



DEPARTMENT OF PLANNING, INDUSTRY & ENVIRONMENT

BioNet Thesaurus Web Service data standard

BioNet Web Services Version 1.0



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1. Introduction

The BioNet Thesaurus Web Service provides an open application programming interface (API) for IT developers to use in developing 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.

This document provides detailed information on the data available via the BioNet Thesaurus Web Service. It will enable potential users of the web service to evaluate whether the web service will meet their data needs.

To ensure that this version of the data standard applies to the web service, please check the online data and confirm that the version of this document aligns with the value in '*bioNet:dataStandardVersion*' for '*EntitySet Name=Thesaurus*' (see Figure 1).

```
<EntitySet Name="Thesaurus" EntityType="BioSvcApp.Models.vwCUBE_Thesaurus"  
  bioNet:bioNetOpenAPIVersion="3.0.0.1" bioNet:dataStandardVersion="1.0"  
  bioNet:dateLastBulkUpdate="24/02/2017"/>
```

Figure 1 Metadata output

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 and is already in use for the existing BioNet Web Services. The following links provide more background information about the protocol:

- [Unlock your data with OData](#) – a short high-level explanatory video
- [What is the OData Protocol?](#) – a short, more technical explanation of the protocol
- [OASIS Open Data Protocol \(OData\) TC](#) – the OASIS standard specification details
- [OData](#) – the OData community website.

OData makes data available via ‘entity sets’. These can be thought of as tables of data, like a sheet within a spreadsheet. For the Species Names Web Service, one entity set (Figure 2) is available.

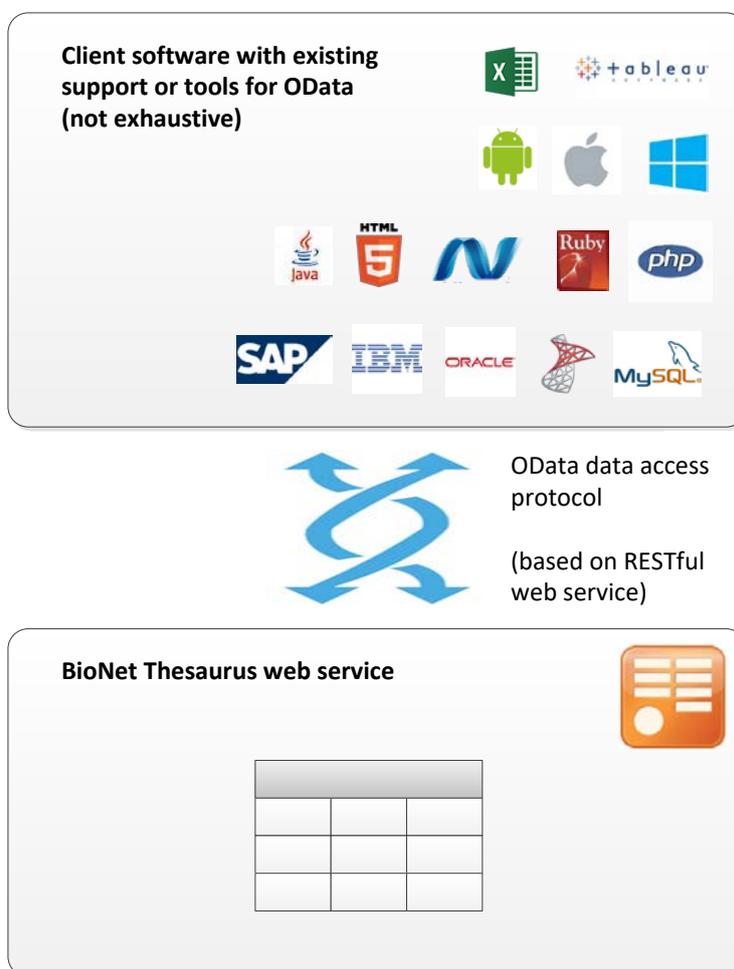


Figure 2 Conceptual overview of data exposure via the OData-based BioNet Thesaurus Web Service. RESTful, Representational State Transfer

Figure 3 gives a high-level overview of the categories of data communicated in the entity set, with detailed descriptions of the data fields available within each category given in the tables in Section 3.

