Database of Geoscientific References Through 2006 for Afghanistan, Version 1

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Introduction

This report describes an accompanying database of geoscientific references for the country of Afghanistan. The reference compilation is part of a larger joint study of Afghanistan’s energy, mineral, and water resources, and geologic hazards, currently underway by the U.S. Geological Survey, the British Geological Survey, and the Afghanistan Geological Survey.

The compilation of geoscientific references was initially planned to contain only mineral-resource-related references. However, the effort soon grew to encompass references related to water resources, energy resources, and geologic hazards. It is emphasized that this is an on-going work in progress and that the present database is incomplete. A second version of the reference database is planned for future release, and will include all geology-oriented references of Afghanistan.

The electronic database is in Microsoft® Access 2003 format. To utilize this database effectively, a basic understanding of Access is required, including how to view tables, create simple queries, print reports, and export data. Query results can be easily exported to Microsoft® Excel spreadsheets or various other database formats. An IBM PC-compatible computer is required as Microsoft® Access is presently available only for PCs.

This database includes both published \( n = 1,157 \) and unpublished \( n = 168 \) references, as two separate tables in the Access database. The references were gathered through September 2006.
The published references table (tblPublishedReferences) includes a GeoRef accession number (American Geological Institute, 2006, accessed 10/20/2006), which can be used for linking the reference to the GeoRef database, and the U.S. Geological Survey library call number, if the library contains the holding. Rights to use the references in the GeoRef database were purchased from the American Geological Institute so they could be re-distributed here without copyright infringement.

The unpublished references table (tblUnPublishedReferences) contains citations identified as unpublished, internal reports by various national geological survey organizations, or partial citations that were discovered during this compilation. Many of the older published and unpublished references identified here are likely housed in the archive collection of the Afghanistan Geological Survey, which is presently being inventoried and catalogued in a combined effort by the Afghanistan and British Geological Surveys. For information on the progress of this cataloging effort, see the website http://www.bgs.ac.uk/afghanminerals/reports.htm.

The published and unpublished reference tables have keyword fields that allow for searching capability within the reference database. Keywords are separated into two broad categories: scientific and geographic/cultural. The complete lists of keywords are listed alphabetically in the database in two separate keyword tables, tblKeywords_Scientific and tblKeywords_Geographic&Cultural. The keywords used here follow the spelling and plurality conventions recommended in the GeoRef thesaurus (Goodman, 2000). Keywords were gathered from reference titles and, for those references listed in GeoRef, from the GeoRef keyword fields.

Sources of information for this reference compilation include libraries and colleagues of the U.S. Geological Survey (USGS), the British Geological Survey (BGS), the French Bureau de Recherches Géologiques et Minières (BRGM), the Czech Geological Survey (CGS), the German Federal Institute for Geosciences and Natural Resources (BGR), the Federal Agency on Mineral
Resources of the Russian Federation (VSEGEI), and the Centre for Russian and Central Asian
Mineral Studies (CERCAMS). The American Geological Institute’s GeoRef and GeoRef Preview
databases, historical documents of the Afghanistan Department of Geological and Mineral Survey,
and the Google™ search engine on the internet were also used. Acknowledgment is given to these
various sources for the accumulated body of references within this database.

Database Structure

The published (tblPublishedReferences) and unpublished (tblUnPublishedReferences)
reference tables have identical database structures. The database fields and their descriptions are listed
in table 1. Microsoft® Access table and query naming conventions follow those suggested by Reddick
(1995, accessed 10/20/2006). The two keyword tables are simply listings of keywords used in the
reference tables. They each have two fields, a numeric index field and a memo keyword field.

Table 1. Database field names and descriptions for reference tables.

