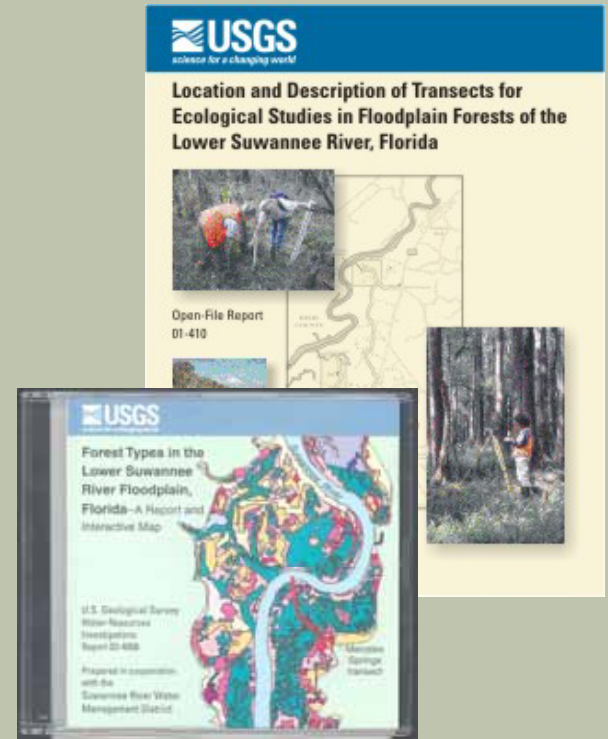
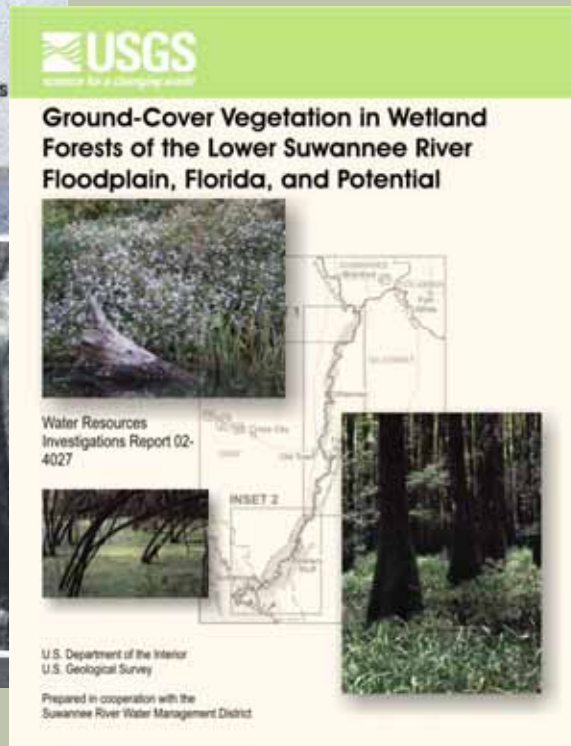
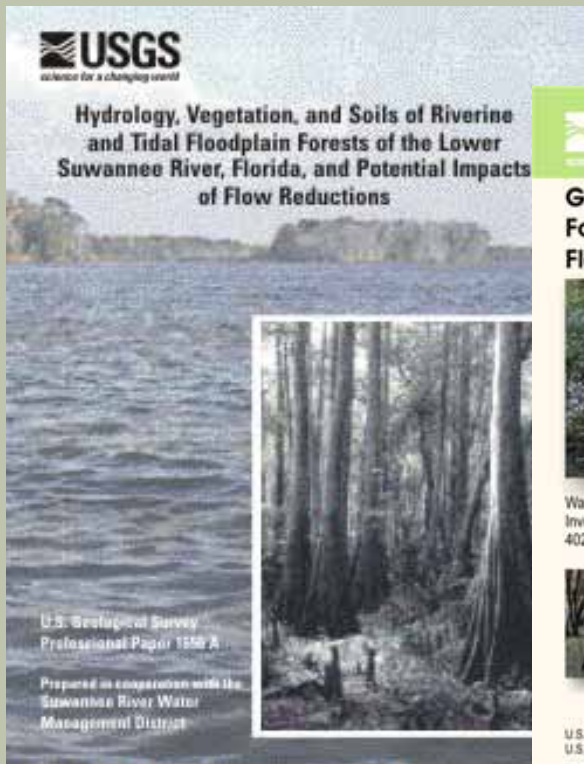


# Lower Suwannee River Floodplain, Florida: Canopy, Subcanopy, and Ground Cover Vegetation and Potential Impacts of Flow Reductions on Plant Distribution

**Melanie Darst, U.S. Geological Survey**





# AERIAL SIGNATURES IN NON-TIDAL REACH

SWAMP (sw)

