetectionMethod	varchar	50	0	Y	N	How the observed taxon was detected.
DetectionMethodCode	char	3	0	Y	N	Code for Detection Method.
DetectionMethodID	int	0	0	Y	Y	DetectionMethod record identifier.

luGender

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of gender.
Gender	varchar	30	0	Y	N	Gender of taxon.
GenderID	int	0	0	Y	Y	Gender record identifier.

luLifeStage

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	350	0	N	N	Description of life stage.
LifeStage	varchar	20	0	Y	N	Life Stage of taxon.
LifeStageID	int	0	0	Y	Y	LifeStage record identifier.

luTrapType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TrapType	varchar	35	0	Y	Y	Type of trap used to capture the taxon.

luHabitatFeatureType

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	255	0	N	N	Description of habitat feature type.
HabitatFeatureType	varchar	30	0	Y	N	Type of feature observed within habitat.
HabitatFeatureTypeID	int	0	0	Y	Y	HabitatFeatureType record identifier.

TelemetryDetails Table Look Ups

luLocationClass

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Class	varchar	2	0	Y	Y	Location classification.
EstError	varchar	60	0	N	N	Estimated error of satellite location.
MsgsPerSatellitePass	varchar	25	0	N	N	Number of messages received per satellite pass.
Type	varchar	10	0	N	N	Type of location, Argos or GPS.

TerrestrialHabitat Table Look Ups

luPhenology

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Phenology	varchar	10	0	Y	Y	Seasonal timing of biological status.

luStructure

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Structure	varchar	15	0	Y	Y	Structure of feature at habitat.

luTreeSize

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of the range of measurements.
TreeSize	varchar	30	0	Y	N	Range of measurements of tree diameter measured at breast height (DBH), in inches.
TreeSizeID	int	0	0	Y	Y	TreeSize record identifier.

luVegetationStandSize

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
VegetationStandSize	varchar	50	0	Y	N	Size of vegetation stands present in habitat.
VegetationStandSize Code	varchar	2	0	N	N	Code for vegetation stand size.
VegetationStandSizeID	int	0	0	Y	Y	VegetationStandSize record identifier.

WaterPhysicalObservation Table Look Ups

Hardness

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Hardness	varchar	30	0	Y	N	Categorical levels of water hardness in mg/L.
HardnessID	char	1	0	Y	Y	Hardness record identifier.

Transparency

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Transparency	varchar	20	0	Y	N	Categorical description of how clear or silted the water is.
TranspID	char	1	0	Y	Y	Abbreviation/code for transparency of water.

TranspMeth

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TranspMeth	varchar	20	0	Y	N	Quantitative transparency method used.
TranspMID	char	1	0	Y	Y	TranspMeth record identifier.

TurbUnits

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
TurbUID	char	1	0	Y	Y	TurbUnits record identifier.
TurbUnits	varchar	20	0	Y	N	Turbidimeter units used for Turbidity measurement.

WaterColor

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
WaterColor	varchar	10	0	Y	Y	The color of the water as observed from above

WeatherObservation Table Look Ups

luBarometerTrend

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
BarometerTrend	varchar	10	0	Y	Y	Direction in which barometric readings are going.

luDirection

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Direction	varchar	20	0	Y	N	Cardinal direction.
DirectionCode	varchar	3	0	Y	Y	Abbreviation for cardinal direction.

luMoonPhase

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
MoonPhase	varchar	20	0	Y	N	Phase of the lunar cycle.
MoonPhaseCode	varchar	2	0	Y	Y	Abbreviation/code for moon phase.

luObsTiming

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
ObsTiming	varchar	10	0	N	Y	Timing of the observation relative to the survey, or where on a scale the observation occurred.

luSkyObservation

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	100	0	N	N	Description of the sky condition.
SkyObservation	varchar	30	0	Y	N	Sky conditions.
SkyObservationID	int	0	0	Y	Y	SkyObservation record identifier.

luWindBeaufortScale

Field Name	Data Type	Field Length	Decimal Places	Required Field	Primary Key	Definition
Description	varchar	20	0	Y	N	Description of Beaufort Scale condition.
Indicators	varchar	100	0	N	N	Indicators used to determine Beaufort Scale level.
MinMPH	int	0	0	Y	N	Minimum wind speed, in miles per hour.
MPHRange	varchar	10	0	N	N	Range of wind speeds, in miles per hour.
WindBeaufortScaleID	int	0	0	Y	Y	WindBeaufortScale record identifier.

SECTION III: LOOK UP DOMAIN TABLES

ConstrainBy

ConstrainedBy	ConstraintDefinition
TIME	Time constrained survey
AREA	Area constrained survey
DIST	Distance constrained survey

Hardness

HardnessID	Hardness
1	Soft (0~60 mg/L)
2	Moderately hard (61~120 mg/L)
3	Hard (121 ~ 180 mg/L)
4	Very hard (over 180 mg/L)

IDType

IDType	Description
01	Pattern recognition
02	PIT tag
03	Scale clip
04	Tail clip
05	Toe clip
06	VIE
09	Other
10	Name
11	Radio transmitter
12	GPS collar
13	Bead pattern
14	Ear tag
15	Ankle band
16	Wing marker
17	Hair clip
18	PIT tag - Avid
19	PIT tag - other
20	Notched-plastron
21	Notched-carapace
22	Notched-plastron/carapace
23	Scute tag

IuAbundanceCategory

AbundanceCategoryCode	AbundanceCategory	Description
A	Abundant	Specimens abundantly present
C	Common	Specimens continuously in view without actively searching
CS	Large contiguous stands	Relatively many plants at site
FP	Few plants	Relatively few plants at site
N	Not present	No specimens observed
NA	Not applicable	Does not apply
Sc	Scarce	Very few specimens observed, individual specimens are hard to find when searching
So	Solitary	Only one individual specimen observed
SP	Scattered small patches	Relatively medium number of plants at site
U	Uncommon	Scattered specimens observed, individual specimens are observed without actively searching for them
UK	Unknown	Unknown value

luActivityType

ActivityTypeID	ActivityType	Description
1	Fence installation	
2	Fence removal	
3	Trail installation	
4	Trail removal	
5	Facility installation	
6	Facility removal	
7	Fuel reduction	
8	Erosion control	
99	Other	

luAffiliateRole

Role	Description
Applicant	
ARMI organizational unit	ARMI program region/office/organization
Caller	
Collector	
Contact	
Contractor	
Data reviewer, in field	Reviews raw survey data while still on site
Data steward	Contact person for questions about the data
Field coordinator	
Investigator	Principal Investigator
Observer	
Observer/Recorder	
On-site contact	
Operator	
Owner	
Partner	
Processor	
Recorder	Recorder of data, either paper or electronic
Study lead	
Submitter	
Volunteer	

AffiliateTypeID	AffiliateType	Description
-1	Undefined organization	NA
0	Unknown	NA
1	Individual	NA

luAffiliateType—Continued

AffiliateTypeID	AffiliateType	Description
2	State government organization	NA
3	Federal government organization	NA
4	Local government organization	NA
5	Private organization	NA
6	Tribal organization	NA
7	Non-profit organization	NA
8	Educational organization	NA
9	Council, board or association	NA
10	Museum	NA

luAgeMetric

AgeMetric
Days
Months
Years

luAgePelage

AgePelageCode	Description
A	Adult
J	Juvenile
L	Larval
NA	NA
SA	Subadult

luAmtSurveyedUnit

AmountSurveyed Unit
Percent

luBarometerTrend

BarometerTrend
Falling
Rising
Stable
Unknown

luBaskingAreas

BaskingArea
Bedrock
Boulders
Emergent Vegetation

luBaskingAreas—Continued

BaskingArea
Fallen logs
Open banks
Other
Sandy banks
Sunny rocks
Woody debris

luBaskingAreasContext

Context
Aquatic
Arboreal
Terrestrial

luBehavior

Behavior
Active (on surface)
Basking
Behavior undefined (Sea Otter)
Bicycling
Broadcast calling
Co-occurring
Copulation
Distraction display
Disturbance/Release calling
Driving ATV/Motorcycle
Driving vehicle
Flushed
Food carry
Foraging
Head butting
Host
Material carry

luCountMethod

CountMethodID	CountMethod	Description
1	Actual count	Total actual count of individuals
2	Estimated count	Estimated total count of individuals
3	NAAMP calling code 0	Not heard calling
4	NAAMP calling code 1	Individuals clearly heard
5	NAAMP calling code 2	Chorusing with discernible individuals
6	NAAMP calling code 3	Chorusing, no individuals discernible
7	Estimated count (egg masses)	Estimated total count of egg masses

luBehavior—Continued

Behavior
Nectaring
Other
Parasitising
Resting
Roosting
Typical travel
Unknown
USGS (or Wildlife) surveys

luCollectionType

CollectionType
Filter
Hair
Live animal
Other
Scat
Shed
Swab
Tissue
Unknown
Voucher

luCollectionUses

CollectionUse
Diet composition analysis
Genetics
Histology
ID confirmation
Identification
Repository donation
Unknown

luCountMethod—Continued

CountMethodID	CountMethod	Description
8	Actual count (egg masses)	Actual count of individual egg masses
9	Estimated percentage	Estimated percent composition
98	Not applicable	Not applicable to particular observation or study
99	Unknown	Unknown or data not recorded.

luCountry

Country Code	Country	Country CodeA3
AD	Andorra	AND
AE	United Arab Emirates	ARE
AF	Afghanistan	AFG
AG	Antigua and Barbuda	ATG
AI	Anguilla	AIA
AL	Albania	ALB
AM	Armenia	ARM
AN	Netherlands Antilles	ANT
AO	Angola	AGO
AQ	Antarctica	ATA
AR	Argentina	ARG
AS	American Samoa	ASM
AT	Austria	AUT
AU	Australia	AUS
AW	Aruba	ABW
AX	Åland	ALA
AZ	Azerbaijan	AZE
BA	Bosnia and Herzegovina	BIH
BB	Barbados	BRB
BD	Bangladesh	BGD
BE	Belgium	BEL
BF	Burkina Faso	BFA
BG	Bulgaria	BGR
BH	Bahrain	BHR
BI	Burundi	BDI
BJ	Benin	BEN
BM	Bermuda	BMU
BN	Brunei Darussalam	BRN
BO	Bolivia	BOL
BR	Brazil	BRA
BS	Bahamas	BHS
BT	Bhutan	BTN
BV	Bouvet Island	BVT
BW	Botswana	BWA
BY	Belarus	BLR
BZ	Belize	BLZ

luCountry—Continued

Country Code	Country	Country CodeA3
CA	Canada	CAN
CC	Cocos (Keeling) Islands	CCK
CD	Congo (Kinshasa)	COD
CF	Central African Republic	CAF
CG	Congo (Brazzaville)	COG
CH	Switzerland	CHE
CI	Côte d'Ivoire	CIV
CK	Cook Islands	COK
CL	Chile	CHL
CM	Cameroon	CMR
CN	China	CHN
CO	Colombia	COL
CR	Costa Rica	CRI
CS	Serbia and Montenegro	SCG
CU	Cuba	CUB
CV	Cape Verde	CPV
CX	Christmas Island	CXR
CY	Cyprus	CYP
CZ	Czech Republic	CZE
DE	Germany	DEU
DJ	Djibouti	DJI
DK	Denmark	DNK
DM	Dominica	DMA
DO	Dominican Republic	DOM
DZ	Algeria	DZA
EC	Ecuador	ECU
EE	Estonia	EST
EG	Egypt	EGY
EH	Western Sahara	ESH
ER	Eritrea	ERI
ES	Spain	ESP
ET	Ethiopia	ETH
FI	Finland	FIN
FJ	Fiji	FJI
FK	Falkland Islands	FLK
FM	Micronesia	FSM

luCountry—Continued

Country Code	Country	Country CodeA3
FO	Faroe Islands	FRO
FR	France	FRA
GA	Gabon	GAB
GB	United Kingdom	GBR
GD	Grenada	GRD
GE	Georgia	GEO
GF	French Guiana	GUF
GH	Ghana	GHA
GI	Gibraltar	GIB
GL	Greenland	GRL
GM	Gambia	GMB
GN	Guinea	GIN
GP	Guadeloupe	GLP
GQ	Equatorial Guinea	GNQ
GR	Greece	GRC
GS	South Georgia and South Sandwich Islands	SGS
GT	Guatemala	GTM
GU	Guam	GUM
GW	Guinea-Bissau	GNB
GY	Guyana	GUY
HK	Hong Kong	HKG
HM	Heard and McDonald Islands	HMD
HN	Honduras	HND
HR	Croatia	HRV
HT	Haiti	HTI
HU	Hungary	HUN
ID	Indonesia	IDN
IE	Ireland	IRL
IL	Israel	ISR
IN	India	IND
IO	British Indian Ocean Territory	IOT
IQ	Iraq	IRQ
IR	Iran	IRN
IS	Iceland	ISL
IT	Italy	ITA
JM	Jamaica	JAM
JO	Jordan	JOR
JP	Japan	JPN
KE	Kenya	KEN
KG	Kyrgyzstan	KGZ
KH	Cambodia	KHM
KI	Kiribati	KIR

luCountry—Continued

Country Code	Country	Country CodeA3
KM	Comoros	COM
KN	Saint Kitts and Nevis	KNA
KP	Korea, North	PRK
KR	Korea, South	KOR
KW	Kuwait	KWT
KY	Cayman Islands	CYM
KZ	Kazakhstan	KAZ
LA	Laos	LAO
LB	Lebanon	LBN
LC	Saint Lucia	LCA
LI	Liechtenstein	LIE
LK	Sri Lanka	LKA
LR	Liberia	LBR
LS	Lesotho	LSO
LT	Lithuania	LTU
LU	Luxembourg	LUX
LV	Latvia	LVA
LY	Libya	LBY
MA	Morocco	MAR
MC	Monaco	MCO
MD	Moldova	MDA
MG	Madagascar	MDG
MH	Marshall Islands	MHL
MK	Macedonia	MKD
ML	Mali	MLI
MM	Myanmar	MMR
MN	Mongolia	MNG
MO	Macau	MAC
MP	Northern Mariana Islands	MNP
MQ	Martinique	MTQ
MR	Mauritania	MRT
MS	Montserrat	MSR
MT	Malta	MLT
MU	Mauritius	MUS
MV	Maldives	MDV
MW	Malawi	MWI
MX	Mexico	MEX
MY	Malaysia	MYS
MZ	Mozambique	MOZ
NA	Namibia	NAM
NC	New Caledonia	NCL
NE	Niger	NER

luCountry—Continued

Country Code	Country	Country CodeA3
NF	Norfolk Island	NFK
NG	Nigeria	NGA
NI	Nicaragua	NIC
NL	Netherlands	NLD
NO	Norway	NOR
NP	Nepal	NPL
NR	Nauru	NRU
NU	Niue	NIU
NZ	New Zealand	NZL
OM	Oman	OMN
PA	Panama	PAN
PE	Peru	PER
PF	French Polynesia	PYF
PG	Papua New Guinea	PNG
PH	Philippines	PHL
PL	Poland	POL
PM	Saint Pierre and Miquelon	SPM
PN	Pitcairn	PCN
PR	Puerto Rico	PRI
Primary Key	Pakistan	PAK
PS	Palestine	PSE
PT	Portugal	PRT
PW	Palau	PLW
PY	Paraguay	PRY
QA	Qatar	QAT
RE	Reunion	REU
RO	Romania	ROU
RU	Russian Federation	RUS
RW	Rwanda	RWA
SA	Saudi Arabia	SAU
SB	Solomon Islands	SLB
SC	Seychelles	SYC
SD	Sudan	SDN
SE	Sweden	SWE
SG	Singapore	SGP
SH	Saint Helena	SHN
SI	Slovenia	SVN
SJ	Svalbard and Jan Mayen Islands	SJM
SK	Slovakia	SVK
SL	Sierra Leone	SLE
SM	San Marino	SMR
SN	Senegal	SEN

luCountry—Continued

Country Code	Country	Country CodeA3
SO	Somalia	SOM
SR	Suriname	SUR
ST	Sao Tome and Principe	STP
SV	El Salvador	SLV
SY	Syria	SYR
SZ	Swaziland	SWZ
TC	Turks and Caicos Islands	TCA
TD	Chad	TCD
TF	French Southern Lands	ATF
TG	Togo	TGO
TH	Thailand	THA
TJ	Tajikistan	TJK
TK	Tokelau	TKL
TL	Timor-Leste	TLS
TM	Turkmenistan	TKM
TN	Tunisia	TUN
TO	Tonga	TON
TR	Turkey	TUR
TT	Trinidad and Tobago	TTO
TV	Tuvalu	TUV
TW	Taiwan	TWN
TZ	Tanzania	TZA
UA	Ukraine	UKR
UG	Uganda	UGA
UM	United States Minor Outlying Islands	UMI
US	United States of America	USA
UY	Uruguay	URY
UZ	Uzbekistan	UZB
VA	Vatican City	VAT
VC	Saint Vincent and the Grenadines	VCT
VE	Venezuela	VEN
VG	Virgin Islands, British	VGB
VI	Virgin Islands, U.S.	VIR
VN	Viet Nam	VNM
VU	Vanuatu	VUT
WF	Wallis and Futuna Islands	WLF
WS	Samoa	WSM
YE	Yemen	YEM
YT	Mayotte	MYT
ZA	South Africa	ZAF
ZM	Zambia	ZMB
ZW	Zimbabwe	ZWE

luCounty

County ID	County	County FIPSCode	State Code
1	Alameda	1	CA
2	Alpine	3	CA
3	Amador	5	CA
4	Butte	7	CA
5	Calaveras	9	CA
6	Colusa	11	CA
7	Contra Costa	13	CA
8	Del Norte	15	CA
9	El Dorado	17	CA
10	Fresno	19	CA
11	Glenn	21	CA
12	Humboldt	23	CA
13	Imperial	25	CA
14	Inyo	27	CA
15	Kern	29	CA
16	Kings	31	CA
17	Lake	33	CA
18	Lassen	35	CA
19	Los Angeles	37	CA
20	Madera	39	CA
21	Marin	41	CA
22	Mariposa	43	CA
23	Mendocino	45	CA
24	Merced	47	CA
25	Modoc	49	CA
26	Mono	51	CA
27	Monterey	53	CA
28	Napa	55	CA
29	Nevada	57	CA
30	Orange	59	CA
31	Placer	61	CA
32	Plumas	63	CA
33	Riverside	65	CA
34	Sacramento	67	CA
35	San Benito	69	CA
36	San Bernardino	71	CA
37	San Diego	73	CA
38	San Francisco	75	CA
39	San Joaquin	77	CA
40	San Luis Obispo	79	CA
41	San Mateo	81	CA
42	Santa Barbara	83	CA
43	Santa Clara	85	CA
44	Santa Cruz	87	CA

luCounty—Continued

County ID	County	County FIPSCode	State Code
45	Shasta	89	CA
46	Sierra	91	CA
47	Siskiyou	93	CA
48	Solano	95	CA
49	Sonoma	97	CA
50	Stanislaus	99	CA
51	Sutter	101	CA
52	Tehama	103	CA
53	Trinity	105	CA
54	Tulare	107	CA
55	Tuolumne	109	CA
56	Ventura	111	CA
57	Yolo	113	CA
58	Yuba	115	CA
59	Autauga	1	AL
60	Baldwin	3	AL
61	Barbour	5	AL
62	Bibb	7	AL
63	Blount	9	AL
64	Bullock	11	AL
65	Butler	13	AL
66	Calhoun	15	AL
67	Chambers	17	AL
68	Cherokee	19	AL
69	Chilton	21	AL
70	Choctaw	23	AL
71	Clarke	25	AL
72	Clay	27	AL
73	Cleburne	29	AL
74	Coffee	31	AL
75	Colbert	33	AL
76	Conecuh	35	AL
77	Coosa	37	AL
78	Covington	39	AL
79	Crenshaw	41	AL
80	Cullman	43	AL
81	Dale	45	AL
82	Dallas	47	AL
83	DeKalb	49	AL
84	Elmore	51	AL
85	Escambia	53	AL
86	Etowah	55	AL
87	Fayette	57	AL
88	Franklin	59	AL

