

Conference Abstract

ITIS and the Global Taxonomic Backbone

David Mitchell^{‡,§}, Thomas M. Orrell[‡]

[‡] U.S. Geological Survey, Reston, VA, United States of America

[§] Integrated Taxonomic Information System, Washington, DC, United States of America

[‡] National Museum of Natural History, Smithsonian Institution, Washington, DC, United States of America

Corresponding author: David Mitchell (mitchelld@si.edu)

Received: 18 Sep 2021 | Published: 20 Sep 2021

Citation: Mitchell D, Orrell TM (2021) ITIS and the Global Taxonomic Backbone. Biodiversity Information Science and Standards 5: e75471. <https://doi.org/10.3897/biss.5.75471>

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

Presenting author

David Mitchell

Presented at

TDWG 2021