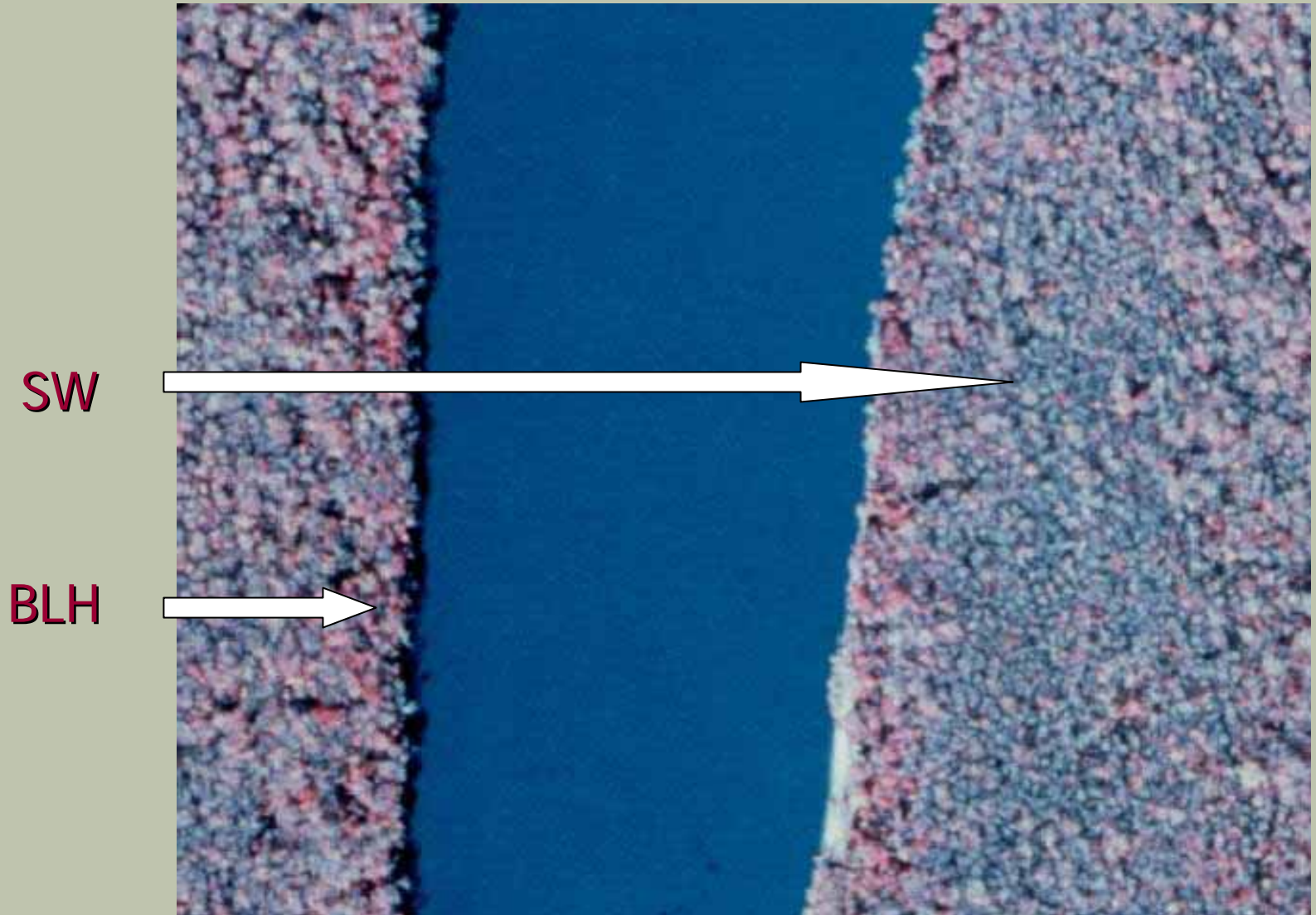


BOTTOMLAND  
HARDWOODS  
(blh)