luCounty—Continued

County ID	County	County FIPSCode	State Code
89	Geneva	61	AL
90	Greene	63	AL
91	Hale	65	AL
92	Henry	67	AL
93	Houston	69	AL
94	Jackson	71	AL
95	Jefferson	73	AL
96	Lamar	75	AL
97	Lauderdale	77	AL
98	Lawrence	79	AL
99	Lee	81	AL
100	Limestone	83	AL
101	Lowndes	85	AL
102	Macon	87	AL
103	Madison	89	AL
104	Marengo	91	AL
105	Marion	93	AL
106	Marshall	95	AL
107	Mobile	97	AL
108	Monroe	99	AL
109	Montgomery	101	AL
110	Morgan	103	AL
111	Perry	105	AL
112	Pickens	107	AL
113	Pike	109	AL
114	Randolph	111	AL
115	Russell	113	AL
116	St. Clair	115	AL
117	Shelby	117	AL
118	Sumter	119	AL
119	Talladega	121	AL
120	Tallapoosa	123	AL
121	Tuscaloosa	125	AL
122	Walker	127	AL
123	Washington	129	AL
124	Wilcox	131	AL
125	Winston	133	AL
126	Aleutians East Borough	13	AK
127	Aleutians West Census Area	16	AK
128	Anchorage Municipality	20	AK
129	Bethel Census Area	50	AK
130	Bristol Bay Borough	60	AK
131	Denali Borough	68	AK
132	Dillingham Census Area	70	AK

luCounty—Continued

County ID	County	County FIPSCode	State Code
133	Fairbanks North Star Borough	90	AK
134	Haines Borough	100	AK
135	Hoonah-Angoon Census Area	105	AK
136	Juneau City and Borough	110	AK
137	Kenai Peninsula Borough	122	AK
138	Ketchikan Gateway Borough	130	AK
139	Kodiak Island Borough	150	AK
140	Lake and Peninsula Borough	164	AK
141	Matanuska-Susitna Borough	170	AK
142	Nome Census Area	180	AK
143	North Slope Borough	185	AK
144	Northwest Arctic Borough	188	AK
145	Petersburg Census Area	195	AK
146	Prince of Wales-Hyder Census Area	198	AK
147	Sitka City and Borough	220	AK
148	Skagway Municipality	230	AK
149	Southeast Fairbanks Census Area	240	AK
150	Valdez-Cordova Census Area	261	AK
151	Wade Hampton Census Area	270	AK
152	Wrangell City and Borough	275	AK
153	Yakutat City and Borough	282	AK
154	Yukon-Koyukuk Census Area	290	AK
155	Apache	1	AZ
156	Cochise	3	AZ
157	Coconino	5	AZ
158	Gila	7	AZ
159	Graham	9	AZ
160	Greenlee	11	AZ
161	La Paz	12	AZ
162	Maricopa	13	AZ
163	Mohave	15	AZ
164	Navajo	17	AZ
165	Pima	19	AZ
166	Pinal	21	AZ
167	Santa Cruz	23	AZ
168	Yavapai	25	AZ
169	Yuma	27	AZ
170	Arkansas	1	AR
171	Ashley	3	AR
172	Baxter	5	AR
173	Benton	7	AR
174	Boone	9	AR
175	Bradley	11	AR
176	Calhoun	13	AR

luCounty—Continued

County ID	County	County FIPSCode	State Code
177	Carroll	15	AR
178	Chicot	17	AR
179	Clark	19	AR
180	Clay	21	AR
181	Cleburne	23	AR
182	Cleveland	25	AR
183	Columbia	27	AR
184	Conway	29	AR
185	Craighead	31	AR
186	Crawford	33	AR
187	Crittenden	35	AR
188	Cross	37	AR
189	Dallas	39	AR
190	Desha	41	AR
191	Drew	43	AR
192	Faulkner	45	AR
193	Franklin	47	AR
194	Fulton	49	AR
195	Garland	51	AR
196	Grant	53	AR
197	Greene	55	AR
198	Hempstead	57	AR
199	Hot Spring	59	AR
200	Howard	61	AR
201	Independence	63	AR
202	Izard	65	AR
203	Jackson	67	AR
204	Jefferson	69	AR
205	Johnson	71	AR
206	Lafayette	73	AR
207	Lawrence	75	AR
208	Lee	77	AR
209	Lincoln	79	AR
210	Little River	81	AR
211	Logan	83	AR
212	Lonoke	85	AR
213	Madison	87	AR
214	Marion	89	AR
215	Miller	91	AR
216	Mississippi	93	AR
217	Monroe	95	AR
218	Montgomery	97	AR
219	Nevada	99	AR
220	Newton	101	AR

luCounty—Continued

County ID	County	County FIPSCode	State Code
221	Ouachita	103	AR
222	Perry	105	AR
223	Phillips	107	AR
224	Pike	109	AR
225	Poinsett	111	AR
226	Polk	113	AR
227	Pope	115	AR
228	Prairie	117	AR
229	Pulaski	119	AR
230	Randolph	121	AR
231	St. Francis	123	AR
232	Saline	125	AR
233	Scott	127	AR
234	Searcy	129	AR
235	Sebastian	131	AR
236	Sevier	133	AR
237	Sharp	135	AR
238	Stone	137	AR
239	Union	139	AR
240	Van Buren	141	AR
241	Washington	143	AR
242	White	145	AR
243	Woodruff	147	AR
244	Yell	149	AR
303	Adams	1	CO
304	Alamosa	3	CO
305	Arapahoe	5	CO
306	Archuleta	7	CO
307	Baca	9	CO
308	Bent	11	CO
309	Boulder	13	CO
310	Broomfield	14	CO
311	Chaffee	15	CO
312	Cheyenne	17	CO
313	Clear Creek	19	CO
314	Conejos	21	CO
315	Costilla	23	CO
316	Crowley	25	CO
317	Custer	27	CO
318	Delta	29	CO
319	Denver	31	CO
320	Dolores	33	CO
321	Douglas	35	CO
322	Eagle	37	CO

luCounty—Continued

County ID	County	County FIPSCode	State Code
323	Elbert	39	CO
324	El Paso	41	CO
325	Fremont	43	CO
326	Garfield	45	CO
327	Gilpin	47	CO
328	Grand	49	CO
329	Gunnison	51	CO
330	Hinsdale	53	CO
331	Huerfano	55	CO
332	Jackson	57	CO
333	Jefferson	59	CO
334	Kiowa	61	CO
335	Kit Carson	63	CO
336	Lake	65	CO
337	La Plata	67	CO
338	Larimer	69	CO
339	Las Animas	71	CO
340	Lincoln	73	CO
341	Logan	75	CO
342	Mesa	77	CO
343	Mineral	79	CO
344	Moffat	81	CO
345	Montezuma	83	CO
346	Montrose	85	CO
347	Morgan	87	CO
348	Otero	89	CO
349	Ouray	91	CO
350	Park	93	CO
351	Phillips	95	CO
352	Pitkin	97	CO
353	Prowers	99	CO
354	Pueblo	101	CO
355	Rio Blanco	103	CO
356	Rio Grande	105	CO
357	Routt	107	CO
358	Saguache	109	CO
359	San Juan	111	CO
360	San Miguel	113	CO
361	Sedgwick	115	CO
362	Summit	117	CO
363	Teller	119	CO
364	Washington	121	CO
365	Weld	123	CO
366	Yuma	125	CO

luCounty—Continued

County ID	County	County FIPSCode	State Code
367	Fairfield	1	CT
368	Hartford	3	CT
369	Litchfield	5	CT
370	Middlesex	7	CT
371	New Haven	9	CT
372	New London	11	CT
373	Tolland	13	CT
374	Windham	15	CT
375	Kent	1	DE
376	New Castle	3	DE
377	Sussex	5	DE
378	District of Columbia	1	DC
379	Alachua	1	FL
380	Baker	3	FL
381	Bay	5	FL
382	Bradford	7	FL
383	Brevard	9	FL
384	Broward	11	FL
385	Calhoun	13	FL
386	Charlotte	15	FL
387	Citrus	17	FL
388	Clay	19	FL
389	Collier	21	FL
390	Columbia	23	FL
391	DeSoto	27	FL
392	Dixie	29	FL
393	Duval	31	FL
394	Escambia	33	FL
395	Flagler	35	FL
396	Franklin	37	FL
397	Gadsden	39	FL
398	Gilchrist	41	FL
399	Glades	43	FL
400	Gulf	45	FL
401	Hamilton	47	FL
402	Hardee	49	FL
403	Hendry	51	FL
404	Hernando	53	FL
405	Highlands	55	FL
406	Hillsborough	57	FL
407	Holmes	59	FL
408	Indian River	61	FL
409	Jackson	63	FL
410	Jefferson	65	FL

luCounty—Continued

County ID	County	County FIPSCode	State Code
411	Lafayette	67	FL
412	Lake	69	FL
413	Lee	71	FL
414	Leon	73	FL
415	Levy	75	FL
416	Liberty	77	FL
417	Madison	79	FL
418	Manatee	81	FL
419	Marion	83	FL
420	Martin	85	FL
421	Miami-Dade	86	FL
422	Monroe	87	FL
423	Nassau	89	FL
424	Okaloosa	91	FL
425	Okeechobee	93	FL
426	Orange	95	FL
427	Osceola	97	FL
428	Palm Beach	99	FL
429	Pasco	101	FL
430	Pinellas	103	FL
431	Polk	105	FL
432	Putnam	107	FL
433	St. Johns	109	FL
434	St. Lucie	111	FL
435	Santa Rosa	113	FL
436	Sarasota	115	FL
437	Seminole	117	FL
438	Sumter	119	FL
439	Suwannee	121	FL
440	Taylor	123	FL
441	Union	125	FL
442	Volusia	127	FL
443	Wakulla	129	FL
444	Walton	131	FL
445	Washington	133	FL
446	Appling	1	GA
447	Atkinson	3	GA
448	Bacon	5	GA
449	Baker	7	GA
450	Baldwin	9	GA
451	Banks	11	GA
452	Barrow	13	GA
453	Bartow	15	GA
454	Ben Hill	17	GA

luCounty—Continued

County ID	County	County FIPSCode	State Code
455	Berrien	19	GA
456	Bibb	21	GA
457	Bleckley	23	GA
458	Brantley	25	GA
459	Brooks	27	GA
460	Bryan	29	GA
461	Bulloch	31	GA
462	Burke	33	GA
463	Butts	35	GA
464	Calhoun	37	GA
465	Camden	39	GA
466	Candler	43	GA
467	Carroll	45	GA
468	Catoosa	47	GA
469	Charlton	49	GA
470	Chatham	51	GA
471	Chattahoochee	53	GA
472	Chattooga	55	GA
473	Cherokee	57	GA
474	Clarke	59	GA
475	Clay	61	GA
476	Clayton	63	GA
477	Clinch	65	GA
478	Cobb	67	GA
479	Coffee	69	GA
480	Colquitt	71	GA
481	Columbia	73	GA
482	Cook	75	GA
483	Coweta	77	GA
484	Crawford	79	GA
485	Crisp	81	GA
486	Dade	83	GA
487	Dawson	85	GA
488	Decatur	87	GA
489	DeKalb	89	GA
490	Dodge	91	GA
491	Dooly	93	GA
492	Dougherty	95	GA
493	Douglas	97	GA
494	Early	99	GA
495	Echols	101	GA
496	Effingham	103	GA
497	Elbert	105	GA
498	Emanuel	107	GA

luCounty—Continued

County ID	County	County FIPSCode	State Code
499	Evans	109	GA
500	Fannin	111	GA
501	Fayette	113	GA
502	Floyd	115	GA
503	Forsyth	117	GA
504	Franklin	119	GA
505	Fulton	121	GA
506	Gilmer	123	GA
507	Glascock	125	GA
508	Glynn	127	GA
509	Gordon	129	GA
510	Grady	131	GA
511	Greene	133	GA
512	Gwinnett	135	GA
513	Habersham	137	GA
514	Hall	139	GA
515	Hancock	141	GA
516	Haralson	143	GA
517	Harris	145	GA
518	Hart	147	GA
519	Heard	149	GA
520	Henry	151	GA
521	Houston	153	GA
522	Irwin	155	GA
523	Jackson	157	GA
524	Jasper	159	GA
525	Jeff Davis	161	GA
526	Jefferson	163	GA
527	Jenkins	165	GA
528	Johnson	167	GA
529	Jones	169	GA
530	Lamar	171	GA
531	Lanier	173	GA
532	Laurens	175	GA
533	Lee	177	GA
534	Liberty	179	GA
535	Lincoln	181	GA
536	Long	183	GA
537	Lowndes	185	GA
538	Lumpkin	187	GA
539	McDuffie	189	GA
540	McIntosh	191	GA
541	Macon	193	GA
542	Madison	195	GA

luCounty—Continued

County ID	County	County FIPSCode	State Code
543	Marion	197	GA
544	Meriwether	199	GA
545	Miller	201	GA
546	Mitchell	205	GA
547	Monroe	207	GA
548	Montgomery	209	GA
549	Morgan	211	GA
550	Murray	213	GA
551	Muscogee	215	GA
552	Newton	217	GA
553	Oconee	219	GA
554	Oglethorpe	221	GA
555	Paulding	223	GA
556	Peach	225	GA
557	Pickens	227	GA
558	Pierce	229	GA
559	Pike	231	GA
560	Polk	233	GA
561	Pulaski	235	GA
562	Putnam	237	GA
563	Quitman	239	GA
564	Rabun	241	GA
565	Randolph	243	GA
566	Richmond	245	GA
567	Rockdale	247	GA
568	Schley	249	GA
569	Screven	251	GA
570	Seminole	253	GA
571	Spalding	255	GA
572	Stephens	257	GA
573	Stewart	259	GA
574	Sumter	261	GA
575	Talbot	263	GA
576	Taliaferro	265	GA
577	Tattnall	267	GA
578	Taylor	269	GA
579	Telfair	271	GA
580	Terrell	273	GA
581	Thomas	275	GA
582	Tift	277	GA
583	Toombs	279	GA
584	Towns	281	GA
585	Treutlen	283	GA
586	Troup	285	GA

InCounty—Continued

County ID	County	County FIPSCode	State Code
587	Turner	287	GA
588	Twiggs	289	GA
589	Union	291	GA
590	Upson	293	GA
591	Walker	295	GA
592	Walton	297	GA
593	Ware	299	GA
594	Warren	301	GA
595	Washington	303	GA
596	Wayne	305	GA
597	Webster	307	GA
598	Wheeler	309	GA
599	White	311	GA
600	Whitfield	313	GA
601	Wilcox	315	GA
602	Wilkes	317	GA
603	Wilkinson	319	GA
604	Worth	321	GA
605	Hawaii	1	HI
606	Honolulu	3	HI
607	Kalawao	5	HI
608	Kauai	7	HI
609	Maui	9	HI
610	Ada	1	ID
611	Adams	3	ID
612	Bannock	5	ID
613	Bear Lake	7	ID
614	Benewah	9	ID
615	Bingham	11	ID
616	Blaine	13	ID
617	Boise	15	ID
618	Bonner	17	ID
619	Bonneville	19	ID
620	Boundary	21	ID
621	Butte	23	ID
622	Camas	25	ID
623	Canyon	27	ID
624	Caribou	29	ID
625	Cassia	31	ID
626	Clark	33	ID
627	Clearwater	35	ID
628	Custer	37	ID
629	Elmore	39	ID
630	Franklin	41	ID

InCounty—Continued

County ID	County	County FIPSCode	State Code
631	Fremont	43	ID
632	Gem	45	ID
633	Gooding	47	ID
634	Idaho	49	ID
635	Jefferson	51	ID
636	Jerome	53	ID
637	Kootenai	55	ID
638	Latah	57	ID
639	Lemhi	59	ID
640	Lewis	61	ID
641	Lincoln	63	ID
642	Madison	65	ID
643	Minidoka	67	ID
644	Nez Perce	69	ID
645	Oneida	71	ID
646	Owyhee	73	ID
647	Payette	75	ID
648	Power	77	ID
649	Shoshone	79	ID
650	Teton	81	ID
651	Twin Falls	83	ID
652	Valley	85	ID
653	Washington	87	ID
654	Adams	1	IL
655	Alexander	3	IL
656	Bond	5	IL
657	Boone	7	IL
658	Brown	9	IL
659	Bureau	11	IL
660	Calhoun	13	IL
661	Carroll	15	IL
662	Cass	17	IL
663	Champaign	19	IL
664	Christian	21	IL
665	Clark	23	IL
666	Clay	25	IL
667	Clinton	27	IL
668	Coles	29	IL
669	Cook	31	IL
670	Crawford	33	IL
671	Cumberland	35	IL
672	DeKalb	37	IL
673	De Witt	39	IL
674	Douglas	41	IL

luCounty—Continued

County ID	County	County FIPSCode	State Code
675	DuPage	43	IL
676	Edgar	45	IL
677	Edwards	47	IL
678	Effingham	49	IL
679	Fayette	51	IL
680	Ford	53	IL
681	Franklin	55	IL
682	Fulton	57	IL
681	Franklin	55	IL
682	Fulton	57	IL
683	Gallatin	59	IL
684	Greene	61	IL
685	Grundy	63	IL
686	Hamilton	65	IL
687	Hancock	67	IL
688	Hardin	69	IL
689	Henderson	71	IL
690	Henry	73	IL
691	Iroquois	75	IL
692	Jackson	77	IL
693	Jasper	79	IL
694	Jefferson	81	IL
695	Jersey	83	IL
696	Jo Daviess	85	IL
697	Johnson	87	IL
698	Kane	89	IL
699	Kankakee	91	IL
700	Kendall	93	IL
701	Knox	95	IL
702	Lake	97	IL
703	LaSalle	99	IL
704	Lawrence	101	IL
705	Lee	103	IL
706	Livingston	105	IL
707	Logan	107	IL
708	McDonough	109	IL
709	McHenry	111	IL
710	McLean	113	IL
711	Macon	115	IL
712	Macoupin	117	IL
713	Madison	119	IL
714	Marion	121	IL
715	Marshall	123	IL
716	Mason	125	IL

luCounty—Continued

County ID	County	County FIPSCode	State Code
717	Massac	127	IL
718	Menard	129	IL
719	Mercer	131	IL
720	Monroe	133	IL
721	Montgomery	135	IL
722	Morgan	137	IL
723	Moultrie	139	IL
724	Ogle	141	IL
725	Peoria	143	IL
726	Perry	145	IL
727	Piatt	147	IL
728	Pike	149	IL
729	Pope	151	IL
730	Pulaski	153	IL
731	Putnam	155	IL
732	Randolph	157	IL
733	Richland	159	IL
734	Rock Island	161	IL
735	St. Clair	163	IL
736	Saline	165	IL
737	Sangamon	167	IL
738	Schuyler	169	IL
739	Scott	171	IL
740	Shelby	173	IL
741	Stark	175	IL
742	Stephenson	177	IL
743	Tazewell	179	IL
744	Union	181	IL
745	Vermilion	183	IL
746	Wabash	185	IL
747	Warren	187	IL
748	Washington	189	IL
749	Wayne	191	IL
750	White	193	IL
751	Whiteside	195	IL
752	Will	197	IL
753	Williamson	199	IL
754	Winnebago	201	IL
755	Woodford	203	IL
756	Adams	1	IN
757	Allen	3	IN
758	Bartholomew	5	IN
759	Benton	7	IN
760	Blackford	9	IN

luCounty—Continued

County ID	County	County FIPSCode	State Code
761	Boone	11	IN
762	Brown	13	IN
763	Carroll	15	IN
764	Cass	17	IN
765	Clark	19	IN
766	Clay	21	IN
767	Clinton	23	IN
768	Crawford	25	IN
769	Daviess	27	IN
770	Dearborn	29	IN
771	Decatur	31	IN
772	DeKalb	33	IN
773	Delaware	35	IN
774	Dubois	37	IN
775	Elkhart	39	IN
776	Fayette	41	IN
777	Floyd	43	IN
778	Fountain	45	IN
779	Franklin	47	IN
780	Fulton	49	IN
781	Gibson	51	IN
782	Grant	53	IN
783	Greene	55	IN
784	Hamilton	57	IN
785	Hancock	59	IN
786	Harrison	61	IN
787	Hendricks	63	IN
788	Henry	65	IN
789	Howard	67	IN
790	Huntington	69	IN
791	Jackson	71	IN
792	Jasper	73	IN
793	Jay	75	IN
794	Jefferson	77	IN
795	Jennings	79	IN
796	Johnson	81	IN
797	Knox	83	IN
798	Kosciusko	85	IN
799	LaGrange	87	IN
800	Lake	89	IN
801	LaPorte	91	IN
802	Lawrence	93	IN
803	Madison	95	IN
804	Marion	97	IN

