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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 20533-2026

Replacing GB/T 20533-2006

Metadata for ecological scientific data

生态科学数据元数据

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 20533-2006 "Ecological Science Data Metadata". Compared with GB/T 20533-2006, the main differences are in the structural adjustments. Aside from editorial changes, the main technical changes are as follows:

a) A definition for the term "ecological science data" has been added (see 3.1), and the terms "list data," "raster data," and "vector data" have been removed. According to "database registration system", "encoding system", "lexical encoding system", "syntactic encoding system", "data type", "value range", "concept model" "Formula", "Conceptual Model", "Domain of Discourse", "Model", "Data Model", and "Data Exchange Center" (see 3.1, 3.2, and

3.3 in the.2006 edition). (3.12, 3.14, 3.15, 3.16, 3.18, 3.19, 3.20, 3.21, 3.22, 3.24, 3.25, 3.26), the term "metadata application specification" is further... Change to

"Metadata-specific standard" (see 3.10,

3.13 in the.2006 edition);

b) The descriptions of "UML model symbols," "UML model relationships," and "UML model stereotypes" have been removed (see the.2006 edition). 4.2, 4.3, 4.4);

c) The description of the metadata description method has been changed; the XMLSchema language form of the metadata description method has been removed, and the description will now focus on... The description of metadata in UML model diagram form and data dictionary form is changed to referencing GB/T 30522-2014. For details of the relevant chapters (see Chapter 5, Chapter 6 in the.2006 edition);

d) The packages that make up the metadata of ecological science data and the dependencies between packages have been changed (see 7.2,.2006 version 7.2);

e) The metadata information package has been modified (see 7.4.1,

8.1.1 of the.2006 version), and the identification information package has been modified (see 7.4.2,.2006 version). Version 8.1.2) modifies the data entity information package (see 7.4.3, version

8.1.9 of.2006) and the method information package (see 7.4.4). Version 8.1.4 (2006) modified the data quality information package (see 7.4.5, version 8.1.3 (2006)) and added shared service information. The information package (see 7.4.6) has been updated, and a labeling information package (see 7.4.7) has been added. The site information package (see

8.1.5 in the.2006 version) and the project information package have been deleted. Information package (see

8.1.6 of the.2006 edition), distribution information package (see

8.1.7 of the.2006 edition), metadata reference information package (see...) 8.1.8 (2006 edition), the space reference system information package (see 8.1.10 (2006 edition)), and the space representation information package (see.2006 edition) Version 8.1.11);

1 Scope

GB/T 20533-2026 is the Chinese national standard covering how ecological research data is described - the site and its environment, the sampling design, the taxa observed, the instruments and methods, the time series and the rights, so that a dataset collected for one study can be found and reused by another. At 44,500 words it is a full metadata dictionary. It replaces GB/T 20533-2006 after twenty years, and it has been in force since 1 June 2026. It was issued on 27 February 2026 and has been in force since 1 June 2026, replacing GB/T 20533-2006. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it

contains are those of the document itself, delivered in full with the English translation.

This document defines a conceptual model for describing ecological science data at the dataset level, and establishes a set of mandatory components that constitute this model. Required and optional subsets of metadata, metadata entities, and metadata elements; the minimum metadata required for various levels of requirement applications. The data element set (referred to as core metadata) and the rules for extending metadata and developing metadata-specific standards to meet special needs. It then describes a method for developing dedicated standards for metadata. This document applies to the cataloging, description, and standardized management of ecological science datasets and dataset series, and also to scientific data centers. Data services.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 4880 (all parts) Language Name Code

GB/T 7408 (all parts) Representation for the Interchange of Date and Time Information

GB/T 7714 Rules for Bibliographic References in Information and Documentation

GB/T 30522-2014 Basic Principles and Methods for Standardization of Metadata for Science and Technology Platforms

GB/T 30523-2023 Core Metadata of Scientific and Technological Resources

GB/T 32843-2016 Science and Technology Resource Identification

GB/T 35294-2017 Information Technology Scientific Data Citation

GB/T 36369-2018 Unique Identifier System for Digital Objects in Information and Documents

GB/T 39908-2021 Code set for the transfer of scientific data generated by science and technology programs

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 In ecological scientific research activities, raw basic data are obtained through observation, experimentation, surveys, and other methods, as well as data collected according to research needs. The term refers to all derivative data generated from the

processing, analysis, and application of original basic data and other collected data.

3.2 dataset A recognizable set of data.

Note. By restricting the coverage or attribute type, a dataset can physically become a smaller data group within a larger dataset. [Source: GB/T 19710.1-2023, 3.3, with modifications]

3.3 Dataset series A collection of datasets that share common characteristics.