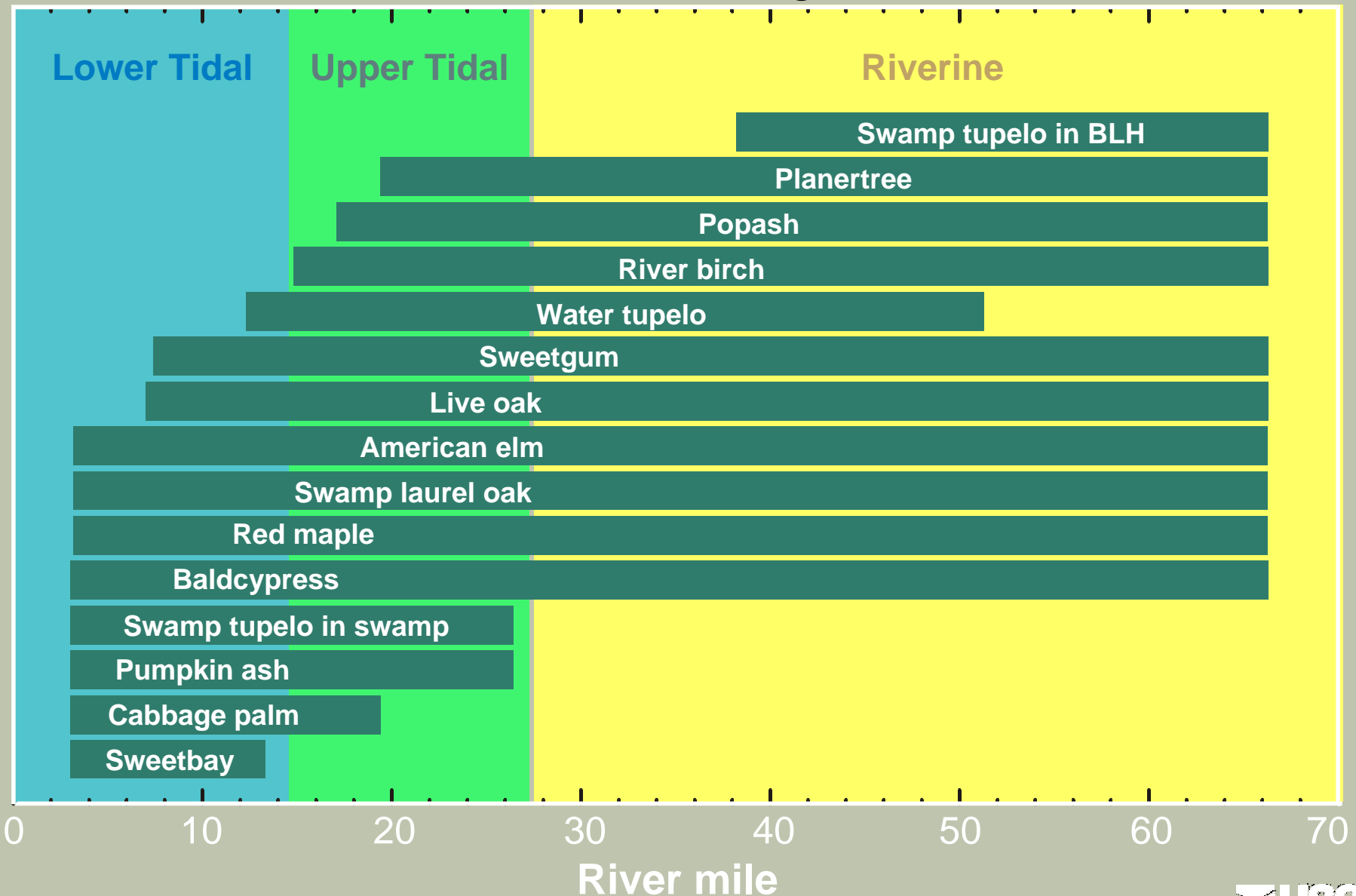




# AERIAL SIGNATURES IN UPPER TIDAL REACHES



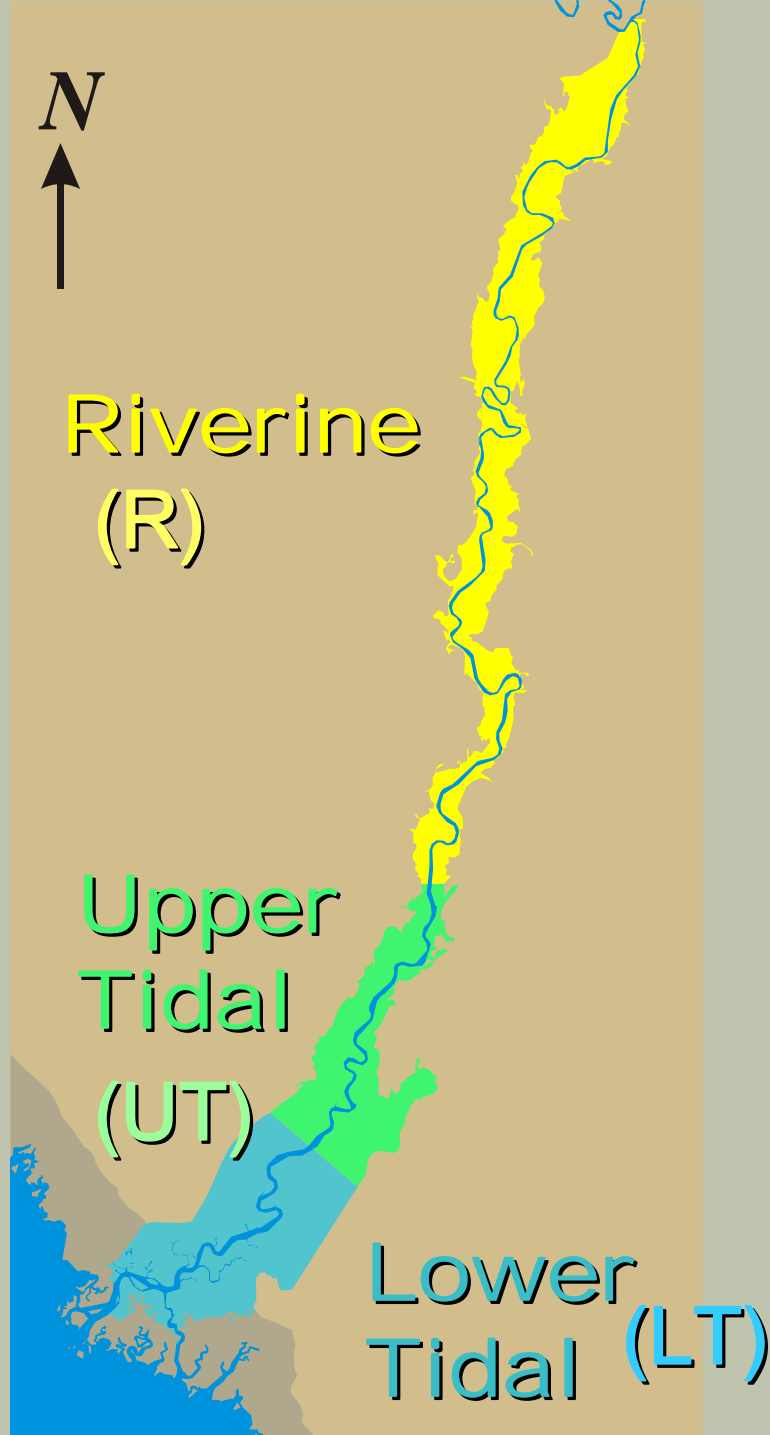
# Tree Distribution by River Mile



# FOREST TYPES:

WERE MAPPED USING  
INFRARED AERIAL  
PHOTOS (DOQs)

SEPARATED BY REACHES  
WITH SIGNIFICANT  
HYDROLOGIC DIFFERENCES



# Defined 13 wetland forest types

Measured &  
identified 8,756  
trees

77 tree species in  
wetland forests

Bald cypress most  
important wetland  
species by basal  
area







# Riverine

3 blh  
types –  
Rblh3,  
Rblh2,  
Rblh1





**Riverine**

**2 swamp  
types  
–  
Rsw2,  
Rsw1**







1 bottomland hardwood type  
(UTblh)

1 mixed type (UTmix)





