



BioNet Thesaurus data standard

Version 1.1

Department of Climate Change,
Energy, the Environment and Water



Acknowledgement of Country

Department of Climate Change, Energy, the Environment and Water acknowledges the Traditional Custodians of the lands where we work and live.

We pay our respects to Elders past, present and emerging.

This resource may contain images or names of deceased persons in photographs or historical content.

© 2025 State of NSW and Department of Climate Change, Energy, the Environment and Water

With the exception of photographs, the State of NSW and Department of Climate Change, Energy, the Environment and Water (the department) are pleased to allow this material to be reproduced in whole or in part for educational and non-commercial use, provided the meaning is unchanged and its source, publisher and authorship are acknowledged. Specific permission is required to reproduce photographs.

Learn more about our copyright and disclaimer at www.environment.nsw.gov.au/copyright

Artist and designer Nikita Ridgeway from Aboriginal design agency Boss Lady Creative Designs created the People and Community symbol.

Cover photo: Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions. Threatened ecological community. Shane Ruming/DCCEEW

Published by:
Environment and Heritage
Department of Climate Change,
Energy, the Environment and Water
Locked Bag 5022, Parramatta NSW 2124
Phone: +61 2 9995 5000 (switchboard)
Phone: 1300 361 967 (Environment and Heritage enquiries)
TTY users: phone 133 677, then ask for 1300 361 967
Speak and listen users: phone 1300 555 727, then ask for 1300 361 967
Email info@environment.nsw.gov.au
Website www.environment.nsw.gov.au

ISBN 978-1-923436-51-0
EH 2025/0126 June 2025

Find out more at:

environment.nsw.gov.au

Contents

1.	Introduction	1
2.	Overview of the web service and standard	2
3.	Specifications for the Thesaurus entity set	3

List of tables

Table 1	Overview of the categories of data shared via the Thesaurus entity set	2
Table 2	Available ‘metadata’ fields via the Thesaurus entity set	3
Table 3	Available ‘thesaurus’ fields via the Thesaurus entity set	5

1. Introduction

The BioNet Thesaurus Web Service provides an open application programming interface (API). It allows IT developers to develop search functions for BioNet data collections software applications. It provides generalised search classifications for common entities across the Species Sightings, Species Names and Threatened Biodiversity Web Services.

The web service complements existing BioNet applications. It provides direct programmatic access to BioNet data holdings.

This document sets out detailed information on the data available via the BioNet Thesaurus Web Service. It can help you evaluate whether the web service will meet your data needs.

Please make sure the version of this data standard (1.1) matches the online data. Check the value in 'bioNet:dataStandardVersion' for 'EntitySet Name=Thesaurus':

```
EntitySet Name="Thesaurus" EntityType="BioSvcApp.Models.vwCUBE_Thesaurus" bioNet:bioNetOpenAPIVersion="4.0.2" bioNet:dataStandardVersion="1.1" bioNet:dateLastBulkUpdate="01/02/2025"/
```

2. Overview of the web service and standard

The web service is an OASIS Open Data (OData) v4.0-based web service. OData provides a standardised RESTful protocol for querying and retrieving data.

The [BioNet Web Service developer guide](#) provides more background information about the protocol. OData makes data available via 'entity sets' structured as tables of data.

Table 1 provides a high-level overview of the type of data communicated in the entity set.

Table 1 Overview of the categories of data shared via the Thesaurus entity set

Category	Description
Metadata	Metadata associated with the record.
Thesaurus	General search terms and links to the Species Sightings, Species Names and Threatened Biodiversity web services.

3. Specifications for the Thesaurus entity set

Tables 2 and 3 provide the specifications of the data fields available in each category of the Thesaurus entity set available via the BioNet Thesaurus Web Service. Each table presents the group of terms that fall within the specified category.

Table 2 Available 'metadata' fields via the Thesaurus entity set

Property name	Occurrence	Definition	Format	Example	Data type
dcterms_language	1	The language of the resource based on RFC 4646 [RFC4646].	Always: en	'en'	"Edm.String"
dcterms_modified	1	The most recent date-time on which the resource was changed.	YYYY-MM-DDTHH:MM:SS.000 +HH:MM offset from UTC	'2020-01-30T21:45:47.313+11:00'	"Edm.DateTimeOffset"
dcterms_rights	1	Information about rights held in and over the resource. Typically, rights information includes a statement about various property rights associated with the resource, including intellectual property rights.	Always: CC-BY 4.0	'CC-BY 4.0'	"Edm.String"

dcterms_rightsHolder	1	A person or organisation owning or managing rights over the resource.	Always: NSW Dept of Planning, Industry and Environment	'NSW Dept of Planning, Industry and Environment'	"Edm.String"
dcterms_type	1	The nature or genre of the resource based on the Dublin Core recommended best practice controlled vocabulary (DCMI Type Vocabulary).	Always: catalogueOrIndex	'catalogueOrIndex'	"Edm.String"
TID	1	An indexing primary key.	Integer	'591899552'	"Edm.Int32" Nullable="false"

