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The FGDC Biological Metadata Profile

Development of a biological “profile” of the Federal Geographic Data Committee (FGDC) metadata standard is one of the primary areas of emphasis of the FGDC’s Biological Data Working Group.

Metadata are data which serve to describe data sets, databases, or information products (such as maps or technical reports) by documenting such things as subject matter; how, when, where, and by whom the data were collected; accuracy of the data; and availability and distribution information. Although the FGDC “Content Standard for Digital Geospatial Metadata” (CSDGM) provides for excellent documentation of data from the *geospatial* perspective, it can be limited, and in some ways, inadequate, for describing data sets or information products from the *biological* perspective. For example, one consistent need in describing different biological data sets so that they can be compared, shared, and integrated is to document the bio-systematics aspects of the data (that is, the taxonomy and nomenclature for species and higher taxonomic groups). Obviously, the FGDC geospatial metadata standard was not intended to focus on this type of thematic requirement specific to the biological science/biological resources community.

In 1998, the FGDC approved Version 2 of the CSDGM
<<http://www.fgdc.gov/metadata/contstan.html>>

One of the key changes made in Version 2 of this standard was to provide guidelines for the development of different thematic or community-specific “views” of the base standard. These views are known as “profiles” and they allow a community of data and information providers and users, such as

the biological sciences community, to follow the FGDC’s metadata standard, while also extending or enhancing this standard so it is more useful and effective for describing their community’s data (e.g., biological data).

The Biological Data Profile <http://www.fgdc.gov/standards/status/sub5_2.html> includes all of the elements of the FGDC geospatial metadata standard, while adding elements that help make this generic standard more useful for describing biological data sets. Because the Biological Data Profile includes all the elements of the “base” FGDC geospatial metadata standard, software tools and protocols used for collecting, indexing, or exchanging FGDC metadata are compatible with metadata produced according to the profile.

In accord with FGDC operating procedures, the Biological Data Working Group sought input from a broad array of interested participants in developing and refining the Biological Data Profile. The draft profile was initially reviewed by Federal and non-Federal members of the Working Group and the FGDC Standards Working Group, before a 90-day public review and comment period. The comments which resulted from this review were then used to make final revisions to the profile before it was submitted for endorsement by the full FGDC.

In addition, the non-Federal biological sciences community has been extensively involved in the development and refinement of the profile. This input has been coordinated mainly through two national-level panels of biologists convened by the American Institute of Biological Sciences to provide

peer reviews of the profile during key stages of its development.

Development of the Biological Data Profile is an important component of the National Biological Information Infrastructure (NBII) program. The NBII <<http://www.nbio.gov>> is a collaborative effort to create a distributed electronic “federation” of biological data and information products from many different sources around the U.S. and the world. Use of a consistent metadata format allows NBII users to quickly and easily compare and contrast among all of these different distributed data and information sources to locate and choose those which best meet their needs.

Metadata created according to the Biological Data Profile can be added to the NBII Metadata Clearinghouse <<http://www.nbio.gov/search/clearinghouse/index.html>>. This clearinghouse serves as an online, searchable “card catalog” containing metadata descriptions of hundreds of different biological data sets and information products from many different agencies and organizations. The NBII Metadata Clearinghouse is also linked to the FGDC’s National Spatial Data

Infrastructure (NSDI) Clearinghouse, which provides online access to metadata descriptions of thousands of different geospatially-oriented data sets.

For More Information

Visit the FGDC Biological Data Working Group web site at:

<http://biology.usgs.gov/fgdc.bio/index.html>

Or learn more about the National Biological Information Infrastructure program at:

<http://www.nbio.gov>

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