luCounty—Continued

County ID	County	County FIPSCode	State Code
805	Marshall	99	IN
806	Martin	101	IN
807	Miami	103	IN
808	Monroe	105	IN
809	Montgomery	107	IN
810	Morgan	109	IN
811	Newton	111	IN
812	Noble	113	IN
813	Ohio	115	IN
814	Orange	117	IN
815	Owen	119	IN
816	Parke	121	IN
817	Perry	123	IN
818	Pike	125	IN
819	Porter	127	IN
820	Posey	129	IN
821	Pulaski	131	IN
822	Putnam	133	IN
823	Randolph	135	IN
824	Ripley	137	IN
825	Rush	139	IN
826	St. Joseph	141	IN
827	Scott	143	IN
828	Shelby	145	IN
829	Spencer	147	IN
830	Starke	149	IN
831	Steuben	151	IN
832	Sullivan	153	IN
833	Switzerland	155	IN
834	Tippecanoe	157	IN
835	Tipton	159	IN
836	Union	161	IN
837	Vanderburgh	163	IN
838	Vermillion	165	IN
839	Vigo	167	IN
840	Wabash	169	IN
841	Warren	171	IN
842	Warrick	173	IN
843	Washington	175	IN
844	Wayne	177	IN
845	Wells	179	IN
846	White	181	IN
847	Whitley	183	IN
848	Adair	1	IA

luCounty—Continued

County ID	County	County FIPSCode	State Code
849	Adams	3	IA
850	Allamakee	5	IA
851	Appanoose	7	IA
852	Audubon	9	IA
853	Benton	11	IA
854	Black Hawk	13	IA
855	Boone	15	IA
856	Bremer	17	IA
857	Buchanan	19	IA
858	Buena Vista	21	IA
859	Butler	23	IA
860	Calhoun	25	IA
861	Carroll	27	IA
862	Cass	29	IA
863	Cedar	31	IA
864	Cerro Gordo	33	IA
865	Cherokee	35	IA
866	Chickasaw	37	IA
867	Clarke	39	IA
868	Clay	41	IA
869	Clayton	43	IA
870	Clinton	45	IA
871	Crawford	47	IA
872	Dallas	49	IA
873	Davis	51	IA
874	Decatur	53	IA
875	Delaware	55	IA
876	Des Moines	57	IA
877	Dickinson	59	IA
878	Dubuque	61	IA
879	Emmet	63	IA
880	Fayette	65	IA
881	Floyd	67	IA
882	Franklin	69	IA
883	Fremont	71	IA
884	Greene	73	IA
885	Grundy	75	IA
886	Guthrie	77	IA
887	Hamilton	79	IA
888	Hancock	81	IA
889	Hardin	83	IA
890	Harrison	85	IA
891	Henry	87	IA
892	Howard	89	IA

luCounty—Continued

County ID	County	County FIPSCode	State Code
893	Humboldt	91	IA
894	Ida	93	IA
895	Iowa	95	IA
896	Jackson	97	IA
897	Jasper	99	IA
898	Jefferson	101	IA
899	Johnson	103	IA
900	Jones	105	IA
901	Keokuk	107	IA
902	Kossuth	109	IA
903	Lee	111	IA
904	Linn	113	IA
905	Louisa	115	IA
906	Lucas	117	IA
907	Lyon	119	IA
908	Madison	121	IA
909	Mahaska	123	IA
910	Marion	125	IA
911	Marshall	127	IA
912	Mills	129	IA
913	Mitchell	131	IA
914	Monona	133	IA
915	Monroe	135	IA
916	Montgomery	137	IA
917	Muscatine	139	IA
918	O'Brien	141	IA
919	Osceola	143	IA
920	Page	145	IA
921	Palo Alto	147	IA
922	Plymouth	149	IA
923	Pocahontas	151	IA
924	Polk	153	IA
925	Pottawattamie	155	IA
926	Poweshiek	157	IA
927	Ringgold	159	IA
928	Sac	161	IA
929	Scott	163	IA
930	Shelby	165	IA
931	Sioux	167	IA
932	Story	169	IA
933	Tama	171	IA
934	Taylor	173	IA
935	Union	175	IA
936	Van Buren	177	IA

IuCounty—Continued

County ID	County	County FIPSCode	State Code
937	Wapello	179	IA
938	Warren	181	IA
939	Washington	183	IA
940	Wayne	185	IA
941	Webster	187	IA
942	Winnebago	189	IA
943	Winneshiek	191	IA
944	Woodbury	193	IA
945	Worth	195	IA
946	Wright	197	IA
947	Allen	1	KS
948	Anderson	3	KS
949	Atchison	5	KS
950	Barber	7	KS
951	Barton	9	KS
952	Bourbon	11	KS
953	Brown	13	KS
954	Butler	15	KS
955	Chase	17	KS
956	Chautauqua	19	KS
957	Cherokee	21	KS
958	Cheyenne	23	KS
959	Clark	25	KS
960	Clay	27	KS
961	Cloud	29	KS
962	Coffey	31	KS
963	Comanche	33	KS
964	Cowley	35	KS
965	Crawford	37	KS
966	Decatur	39	KS
967	Dickinson	41	KS
968	Doniphan	43	KS
969	Douglas	45	KS
970	Edwards	47	KS
971	Elk	49	KS
972	Ellis	51	KS
973	Ellsworth	53	KS
974	Finney	55	KS
975	Ford	57	KS
976	Franklin	59	KS
977	Geary	61	KS
978	Gove	63	KS
979	Graham	65	KS
980	Grant	67	KS

IuCounty—Continued

County ID	County	County FIPSCode	State Code
981	Gray	69	KS
982	Greeley	71	KS
983	Greenwood	73	KS
984	Hamilton	75	KS
985	Harper	77	KS
986	Harvey	79	KS
987	Haskell	81	KS
988	Hodgeman	83	KS
989	Jackson	85	KS
990	Jefferson	87	KS
991	Jewell	89	KS
992	Johnson	91	KS
993	Kearny	93	KS
994	Kingman	95	KS
995	Kiowa	97	KS
996	Labette	99	KS
997	Lane	101	KS
998	Leavenworth	103	KS
999	Lincoln	105	KS
1000	Linn	107	KS
1001	Logan	109	KS
1002	Lyon	111	KS
1003	McPherson	113	KS
1004	Marion	115	KS
1005	Marshall	117	KS
1006	Meade	119	KS
1007	Miami	121	KS
1008	Mitchell	123	KS
1009	Montgomery	125	KS
1010	Morris	127	KS
1011	Morton	129	KS
1012	Nemaha	131	KS
1013	Neosho	133	KS
1014	Ness	135	KS
1015	Norton	137	KS
1016	Osage	139	KS
1017	Osborne	141	KS
1018	Ottawa	143	KS
1019	Pawnee	145	KS
1020	Phillips	147	KS
1021	Pottawatomie	149	KS
1022	Pratt	151	KS
1023	Rawlins	153	KS
1024	Reno	155	KS

luCounty—Continued

County ID	County	County FIPSCode	State Code
1025	Republic	157	KS
1026	Rice	159	KS
1027	Riley	161	KS
1028	Rooks	163	KS
1029	Rush	165	KS
1030	Russell	167	KS
1031	Saline	169	KS
1032	Scott	171	KS
1033	Sedgwick	173	KS
1034	Seward	175	KS
1035	Shawnee	177	KS
1036	Sheridan	179	KS
1037	Sherman	181	KS
1038	Smith	183	KS
1039	Stafford	185	KS
1040	Stanton	187	KS
1041	Stevens	189	KS
1042	Sumner	191	KS
1043	Thomas	193	KS
1044	Trego	195	KS
1045	Wabaunsee	197	KS
1046	Wallace	199	KS
1047	Washington	201	KS
1048	Wichita	203	KS
1049	Wilson	205	KS
1050	Woodson	207	KS
1051	Wyandotte	209	KS
1052	Adair	1	KY
1053	Allen	3	KY
1054	Anderson	5	KY
1055	Ballard	7	KY
1056	Barren	9	KY
1057	Bath	11	KY
1058	Bell	13	KY
1059	Boone	15	KY
1060	Bourbon	17	KY
1061	Boyd	19	KY
1062	Boyle	21	KY
1063	Bracken	23	KY
1064	Breathitt	25	KY
1065	Breckinridge	27	KY
1066	Bullitt	29	KY
1067	Butler	31	KY
1068	Caldwell	33	KY

luCounty—Continued

County ID	County	County FIPSCode	State Code
1069	Calloway	35	KY
1070	Campbell	37	KY
1071	Carlisle	39	KY
1072	Carroll	41	KY
1073	Carter	43	KY
1074	Casey	45	KY
1075	Christian	47	KY
1076	Clark	49	KY
1077	Clay	51	KY
1078	Clinton	53	KY
1079	Crittenden	55	KY
1080	Cumberland	57	KY
1081	Daviess	59	KY
1082	Edmonson	61	KY
1083	Elliott	63	KY
1084	Estill	65	KY
1085	Fayette	67	KY
1086	Fleming	69	KY
1087	Floyd	71	KY
1088	Franklin	73	KY
1089	Fulton	75	KY
1090	Gallatin	77	KY
1091	Garrard	79	KY
1092	Grant	81	KY
1093	Graves	83	KY
1094	Grayson	85	KY
1095	Green	87	KY
1096	Greenup	89	KY
1097	Hancock	91	KY
1098	Hardin	93	KY
1099	Harlan	95	KY
1100	Harrison	97	KY
1101	Hart	99	KY
1102	Henderson	101	KY
1103	Henry	103	KY
1104	Hickman	105	KY
1105	Hopkins	107	KY
1106	Jackson	109	KY
1107	Jefferson	111	KY
1108	Jessamine	113	KY
1109	Johnson	115	KY
1110	Kenton	117	KY
1111	Knott	119	KY
1112	Knox	121	KY

InCounty—Continued

County ID	County	County FIPSCode	State Code
1113	Larue	123	KY
1114	Laurel	125	KY
1115	Lawrence	127	KY
1116	Lee	129	KY
1117	Leslie	131	KY
1118	Letcher	133	KY
1119	Lewis	135	KY
1120	Lincoln	137	KY
1121	Livingston	139	KY
1122	Logan	141	KY
1123	Lyon	143	KY
1124	McCracken	145	KY
1125	McCreary	147	KY
1126	McLean	149	KY
1127	Madison	151	KY
1128	Magoffin	153	KY
1129	Marion	155	KY
1130	Marshall	157	KY
1131	Martin	159	KY
1132	Mason	161	KY
1133	Meade	163	KY
1134	Menifee	165	KY
1135	Mercer	167	KY
1136	Metcalfe	169	KY
1137	Monroe	171	KY
1138	Montgomery	173	KY
1139	Morgan	175	KY
1140	Muhlenberg	177	KY
1141	Nelson	179	KY
1142	Nicholas	181	KY
1143	Ohio	183	KY
1144	Oldham	185	KY
1145	Owen	187	KY
1146	Owsley	189	KY
1147	Pendleton	191	KY
1148	Perry	193	KY
1149	Pike	195	KY
1150	Powell	197	KY
1151	Pulaski	199	KY
1152	Robertson	201	KY
1153	Rockcastle	203	KY
1154	Rowan	205	KY
1155	Russell	207	KY
1156	Scott	209	KY

InCounty—Continued

County ID	County	County FIPSCode	State Code
1157	Shelby	211	KY
1158	Simpson	213	KY
1159	Spencer	215	KY
1160	Taylor	217	KY
1161	Todd	219	KY
1162	Trigg	221	KY
1163	Trimble	223	KY
1164	Union	225	KY
1165	Warren	227	KY
1166	Washington	229	KY
1167	Wayne	231	KY
1168	Webster	233	KY
1169	Whitley	235	KY
1170	Wolfe	237	KY
1171	Woodford	239	KY
1172	Acadia Parish	1	LA
1173	Allen Parish	3	LA
1174	Ascension Parish	5	LA
1175	Assumption Parish	7	LA
1176	Avoyelles Parish	9	LA
1177	Beauregard Parish	11	LA
1178	Bienville Parish	13	LA
1179	Bossier Parish	15	LA
1180	Caddo Parish	17	LA
1181	Calcasieu Parish	19	LA
1182	Caldwell Parish	21	LA
1183	Cameron Parish	23	LA
1184	Catahoula Parish	25	LA
1185	Claiborne Parish	27	LA
1186	Concordia Parish	29	LA
1187	De Soto Parish	31	LA
1188	East Baton Rouge Parish	33	LA
1189	East Carroll Parish	35	LA
1190	East Feliciana Parish	37	LA
1191	Evangeline Parish	39	LA
1192	Franklin Parish	41	LA
1193	Grant Parish	43	LA
1194	Iberia Parish	45	LA
1195	Iberville Parish	47	LA
1196	Jackson Parish	49	LA
1197	Jefferson Parish	51	LA
1198	Jefferson Davis Parish	53	LA
1199	Lafayette Parish	55	LA
1200	Lafourche Parish	57	LA

luCounty—Continued

County ID	County	County FIPSCode	State Code
1201	La Salle Parish	59	LA
1202	Lincoln Parish	61	LA
1203	Livingston Parish	63	LA
1204	Madison Parish	65	LA
1205	Morehouse Parish	67	LA
1206	Natchitoches Parish	69	LA
1207	Orleans Parish	71	LA
1208	Ouachita Parish	73	LA
1209	Plaquemines Parish	75	LA
1210	Pointe Coupee Parish	77	LA
1211	Rapides Parish	79	LA
1212	Red River Parish	81	LA
1213	Richland Parish	83	LA
1214	Sabine Parish	85	LA
1215	St. Bernard Parish	87	LA
1216	St. Charles Parish	89	LA
1217	St. Helena Parish	91	LA
1218	St. James Parish	93	LA
1219	St. John the Baptist Parish	95	LA
1220	St. Landry Parish	97	LA
1221	St. Martin Parish	99	LA
1222	St. Mary Parish	101	LA
1223	St. Tammany Parish	103	LA
1224	Tangipahoa Parish	105	LA
1225	Tensas Parish	107	LA
1226	Terrebonne Parish	109	LA
1227	Union Parish	111	LA
1228	Vermilion Parish	113	LA
1229	Vernon Parish	115	LA
1230	Washington Parish	117	LA
1231	Webster Parish	119	LA
1232	West Baton Rouge Parish	121	LA
1233	West Carroll Parish	123	LA
1234	West Feliciana Parish	125	LA
1235	Winn Parish	127	LA
1236	Androscoggin	1	ME
1237	Aroostook	3	ME
1238	Cumberland	5	ME
1239	Franklin	7	ME
1240	Hancock	9	ME
1241	Kennebec	11	ME
1242	Knox	13	ME
1243	Lincoln	15	ME
1244	Oxford	17	ME

luCounty—Continued

County ID	County	County FIPSCode	State Code
1245	Penobscot	19	ME
1246	Piscataquis	21	ME
1247	Sagadahoc	23	ME
1248	Somerset	25	ME
1249	Waldo	27	ME
1250	Washington	29	ME
1251	York	31	ME
1252	Allegany	1	MD
1253	Anne Arundel	3	MD
1254	Baltimore	5	MD
1255	Calvert	9	MD
1256	Caroline	11	MD
1257	Carroll	13	MD
1258	Cecil	15	MD
1259	Charles	17	MD
1260	Dorchester	19	MD
1261	Frederick	21	MD
1262	Garrett	23	MD
1263	Harford	25	MD
1264	Howard	27	MD
1265	Kent	29	MD
1266	Montgomery	31	MD
1267	Prince George's	33	MD
1268	Queen Anne's	35	MD
1269	St. Mary's	37	MD
1270	Somerset	39	MD
1271	Talbot	41	MD
1272	Washington	43	MD
1273	Wicomico	45	MD
1274	Worcester	47	MD
1275	Baltimore city	510	MD
1276	Barnstable	1	MA
1277	Berkshire	3	MA
1278	Bristol	5	MA
1279	Dukes	7	MA
1280	Essex	9	MA
1281	Franklin	11	MA
1282	Hampden	13	MA
1283	Hampshire	15	MA
1284	Middlesex	17	MA
1285	Nantucket	19	MA
1286	Norfolk	21	MA
1287	Plymouth	23	MA
1288	Suffolk	25	MA

luCounty—Continued

County ID	County	County FIPSCode	State Code
1289	Worcester	27	MA
1290	Alcona	1	MI
1291	Alger	3	MI
1292	Allegan	5	MI
1293	Alpena	7	MI
1294	Antrim	9	MI
1295	Arenac	11	MI
1296	Baraga	13	MI
1297	Barry	15	MI
1298	Bay	17	MI
1299	Benzie	19	MI
1300	Berrien	21	MI
1301	Branch	23	MI
1302	Calhoun	25	MI
1303	Cass	27	MI
1304	Charlevoix	29	MI
1305	Cheboygan	31	MI
1306	Chippewa	33	MI
1307	Clare	35	MI
1308	Clinton	37	MI
1309	Crawford	39	MI
1310	Delta	41	MI
1312	Eaton	45	MI
1313	Emmet	47	MI
1314	Genesee	49	MI
1315	Gladwin	51	MI
1316	Gogebic	53	MI
1317	Grand Traverse	55	MI
1318	Gratiot	57	MI
1319	Hillsdale	59	MI
1320	Houghton	61	MI
1321	Huron	63	MI
1322	Ingham	65	MI
1323	Ionia	67	MI
1324	Iosco	69	MI
1325	Iron	71	MI
1326	Isabella	73	MI
1327	Jackson	75	MI
1328	Kalamazoo	77	MI
1329	Kalkaska	79	MI
1330	Kent	81	MI
1331	Keweenaw	83	MI
1332	Lake	85	MI
1333	Lapeer	87	MI

luCounty—Continued

County ID	County	County FIPSCode	State Code
1334	Leelanau	89	MI
1335	Lenawee	91	MI
1336	Livingston	93	MI
1337	Luce	95	MI
1338	Mackinac	97	MI
1339	Macomb	99	MI
1340	Manistee	101	MI
1341	Marquette	103	MI
1342	Mason	105	MI
1343	Mecosta	107	MI
1344	Menominee	109	MI
1345	Midland	111	MI
1346	Missaukee	113	MI
1347	Monroe	115	MI
1348	Montcalm	117	MI
1349	Montmorency	119	MI
1350	Muskegon	121	MI
1351	Newaygo	123	MI
1352	Oakland	125	MI
1353	Oceana	127	MI
1354	Ogemaw	129	MI
1355	Ontonagon	131	MI
1356	Osceola	133	MI
1357	Oscoda	135	MI
1358	Otsego	137	MI
1359	Ottawa	139	MI
1360	Presque Isle	141	MI
1361	Roscommon	143	MI
1362	Saginaw	145	MI
1363	St. Clair	147	MI
1364	St. Joseph	149	MI
1365	Sanilac	151	MI
1366	Schoolcraft	153	MI
1367	Shiawassee	155	MI
1368	Tuscola	157	MI
1369	Van Buren	159	MI
1370	Washtenaw	161	MI
1371	Wayne	163	MI
1372	Wexford	165	MI
1373	Aitkin	1	MN
1374	Anoka	3	MN
1375	Becker	5	MN
1376	Beltrami	7	MN
1377	Benton	9	MN