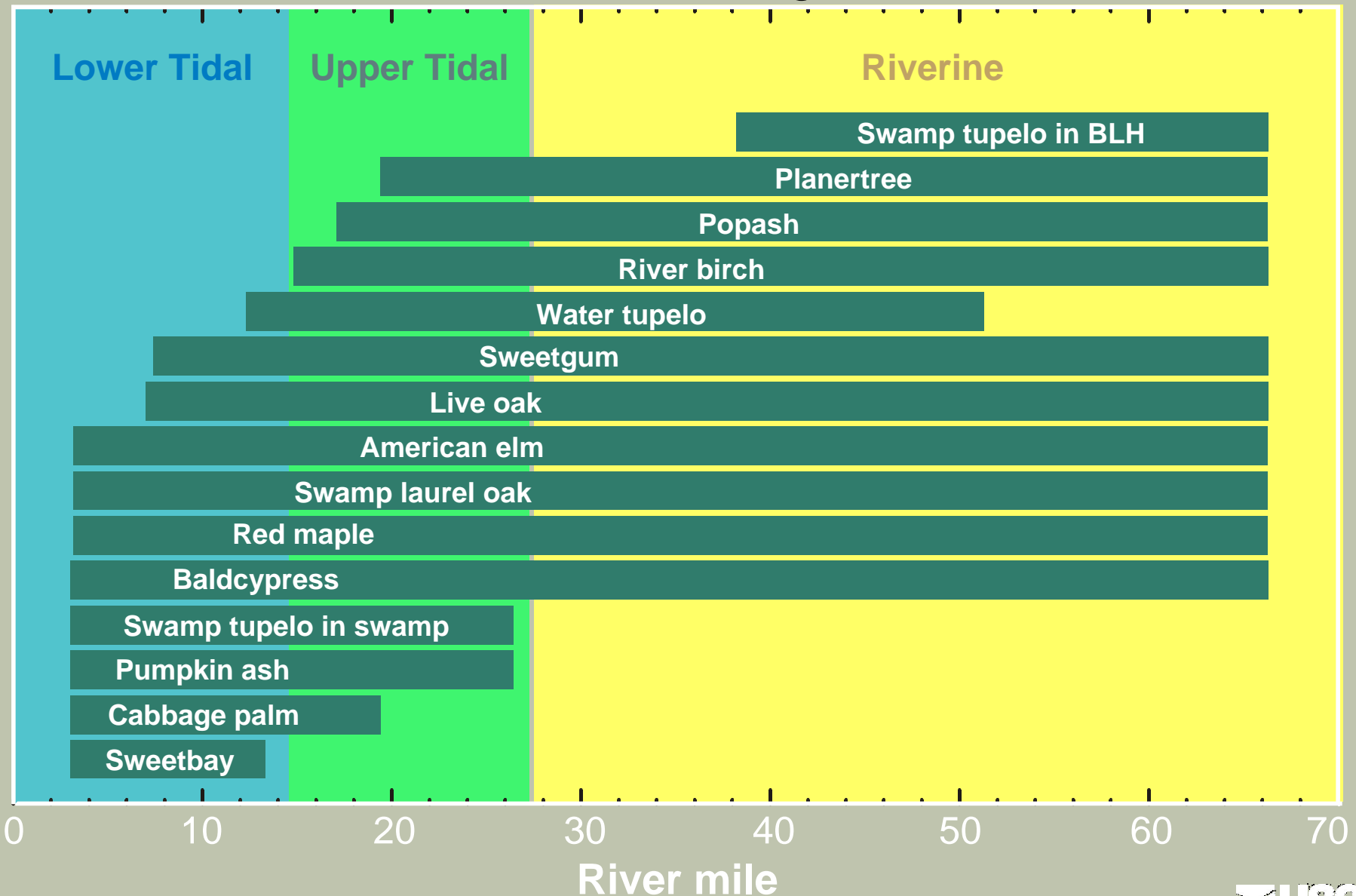
2 swamp types –  
UTsw2, UTsw1

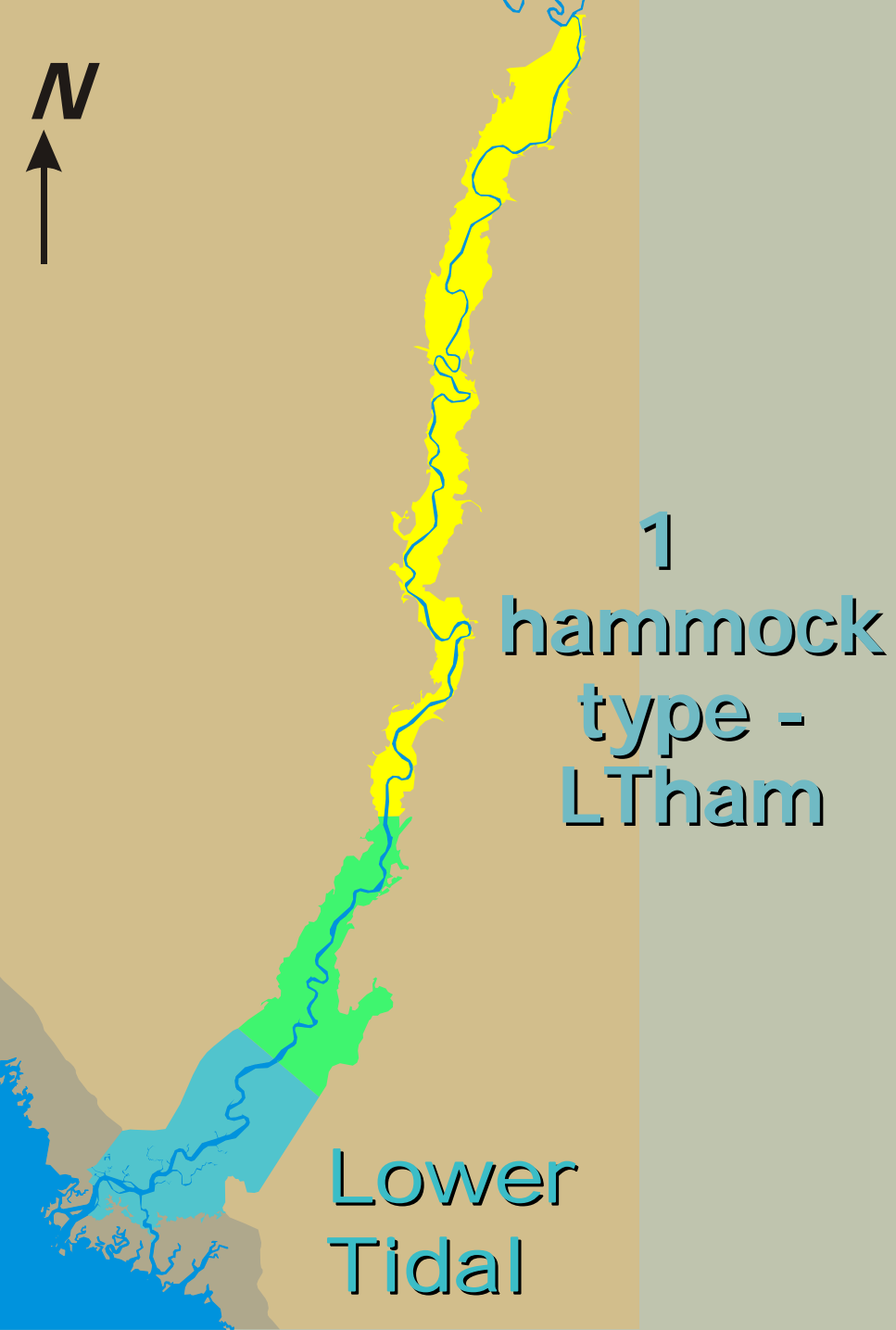
Upper  
Tidal



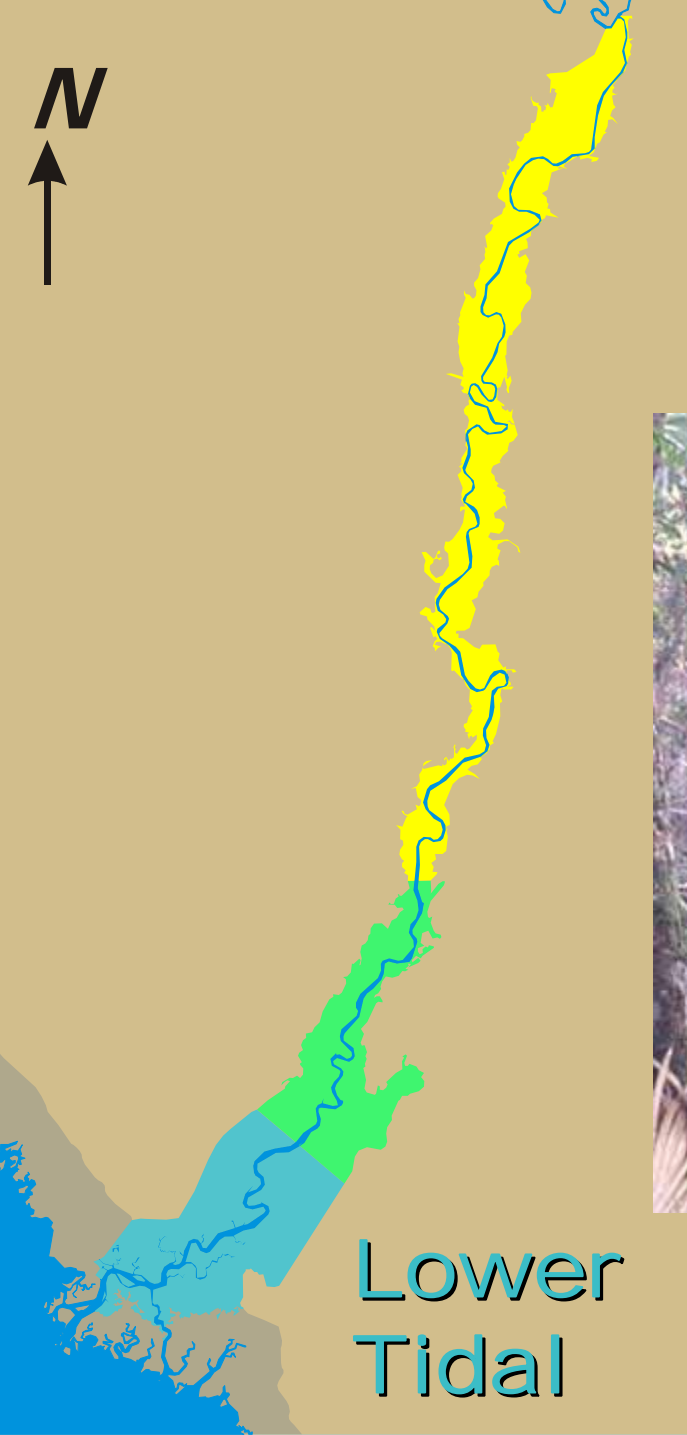


# Tree Distribution by River Mile







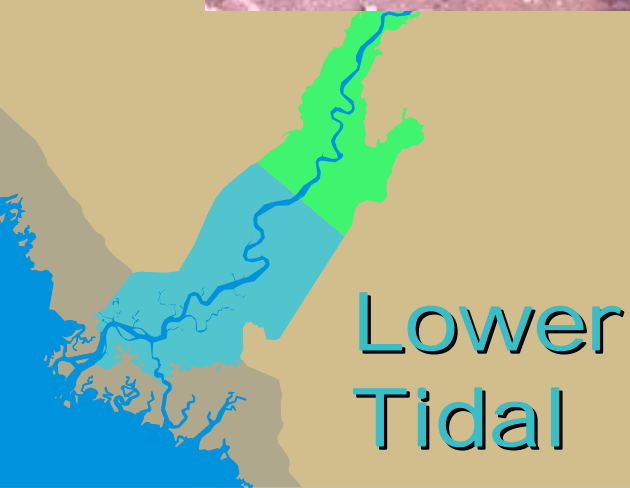


1 mixed swamp type -  
LTmix





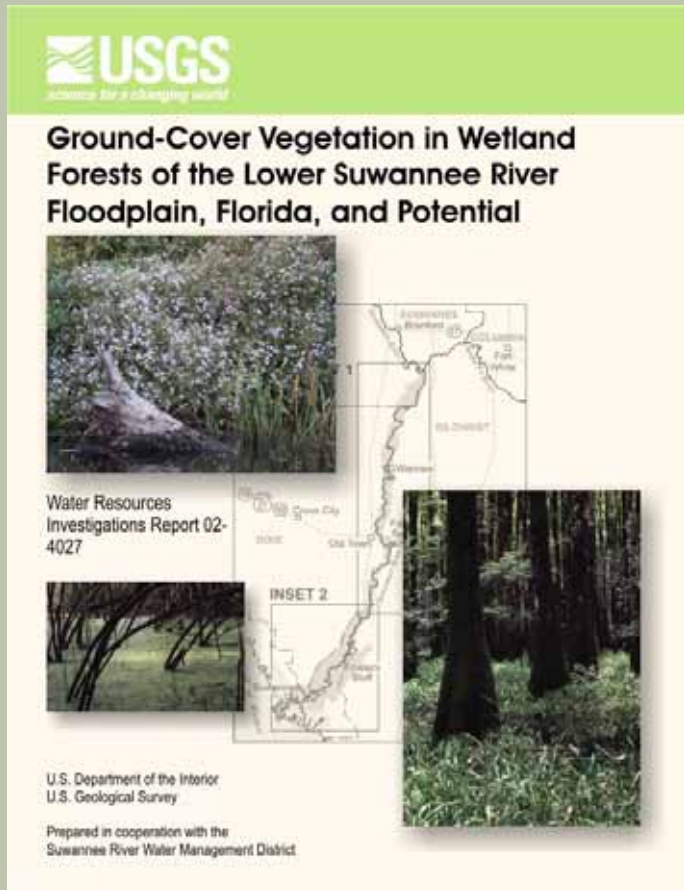
2 swamp types  
