

ITIS and the Global Taxonomic Backbone

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Abstract

The Integrated Taxonomic Information System ([ITIS](#)) provides a regularly updated, global database that currently contains over 868,000 scientific names and their hierarchy. The program exists to communicate a comprehensive taxonomy of global species across 7 kingdoms that enables biodiversity information to be discovered, indexed, and connected across all human endeavors. ITIS partners with taxonomists and experts across the world to assemble scientific names and their taxonomic relationships, and then distributes that data through publicly available software. A single taxon may be represented by multiple scientific names, so ITIS makes it a priority to provide synonymy. Linking valid or accepted names with their subjective and objective synonyms is a key component of name translation and increases the precision of searches and organization of information.

ITIS and its partner [Species2000](#) create the [Catalogue of Life](#) (CoL) checklist that provides quality scientific name data for over 2.2M species. The CoL is the [Global Biodiversity Information Facility](#) (GBIF) taxonomic backbone.

Providing automated open access to complete, current, literature-referenced, and expert-validated taxonomic information enables biological data management systems, and is elemental to enhancing the utility of the amassed scientific data across the world. Fully leveraging this information for the public good is crucial for empowering the global digital society to confront the most pressing social and environmental challenges.

Keywords

taxonomy, database, scientific names, Catalogue of Life, Integrated Taxonomic Information System

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Conflicts of interest