luCounty—Continued

County ID	County	County FIPSCode	State Code
1378	Big Stone	11	MN
1379	Blue Earth	13	MN
1380	Brown	15	MN
1381	Carlton	17	MN
1382	Carver	19	MN
1383	Cass	21	MN
1384	Chippewa	23	MN
1385	Chisago	25	MN
1386	Clay	27	MN
1387	Clearwater	29	MN
1388	Cook	31	MN
1389	Cottonwood	33	MN
1390	Crow Wing	35	MN
1391	Dakota	37	MN
1392	Dodge	39	MN
1393	Douglas	41	MN
1394	Faribault	43	MN
1395	Fillmore	45	MN
1396	Freeborn	47	MN
1397	Goodhue	49	MN
1398	Grant	51	MN
1399	Hennepin	53	MN
1400	Houston	55	MN
1401	Hubbard	57	MN
1402	Isanti	59	MN
1403	Itasca	61	MN
1404	Jackson	63	MN
1405	Kanabec	65	MN
1406	Kandiyohi	67	MN
1407	Kittson	69	MN
1408	Koochiching	71	MN
1409	Lac qui Parle	73	MN
1410	Lake	75	MN
1411	Lake of the Woods	77	MN
1412	Le Sueur	79	MN
1413	Lincoln	81	MN
1414	Lyon	83	MN
1415	McLeod	85	MN
1416	Mahnomen	87	MN
1417	Marshall	89	MN
1418	Martin	91	MN
1419	Meeker	93	MN
1420	Mille Lacs	95	MN
1421	Morrison	97	MN

luCounty—Continued

County ID	County	County FIPSCode	State Code
1422	Mower	99	MN
1423	Murray	101	MN
1424	Nicollet	103	MN
1425	Nobles	105	MN
1426	Norman	107	MN
1427	Olmsted	109	MN
1428	Otter Tail	111	MN
1429	Pennington	113	MN
1430	Pine	115	MN
1431	Pipestone	117	MN
1432	Polk	119	MN
1433	Pope	121	MN
1434	Ramsey	123	MN
1435	Red Lake	125	MN
1436	Redwood	127	MN
1437	Renville	129	MN
1438	Rice	131	MN
1439	Rock	133	MN
1440	Roseau	135	MN
1441	St. Louis	137	MN
1442	Scott	139	MN
1443	Sherburne	141	MN
1444	Sibley	143	MN
1445	Stearns	145	MN
1446	Steele	147	MN
1447	Stevens	149	MN
1448	Swift	151	MN
1449	Todd	153	MN
1450	Traverse	155	MN
1451	Wabasha	157	MN
1452	Wadena	159	MN
1453	Waseca	161	MN
1454	Washington	163	MN
1455	Watonwan	165	MN
1456	Wilkin	167	MN
1457	Winona	169	MN
1458	Wright	171	MN
1459	Yellow Medicine	173	MN
1460	Adams	1	MS
1461	Alcorn	3	MS
1462	Amite	5	MS
1463	Attala	7	MS
1464	Benton	9	MS
1465	Bolivar	11	MS

luCounty—Continued

County ID	County	County FIPSCode	State Code
1466	Calhoun	13	MS
1467	Carroll	15	MS
1468	Chickasaw	17	MS
1469	Choctaw	19	MS
1470	Claiborne	21	MS
1471	Clarke	23	MS
1472	Clay	25	MS
1473	Coahoma	27	MS
1474	Copiah	29	MS
1475	Covington	31	MS
1476	DeSoto	33	MS
1477	Forrest	35	MS
1478	Franklin	37	MS
1479	George	39	MS
1480	Greene	41	MS
1481	Grenada	43	MS
1482	Hancock	45	MS
1483	Harrison	47	MS
1484	Hinds	49	MS
1485	Holmes	51	MS
1486	Humphreys	53	MS
1487	Issaquena	55	MS
1488	Itawamba	57	MS
1489	Jackson	59	MS
1490	Jasper	61	MS
1491	Jefferson	63	MS
1492	Jefferson Davis	65	MS
1493	Jones	67	MS
1494	Kemper	69	MS
1495	Lafayette	71	MS
1496	Lamar	73	MS
1497	Lauderdale	75	MS
1498	Lawrence	77	MS
1499	Leake	79	MS
1500	Lee	81	MS
1501	Leflore	83	MS
1502	Lincoln	85	MS
1503	Lowndes	87	MS
1504	Madison	89	MS
1505	Marion	91	MS
1506	Marshall	93	MS
1507	Monroe	95	MS
1508	Montgomery	97	MS
1509	Neshoba	99	MS

luCounty—Continued

County ID	County	County FIPSCode	State Code
1510	Newton	101	MS
1511	Noxubee	103	MS
1512	Oktibbeha	105	MS
1513	Panola	107	MS
1514	Pearl River	109	MS
1515	Perry	111	MS
1516	Pike	113	MS
1517	Pontotoc	115	MS
1518	Prentiss	117	MS
1519	Quitman	119	MS
1520	Rankin	121	MS
1521	Scott	123	MS
1522	Sharkey	125	MS
1523	Simpson	127	MS
1524	Smith	129	MS
1525	Stone	131	MS
1526	Sunflower	133	MS
1527	Tallahatchie	135	MS
1528	Tate	137	MS
1529	Tippah	139	MS
1530	Tishomingo	141	MS
1531	Tunica	143	MS
1532	Union	145	MS
1533	Walthall	147	MS
1534	Warren	149	MS
1535	Washington	151	MS
1536	Wayne	153	MS
1537	Webster	155	MS
1538	Wilkinson	157	MS
1539	Winston	159	MS
1540	Yalobusha	161	MS
1541	Yazoo	163	MS
1542	Adair	1	MO
1543	Andrew	3	MO
1544	Atchison	5	MO
1545	Audrain	7	MO
1546	Barry	9	MO
1547	Barton	11	MO
1548	Bates	13	MO
1549	Benton	15	MO
1550	Bollinger	17	MO
1551	Boone	19	MO
1552	Buchanan	21	MO
1553	Butler	23	MO

luCounty—Continued

County ID	County	County FIPSCode	State Code
1554	Caldwell	25	MO
1555	Callaway	27	MO
1556	Camden	29	MO
1557	Cape Girardeau	31	MO
1558	Carroll	33	MO
1559	Carter	35	MO
1560	Cass	37	MO
1561	Cedar	39	MO
1562	Chariton	41	MO
1563	Christian	43	MO
1564	Clark	45	MO
1565	Clay	47	MO
1566	Clinton	49	MO
1567	Cole	51	MO
1568	Cooper	53	MO
1569	Crawford	55	MO
1570	Dade	57	MO
1571	Dallas	59	MO
1572	Daviess	61	MO
1573	DeKalb	63	MO
1574	Dent	65	MO
1575	Douglas	67	MO
1576	Dunklin	69	MO
1577	Franklin	71	MO
1578	Gasconade	73	MO
1579	Gentry	75	MO
1580	Greene	77	MO
1581	Grundy	79	MO
1582	Harrison	81	MO
1583	Henry	83	MO
1584	Hickory	85	MO
1585	Holt	87	MO
1586	Howard	89	MO
1587	Howell	91	MO
1588	Iron	93	MO
1589	Jackson	95	MO
1590	Jasper	97	MO
1591	Jefferson	99	MO
1592	Johnson	101	MO
1593	Knox	103	MO
1594	Laclede	105	MO
1595	Lafayette	107	MO
1596	Lawrence	109	MO
1597	Lewis	111	MO

luCounty—Continued

County ID	County	County FIPSCode	State Code
1598	Lincoln	113	MO
1599	Linn	115	MO
1600	Livingston	117	MO
1601	McDonald	119	MO
1602	Macon	121	MO
1603	Madison	123	MO
1604	Maries	125	MO
1605	Marion	127	MO
1606	Mercer	129	MO
1607	Miller	131	MO
1608	Mississippi	133	MO
1609	Moniteau	135	MO
1610	Monroe	137	MO
1611	Montgomery	139	MO
1612	Morgan	141	MO
1613	New Madrid	143	MO
1614	Newton	145	MO
1615	Nodaway	147	MO
1616	Oregon	149	MO
1617	Osage	151	MO
1618	Ozark	153	MO
1619	Pemiscot	155	MO
1620	Perry	157	MO
1621	Pettis	159	MO
1622	Phelps	161	MO
1623	Pike	163	MO
1624	Platte	165	MO
1625	Polk	167	MO
1626	Pulaski	169	MO
1627	Putnam	171	MO
1628	Ralls	173	MO
1629	Randolph	175	MO
1630	Ray	177	MO
1631	Reynolds	179	MO
1632	Ripley	181	MO
1633	St. Charles	183	MO
1634	St. Clair	185	MO
1635	Ste. Genevieve	186	MO
1636	St. Francois	187	MO
1637	St. Louis	189	MO
1638	Saline	195	MO
1639	Schuyler	197	MO
1640	Scotland	199	MO
1641	Scott	201	MO

luCounty—Continued

County ID	County	County FIPSCode	State Code
1642	Shannon	203	MO
1643	Shelby	205	MO
1644	Stoddard	207	MO
1645	Stone	209	MO
1646	Sullivan	211	MO
1647	Taney	213	MO
1648	Texas	215	MO
1649	Vernon	217	MO
1650	Warren	219	MO
1651	Washington	221	MO
1652	Wayne	223	MO
1653	Webster	225	MO
1654	Worth	227	MO
1655	Wright	229	MO
1656	St. Louis city	510	MO
1657	Beaverhead	1	MT
1658	Big Horn	3	MT
1659	Blaine	5	MT
1660	Broadwater	7	MT
1661	Carbon	9	MT
1662	Carter	11	MT
1663	Cascade	13	MT
1664	Chouteau	15	MT
1665	Custer	17	MT
1666	Daniels	19	MT
1667	Dawson	21	MT
1668	Deer Lodge	23	MT
1669	Fallon	25	MT
1670	Fergus	27	MT
1671	Flathead	29	MT
1672	Gallatin	31	MT
1673	Garfield	33	MT
1674	Glacier	35	MT
1675	Golden Valley	37	MT
1676	Granite	39	MT
1677	Hill	41	MT
1678	Jefferson	43	MT
1679	Judith Basin	45	MT
1680	Lake	47	MT
1681	Lewis and Clark	49	MT
1682	Liberty	51	MT
1683	Lincoln	53	MT
1684	McCone	55	MT
1685	Madison	57	MT

luCounty—Continued

County ID	County	County FIPSCode	State Code
1686	Meagher	59	MT
1687	Mineral	61	MT
1688	Missoula	63	MT
1689	Musselshell	65	MT
1690	Park	67	MT
1691	Petroleum	69	MT
1692	Phillips	71	MT
1693	Pondera	73	MT
1694	Powder River	75	MT
1695	Powell	77	MT
1696	Prairie	79	MT
1697	Ravalli	81	MT
1698	Richland	83	MT
1699	Roosevelt	85	MT
1700	Rosebud	87	MT
1701	Sanders	89	MT
1702	Sheridan	91	MT
1703	Silver Bow	93	MT
1704	Stillwater	95	MT
1705	Sweet Grass	97	MT
1706	Teton	99	MT
1707	Toole	101	MT
1708	Treasure	103	MT
1709	Valley	105	MT
1710	Wheatland	107	MT
1711	Wibaux	109	MT
1712	Yellowstone	111	MT
1713	Adams	1	NE
1714	Antelope	3	NE
1715	Arthur	5	NE
1716	Banner	7	NE
1717	Blaine	9	NE
1718	Boone	11	NE
1719	Box Butte	13	NE
1720	Boyd	15	NE
1721	Brown	17	NE
1722	Buffalo	19	NE
1723	Burt	21	NE
1724	Butler	23	NE
1725	Cass	25	NE
1726	Cedar	27	NE
1727	Chase	29	NE
1728	Cherry	31	NE
1729	Cheyenne	33	NE

luCounty—Continued

County ID	County	County FIPSCode	State Code
1730	Clay	35	NE
1731	Colfax	37	NE
1732	Cuming	39	NE
1733	Custer	41	NE
1734	Dakota	43	NE
1735	Dawes	45	NE
1736	Dawson	47	NE
1737	Deuel	49	NE
1738	Dixon	51	NE
1739	Dodge	53	NE
1740	Douglas	55	NE
1741	Dundy	57	NE
1742	Fillmore	59	NE
1743	Franklin	61	NE
1744	Frontier	63	NE
1745	Furnas	65	NE
1746	Gage	67	NE
1747	Garden	69	NE
1748	Garfield	71	NE
1749	Gosper	73	NE
1750	Grant	75	NE
1751	Greeley	77	NE
1752	Hall	79	NE
1753	Hamilton	81	NE
1754	Harlan	83	NE
1755	Hayes	85	NE
1756	Hitchcock	87	NE
1757	Holt	89	NE
1758	Hooker	91	NE
1759	Howard	93	NE
1760	Jefferson	95	NE
1761	Johnson	97	NE
1762	Kearney	99	NE
1763	Keith	101	NE
1764	Keya Paha	103	NE
1765	Kimball	105	NE
1766	Knox	107	NE
1767	Lancaster	109	NE
1768	Lincoln	111	NE
1769	Logan	113	NE
1770	Loup	115	NE
1771	McPherson	117	NE
1772	Madison	119	NE
1773	Merrick	121	NE

luCounty—Continued

County ID	County	County FIPSCode	State Code
1774	Morrill	123	NE
1775	Nance	125	NE
1776	Nemaha	127	NE
1777	Nuckolls	129	NE
1778	Otoe	131	NE
1779	Pawnee	133	NE
1780	Perkins	135	NE
1781	Phelps	137	NE
1782	Pierce	139	NE
1783	Platte	141	NE
1784	Polk	143	NE
1785	Red Willow	145	NE
1786	Richardson	147	NE
1787	Rock	149	NE
1788	Saline	151	NE
1789	Sarpy	153	NE
1790	Saunders	155	NE
1791	Scotts Bluff	157	NE
1792	Seward	159	NE
1793	Sheridan	161	NE
1794	Sherman	163	NE
1795	Sioux	165	NE
1796	Stanton	167	NE
1797	Thayer	169	NE
1798	Thomas	171	NE
1799	Thurston	173	NE
1800	Valley	175	NE
1801	Washington	177	NE
1802	Wayne	179	NE
1803	Webster	181	NE
1804	Wheeler	183	NE
1805	York	185	NE
1806	Churchill	1	NV
1807	Clark	3	NV
1808	Douglas	5	NV
1809	Elko	7	NV
1810	Esmeralda	9	NV
1811	Eureka	11	NV
1812	Humboldt	13	NV
1813	Lander	15	NV
1814	Lincoln	17	NV
1815	Lyon	19	NV
1816	Mineral	21	NV
1817	Nye	23	NV

luCounty—Continued

County ID	County	County FIPSCode	State Code
1818	Pershing	27	NV
1819	Storey	29	NV
1820	Washoe	31	NV
1821	White Pine	33	NV
1822	Carson City	510	NV
1823	Belknap	1	NH
1824	Carroll	3	NH
1825	Cheshire	5	NH
1826	Coos	7	NH
1827	Grafton	9	NH
1828	Hillsborough	11	NH
1829	Merrimack	13	NH
1830	Rockingham	15	NH
1831	Strafford	17	NH
1832	Sullivan	19	NH
1833	Atlantic	1	NJ
1834	Bergen	3	NJ
1835	Burlington	5	NJ
1836	Camden	7	NJ
1837	Cape May	9	NJ
1838	Cumberland	11	NJ
1839	Essex	13	NJ
1840	Gloucester	15	NJ
1841	Hudson	17	NJ
1842	Hunterdon	19	NJ
1843	Mercer	21	NJ
1844	Middlesex	23	NJ
1845	Monmouth	25	NJ
1846	Morris	27	NJ
1847	Ocean	29	NJ
1848	Passaic	31	NJ
1849	Salem	33	NJ
1850	Somerset	35	NJ
1851	Sussex	37	NJ
1852	Union	39	NJ
1853	Warren	41	NJ
1854	Bernalillo	1	NM
1855	Catron	3	NM
1856	Chaves	5	NM
1857	Cibola	6	NM
1858	Colfax	7	NM
1859	Curry	9	NM
1860	De Baca	11	NM
1861	Dona Ana	13	NM

luCounty—Continued

County ID	County	County FIPSCode	State Code
1862	Eddy	15	NM
1863	Grant	17	NM
1864	Guadalupe	19	NM
1865	Harding	21	NM
1866	Hidalgo	23	NM
1867	Lea	25	NM
1868	Lincoln	27	NM
1869	Los Alamos	28	NM
1870	Luna	29	NM
1871	McKinley	31	NM
1872	Mora	33	NM
1873	Otero	35	NM
1874	Quay	37	NM
1875	Rio Arriba	39	NM
1876	Roosevelt	41	NM
1877	Sandoval	43	NM
1878	San Juan	45	NM
1879	San Miguel	47	NM
1880	Santa Fe	49	NM
1881	Sierra	51	NM
1882	Socorro	53	NM
1883	Taos	55	NM
1884	Torrance	57	NM
1885	Union	59	NM
1886	Valencia	61	NM
1887	Albany	1	NY
1888	Allegany	3	NY
1889	Bronx	5	NY
1890	Broome	7	NY
1891	Cattaraugus	9	NY
1892	Cayuga	11	NY
1893	Chautauqua	13	NY
1894	Chemung	15	NY
1895	Chenango	17	NY
1896	Clinton	19	NY
1897	Columbia	21	NY
1898	Cortland	23	NY
1899	Delaware	25	NY
1900	Dutchess	27	NY
1901	Erie	29	NY
1902	Essex	31	NY
1903	Franklin	33	NY
1904	Fulton	35	NY
1905	Genesee	37	NY

luCounty—Continued

County ID	County	County FIPSCode	State Code
1906	Greene	39	NY
1907	Hamilton	41	NY
1908	Herkimer	43	NY
1909	Jefferson	45	NY
1910	Kings	47	NY
1911	Lewis	49	NY
1912	Livingston	51	NY
1913	Madison	53	NY
1914	Monroe	55	NY
1915	Montgomery	57	NY
1916	Nassau	59	NY
1917	New York	61	NY
1918	Niagara	63	NY
1919	Oneida	65	NY
1920	Onondaga	67	NY
1921	Ontario	69	NY
1922	Orange	71	NY
1923	Orleans	73	NY
1924	Oswego	75	NY
1925	Otsego	77	NY
1926	Putnam	79	NY
1927	Queens	81	NY
1928	Rensselaer	83	NY
1929	Richmond	85	NY
1930	Rockland	87	NY
1931	St. Lawrence	89	NY
1932	Saratoga	91	NY
1933	Schenectady	93	NY
1934	Schoharie	95	NY
1935	Schuyler	97	NY
1936	Seneca	99	NY
1937	Steuben	101	NY
1938	Suffolk	103	NY
1939	Sullivan	105	NY
1940	Tioga	107	NY
1941	Tompkins	109	NY
1942	Ulster	111	NY
1943	Warren	113	NY
1944	Washington	115	NY
1945	Wayne	117	NY
1946	Westchester	119	NY
1947	Wyoming	121	NY
1948	Yates	123	NY
1949	Alamance	1	NC

luCounty—Continued

County ID	County	County FIPSCode	State Code
1950	Alexander	3	NC
1951	Alleghany	5	NC
1952	Anson	7	NC
1953	Ashe	9	NC
1954	Avery	11	NC
1955	Beaufort	13	NC
1956	Bertie	15	NC
1957	Bladen	17	NC
1958	Brunswick	19	NC
1959	Buncombe	21	NC
1960	Burke	23	NC
1961	Cabarrus	25	NC
1962	Caldwell	27	NC
1963	Camden	29	NC
1964	Carteret	31	NC
1965	Caswell	33	NC
1966	Catawba	35	NC
1967	Chatham	37	NC
1968	Cherokee	39	NC
1969	Chowan	41	NC
1970	Clay	43	NC
1971	Cleveland	45	NC
1972	Columbus	47	NC
1973	Craven	49	NC
1974	Cumberland	51	NC
1975	Currituck	53	NC
1976	Dare	55	NC
1977	Davidson	57	NC
1978	Davie	59	NC
1979	Duplin	61	NC
1980	Durham	63	NC
1981	Edgecombe	65	NC
1982	Forsyth	67	NC
1983	Franklin	69	NC
1984	Gaston	71	NC
1985	Gates	73	NC
1986	Graham	75	NC
1987	Granville	77	NC
1988	Greene	79	NC
1989	Guilford	81	NC
1990	Halifax	83	NC
1991	Harnett	85	NC
1992	Haywood	87	NC
1993	Henderson	89	NC