– LTsw2,  
LTsw1



Lower  
Tidal

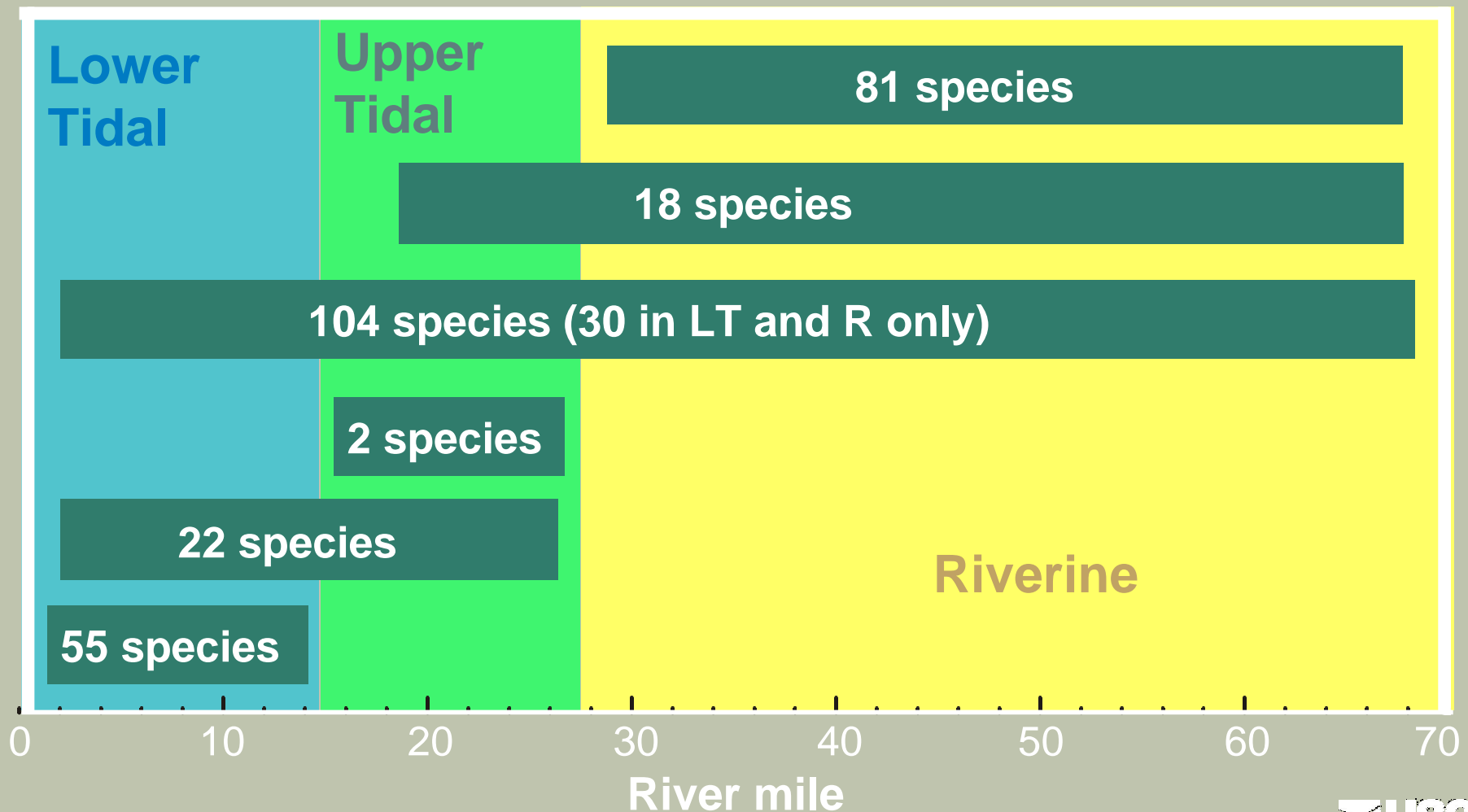


# Ground-Cover Vegetation in Wetland Forests of the Lower Suwannee River Floodplain, Florida, and Potential Impacts of Flow Reductions



By Melanie Darst,  
Helen Light, and Lori Lewis,  
USGS

# Ground Cover Species Distribution by River Mile (282 species)





Lizard's tail (*Saururus cernuus*) strongly dominates ground-cover vegetation in LTmix



# DECREASE IN DURATIONS OF INUNDATION AND SATURATION

Some free-floating aquatic species such as **humped bladderwort** occurred only in semi-permanent ponds in riverine forests. They might decrease in abundance or disappear if flows were reduced.