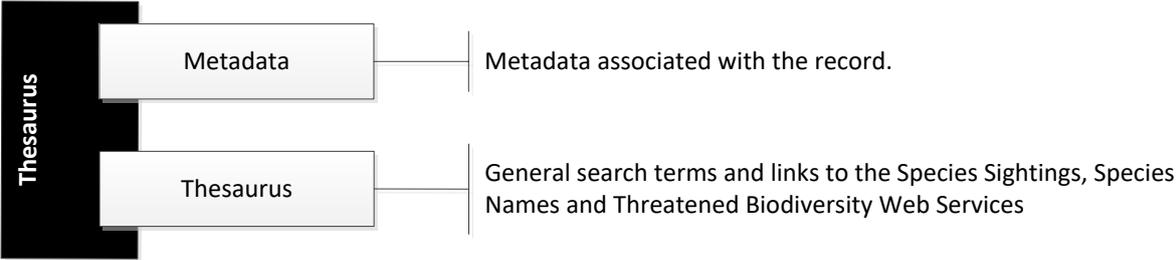


Figure 3 Overview of the categories of data shared via the Thesaurus entity set

3 Specifications for the Thesaurus entity set

Tables 1 and 2 provide the exact specifications of the data fields available in each category of SpeciesNames entity set available via the BioNet Species Names Web Service.

Table 1 Metadata data fields

Property name	Occurrence	Definition	Format	Example	Data type
dcterms_language	1	The language of the resource based on RFC 4646 [RFC4646].	Always: en	'en'	VARCHAR (50)
dcterms_modified	1	The most recent date-time on which the resource was changed based on ISO 8601:2004(E).	DD/MM/YYYY HH:MM AM/PM +HH:MM offset from UTC	'15/03/2011 4:42 PM +11:00'	DATETIME
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'	VARCHAR (50)
dcterms_rightsHolder	1	A person or organisation owning or managing rights over the resource.	Always: NSW Department of Planning, Industry and Environment	'NSW Department of Planning, Industry and Environment'	VARCHAR (50)
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'	VARCHAR (50)

Table 2 Thesaurus data fields

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.	<p>Format: One item from the following controlled vocabulary</p> <ul style="list-style-type: none"> • FamilyID • OrderID • KingdomID • ClassID • GenusID • SynonymID • ParentSpeciesID • EndangeredID • TaxonID • GeneralTypeID <p>Note: This field must be used in conjunction with the data from the termNativeID field.</p>	'TaxonID'	VARCHAR (50)
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 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/odata/speciesname?\$filter=TaxonID eq 19519 .	Integer. Note: This field must be used in conjunction with the data from the termType field.	'19519'	INT NOT NULL

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Property name	Occurrence	Definition	Format	Example	Data type
termName	1	The term name is one of two 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 lower levels including Latin species names from the taxonomic tree and the names of Plant Community Types.	Text	'Demansia rimicola', 'Orchids', 'Acacia loderi shrublands'	VARCHAR (500)
termCommonName	0-1	The term common names is the second of the two 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'	VARCHAR (150)

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Property name	Occurrence	Definition	Format	Example	Data type
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 • General Type • Genus • Infrataxon • Kingdom • Nothomorph • Order • Species • Subspecies • Synonym • Threat 	'Species'	VARCHAR (50)
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'	VARCHAR (150)

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Property name	Occurrence	Definition	Format	Example	Data type
stateConservation	1	The Legal Status of the species within NSW under the <i>Biodiversity Conservation Act 2016</i> or the <i>Fisheries Management Act 1994</i> No. 38 (FM Act 1994).	One of the following controlled vocabulary: <ul style="list-style-type: none"> • Critical Habitat • Critically Endangered • Critically Endangered Ecological Community • Critically Endangered Fish • Endangered • Endangered Fish • Endangered Ecological Community • Endangered Ecological Community of Fish • Endangered Population • Endangered Population of Fish • Extinct Fish • Key Threatening Process • Key Threatening Process of Fish • Protected Fish • Species Presumed Extinct • Vulnerable • Vulnerable Fish • Vulnerable Ecological Community • Not Listed 	'Vulnerable'	VARCHAR (150)
sensitivityClass	1	The category of the species in accordance with the DPIE 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':	VARCHAR (150)

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Property name	Occurrence	Definition	Format	Example	Data type
			<ul style="list-style-type: none"> • Not Sensitive • N/A <p>Note: The SSDP only applies to species. If the termName is not 'species' then N/A is given.</p>		
protectedInNSW	1	The Legal Status of the species within NSW under the <i>Biodiversity Conservation Act 2016</i> .	True/false	'true'	VARCHAR (10)
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'	VARCHAR (150)
profileID	0-1	The unique identifier for the threatened species, population, ecological community or key threatening process profile as available in the BioNet Threatened Biodiversity Web Service; or to retrieve sightings of species (including sightings of individuals in a threatened population) from the BioNet Species Sightings Web Service.	Integer	'10212'	INT
inSortID		Provides a logical order for applications to sort results on based on a meaningful taxonomic order (e.g. Kingdom, Phylum, Class, Order).	Integer	'6'	INT NOT NULL