luCounty—Continued

County ID	County	County FIPSCode	State Code
1994	Hertford	91	NC
1995	Hoke	93	NC
1996	Hyde	95	NC
1997	Iredell	97	NC
1998	Jackson	99	NC
1999	Johnston	101	NC
2000	Jones	103	NC
2001	Lee	105	NC
2002	Lenoir	107	NC
2003	Lincoln	109	NC
2004	McDowell	111	NC
2005	Macon	113	NC
2006	Madison	115	NC
2007	Martin	117	NC
2008	Mecklenburg	119	NC
2009	Mitchell	121	NC
2010	Montgomery	123	NC
2011	Moore	125	NC
2012	Nash	127	NC
2013	New Hanover	129	NC
2014	Northampton	131	NC
2015	Onslow	133	NC
2016	Orange	135	NC
2017	Pamlico	137	NC
2018	Pasquotank	139	NC
2019	Pender	141	NC
2020	Perquimans	143	NC
2021	Person	145	NC
2022	Pitt	147	NC
2023	Polk	149	NC
2024	Randolph	151	NC
2025	Richmond	153	NC
2026	Robeson	155	NC
2027	Rockingham	157	NC
2028	Rowan	159	NC
2029	Rutherford	161	NC
2030	Sampson	163	NC
2031	Scotland	165	NC
2032	Stanly	167	NC
2033	Stokes	169	NC
2034	Surry	171	NC
2035	Swain	173	NC
2036	Transylvania	175	NC
2037	Tyrrell	177	NC

luCounty—Continued

County ID	County	County FIPSCode	State Code
2038	Union	179	NC
2039	Vance	181	NC
2040	Wake	183	NC
2041	Warren	185	NC
2042	Washington	187	NC
2043	Watauga	189	NC
2044	Wayne	191	NC
2045	Wilkes	193	NC
2046	Wilson	195	NC
2047	Yadkin	197	NC
2048	Yancey	199	NC
2049	Adams	1	ND
2050	Barnes	3	ND
2051	Benson	5	ND
2052	Billings	7	ND
2053	Bottineau	9	ND
2054	Bowman	11	ND
2055	Burke	13	ND
2056	Burleigh	15	ND
2057	Cass	17	ND
2058	Cavalier	19	ND
2059	Dickey	21	ND
2060	Divide	23	ND
2061	Dunn	25	ND
2062	Eddy	27	ND
2063	Emmons	29	ND
2064	Foster	31	ND
2065	Golden Valley	33	ND
2066	Grand Forks	35	ND
2067	Grant	37	ND
2068	Griggs	39	ND
2069	Hettinger	41	ND
2070	Kidder	43	ND
2071	LaMoure	45	ND
2072	Logan	47	ND
2073	McHenry	49	ND
2074	McIntosh	51	ND
2075	McKenzie	53	ND
2076	McLean	55	ND
2077	Mercer	57	ND
2078	Morton	59	ND
2079	Mountrail	61	ND
2080	Nelson	63	ND
2081	Oliver	65	ND

luCounty—Continued

County ID	County	County FIPSCode	State Code
2082	Pembina	67	ND
2083	Pierce	69	ND
2084	Ramsey	71	ND
2085	Ransom	73	ND
2086	Renville	75	ND
2087	Richland	77	ND
2088	Rolette	79	ND
2089	Sargent	81	ND
2090	Sheridan	83	ND
2091	Sioux	85	ND
2092	Slope	87	ND
2093	Stark	89	ND
2094	Steele	91	ND
2095	Stutsman	93	ND
2096	Towner	95	ND
2097	Traill	97	ND
2098	Walsh	99	ND
2099	Ward	101	ND
2100	Wells	103	ND
2101	Williams	105	ND
2102	Adams	1	OH
2103	Allen	3	OH
2104	Ashland	5	OH
2105	Ashtabula	7	OH
2106	Athens	9	OH
2107	Auglaize	11	OH
2108	Belmont	13	OH
2109	Brown	15	OH
2110	Butler	17	OH
2111	Carroll	19	OH
2112	Champaign	21	OH
2113	Clark	23	OH
2114	Clermont	25	OH
2115	Clinton	27	OH
2116	Columbiana	29	OH
2117	Coshocton	31	OH
2118	Crawford	33	OH
2119	Cuyahoga	35	OH
2120	Darke	37	OH
2121	Defiance	39	OH
2122	Delaware	41	OH
2123	Erie	43	OH
2124	Fairfield	45	OH
2125	Fayette	47	OH

luCounty—Continued

County ID	County	County FIPSCode	State Code
2126	Franklin	49	OH
2127	Fulton	51	OH
2128	Gallia	53	OH
2129	Geauga	55	OH
2130	Greene	57	OH
2131	Guernsey	59	OH
2132	Hamilton	61	OH
2133	Hancock	63	OH
2134	Hardin	65	OH
2135	Harrison	67	OH
2136	Henry	69	OH
2137	Highland	71	OH
2138	Hocking	73	OH
2139	Holmes	75	OH
2140	Huron	77	OH
2141	Jackson	79	OH
2142	Jefferson	81	OH
2143	Knox	83	OH
2144	Lake	85	OH
2145	Lawrence	87	OH
2146	Licking	89	OH
2147	Logan	91	OH
2148	Lorain	93	OH
2149	Lucas	95	OH
2150	Madison	97	OH
2151	Mahoning	99	OH
2152	Marion	101	OH
2153	Medina	103	OH
2154	Meigs	105	OH
2155	Mercer	107	OH
2156	Miami	109	OH
2157	Monroe	111	OH
2158	Montgomery	113	OH
2159	Morgan	115	OH
2160	Morrow	117	OH
2161	Muskingum	119	OH
2162	Noble	121	OH
2163	Ottawa	123	OH
2164	Paulding	125	OH
2165	Perry	127	OH
2166	Pickaway	129	OH
2167	Pike	131	OH
2168	Portage	133	OH
2169	Preble	135	OH

luCounty—Continued

County ID	County	County FIPSCode	State Code
2170	Putnam	137	OH
2171	Richland	139	OH
2172	Ross	141	OH
2173	Sandusky	143	OH
2174	Scioto	145	OH
2175	Seneca	147	OH
2176	Shelby	149	OH
2177	Stark	151	OH
2178	Summit	153	OH
2179	Trumbull	155	OH
2180	Tuscarawas	157	OH
2181	Union	159	OH
2182	Van Wert	161	OH
2183	Vinton	163	OH
2184	Warren	165	OH
2185	Washington	167	OH
2186	Wayne	169	OH
2187	Williams	171	OH
2188	Wood	173	OH
2189	Wyandot	175	OH
2190	Adair	1	OK
2191	Alfalfa	3	OK
2192	Atoka	5	OK
2193	Beaver	7	OK
2194	Beckham	9	OK
2195	Blaine	11	OK
2196	Bryan	13	OK
2197	Caddo	15	OK
2198	Canadian	17	OK
2199	Carter	19	OK
2200	Cherokee	21	OK
2201	Choctaw	23	OK
2202	Cimarron	25	OK
2203	Cleveland	27	OK
2204	Coal	29	OK
2205	Comanche	31	OK
2206	Cotton	33	OK
2207	Craig	35	OK
2208	Creek	37	OK
2209	Custer	39	OK
2210	Delaware	41	OK
2211	Dewey	43	OK
2212	Ellis	45	OK
2213	Garfield	47	OK

luCounty—Continued

County ID	County	County FIPSCode	State Code
2214	Garvin	49	OK
2215	Grady	51	OK
2216	Grant	53	OK
2217	Greer	55	OK
2218	Harmon	57	OK
2219	Harper	59	OK
2220	Haskell	61	OK
2221	Hughes	63	OK
2222	Jackson	65	OK
2223	Jefferson	67	OK
2224	Johnston	69	OK
2225	Kay	71	OK
2226	Kingfisher	73	OK
2227	Kiowa	75	OK
2228	Latimer	77	OK
2229	Le Flore	79	OK
2230	Lincoln	81	OK
2231	Logan	83	OK
2232	Love	85	OK
2233	McClain	87	OK
2234	McCurtain	89	OK
2235	McIntosh	91	OK
2236	Major	93	OK
2237	Marshall	95	OK
2238	Mayes	97	OK
2239	Murray	99	OK
2240	Muskogee	101	OK
2241	Noble	103	OK
2242	Nowata	105	OK
2243	Okfuskee	107	OK
2244	Oklahoma	109	OK
2245	Okmulgee	111	OK
2246	Osage	113	OK
2247	Ottawa	115	OK
2248	Pawnee	117	OK
2249	Payne	119	OK
2250	Pittsburg	121	OK
2251	Pontotoc	123	OK
2252	Pottawatomie	125	OK
2253	Pushmataha	127	OK
2254	Roger Mills	129	OK
2255	Rogers	131	OK
2256	Seminole	133	OK
2257	Sequoyah	135	OK

luCounty—Continued

County ID	County	County FIPSCode	State Code
2258	Stephens	137	OK
2259	Texas	139	OK
2260	Tillman	141	OK
2261	Tulsa	143	OK
2262	Wagoner	145	OK
2263	Washington	147	OK
2264	Washita	149	OK
2265	Woods	151	OK
2266	Woodward	153	OK
2267	Baker	1	OR
2268	Benton	3	OR
2269	Clackamas	5	OR
2270	Clatsop	7	OR
2271	Columbia	9	OR
2272	Coos	11	OR
2273	Crook	13	OR
2274	Curry	15	OR
2275	Deschutes	17	OR
2276	Douglas	19	OR
2277	Gilliam	21	OR
2278	Grant	23	OR
2279	Harney	25	OR
2280	Hood River	27	OR
2281	Jackson	29	OR
2282	Jefferson	31	OR
2283	Josephine	33	OR
2284	Klamath	35	OR
2285	Lake	37	OR
2286	Lane	39	OR
2287	Lincoln	41	OR
2288	Linn	43	OR
2289	Malheur	45	OR
2290	Marion	47	OR
2291	Morrow	49	OR
2292	Multnomah	51	OR
2293	Polk	53	OR
2294	Sherman	55	OR
2295	Tillamook	57	OR
2296	Umatilla	59	OR
2297	Union	61	OR
2298	Wallowa	63	OR
2299	Wasco	65	OR
2300	Washington	67	OR
2301	Wheeler	69	OR

luCounty—Continued

County ID	County	County FIPSCode	State Code
2302	Yamhill	71	OR
2303	Adams	1	PA
2304	Allegheny	3	PA
2305	Armstrong	5	PA
2306	Beaver	7	PA
2307	Bedford	9	PA
2308	Berks	11	PA
2309	Blair	13	PA
2310	Bradford	15	PA
2311	Bucks	17	PA
2312	Butler	19	PA
2313	Cambria	21	PA
2314	Cameron	23	PA
2315	Carbon	25	PA
2316	Centre	27	PA
2317	Chester	29	PA
2318	Clarion	31	PA
2319	Clearfield	33	PA
2320	Clinton	35	PA
2321	Columbia	37	PA
2322	Crawford	39	PA
2323	Cumberland	41	PA
2324	Dauphin	43	PA
2325	Delaware	45	PA
2326	Elk	47	PA
2327	Erie	49	PA
2328	Fayette	51	PA
2329	Forest	53	PA
2330	Franklin	55	PA
2331	Fulton	57	PA
2332	Greene	59	PA
2333	Huntingdon	61	PA
2334	Indiana	63	PA
2335	Jefferson	65	PA
2336	Juniata	67	PA
2337	Lackawanna	69	PA
2338	Lancaster	71	PA
2339	Lawrence	73	PA
2340	Lebanon	75	PA
2341	Lehigh	77	PA
2342	Luzerne	79	PA
2343	Lycoming	81	PA
2344	McKean	83	PA
2345	Mercer	85	PA

luCounty—Continued

County ID	County	County FIPSCode	State Code
2346	Mifflin	87	PA
2347	Monroe	89	PA
2348	Montgomery	91	PA
2349	Montour	93	PA
2350	Northampton	95	PA
2351	Northumberland	97	PA
2352	Perry	99	PA
2353	Philadelphia	101	PA
2354	Pike	103	PA
2355	Potter	105	PA
2356	Schuylkill	107	PA
2357	Snyder	109	PA
2358	Somerset	111	PA
2359	Sullivan	113	PA
2360	Susquehanna	115	PA
2361	Tioga	117	PA
2362	Union	119	PA
2363	Venango	121	PA
2364	Warren	123	PA
2365	Washington	125	PA
2366	Wayne	127	PA
2367	Westmoreland	129	PA
2368	Wyoming	131	PA
2369	York	133	PA
2370	Bristol	1	RI
2371	Kent	3	RI
2372	Newport	5	RI
2373	Providence	7	RI
2374	Washington	9	RI
2375	Abbeville	1	SC
2376	Aiken	3	SC
2377	Allendale	5	SC
2378	Anderson	7	SC
2379	Bamberg	9	SC
2380	Barnwell	11	SC
2381	Beaufort	13	SC
2382	Berkeley	15	SC
2383	Calhoun	17	SC
2384	Charleston	19	SC
2385	Cherokee	21	SC
2386	Chester	23	SC
2387	Chesterfield	25	SC
2388	Clarendon	27	SC
2389	Colleton	29	SC

luCounty—Continued

County ID	County	County FIPSCode	State Code
2390	Darlington	31	SC
2391	Dillon	33	SC
2392	Dorchester	35	SC
2393	Edgefield	37	SC
2394	Fairfield	39	SC
2395	Florence	41	SC
2396	Georgetown	43	SC
2397	Greenville	45	SC
2398	Greenwood	47	SC
2399	Hampton	49	SC
2400	Horry	51	SC
2401	Jasper	53	SC
2402	Kershaw	55	SC
2403	Lancaster	57	SC
2404	Laurens	59	SC
2405	Lee	61	SC
2406	Lexington	63	SC
2407	McCormick	65	SC
2408	Marion	67	SC
2409	Marlboro	69	SC
2410	Newberry	71	SC
2411	Oconee	73	SC
2412	Orangeburg	75	SC
2413	Pickens	77	SC
2414	Richland	79	SC
2415	Saluda	81	SC
2416	Spartanburg	83	SC
2417	Sumter	85	SC
2418	Union	87	SC
2419	Williamsburg	89	SC
2420	York	91	SC
2421	Aurora	3	SD
2422	Beadle	5	SD
2423	Bennett	7	SD
2424	Bon Homme	9	SD
2425	Brookings	11	SD
2426	Brown	13	SD
2427	Brule	15	SD
2428	Buffalo	17	SD
2429	Butte	19	SD
2430	Campbell	21	SD
2431	Charles Mix	23	SD
2432	Clark	25	SD
2433	Clay	27	SD

luCounty—Continued

County ID	County	County FIPSCode	State Code
2434	Codington	29	SD
2435	Corson	31	SD
2436	Custer	33	SD
2437	Davison	35	SD
2438	Day	37	SD
2439	Deuel	39	SD
2440	Dewey	41	SD
2441	Douglas	43	SD
2442	Edmunds	45	SD
2443	Fall River	47	SD
2444	Faulk	49	SD
2445	Grant	51	SD
2446	Gregory	53	SD
2447	Haakon	55	SD
2448	Hamlin	57	SD
2449	Hand	59	SD
2450	Hanson	61	SD
2451	Harding	63	SD
2452	Hughes	65	SD
2453	Hutchinson	67	SD
2454	Hyde	69	SD
2455	Jackson	71	SD
2456	Jerauld	73	SD
2457	Jones	75	SD
2458	Kingsbury	77	SD
2459	Lake	79	SD
2460	Lawrence	81	SD
2461	Lincoln	83	SD
2462	Lyman	85	SD
2463	McCook	87	SD
2464	McPherson	89	SD
2465	Marshall	91	SD
2466	Meade	93	SD
2467	Mellette	95	SD
2468	Miner	97	SD
2469	Minnehaha	99	SD
2470	Moody	101	SD
2471	Pennington	103	SD
2472	Perkins	105	SD
2473	Potter	107	SD
2474	Roberts	109	SD
2475	Sanborn	111	SD
2476	Shannon	113	SD
2477	Spink	115	SD

luCounty—Continued

County ID	County	County FIPSCode	State Code
2478	Stanley	117	SD
2479	Sully	119	SD
2480	Todd	121	SD
2481	Tripp	123	SD
2482	Turner	125	SD
2483	Union	127	SD
2484	Walworth	129	SD
2485	Yankton	135	SD
2486	Ziebach	137	SD
2487	Anderson	1	TN
2488	Bedford	3	TN
2489	Benton	5	TN
2490	Bledsoe	7	TN
2491	Blount	9	TN
2492	Bradley	11	TN
2493	Campbell	13	TN
2494	Cannon	15	TN
2495	Carroll	17	TN
2496	Carter	19	TN
2497	Cheatham	21	TN
2498	Chester	23	TN
2499	Claiborne	25	TN
2500	Clay	27	TN
2501	Cocke	29	TN
2502	Coffee	31	TN
2503	Crockett	33	TN
2504	Cumberland	35	TN
2505	Davidson	37	TN
2506	Decatur	39	TN
2507	DeKalb	41	TN
2508	Dickson	43	TN
2509	Dyer	45	TN
2510	Fayette	47	TN
2511	Fentress	49	TN
2512	Franklin	51	TN
2513	Gibson	53	TN
2514	Giles	55	TN
2515	Grainger	57	TN
2516	Greene	59	TN
2517	Grundy	61	TN
2518	Hamblen	63	TN
2519	Hamilton	65	TN
2520	Hancock	67	TN
2521	Hardeman	69	TN

luCounty—Continued

County ID	County	County FIPSCode	State Code
2522	Hardin	71	TN
2523	Hawkins	73	TN
2524	Haywood	75	TN
2525	Henderson	77	TN
2526	Henry	79	TN
2527	Hickman	81	TN
2528	Houston	83	TN
2529	Humphreys	85	TN
2530	Jackson	87	TN
2531	Jefferson	89	TN
2532	Johnson	91	TN
2533	Knox	93	TN
2534	Lake	95	TN
2535	Lauderdale	97	TN
2536	Lawrence	99	TN
2537	Lewis	101	TN
2538	Lincoln	103	TN
2539	Loudon	105	TN
2540	McMinn	107	TN
2541	McNairy	109	TN
2542	Macon	111	TN
2543	Madison	113	TN
2544	Marion	115	TN
2545	Marshall	117	TN
2546	Maury	119	TN
2547	Meigs	121	TN
2548	Monroe	123	TN
2549	Montgomery	125	TN
2550	Moore	127	TN
2551	Morgan	129	TN
2552	Obion	131	TN
2553	Overton	133	TN
2554	Perry	135	TN
2555	Pickett	137	TN
2556	Polk	139	TN
2557	Putnam	141	TN
2558	Rhea	143	TN
2559	Roane	145	TN
2560	Robertson	147	TN
2561	Rutherford	149	TN
2562	Scott	151	TN
2563	Sequatchie	153	TN
2564	Sevier	155	TN
2565	Shelby	157	TN

luCounty—Continued

County ID	County	County FIPSCode	State Code
2566	Smith	159	TN
2567	Stewart	161	TN
2568	Sullivan	163	TN
2569	Sumner	165	TN
2570	Tipton	167	TN
2571	Trousdale	169	TN
2572	Unicoi	171	TN
2573	Union	173	TN
2574	Van Buren	175	TN
2575	Warren	177	TN
2576	Washington	179	TN
2577	Wayne	181	TN
2578	Weakley	183	TN
2579	White	185	TN
2580	Williamson	187	TN
2581	Wilson	189	TN
2582	Anderson	1	TX
2583	Andrews	3	TX
2584	Angelina	5	TX
2585	Aransas	7	TX
2586	Archer	9	TX
2587	Armstrong	11	TX
2588	Atascosa	13	TX
2589	Austin	15	TX
2590	Bailey	17	TX
2591	Bandera	19	TX
2592	Bastrop	21	TX
2593	Baylor	23	TX
2594	Bee	25	TX
2595	Bell	27	TX
2596	Bexar	29	TX
2597	Blanco	31	TX
2598	Borden	33	TX
2599	Bosque	35	TX
2600	Bowie	37	TX
2601	Brazoria	39	TX
2602	Brazos	41	TX
2603	Brewster	43	TX
2604	Briscoe	45	TX
2605	Brooks	47	TX
2606	Brown	49	TX
2607	Burleson	51	TX
2608	Burnet	53	TX
2609	Caldwell	55	TX