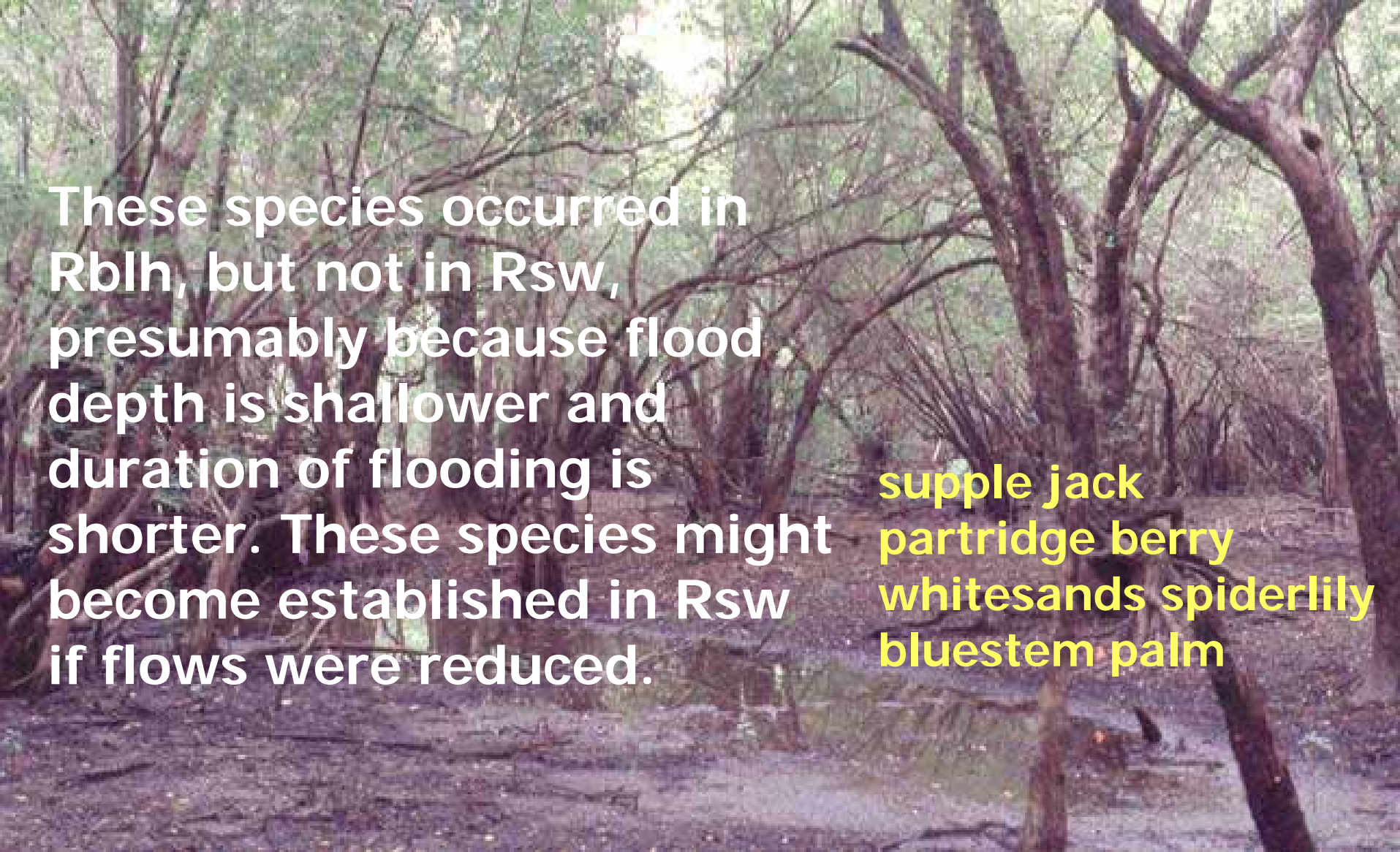




# DECREASE IN DEPTH AND DURATION OF RIVER FLOODING

These species occurred in Rblh, but not in Rsw, presumably because flood depth is shallower and duration of flooding is shorter. These species might become established in Rsw if flows were reduced.

supple jack  
partridge berry  
whitesands spiderlily  
bluestem palm



# INCREASE IN SALINITY

Some species occurred in UTsw, but not in LTsw and are presumed to have no salinity tolerance. They might decrease in abundance in the most downstream part of the UT reach if flows were reduced.

eastern blue stars  
cypress swamp sedge  
creeping burrhead  
narrow plumegrass





# Location and Description of Ecological Study Sites in Floodplain Forests of the Lower Suwannee River, Florida

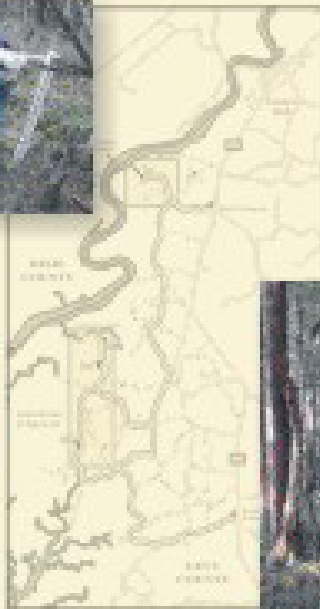
By Lori Lewis,  
Helen Light, and Melanie  
Darst



## Location and Description of Transects for Ecological Studies in Floodplain Forests of the Lower Suwannee River, Florida



Open-File Report  
01-410



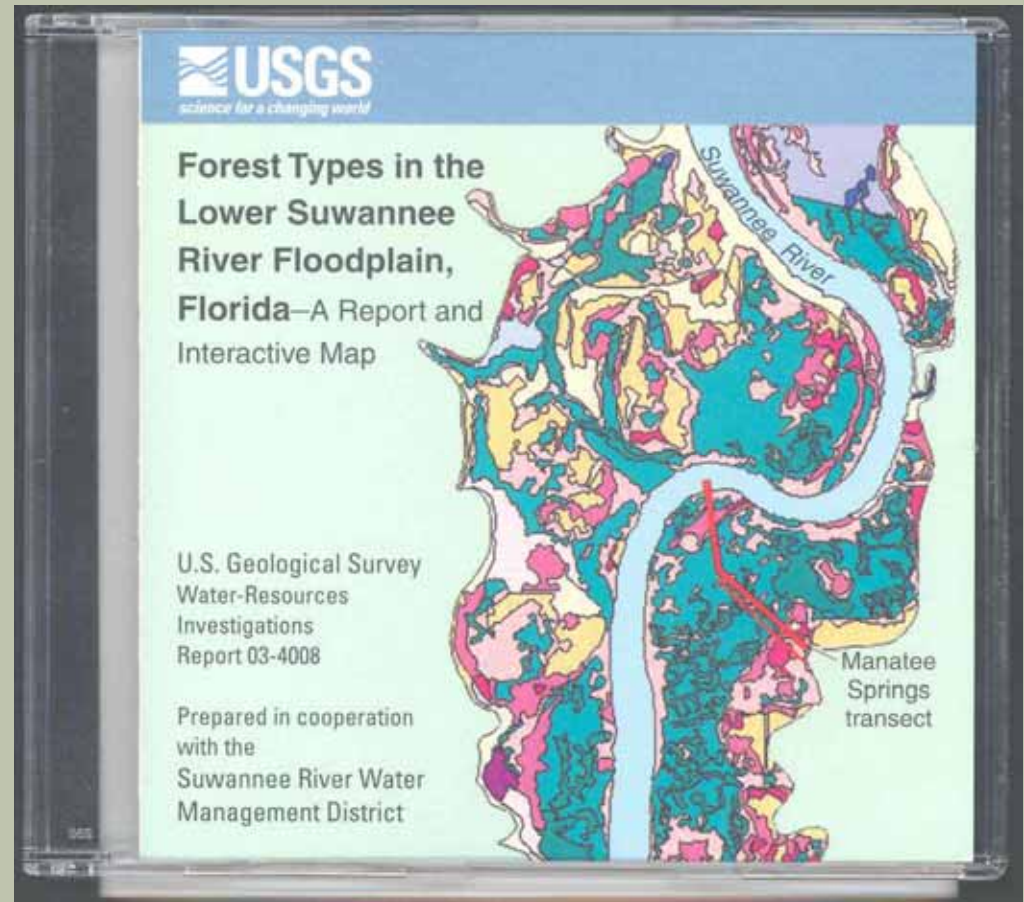
U.S. Department of the Interior  
U.S. Geological Survey