<table>
<thead>
<tr>
<th>Field name</th>
<th>Field type</th>
<th>Description of field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index</td>
<td>numeric</td>
<td>Key field and database index</td>
</tr>
<tr>
<td>Author_Senior</td>
<td>text</td>
<td>First author, in the format: Last name, first name (initials or spelled out)</td>
</tr>
<tr>
<td>Author_Secondary</td>
<td>text</td>
<td>Additional authors, same format as above, listed sequentially as found in reference</td>
</tr>
<tr>
<td>Author_All</td>
<td>memo</td>
<td>Complete author listing for building citation</td>
</tr>
<tr>
<td>Year</td>
<td>text</td>
<td>Year of publication</td>
</tr>
<tr>
<td>GEORef_Accession_ID</td>
<td>text</td>
<td>ID that ties reference to the AGI GeoRef database; blank if no data</td>
</tr>
<tr>
<td>USGS_Library_ID</td>
<td>text</td>
<td>ID that ties reference to the U.S. Geological Survey Library system catalogue number; blank if no data</td>
</tr>
<tr>
<td>Field</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Original_Title</td>
<td>memo</td>
<td>Full title of reference as originally found in its native language</td>
</tr>
<tr>
<td>Translated_Title</td>
<td>text</td>
<td>English title translation for the reference; irregularly populated field</td>
</tr>
<tr>
<td>Source</td>
<td>memo</td>
<td>Source of the reference; for example, journal title, volume, series, and page number</td>
</tr>
<tr>
<td>Document_Type</td>
<td>text</td>
<td>Type of document for the reference</td>
</tr>
<tr>
<td>Source_For_Database</td>
<td>memo</td>
<td>Mechanism in which the reference was found for this database</td>
</tr>
<tr>
<td>Language</td>
<td>text</td>
<td>Language of original reference</td>
</tr>
<tr>
<td>English_Summary</td>
<td>text</td>
<td>For non-English references, note whether there is an English translation in the paper; irregularly populated</td>
</tr>
<tr>
<td>Scientific_Keyword</td>
<td>memo</td>
<td>Scientific keywords; see tblKeywords_Scientific for complete list of keyword possibilities</td>
</tr>
<tr>
<td>Geogr_Cult_Keyword</td>
<td>memo</td>
<td>Geographic and cultural keywords; see tblKeywords_Geographic&amp;Cultural for complete list of keyword possibilities</td>
</tr>
<tr>
<td>Other_ID</td>
<td>text</td>
<td>Secondary ID for the reference, such as the reference code for a different library; irregularly populated field</td>
</tr>
<tr>
<td>Author_Senior_Alt_Spelling</td>
<td>text</td>
<td>First author, spelling as found in original source, if different from Author_Senior</td>
</tr>
<tr>
<td>Author_Secondary_Alt_Spelling</td>
<td>text</td>
<td>Additional authors, spelling as found in original source, if different from Author_Secondary</td>
</tr>
<tr>
<td>Comment</td>
<td>text</td>
<td>Comment related to reference; irregularly populated field</td>
</tr>
</tbody>
</table>

**Example Queries**

The two keyword tables are provided as an aid in choosing keywords to query the reference tables. The keyword tables can be printed out using two reports within the database:

*rptListing_of_Keywords_Scientific* and *rptListing_of_Keywords_Geographic_Cultural*. 
For users only vaguely familiar with Microsoft® Access, two example queries are provided. These are “make table” queries that create tables based on the presence or absence of keywords. The first query, \textit{qmktblExampleQueryResult\_PublishedRefs}, examines the table \textit{tblPublishedReferences}, looking for references that contain the words “copper” and “mineral deposits,” but not the word “zinc” in the Scientific\_Keywords field, and containing the word “Afghanistan” in the Geographic\_Cultural\_Keywords field. Upon running the query, the results are found in the table \textit{tblExampleQueryResult\_FromPublishedReferences}.

The second query, \textit{qmktblExampleQueryResult\_UnPublishedRefs}, examines the table \textit{tblUnPublishedReferences}, looking for references that contain the word “water” in the Scientific\_Keywords field, and containing the word “Afghanistan” in the Geographic\_Cultural\_Keywords field. Upon running the query, the results are found in the table \textit{tblExampleQueryResult\_FromUnPublishedReferences}.

The two above example queries show the necessary format for queries and can be easily modified to generate additional queries, based on keyword selections. Since multiple keywords are listed in the fields for published and unpublished references, wildcard characters (*) should be used before and after each keyword in the query to ensure successful results. The tables of references resulting from the queries can be easily exported to Microsoft® Excel spreadsheets and other formats by hovering the mouse over the table and right-clicking.

**Future Plans**

A second version of this database is underway. Version 2 will contain all geoscientific references that we will have found up to the date of the release. Pull-down lists and (or) check-off
boxes for keyword queries are also in planning stages for version 2, and these will make the future database easier to use.

**References Cited**