luCounty—Continued

County ID	County	County FIPSCode	State Code
2610	Calhoun	57	TX
2611	Callahan	59	TX
2612	Cameron	61	TX
2613	Camp	63	TX
2614	Carson	65	TX
2615	Cass	67	TX
2616	Castro	69	TX
2617	Chambers	71	TX
2618	Cherokee	73	TX
2619	Childress	75	TX
2620	Clay	77	TX
2621	Cochran	79	TX
2622	Coke	81	TX
2623	Coleman	83	TX
2624	Collin	85	TX
2625	Collingsworth	87	TX
2626	Colorado	89	TX
2627	Comal	91	TX
2628	Comanche	93	TX
2629	Concho	95	TX
2630	Cooke	97	TX
2631	Coryell	99	TX
2632	Cottle	101	TX
2633	Crane	103	TX
2634	Crockett	105	TX
2635	Crosby	107	TX
2636	Culberson	109	TX
2637	Dallam	111	TX
2638	Dallas	113	TX
2639	Dawson	115	TX
2640	Deaf Smith	117	TX
2641	Delta	119	TX
2642	Denton	121	TX
2643	DeWitt	123	TX
2644	Dickens	125	TX
2645	Dimmit	127	TX
2646	Donley	129	TX
2647	Duval	131	TX
2648	Eastland	133	TX
2649	Ector	135	TX
2650	Edwards	137	TX
2651	Ellis	139	TX
2652	El Paso	141	TX
2653	Erath	143	TX

luCounty—Continued

County ID	County	County FIPSCode	State Code
2654	Falls	145	TX
2655	Fannin	147	TX
2656	Fayette	149	TX
2657	Fisher	151	TX
2658	Floyd	153	TX
2659	Foard	155	TX
2660	Fort Bend	157	TX
2661	Franklin	159	TX
2662	Freestone	161	TX
2663	Frio	163	TX
2664	Gaines	165	TX
2665	Galveston	167	TX
2666	Garza	169	TX
2667	Gillespie	171	TX
2668	Glasscock	173	TX
2669	Goliad	175	TX
2670	Gonzales	177	TX
2671	Gray	179	TX
2672	Grayson	181	TX
2673	Gregg	183	TX
2674	Grimes	185	TX
2675	Guadalupe	187	TX
2676	Hale	189	TX
2677	Hall	191	TX
2678	Hamilton	193	TX
2679	Hansford	195	TX
2680	Hardeman	197	TX
2681	Hardin	199	TX
2682	Harris	201	TX
2683	Harrison	203	TX
2684	Hartley	205	TX
2685	Haskell	207	TX
2686	Hays	209	TX
2687	Hemphill	211	TX
2688	Henderson	213	TX
2689	Hidalgo	215	TX
2690	Hill	217	TX
2691	Hockley	219	TX
2692	Hood	221	TX
2693	Hopkins	223	TX
2694	Houston	225	TX
2695	Howard	227	TX
2696	Hudspeth	229	TX
2697	Hunt	231	TX

luCounty—Continued

County ID	County	County FIPSCode	State Code
2698	Hutchinson	233	TX
2699	Irion	235	TX
2700	Jack	237	TX
2701	Jackson	239	TX
2702	Jasper	241	TX
2703	Jeff Davis	243	TX
2704	Jefferson	245	TX
2705	Jim Hogg	247	TX
2706	Jim Wells	249	TX
2707	Johnson	251	TX
2708	Jones	253	TX
2709	Karnes	255	TX
2710	Kaufman	257	TX
2711	Kendall	259	TX
2712	Kenedy	261	TX
2713	Kent	263	TX
2714	Kerr	265	TX
2715	Kimble	267	TX
2716	King	269	TX
2717	Kinney	271	TX
2718	Kleberg	273	TX
2719	Knox	275	TX
2720	Lamar	277	TX
2721	Lamb	279	TX
2722	Lampasas	281	TX
2723	La Salle	283	TX
2724	Lavaca	285	TX
2725	Lee	287	TX
2726	Leon	289	TX
2727	Liberty	291	TX
2728	Limestone	293	TX
2729	Lipscomb	295	TX
2730	Live Oak	297	TX
2731	Llano	299	TX
2732	Loving	301	TX
2733	Lubbock	303	TX
2734	Lynn	305	TX
2735	McCulloch	307	TX
2736	McLennan	309	TX
2737	McMullen	311	TX
2738	Madison	313	TX
2739	Marion	315	TX
2740	Martin	317	TX
2741	Mason	319	TX

luCounty—Continued

County ID	County	County FIPSCode	State Code
2742	Matagorda	321	TX
2743	Maverick	323	TX
2744	Medina	325	TX
2745	Menard	327	TX
2746	Midland	329	TX
2747	Milam	331	TX
2748	Mills	333	TX
2749	Mitchell	335	TX
2750	Montague	337	TX
2751	Montgomery	339	TX
2752	Moore	341	TX
2753	Morris	343	TX
2754	Motley	345	TX
2755	Nacogdoches	347	TX
2756	Navarro	349	TX
2757	Newton	351	TX
2758	Nolan	353	TX
2759	Nueces	355	TX
2760	Ochiltree	357	TX
2761	Oldham	359	TX
2762	Orange	361	TX
2763	Palo Pinto	363	TX
2764	Panola	365	TX
2765	Parker	367	TX
2766	Parmer	369	TX
2767	Pecos	371	TX
2768	Polk	373	TX
2769	Potter	375	TX
2770	Presidio	377	TX
2771	Rains	379	TX
2772	Randall	381	TX
2773	Reagan	383	TX
2774	Real	385	TX
2775	Red River	387	TX
2776	Reeves	389	TX
2777	Refugio	391	TX
2778	Roberts	393	TX
2779	Robertson	395	TX
2780	Rockwall	397	TX
2781	Runnels	399	TX
2782	Rusk	401	TX
2783	Sabine	403	TX
2784	San Augustine	405	TX
2785	San Jacinto	407	TX

luCounty—Continued

County ID	County	County FIPSCode	State Code
2786	San Patricio	409	TX
2787	San Saba	411	TX
2788	Schleicher	413	TX
2789	Scurry	415	TX
2790	Shackelford	417	TX
2791	Shelby	419	TX
2792	Sherman	421	TX
2793	Smith	423	TX
2794	Somervell	425	TX
2795	Starr	427	TX
2796	Stephens	429	TX
2797	Sterling	431	TX
2798	Stonewall	433	TX
2799	Sutton	435	TX
2800	Swisher	437	TX
2801	Tarrant	439	TX
2802	Taylor	441	TX
2803	Terrell	443	TX
2804	Terry	445	TX
2805	Throckmorton	447	TX
2806	Titus	449	TX
2807	Tom Green	451	TX
2808	Travis	453	TX
2809	Trinity	455	TX
2810	Tyler	457	TX
2811	Upshur	459	TX
2812	Upton	461	TX
2813	Uvalde	463	TX
2814	Val Verde	465	TX
2815	Van Zandt	467	TX
2816	Victoria	469	TX
2817	Walker	471	TX
2818	Waller	473	TX
2819	Ward	475	TX
2820	Washington	477	TX
2821	Webb	479	TX
2822	Wharton	481	TX
2823	Wheeler	483	TX
2824	Wichita	485	TX
2825	Wilbarger	487	TX
2826	Willacy	489	TX
2827	Williamson	491	TX
2828	Wilson	493	TX
2829	Winkler	495	TX

luCounty—Continued

County ID	County	County FIPSCode	State Code
2830	Wise	497	TX
2831	Wood	499	TX
2832	Yoakum	501	TX
2833	Young	503	TX
2834	Zapata	505	TX
2835	Zavala	507	TX
2836	Beaver	1	UT
2837	Box Elder	3	UT
2838	Cache	5	UT
2839	Carbon	7	UT
2840	Daggett	9	UT
2841	Davis	11	UT
2842	Duchesne	13	UT
2843	Emery	15	UT
2844	Garfield	17	UT
2845	Grand	19	UT
2846	Iron	21	UT
2847	Juab	23	UT
2848	Kane	25	UT
2849	Millard	27	UT
2850	Morgan	29	UT
2851	Piute	31	UT
2852	Rich	33	UT
2853	Salt Lake	35	UT
2854	San Juan	37	UT
2855	Sanpete	39	UT
2856	Sevier	41	UT
2857	Summit	43	UT
2858	Tooele	45	UT
2859	Uintah	47	UT
2860	Utah	49	UT
2861	Wasatch	51	UT
2862	Washington	53	UT
2863	Wayne	55	UT
2864	Weber	57	UT
2865	Addison	1	VT
2866	Bennington	3	VT
2867	Caledonia	5	VT
2868	Chittenden	7	VT
2869	Essex	9	VT
2870	Franklin	11	VT
2871	Grand Isle	13	VT
2872	Lamoille	15	VT
2873	Orange	17	VT

luCounty—Continued

County ID	County	County FIPSCode	State Code
2874	Orleans	19	VT
2875	Rutland	21	VT
2876	Washington	23	VT
2877	Windham	25	VT
2878	Windsor	27	VT
2879	Accomack	1	VA
2880	Albemarle	3	VA
2881	Alleghany	5	VA
2882	Amelia	7	VA
2883	Amherst	9	VA
2884	Appomattox	11	VA
2885	Arlington	13	VA
2886	Augusta	15	VA
2887	Bath	17	VA
2888	Bedford	19	VA
2889	Bland	21	VA
2890	Botetourt	23	VA
2891	Brunswick	25	VA
2892	Buchanan	27	VA
2893	Buckingham	29	VA
2894	Campbell	31	VA
2895	Caroline	33	VA
2896	Carroll	35	VA
2897	Charles City	36	VA
2898	Charlotte	37	VA
2899	Chesterfield	41	VA
2900	Clarke	43	VA
2901	Craig	45	VA
2902	Culpeper	47	VA
2903	Cumberland	49	VA
2904	Dickenson	51	VA
2905	Dinwiddie	53	VA
2906	Essex	57	VA
2907	Fairfax	59	VA
2908	Fauquier	61	VA
2909	Floyd	63	VA
2910	Fluvanna	65	VA
2911	Franklin	67	VA
2912	Frederick	69	VA
2913	Giles	71	VA
2914	Gloucester	73	VA
2915	Goochland	75	VA
2916	Grayson	77	VA
2917	Greene	79	VA

luCounty—Continued

County ID	County	County FIPSCode	State Code
2918	Greensville	81	VA
2919	Halifax	83	VA
2920	Hanover	85	VA
2921	Henrico	87	VA
2922	Henry	89	VA
2923	Highland	91	VA
2924	Isle of Wight	93	VA
2925	James City	95	VA
2926	King and Queen	97	VA
2927	King George	99	VA
2928	King William	101	VA
2929	Lancaster	103	VA
2930	Lee	105	VA
2931	Loudoun	107	VA
2932	Louisa	109	VA
2933	Lunenburg	111	VA
2934	Madison	113	VA
2935	Mathews	115	VA
2936	Mecklenburg	117	VA
2937	Middlesex	119	VA
2938	Montgomery	121	VA
2939	Nelson	125	VA
2940	New Kent	127	VA
2941	Northampton	131	VA
2942	Northumberland	133	VA
2943	Nottoway	135	VA
2944	Orange	137	VA
2945	Page	139	VA
2946	Patrick	141	VA
2947	Pittsylvania	143	VA
2948	Powhatan	145	VA
2949	Prince Edward	147	VA
2950	Prince George	149	VA
2951	Prince William	153	VA
2952	Pulaski	155	VA
2953	Rappahannock	157	VA
2954	Richmond	159	VA
2955	Roanoke	161	VA
2956	Rockbridge	163	VA
2957	Rockingham	165	VA
2958	Russell	167	VA
2959	Scott	169	VA
2960	Shenandoah	171	VA
2961	Smyth	173	VA

luCounty—Continued

County ID	County	County FIPSCode	State Code
2962	Southampton	175	VA
2963	Spotsylvania	177	VA
2964	Stafford	179	VA
2965	Surry	181	VA
2966	Sussex	183	VA
2967	Tazewell	185	VA
2968	Warren	187	VA
2969	Washington	191	VA
2970	Westmoreland	193	VA
2971	Wise	195	VA
2972	Wythe	197	VA
2973	York	199	VA
2974	Alexandria city	510	VA
2975	Bedford city	515	VA
2976	Bristol city	520	VA
2977	Buena Vista city	530	VA
2978	Charlottesville city	540	VA
2979	Chesapeake city	550	VA
2980	Colonial Heights city	570	VA
2981	Covington city	580	VA
2982	Danville city	590	VA
2983	Emporia city	595	VA
2984	Fairfax city	600	VA
2985	Falls Church city	610	VA
2986	Franklin city	620	VA
2987	Fredericksburg city	630	VA
2988	Galax city	640	VA
2989	Hampton city	650	VA
2990	Harrisonburg city	660	VA
2991	Hopewell city	670	VA
2992	Lexington city	678	VA
2993	Lynchburg city	680	VA
2994	Manassas city	683	VA
2995	Manassas Park city	685	VA
2996	Martinsville city	690	VA
2997	Newport News city	700	VA
2998	Norfolk city	710	VA
2999	Norton city	720	VA
3000	Petersburg city	730	VA
3001	Poquoson city	735	VA
3002	Portsmouth city	740	VA
3003	Radford city	750	VA
3004	Richmond city	760	VA
3005	Roanoke city	770	VA

luCounty—Continued

County ID	County	County FIPSCode	State Code
3006	Salem city	775	VA
3007	Staunton city	790	VA
3008	Suffolk city	800	VA
3009	Virginia Beach city	810	VA
3010	Waynesboro city	820	VA
3011	Williamsburg city	830	VA
3012	Winchester city	840	VA
3013	Adams	1	WA
3014	Asotin	3	WA
3015	Benton	5	WA
3016	Chelan	7	WA
3017	Clallam	9	WA
3018	Clark	11	WA
3019	Columbia	13	WA
3020	Cowlitz	15	WA
3021	Douglas	17	WA
3022	Ferry	19	WA
3023	Franklin	21	WA
3024	Garfield	23	WA
3025	Grant	25	WA
3026	Grays Harbor	27	WA
3027	Island	29	WA
3028	Jefferson	31	WA
3029	King	33	WA
3030	Kitsap	35	WA
3031	Kittitas	37	WA
3032	Klickitat	39	WA
3033	Lewis	41	WA
3034	Lincoln	43	WA
3035	Mason	45	WA
3036	Okanogan	47	WA
3037	Pacific	49	WA
3038	Pend Oreille	51	WA
3039	Pierce	53	WA
3040	San Juan	55	WA
3041	Skagit	57	WA
3042	Skamania	59	WA
3043	Snohomish	61	WA
3044	Spokane	63	WA
3045	Stevens	65	WA
3046	Thurston	67	WA
3047	Wahkiakum	69	WA
3048	Walla Walla	71	WA
3049	Whatcom	73	WA

luCounty—Continued

County ID	County	County FIPSCode	State Code
3050	Whitman	75	WA
3051	Yakima	77	WA
3052	Barbour	1	WV
3053	Berkeley	3	WV
3054	Boone	5	WV
3055	Braxton	7	WV
3056	Brooke	9	WV
3057	Cabell	11	WV
3058	Calhoun	13	WV
3059	Clay	15	WV
3060	Doddridge	17	WV
3061	Fayette	19	WV
3062	Gilmer	21	WV
3063	Grant	23	WV
3064	Greenbrier	25	WV
3065	Hampshire	27	WV
3066	Hancock	29	WV
3067	Hardy	31	WV
3068	Harrison	33	WV
3069	Jackson	35	WV
3070	Jefferson	37	WV
3071	Kanawha	39	WV
3072	Lewis	41	WV
3073	Lincoln	43	WV
3074	Logan	45	WV
3075	McDowell	47	WV
3076	Marion	49	WV
3077	Marshall	51	WV
3078	Mason	53	WV
3079	Mercer	55	WV
3080	Mineral	57	WV
3081	Mingo	59	WV
3082	Monongalia	61	WV
3083	Monroe	63	WV
3084	Morgan	65	WV
3085	Nicholas	67	WV
3086	Ohio	69	WV
3087	Pendleton	71	WV
3088	Pleasants	73	WV
3089	Pocahontas	75	WV
3090	Preston	77	WV
3091	Putnam	79	WV
3092	Raleigh	81	WV
3093	Randolph	83	WV

luCounty—Continued

County ID	County	County FIPSCode	State Code
3094	Ritchie	85	WV
3095	Roane	87	WV
3096	Summers	89	WV
3097	Taylor	91	WV
3098	Tucker	93	WV
3099	Tyler	95	WV
3100	Upshur	97	WV
3101	Wayne	99	WV
3102	Webster	101	WV
3103	Wetzel	103	WV
3104	Wirt	105	WV
3105	Wood	107	WV
3106	Wyoming	109	WV
3107	Adams	1	WI
3108	Ashland	3	WI
3109	Barron	5	WI
3110	Bayfield	7	WI
3111	Brown	9	WI
3112	Buffalo	11	WI
3113	Burnett	13	WI
3114	Calumet	15	WI
3115	Chippewa	17	WI
3116	Clark	19	WI
3117	Columbia	21	WI
3118	Crawford	23	WI
3119	Dane	25	WI
3120	Dodge	27	WI
3121	Door	29	WI
3122	Douglas	31	WI
3123	Dunn	33	WI
3124	Eau Claire	35	WI
3125	Florence	37	WI
3126	Fond du Lac	39	WI
3127	Forest	41	WI
3128	Grant	43	WI
3129	Green	45	WI
3130	Green Lake	47	WI
3131	Iowa	49	WI
3132	Iron	51	WI
3133	Jackson	53	WI
3134	Jefferson	55	WI
3135	Juneau	57	WI
3136	Kenosha	59	WI
3137	Kewaunee	61	WI

luCounty—Continued

County ID	County	County FIPSCode	State Code
3138	La Crosse	63	WI
3139	Lafayette	65	WI
3140	Langlade	67	WI
3141	Lincoln	69	WI
3142	Manitowoc	71	WI
3143	Marathon	73	WI
3144	Marinette	75	WI
3145	Marquette	77	WI
3146	Menominee	78	WI
3147	Milwaukee	79	WI
3148	Monroe	81	WI
3149	Oconto	83	WI
3150	Oneida	85	WI
3151	Outagamie	87	WI
3152	Ozaukee	89	WI
3153	Pepin	91	WI
3154	Pierce	93	WI
3155	Polk	95	WI
3156	Portage	97	WI
3157	Price	99	WI
3158	Racine	101	WI
3159	Richland	103	WI
3160	Rock	105	WI
3161	Rusk	107	WI
3162	St. Croix	109	WI
3163	Sauk	111	WI
3164	Sawyer	113	WI
3165	Shawano	115	WI
3166	Sheboygan	117	WI
3167	Taylor	119	WI
3168	Trempealeau	121	WI
3169	Vernon	123	WI
3170	Vilas	125	WI
3171	Walworth	127	WI
3172	Washburn	129	WI
3173	Washington	131	WI
3174	Waukesha	133	WI
3175	Waupaca	135	WI
3176	Waushara	137	WI
3177	Winnebago	139	WI
3178	Wood	141	WI
3179	Albany	1	WY
3180	Big Horn	3	WY
3181	Campbell	5	WY