Prepared in cooperation with the  
Suwannee River Water Management District



# Forest Map CD

Interactive map  
using  
ArcExplorer  
software





# REPORT:

DESCRIBES  
METHODS USED  
TO CREATE MAP

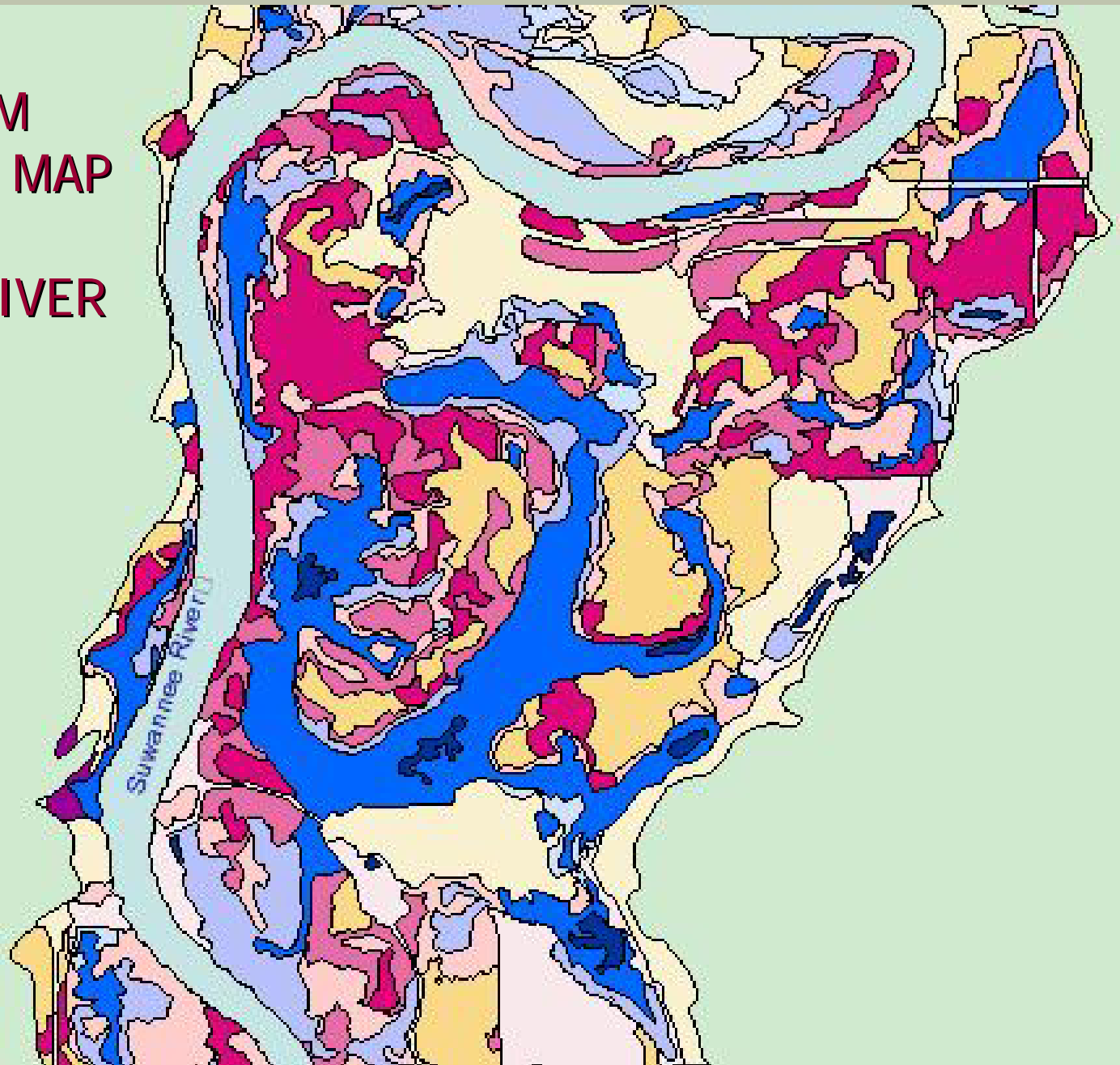
REVIEWS  
FLOODPLAIN  
CHARACTERISTICS

DESCRIBES  
FOREST AND  
OTHER LAND  
COVER TYPES





DISPLAY FROM  
INTERACTIVE MAP  
OF LOWER  
SUWANNEE RIVER  
FLOODPLAIN





## Hydrology, Vegetation, and Soils of Riverine and Tidal Floodplain Forests of the Lower Suwannee River, Florida, and Potential Impacts of Flow Reductions

U.S. Geological Survey  
Professional Paper 1555-A

Prepared in cooperation with the  
Suwannee River Water  
Management District



## Ground-Cover Vegetation in Wetland Forests of the Lower Suwannee River Floodplain, Florida, and Potential



Water Resources  
Investigations Report 02-  
4027



U.S. Department of the Interior  
U.S. Geological Survey

Prepared in cooperation with the  
Suwannee River Water Management District



## Location and Description of Transects for Ecological Studies in Floodplain Forests of the Lower Suwannee River, Florida



Open-File Report  
01-410



U.S. Department of the Interior  
U.S. Geological Survey

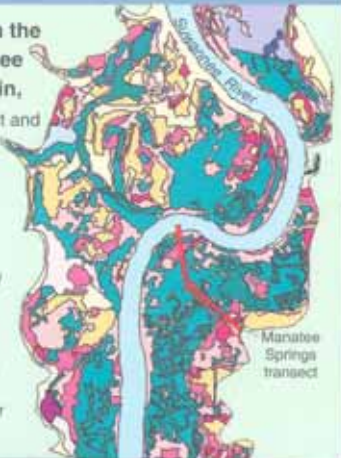
Prepared in cooperation with the  
Suwannee River Water Management District



## Forest Types in the Lower Suwannee River Floodplain, Florida—A Report and Interactive Map

U.S. Geological Survey  
Water-Resources  
Investigations  
Report 03-4008

Prepared in cooperation  
with the  
Suwannee River Water  
Management District



Available on the web at [HTTP://fl.water.usgs.gov](http://fl.water.usgs.gov)