Table 3 Available 'thesaurus' fields via the Thesaurus entity set

Property name	Occurrence	Definition	Format	Example	Data type
termType	1	The name of the corresponding field in the Species Names Web Service to be queried using the data from the termNativeID field when wanting to retrieve additional detailed data on the species based on the search results obtained from the Thesaurus Web Service.	Format: One item from the following controlled vocabulary FamilyID OrderID KingdomID ClassID GenusID SynonymID ParentSpeciesID EndangeredID TaxonID GeneralTypeID Note: This field must be used in conjunction with the data from the termNativeID field.	'TaxonID'	"Edm.String"
termNativeID	1	The ID number to be used in conjunction with the termType to create the query to retrieve additional detailed data on the species based on the search results obtained from the	Integer. Note: This field must be used in conjunction with the data from the termType field.	'19519'	"Edm.Int32" Nullable="false"

Property name	Occurrence	Definition	Format	Example	Data type
		Thesaurus web service. For example, if termType was TaxonID and the termNativeID was 19519 then the query constructed would be https://data.bionet.nsw.gov.au/biosvcapp/data/speciesname?\$filter=TaxonID eq 19519.			
termName	1	The term name is one of 2 primary fields to be used by software applications when conducting keyword searches. It provides a wide range of terms across various levels of the data collections, from higher level concepts such as groupings of species using generalised terms such as bats or fish, or threatened ecological communities, through to specific terms at	Text	'Demansia rimicola', 'Orchids', 'Acacia loderi shrublands'	"Edm.String" Nullable = "false"

Property name	Occurrence	Definition	Format	Example	Data type
		lower levels including Latin species names from the taxonomic tree and the names of plant community types.			
termCommonName	0-1	The term common names is the second of the 2 primary fields to be used by software applications when conducting keyword searches. It provides a common name relating to the term name, particularly relevant to species names.	Text	'a whip snake'	"Edm.String"
termTypeDescription	1	Provides a user-readable description for the termType that can be presented back to the user to enable them to further narrow their search or drill down on a particular result returned.	One item from the following controlled vocabulary: <ul style="list-style-type: none"> • Class • Community • Cultivar • Endangered Populations • Family • Forma 	'Species'	"Edm.String"

Property name	Occurrence	Definition	Format	Example	Data type
			<ul style="list-style-type: none"> • General Type • Genus • Infrataxon • Kingdom • Nothomorph • Order • Species • Subspecies • Synonym • Threat 		
speciesType	1	Generalised aggregation for enabling searching based on species type.	One item from the following controlled vocabulary: <ul style="list-style-type: none"> • Animals • Fungi • Plants • Other 	'Animals'	"Edm.String"
stateConservation	1	The Legal Status of the species within NSW under the <i>Biodiversity Conservation Act 2016</i> .	One of the following controlled vocabulary: <ul style="list-style-type: none"> • Vulnerable • Vulnerable Ecological Community • Endangered • Endangered Ecological Community 	'Vulnerable'	"Edm.String"

Property name	Occurrence	Definition	Format	Example	Data type
			<ul style="list-style-type: none"> Endangered Population Critical Habitat Critically Endangered Critically Endangered Ecological Community Extinct Extinct in the Wild Key Threatening Process Collapsed Ecological Community Not Listed 		
sensitivityClass	1	The category of the species in accordance with the department's Sensitive Species Data Policy (SSDP).	One of the following controlled vocabulary: <ul style="list-style-type: none"> Category 1 Category 2 Category 3 Not Sensitive N/A Note: The SSDP only applies to species. If the termName is not	'Not Sensitive'	"Edm.String"

Property name	Occurrence	Definition	Format	Example	Data type
			'species' then N/A is given.		
protectedInNSW	1	The legal status of the species within NSW under the <i>Biodiversity Conservation Act 2016</i> .	True/false	'true'	"Edm.String"
countryConservation	1	The legal status of the species under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (the EPBC Act).	One item from the following controlled vocabulary <ul style="list-style-type: none"> • Conservation Dependent • Critically Endangered • Endangered • Extinct • Extinct in the Wild • Key Threatening Process • Vulnerable • Not Listed 	'Not Listed'	"Edm.String"
profileID	0-1	The unique identifier for the threatened species, population, ecological community or key threatening process profile as available in the BioNet Threatened	Integer	'10212'	"Edm.Int32"

Property name	Occurrence	Definition	Format	Example	Data type
		Biodiversity Web Service; or to retrieve sightings of species (including sightings of individuals in a threatened population) from the BioNet Species Sightings Web Service.			
inSortID	1	Provides a logical order for applications to sort results on based on a meaningful taxonomic order (e.g. kingdom, phylum, class, order).	Integer	'6'	"Edm.Int32"