luCounty—Continued

County ID	County	County FIPSCode	State Code
3182	Carbon	7	WY
3183	Converse	9	WY
3184	Crook	11	WY
3185	Fremont	13	WY
3186	Goshen	15	WY
3187	Hot Springs	17	WY
3188	Johnson	19	WY
3189	Laramie	21	WY
3190	Lincoln	23	WY
3191	Natrona	25	WY
3192	Niobrara	27	WY
3193	Park	29	WY
3194	Platte	31	WY
3195	Sheridan	33	WY
3196	Sublette	35	WY
3197	Sweetwater	37	WY
3198	Teton	39	WY
3199	Uinta	41	WY
3200	Washakie	43	WY
3201	Weston	45	WY
3202	Eastern District	10	AS
3203	Manu'a District	20	AS
3204	Rose Island	30	AS
3205	Swains Island	40	AS
3206	Western District	50	AS
3207	Guam	10	GU
3208	Northern Islands	85	MP
3209	Rota	100	MP
3210	Saipan	110	MP
3211	Tinian	120	MP
3212	Adjuntas	1	PR
3213	Aguada	3	PR
3214	Aguadilla	5	PR
3215	Aguas Buenas	7	PR
3216	Aibonito	9	PR
3217	Anasco	11	PR
3218	Arecibo	13	PR
3219	Arroyo	15	PR
3220	Barceloneta	17	PR
3221	Barranquitas	19	PR
3222	Bayamon	21	PR
3223	Cabo Rojo	23	PR
3224	Caguas	25	PR
3225	Camuy	27	PR

luCounty—Continued

County ID	County	County FIPSCode	State Code
3226	Canovanas	29	PR
3227	Carolina	31	PR
3228	Catano	33	PR
3229	Cayey	35	PR
3230	Ceiba	37	PR
3231	Ciales	39	PR
3232	Cidra	41	PR
3233	Coamo	43	PR
3234	Comerio	45	PR
3235	Corozal	47	PR
3236	Culebra	49	PR
3237	Dorado	51	PR
3238	Fajardo	53	PR
3239	Florida	54	PR
3240	Guanica	55	PR
3241	Guayama	57	PR
3242	Guayanilla	59	PR
3243	Guaynabo	61	PR
3244	Gurabo	63	PR
3245	Hatillo	65	PR
3246	Hormigueros	67	PR
3247	Humacao	69	PR
3248	Isabela	71	PR
3249	Jayuya	73	PR
3250	Juana Díaz	75	PR
3251	Juncos	77	PR
3252	Lajas	79	PR
3253	Lares	81	PR
3254	Las Marias	83	PR
3255	Las Piedras	85	PR
3256	Loiza	87	PR
3257	Luquillo	89	PR
3258	Manati	91	PR
3259	Maricao	93	PR
3260	Maunabo	95	PR
3261	Mayaguez	97	PR
3262	Moca	99	PR
3263	Morovis	101	PR
3264	Naguabo	103	PR

luCounty—Continued

County ID	County	County FIPSCode	State Code
3265	Naranjito	105	PR
3266	Orocovis	107	PR
3267	Patillas	109	PR
3268	Penuelas	111	PR
3269	Ponce	113	PR
3270	Quebradillas	115	PR
3271	Rincon	117	PR
3272	Rio Grande	119	PR
3273	Sabana Grande	121	PR
3274	Salinas	123	PR
3275	San German	125	PR
3276	San Juan	127	PR
3277	San Lorenzo	129	PR
3278	San Sebastian	131	PR
3279	Santa Isabel	133	PR
3280	Toa Alta	135	PR
3281	Toa Baja	137	PR
3282	Trujillo Alto	139	PR
3283	Utua	141	PR
3284	Vega Alta	143	PR
3285	Vega Baja	145	PR
3286	Vieques	147	PR
3287	Villalba	149	PR
3288	Yabucoa	151	PR
3289	Yauco	153	PR
3290	Midway Islands	300	UM
3291	St. Croix Island	10	VI
3292	St. John Island	20	VI
3293	St. Thomas Island	30	VI

luCurationStatus

CurationStatus
Discarded
No data
Processed
Unprocessed

luCWHRHabitat

CWHRHabitat Code	CWHRHabitat	CWHRHabitat GroupID	CWHRHab Desc
ADS	Alpine Dwarf-Shrub	9	
AGS	Annual Grass	14	
ASC	Alkali Desert Scrub	13	
ASP	Aspen	3	
BAR	Barren	22	
BBR	Bitterbrush	10	
BOP	Blue Oak-Foothill Pine	7	
BOW	Blue Oak Woodland	7	
COW	Coastal Oak Woodland	7	
CPC	Closed-Cone Pine-Cypress	6	
CRC	Chamise-Redshank Chaparral	11	
CSC	Coastal Scrub	12	
DFR	Douglas Fir	1	
DGR	Dryland Grain Crops	20	
DOR	Deciduous Orchard	21	
DRI	Desert Riparian	8	
DSC	Desert Scrub	13	
DSS	Desert Succulent Shrub	13	
DSW	Desert Wash	13	
EOR	Evergreen Orchard	21	
EPN	Eastside Pine	2	
EST	Estuarine	18	
EUC	Eucalyptus	21	
FEW	Fresh Emergent Wetland	15	
IGR	Irrigated Grain Crops	20	
IRF	Irrigated Row And Field Crops	20	
IRH	Irrigated Hayfield	20	
JPN	Jeffrey Pine	2	
JST	Joshua Tree	5	
JUN	Juniper	2	
KMC	Klamath Mixed Conifer	1	
LAC	Lacustrine	17	
LPN	Lodgepole Pine	3	
LSG	Low Sage	10	
MAR	Marine	19	
MCH	Mixed Chaparral	11	
MCP	Montane Chaparral	11	
MHC	Montane Hardwood-Conifer	4	
MHW	Montane Hardwood	4	
MRI	Montane Riparian	8	
PAS	Pasture	14	
PGS	Perennial Grass	14	
PJN	Pinyon-Juniper	5	
POS	Palm Oasis	8	

luCWHRHabitat—Continued

CWHRHabitat Code	CWHRHabitat	CWHRHabitat GroupID	CWHRHab Desc
PPN	Ponderosa Pine	4	
RDW	Redwood	1	
RFR	Red Fir	3	
RIC	Rice	20	
RIV	Riverine	16	
SCN	Subalpine Conifer	3	
SEW	Saline Emergent Wetland	15	
SGB	Sagebrush	10	
SMC	Sierran Mixed Conifer	4	
URB	Urban	22	
VIN	Vineyard	21	
VOW	Valley Oak Woodland	7	
VRI	Valley Foothill Riparian	8	
WFR	White Fir	4	
WTM	Wet Meadow	15	

luDensityUnit

DensityUnit
Acres
Hectares
Square feet
Square meters

luDetectionMethod

DetectionMethodID	DetectionMethodCode	DetectionMethod
1	H C	Heard calling
2	VIS	Visual
3	HND	Handled
4	H S	Heard singing
5	WHT	Whitting
6	TRK	Track
7	SCT	Scat
8	HAR	Hair
9	SIN	Miscellaneous sign
10	CAP	Captured
11	UNK	Unknown
12	DOG	Scent detected by dog
13	SAT	Satellite/Telemetry
14	VSA	Visual, aerial
15	VSL	Visual, land
16	RTS	Radio transmitter signal
17	H O	Heard, other
18	HAV	Heard and visually confirmed

luDirection

DirectionCode	Direction
E	East
N	North
NA	Not applicable
NE	Northeast
NW	Northwest
S	South
SE	Southeast
SW	Southwest
U	Unknown
W	West

luDisposition

Disposition
Alive
Dead
Moribund

luDistanceToType

Type
Geological feature
Other taxon observation
This observation from observer
Water

luEstMethod

EstMethod
Estimated
Measured
Previously known

luExtentInundation

ExtentInundation ID	ExtentInundation
0	0 percent dry
1	1~5 percent inundated
2	6~25 percent inundated
3	26~50 percent inundated
4	51~75 percent inundated
5	76~100 percent inundated

luFacilityType

FacilityTypeID	FacilityType	Description
1	Office building	
2	Restroom	
3	Parking lot	
4	Open space	
99	Other	

luFate

Fate
Collected
Escaped
Released

luFeatureType

FeatureType
Basking
Breeding
General suitability
Nesting

luFocalSpeciesPurpose

FocalSpeciesPurpose
Active management - control/remove
Active management - enhancement
Surveys - abundance
Surveys - inventory
Surveys - occupancy

luFreqofTravel

FrequencyTraveled
Closed
Daily
Monthly
Other
Unknown
Weekly
Yearly

luFundingAction

FundingActionID	FundingAction	Description
No values in look up table as of January 2021.		

luFundingType

FundingTypeID	FundingType
1	Transnet EMP Land Management Grant

luGender

GenderID	Gender	Description
1	Male	
2	Female	
3	Hermaphrodite	
4	Both	Male(s) and female(s) included
98	Not applicable	
99	Unknown	

luGroundCover

GroundCoverID	GroundCover	GroundCoverCode
1	None/Bare	N
3	Duff	D
4	Small slash	SS
5	Large slash	LS
6	Medium log	LM
7	Large log	LL
8	Annual grass	Ang
9	Perennial grass	Png
10	Forb	F
11	Pine straw	PS
12	Broad-leaved	BL
13	Woody/Bark	W
14	Shrubs and trees	ST

luHabitatFeatureType

HabitatFeatureTypeID	HabitatFeature Type	Description
1	Tunnel	Man-made shaft or tunnel below ground.
2	Cave	Natural subterranean hollow open to the surface.
3	Burrow	Subterranean tunnel dug, or significantly enhanced, by an animal.
4	Rocks	An area dominated by rocks.
5	Cliff	Vertical bare-rock area.
6	Ground surface	On the surface of the ground or in ground cover vegetation.
7	Mineral lick	A mineral-rich area used by animals for meeting dietary needs.
8	Duff layer	Layer of decomposing organic material below the surface of the ground but above the mineral soil.
9	Dead/Down wood	An area characterized by large amounts of dead and down woody debris.
10	Wallow	A muddy area used by animals for grooming
11	Lake/Pond	
12	Ditch/Roadside puddle/Rut	
13	Wetland/Vernal pool	
14	Spring/Seep	
15	Fen	
16	Wet meadow	
17	Swamp	
18	Creek/Brook/Stream/River	
19	Oxbow/Backwaters/ Floodplain	
20	Beaver pond	
21	Log	Associated with a dead part of the main stem of a tree which is lying on the ground (>8 inches diameter and >10 feet in length).
22	Shrub layer	In the shrub layer between the ground cover and the tree canopy.

luHabitatFeatureType—Continued

HabitatFeature TypeID	HabitatFeature Type	Description
23	Snag	A standing dead tree.
24	Tree base/Roots	In a hole at the base of a tree or entering down between the tree roots.
25	Tree chimney	Associated with a damaged interior of a tree which extends up and down the bole.
26	Tree bole/Cavity	Associated with the tree bole or a cavity in the bole.
27	Tree bole/Broken top	Associated with a broken top of the tree bole.
28	Tree limb	Associated with a tree limb.
29	Tree apex	The exposed, uppermost point of a tree.
30	Trail	A man-made path or abandoned road fit only for foot, horse, or bicycle traffic.
31	Road	A route used by motorized vehicles.
32	Manure	Manure
33	Litter	Litter
34	Bare ground	Bare ground
35	Plant	Plant
36	Rock	Rock
37	Stream pool	
38	Stream riffle	
39	Stream run	
40	Bay/Slough	
41	Open water	
42	Macrocystis	
43	Nereocystis	
44	Mixed	
45	Drift macrocystis	
46	Drift nereocystis	
47	Drift mixed	
48	Cystoseira/Egregia/Surfgrass	
49	Channel	
50	Cove	
51	Pool	
52	Waterfall	
53	Reservoir	
54	Discrete water body	
99	Other	

luHabitatObsVegContext

Context
Adjacent
Aquatic
Riparian
Upland

luHabitatVegetationType

HabitatVegetation TypeID	HabitatVegetation Type	HabitatVegetation TypeCode
1	Submerged aquatic vegetation	SAV
2	Emergents	E
3	Other herbaceous	O
4	Shrub/Sapling	Shr
5	Trees	T
6	Open ground	GND
7	Woody debris/Leaf litter	WL
8	Herbs-Forbs	HF
9	Non-native grass	NNG
10	Native bunch grass	NBG
11	Floating algal mat	FAM
12	Inhospitable	INH

luHabSuitability

HSID	Suitability
1	High quality
2	Suitable
3	Marginal
4	Not suitable

luHeightClass

HeightClass
Herb
Over 75cm
Shrub
Tree
Under 75cm

luLifeStage

LifeStageID	LifeStage	Description
1	Adult	Fully developed and sexually mature
4	Juvenile/Young	Not yet fully developed and sexually mature
6	Age Unknown	Age could not be determined
7	Egg/Embryo	A reproductive body consisting of an ovum together with its nutritive and protective envelopes and having the capacity to develop into a new individual capable of independent existence
8	Chick	The newly hatched young of any bird
9	Nestling	A young bird that has not abandoned the nest
10	Fledgling	A bird that is ready for flight or independent activity
12	Hatchling	A recently hatched animal
13	Larva	The early form of an animal that at birth or hatching is fundamentally unlike its parent and must metamorphose before assuming the adult characteristics

luHistoricalPresence

HistoricalPresence
Exotic
Invasive
Native

luIrrigationMethods

IrrigationMethodID	IrrigationMethod	Description
No values in look up table as of January 2021.		

luKeywordType

Type
ARMI keyword
ARMI place name
ARMI topic
ARMI website

luLandUse

LandUseID	LandUse	LandUseCode
1	Agriculture	A
2	Industrial	I
3	Woodland/Forest	W
4	Meadow/Marsh	M
5	Residential	R
98	Not applicable	NA
99	Unknown	U

LifeStage—Continued

LifeStageID	LifeStage	Description
15	Fry	A larval fish that has just absorbed its yolk sac and emerged from the gravel
16	Smolt	An anadromous fish that becomes silvery and migrates to the sea
17	Pre-metamorph	Just prior to metamorphosis; Gosner 36-41, hind limbs present, forelimbs not present
18	Pupa	The inactive stage in the metamorphosis of many insects
19	Metamorph	Metamorphosis is under way; Gosner 42-46, forelimbs emerge to complete metamorphosis
20	Post-metamorph	Recently metamorphosed
21	Subadult	
22	After hatching year	
23	Hatching year	
24	Second year	
25	Independent	Adult and subadult sea otter
26	Small pup	Small size, wooly pelage, unable to dive; sea otter
27	Large pup	Large size; sea otter
28	Larva, 2nd year	Larva that has overwintered
30	Gosner 1	Fertilization - embryo
31	Gosner 2	Gray crescent - embryo
32	Gosner 3	2-cell - embryo
33	Gosner 4	4-cell - embryo
34	Gosner 5	8-cell - embryo
35	Gosner 6	16-cell - embryo
36	Gosner 7	32-cell - embryo
37	Gosner 8	Midcleavage - embryo
38	Gosner 9	Late cleavage - embryo
39	Gosner 10	Dorsal lip - embryo
40	Gosner 11	Yolk plug - embryo
41	Gosner 12	Late gastrula - embryo
42	Gosner 13	Neural plate - embryo
43	Gosner 14	Neural folds - embryo
44	Gosner 15	Elongation, rotation - embryo
45	Gosner 16	Neural tube, gill plates - embryo
46	Gosner 17	Tail bud, adhesive gland - embryo
47	Gosner 18	Muscular response, olfactory pits - embryo
48	Gosner 19	Heartbeat, gill buds - embryo
49	Gosner 20	Gill circulation, tail elongation - hatchling
50	Gosner 21	Cornea transplant, mouth opens - hatchling
51	Gosner 22	Tail fins transparent, fin circulation - hatchling
52	Gosner 23	Labia and teeth differentiate, operculum covers gill bases - Hatchling
53	Gosner 24	External gills atrophy, operculum closes on right - hatchlings
54	Gosner 25	Mouthparts obvious, spiracle forms on left - hatchling
55	Gosner 26	L < .5 D - larvae
56	Gosner 27	L ≥ .5 D - larvae
57	Gosner 28	L ≥ D - larvae
58	Gosner 29	L ≥ 1.5 D - larvae
59	Gosner 30	L = 2D - larvae

luLifeStage—Continued

LifeStageID	LifeStage	Description
60	Gosner 31	Foot paddle - larvae
61	Gosner 32	Indentation 4-5 - larvae
62	Gosner 33	Indentation 3-4 - larvae
63	Gosner 34	Indentation 2-3 - larvae
64	Gosner 35	Indentation 1-2 - larvae
65	Gosner 36	Toes 3-5 separated - larvae
66	Gosner 37	All toes separated - larvae
67	Gosner 38	Metatarsal tubercle - larvae
68	Gosner 39	Subarticular patches - larvae
69	Gosner 40	Foot tubercles, vent tube present - larvae
70	Gosner 41	Forelimbs visible, mouthparts atrophy, vent tube gone - larvae
71	Gosner 42	Forelimbs emerge, mouth anterior to nostril - metamorph
72	Gosner 43	Mouth between nostril and eye, tail atrophies - metamorph
73	Gosner 44	Mouth beneath eye, tail greatly reduced - metamorph
74	Gosner 45	Mouth posterior to eye, tail stub - metamorph
75	Gosner 46	Tail resorbed, metamorphosis complete - metamorph
76	Stage 1 tadpole	Primarily Black
77	Stage 2 tadpole	Primarily tan with (no limbs)
78	Stage 3 tadpole	Primarily tan with limbs
79	Early Stage tadpole	
80	Mid Stage tadpole	
81	Late Stage tadpole	
97	Multiple stages	More than one of the life stages is included. Check notes for details.
98	Not applicable	
99	Unknown	

luLocationClass

Class	Type	EstError	MsgsPerSatellitePass
G	GPS	< 100m	1 message or more
L3	Argos	< 250m	4 messages or more
L2	Argos	250m < < 500m	4 messages or more
L1	Argos	500m < < 1500m	4 messages or more
L0	Argos	> 1500m	4 messages or more
LA	Argos	No accuracy estimation	3 messages
LB	Argos	No accuracy estimation	2 messages
LZ	Argos	Invalid location (for Service Plus/Auxiliary loc processing)	
DP		deployment	

luMaintPointType

MaintPointType	Description
No values in look up table as of January 2021.	

luMaintType

MaintTypeID	MaintType	Description
1	Fence	Vehicle barriers

luMaterialType

MaterialType ID	Material Type	Description
1	Steel	Rigid steel vehicle barriers

luMgtProjectStatus

Status	Description
Completed	
Started	
Started	

luMgtType

MgtTypeID	MgtType	Description
2	Access control	
3	Habitat restoration	

luMilestoneType

MilestoneTypeID	Description
No values in look up table as of January 2021.	

luMonitoringType

MonitoringTypeID	MonitoringType	Description
No values in look up table as of January 2021.		

luMoonPhase

MoonPhaseCode	MoonPhase
3Q	Three quarter
F	Full
H	Half
N	New
NA	Not applicable
NV	Not visible
Q	Quarter
U	Unknown
V	Visible

luMSCPLandDesignation

MSCPLandDesignation
Core
Corridor

luObGrowthForm

Supplier	ObGrowthForm	Notes
Annual grass		
Forb		
Forb/Herb		
Grass		
Herb		
Perennial Grass		
Shrub		
Shrub/Tree		
Tree		

luObsTiming

ObsTiming
End
Max
Mid
Min
NA
Start

luParameterType

Parameter
Abundance
Eggmass count
Occupancy

luPhenology

Phenology
Early
Late
Peak

luPhotoQuality

PhotoQualityID	PhotoQuality
1	High/Media
2	Medium/Presentation acceptable
3	Low/Documentation only

luPhotoType

PhotoTypeID	PhotoType
1	Original digital file
2	Duplicate digital file
3	Original color transparency
4	Duplicate color transparency
5	Original negative
6	Duplicate negative
7	Print
8	Xerox type copy or fax
9	Digital from film

luPlantingForm

PlantingFormID	PlantingForm	Description
No values in look up table as of January 2021.		

luPlantObDetailType

DetailType	Description
Individual	Single plant
Patch/Stand	Cohesive grouping of trees (stand) or a grouping of herbs, shrubs, succulents (patch)

luPlantSizeClass

PlantSizeClass
25
50
75
100
300
1000
1500

luPopulationDesignation

PopulationDesignation
Major
Minor

luPreservationMethod

PresMethodID	Description
1	95 percent EtOH
2	70 percent EtOH
3	Formalin

luPreservationMethod—Continued

PresMethodID	Description
4	Frozen
5	Desiccated
6	Pinned

luProjectCategory

ProjectCategory	Description
Data migration	These studies are related by inclusion within the same data migration effort.
Related by theme	These studies are related by a common scientific theme; such as by a common program or funding source.

luPubicSymphysis

PubSymID	Description
OPN	Open
SOP	Slightly open
CLS	Closed
UNK	Unknown

luRefugiaContext

Context
Aquatic
Bank

luRefugiaType

RefugiaType
Emergent veg
Floating material
Rock crevasses
Submergent veg
Tree roots
Undercuts
Woody debris

luRelativeAbundance

RelativeAbundance
Few
Many
None

luRemovalIntroductionValues

RemovalIntro ValueID	RemovalIntroduction Value	Description
No values in look up table as of January 2021.		

luReturnExpected

ReturnExpected
No
Returned
Yes

luRoadSurface

RoadSurfaceCode	RoadSurface	Description
1	Dry	Dry with only few moist patches
2	Damp	Damp with no draining or standing water
3	Wet	Wet with draining or standing water
4	Sheeting	Sheeting with water flowing off the surface

luRoadsTrailsAccess

Access
Other
Private
Public
Utility

luRoadsTrailsEdge

Edge
Curb
Fence
K-rail
None
Other

luRoadsTrailsType

Type
Dirt road
Firebreak
Gravel road
Paved road
Trail

luSedimentationChemical

Sedimentation ChemicalID	Sedimentation Chemical	Description
1	Aluminum to nearest 0.005 percent	NA
2	Antimony to nearest 0.10 µg/g	NA
3	Arsenic to nearest 0.1 µg/g	NA
4	Barium to nearest 1.0 µg/g	NA
5	Beryllium to nearest 0.10 µg/g	NA
6	Bismuth to nearest 1.0 µg/g	NA
7	Cadmium to nearest 0.10 µg/g	NA
8	Calcium to nearest 0.005 percent	NA
9	Cerium to nearest 1.0 µg/g	NA
10	Chromium to nearest 1.0 µg/g	NA
11	Cobalt to nearest 1.0 µg/g	NA
12	Copper to nearest 1.0 µg/g	NA
13	Europium to nearest 1.0 µg/g	NA
14	Gallium to nearest 1.0 µg/g	NA
15	Gold to nearest 1 µg/g	NA
16	Holmium to nearest 1 µg/g	NA
17	Inorganic carbon to nearest 0.01 percent	NA
18	Iron to nearest 0.005 percent	NA
19	Lanthanum to nearest 1.0 µg/g	NA
20	Lead to nearest 1.0 µg/g	NA
21	Lithium to nearest 1.0 µg/g	NA
22	Magnesium to nearest 0.005 percent	NA
23	Manganese to nearest 4.0 µg/g	NA
24	Mercury to nearest 0.020 µg/g	NA
25	Methyl mercury to nearest 0.020 µg/g	NA
26	Molybdenum to nearest 0.50 µg/g	NA
27	Neodymium to nearest 1.0 µg/g	NA
28	Nickel to nearest 2.0 µg/g	NA
29	Niobium to nearest 4.0 µg/g	NA
30	Organic carbon to nearest 0.01 percent	NA
31	Phosphorus to nearest 0.005 percent	NA
32	Potassium to nearest 0.005 percent	NA
33	Scandium to nearest 2.0 µg/g	NA
34	Selenium to nearest 0.1 µg/g	NA
35	Silver to nearest 0.10 µg/g	NA
36	Sodium to nearest 0.005 percent	NA
37	Strontium to nearest 2.0 µg/g	NA
38	Sulfur to nearest 0.05 percent	NA
39	Tantalum 1.0 µg/g	NA
40	Thallium 1.0 µg/g	NA
41	Thorium 1.0 µg/g	NA
42	Tin 1.0 µg/g	NA

luSedimentationChemical—Continued

Sedimentation ChemicalID	Sedimentation Chemical	Description
43	Titanium 0.005 percent	NA
44	Total carbon 0.01 percent	NA
45	Uranium 0.1 µg/g	NA
46	Vanadium 2.0 µg/g	NA
47	Ytterbium 1.0 µg/g	NA
48	Yttrium 1.0 µg/g	NA
49	Zinc 2.0µg/g	NA

luSESFRelationship

Relationship
Actual end
Actual start
Other
Special

luSFCLDBMethod

Method
No values in look up table as of January 2021.

luShwear

Shwear	Description
1	<60 mm MCL; 95 percent of each nonmarginal scute composed of areola. Granulations on areola distinct.
2	Total amount of areola worn smooth is less than or equivalent to 1.5 areolae.
3	An area up to or equivalent to 11.5 areolae is worn away. An area equivalent to at least 1.5 areolae must remain unworn. Growth rings are generally unworn.
4	Chipping/Flaking of growth rings limited and primarily on inner rings next to areolae. Growth rings distinct, in good condition. <50 percent of a line across the width/length of scutes overlies smooth worn areas (abbreviated).
5	Flaking and chipping extend to outer growth rings. On two or more scutes, the smooth area underlies more than 50 percent of a line across the width or length of the scutes. Depressions not present on scute surfaces.
6	See class 5 description except depressions present on eight or fewer scutes, primarily on the second and third costals and second and third vertebrae; generally patchy in distribution.
7	See class 5 description except depressions present on nine or more scutes and generally much more uniform, often involving all but the edges of entire scutes.

luSiteQuality

SiteQualityID	SiteQuality	SiteQualityDescription
1	Excellent	
2	Good	
3	Fair	
4	Poor	
5	High	
6	Marginal	

luSiteRelationshipType—Continued

RelationshipType
NE-most
Northern-most
NW-most
SE-most
Southern-most
SW-most
Upstream limit
Western-most

luSiteRelationshipType

RelationshipType
Downstream limit
Eastern-most

luSiteThreatType

SiteThreatTypeID	SiteThreatType	Description
No values in look up table as of January 2021.		

luSkyObservation

SkyObservationID	SkyObservation	Description
1	Clear or few clouds	Approximately 0-10 percent cloudy
2	Partly cloudy or variable	Approximately 11-80 percent cloudy
3	Cloudy or overcast	Approximately >80 percent cloudy
4	Fog	NA
5	Mist or drizzle	NA
6	Showers or light rain	NA
7	Heavy rain	NA
8	Sleet or hail	NA
9	Snow	NA
98	Not applicable	NA
99	Unknown	NA

luSoilMethod

Method
Measured

luSoilTextureClass

TextureClass
Clay
Clay loam
Loam
Loamy sand
Sand
Sandy clay
Sandy clay loam
Sandy loam
Silt
Silty clay
Silty clay loam
Silty loam

luSoilUnit

Unit
Grains
Grams
Milliliters
Percent mass
Percent volume

luSourceType

SourceTypeID	Description
1	Directly from survey; MTX is native DBS
2	Migrated from other raw-date database/source
3	Derived from report or other summarization

luSpeciesDetected

SDCode	Description
0	Not detected
1	Detected
2	Not surveyed for

luState

StateCode	State
AK	Alaska
AL	Alabama
AR	Arkansas
AS	American Samoa
AZ	Arizona
CA	California
CO	Colorado
CT	Connecticut
DC	Washington, DC
DE	Delaware
FL	Florida
GA	Georgia
GU	Guam
HI	Hawaii
IA	Iowa

luState—Continued

StateCode	State
ID	Idaho
IL	Illinois
IN	Indiana
KS	Kansas
KY	Kentucky
LA	Louisiana
MA	Massachusetts
MD	Maryland
ME	Maine
MH	Marshall Islands
MI	Michigan
MN	Minnesota
MO	Missouri
MP	Northern Mariana Islands
MS	Mississippi
MT	Montana
NC	North Carolina
ND	North Dakota
NE	Nebraska
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NV	Nevada
NY	New York
OH	Ohio
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
PR	Puerto Rico
RI	Rhode Island
SC	South Carolina
SD	South Dakota
TN	Tennessee
TX	Texas
UM	U.S. Minor Outlying Islands
UT	Utah
VA	Virginia
VI	U.S. Virgin Islands
VT	Vermont
WA	Washington
WI	Wisconsin

luState—Continued

StateCode	State
WV	West Virginia
WY	Wyoming

luStreamOrder

StreamOrderID	StreamOrder	StreamOrderMethodID
1	Starting from the headwaters, an unbranched tributary	1
2	Fed by two or more unbranched tributaries	1
3	Fed by two or more of the above	1
4	Any other stream (fed by further branched streams)	1

luStreamOrderMethodID

StreamOrderMethodID	StreamOrderMethod
1	Strahler stream order

luStructure

Structure
Continuous
Intermittent
Open

luStudyType

StudyType
Aquatic species
Avian species
General management
Genetics
Habitat restoration
Lands management
Monitoring-Animals
Monitoring-Vegetation
Terrestrial Invertebrate
Terrestrial Vertebrate
Vegetation Surveys

luSubstrate

SubstrateID	Substrate	SubstrateCode	Description
1	Bare rock	BR	Bare rock
2	Sandy soil	SS	Sandy soil
3	Cryptogamic soil	CS	Cryptogamic soil
4	Clay/Silt	CL	Clay/Silt
5	Silt	SI	Silt
6	Moss	MO	Moss/Lichen
7	Sand	SA	Sand
8	Gravel	GR	Gravel
9	Pebble	PE	Pebble
10	Cobble	CO	Cobble
11	Boulder/Bedrock	BB	Boulder/Bedrock
12	Leaf litter	LL	Leaf Litter
13	Fallen logs/Sticks	FL	Fallen logs/Sticks
14	Organic dirt	OD	Organic dirt
15	Piedmont/Conglomerate	PC	Piedmont/Conglomerate
16	Clay	C	Clay (< .002 mm)
17	Loam	L	Loam
18	Loamy sand	LS	
19	Sandy loam		
20	Sandy clay loam		
21	Sandy clay		
22	Silty clay		
23	Silty clay loam		
24	Silty loam		
25	Clay loam		
26	Medium loam		
27	Mud: Silt/Clay	M	Mud : Silt or clay
28	Mud/Silt/Vegetation	MV	Mud/Silt/Vegetation
29	Unidentified vegetation	NULL	Unidentified vegetation
30	Thatch	TH	Mat of undecomposed plant material
99	Other	X	Other

luSubstrateContext

SubstrateContextCode	SubstrateContext	Description
B	Bank or shore	
G	General aquatic	
S	Surface	Terrestrial substrate collected at surface
SS	Sub-surface	Terrestrial substrate collected at depth
T	Terrestrial	

luSuveyableAreaUnit

SAUnit
Acres
Hectares
Meters
Percent
Square feet
Square meters
Square miles

luSurveyMethod

SurveyMethod	Description
Call survey	
Telemetry	
Day	
Dip net	
Radio tracking	
Visual encounter	
Other	
Seine	

luTaxaRole

TaxaRole ID	TaxaRole	TaxaRole Code	Description
1	Target	T	NA
2	Host	H	NA
3	Nectaring	N	NA
4	Co-occurring	CO	NA
5	Incidental	I	NA
6	Not applicable	NA	NA
7	Unknown	U	NA
8	Upland canopy dom 1		Upland canopy - 1st most dominant
9	Upland canopy dom 2		Upland canopy - 2nd most dominant
10	Upland canopy dom 3		Upland canopy - 3rd most dominant
11	Upland canopy dom 4		Upland canopy - 4th most dominant
12	Upland canopy dom 5		Upland canopy - 5th most dominant
13	Upland understory dom 1		Upland understory - 1st most dominant
14	Upland understory dom 2		Upland understory - 2nd most dominant
15	Upland understory dom 3		Upland understory - 3rd most dominant
16	Upland understory dom 4		Upland understory - 4th most dominant
17	Upland understory dom 5		Upland understory - 5th most dominant
18	Riparian canopy dom 1		Riparian canopy - 1st most dominant
19	Riparian canopy dom 2		Riparian canopy - 2nd most dominant
20	Riparian canopy dom 3		Riparian canopy - 3rd most dominant
21	Riparian canopy dom 4		Riparian canopy - 4th most dominant
22	Riparian canopy dom 5		Riparian canopy - 5th most dominant
23	Riparian understory dom 1		Riparian understory - 1st most dominant
24	Riparian understory dom 2		Riparian understory - 2nd most dominant
25	Riparian understory dom 3		Riparian understory - 3rd most dominant
26	Riparian understory dom 4		Riparian understory - 4th most dominant
27	Riparian understory dom 5		Riparian understory - 5th most dominant
28	Submergent dom 1		Submergent - 1st most dominant
29	Submergent dom 2		Submergent - 2nd most dominant
30	Submergent dom 3		Submergent - 3rd most dominant
31	Submergent dom 4		Submergent - 4th most dominant

luTaxaRole—Continued

TaxaRole ID	TaxaRole	TaxaRole Code	Description
32	Submergent dom 5		Submergent - 5th most dominant
33	Emergent dom 1		Emergent - 1st most dominant
34	Emergent dom 2		Emergent - 2nd most dominant
35	Emergent dom 3		Emergent - 3rd most dominant
36	Emergent dom 4		Emergent - 4th most dominant
37	Emergent dom 5		Emergent - 5th most dominant
38	Food source		Food source
39	Dominant vegetation		Most dominant vegetation (general habitat)

luTeats

TeatsID	Description
BA	Bare
NV	Not visible
SW	Swollen
VI	Visible

luTrapType

TrapType
1 x 1 foot coverboard
2 gallon bucket (pitfall)
2 x 2 foot coverboard
5 gallon bucket pitfall
5 inch funnel trap
50 milliliter plastic centrifuge Tubes
6 gallon bucket pitfall
Box
Catfish trap
Dog A
Dog B
Hoop_1.5_fingered
Hoop_1.5_singlefingered
Hoop_2.5_fingered
Hoop_2.5_flat
Hoop_3_fingered
IR video
Large Sherman live trap
Med perf Sherman
Med Sherman
Medium
Minnow
Oval

luTrapType—Continued

TrapType
Small
Small mammal (pitfall)
Small Sherman
Tube 1"
Tube 1.5"
Tube 2"
Turtle trap

luTreeSize

TreeSizeID	TreeSize	Description
1	<1 DBH	Less than 1 inch diameter breast height (DBH)
2	1-6 DBH	Between 1 and 6 inches diameter breast height (DBH)
3	6-11 DBH	Between 6 and 11 inches diameter breast height (DBH)
4	11-24 DBH	Between 11 and 24 inches diameter breast height (DBH)
5	>25 DBH	More than 25 inches diameter breast height (DBH)
6	Multi-layer	

luVegetationStandSize

Vegetation StandSizeID	VegetationStandSize	Vegetation StandSizeCode
1	Very small (<25 sq meters)	VS
2	Small (25-100 sq meters)	S
3	Medium (100-500 sq meters)	M
4	Large (500-1000 sq meters)	L
5	Extra large (>1000 sq meters)	XL

luVerifMethod

VerifMethod
Keyed
Photo comparison
Specimen comparison

luWaterFlow

WaterFlowID	WaterFlow	Description
1	Dry	No visible moisture/water
2	Moist	Visible moisture without flow or seep
3	Pool	Standing/Stagnant water
4	Riffle	Small waves (not caused by obstructions)

luWindBeaufortScale

WindBeaufort ScaleID	MinMPH	MPHRange	Description	Indicators
0	0	< 1	Calm	Calm; smoke rises vertically.
1	1	1-3	Light air	Direction of wind shown by smoke drift, but not by wind vanes
2	4	4-7	Light breeze	Wind felt on face; leaves rustle; ordinary vanes moved by wind
3	8	8-12	Gentle breeze	Leaves and small twigs in constant motion; wind extends light flag
4	13	13-18	Moderate breeze	Raises dust and loose paper; small branches are moved
5	19	19-24	Fresh breeze	Small trees in leaf begin to sway; crested wavelets form on inland waters
6	25	25-31	Strong breeze	Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty
7	32	32-38	Near gale	Whole trees in motion; inconvenience felt when walking against the wind
8	39	39-46	Gale	Breaks twigs off trees; generally impedes progress
9	47	47-54	Severe gale	Slight structural damage occurs (chimney-pots and slates removed)
10	55	55-63	Storm	Seldom experienced inland; trees uprooted; considerable structural damage occurs
11	64	64-72	Violent Storm	Very rarely experienced; accompanied by wide-spread damage
12	73	>= 73	Hurricane	Hurricane or higher
99	0		Unknown	Unknown

luWaterFlow—Continued

WaterFlowID	WaterFlow	Description
5	Run	Swiftly-moving, smooth-surface current
6	Seep	Slow flow, trickle or drip
7	Splash zone	Where water splashes against substrate

luWaterSource

WaterSource Code	WaterSource
H	Human altered
M	Manmade/Artificial
N	Natural occuring
U	Unknown

luXYCoordType

XYCoordTypeID	XYCoordType	Description
1	UTM zone 11S	
2	Decimal degrees	
3	UTM zone 11 north	
4	UTM zone 10T	
5	UTM zone 12R	
6	UTM zone 15R	
7	UTM zone 17R	
8	UTM zone 10U	
9	UTM zone 10S	
10	UTM zone 11U	
11	UTM zone 11T	
12	UTM zone 12U	
13	UTM zone 12T	
14	UTM zone 12S	
15	UTM zone 13U	
16	UTM zone 13T	
17	UTM zone 13S	
18	UTM zone 13R	
19	UTM zone 14U	
20	UTM zone 14T	
21	UTM zone 14S	
22	UTM zone 14R	
23	UTM zone 15T	
24	UTM zone 15S	
25	UTM zone 15U	
26	UTM zone 16T	
27	UTM zone 16S	
28	UTM zone 16R	
29	UTM zone 17T	
30	UTM zone 17S	
31	UTM zone 18T	
32	UTM zone 18S	
33	UTM zone 19T	

Permanency

PID	Permanency
P	Permanent
S	Semi-permanent (rarely dries)
T	Temporary (dries annually)
U	Unknown

TissType

TissueTypeID	TissueDesc
01	Pattern recognition
02	Pit tag
03	Scaleclip
05	Toeclip/Tailclip
06	VIE
07	Muscle
08	Liver
09	Heart
10	Skeletal
11	Whole
12	Earclip
97	Other
99	Unknown

Transparency

TranspID	Transparency
C	Clear
M	Moderate/Translucent
O	Opaque

TranspMethod

TranspMID	TranspMethod
1	Ruler
2	Secchi disk
3	Transparency tube
4	Visual estimate

TurbUnits

TurbUID	TurbUnits
1	NTU's
2	FTU's

UnitEffort

UnitEffortID	UnitEffort
01	Artificial cover objects
02	Dipnet sweeps
03	Dredge scoops
04	Drift fence arrays
05	Funnel traps
06	Leaf litter bags
07	Minnow traps
08	Natural cover objects
09	Night driving distance (km)
10	Pitfall traps
11	PVC pipe
12	Seine pulls
13	Minutes (visual search)
14	GPS collar days
15	Remote camera days
16	Track station nights
17	Minutes (audible search)
18	Aquatic trap days
19	Minutes (visual and audible)
20	Cowbird trap days
21	Hectares visual search
22	Fence installation/repair (km)
23	Habitat restoration (hec)

UnitEffortID	UnitEffort
24	Vegetation point transect
99	Not applicable

WaterColor

WaterColor
Clear
Stained

Appendix 1. Entity Relationship Diagram of All Database Tables

File available for download from <https://doi.org/10.3133/tm16B1>.

Appendix 2. Entity Relationship Diagram of Tables Associated with Survey Events

File available for download from <https://doi.org/10.3133/tm16B1>.

Appendix 3. Entity Relationship Diagram of Tables Associated with Sites

File available for download from <https://doi.org/10.3133/tm16B1>.

Appendix 4. Entity Relationship Diagram of Tables Associated with Taxa Observations

File available for download from <https://doi.org/10.3133/tm16B1>.

Appendix 5. Entity Relationship Diagram of Tables Associated with Habitat Observations

File available for download from <https://doi.org/10.3133/tm16B1>.

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