BioNet Web Services

Vegetation Classification Web Service Data Standard version 1

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Introduction

The BioNet Vegetation Classification Web Service provides an open Application Programing Interface to enable IT (information technology) application developers to integrate data held in the Vegetation Information System (VIS) Classification database with software applications. The scope of its applications as an open data initiative spans the full breadth of potential uses, from mobile apps through to organisational decision-management business systems.

The web service does not replace the existing VIS Classification User Interface, as the web service is intended for use by software applications, not as a user interface. To this end, not all data held in the VIS Classification User Interface are made available via the web service. Legacy data, such as Biodiversity Vegetation Type data, will not be carried via the web service but will remain available via the existing web-based user interface (see VIS Classification 2.1).

This document provides detailed information on the data available via the BioNet Vegetation Classification 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 https://data.bionet.nsw.gov.au/biosvcapp/odata/$metadata and confirm that the version of this document aligns with the value in '*bioNet:dataStandardVersion*' for '*EntitySet Name=VegetationClassification_PCTDefinition*' (see Figure 1).

```
− <EntitySet Name="VegetationClassification_PCTDefinition"
  EntityType="BioSvcApp.Models.vwCUBE_VegClassificationPCTDefinition"
  bioNet:bioNetOpenAPIVersion="1.1" bioNet:dataStandardVersion="1.0"
  bioNet:dateLastBulkUpdate="30/05/2016">
    <NavigationPropertyBinding Path="VegetationClassification_PCTAssessmentData"
    Target="VegetationClassification_PCTAssessmentData"/>
  </EntitySet>
```

Figure 1: Metadata output

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 BioNet Species Sightings Web Service. The following links are provided to give you more background on 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, very much like a sheet within a spreadsheet. For the Vegetation Classification Web Service two entity sets linked by PCTID (Plant Community Type Identification) (Figure 2) are available. They are:

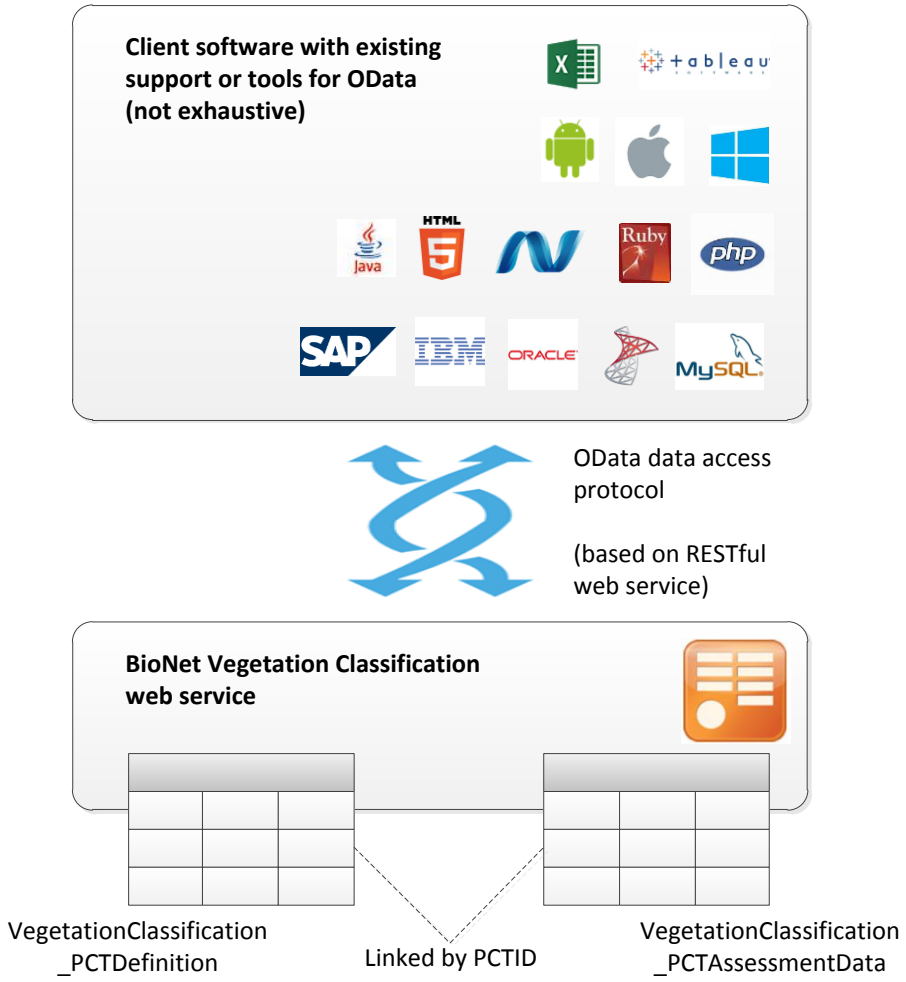

Figure 2: Conceptual overview of data exposure via the OData-based BioNet Vegetation Classification Web Service. RESTful, Representational State Transfer

- **VegetationClassification_PCTDefinition.** The intention of this entity set is to provide the data that would be used by a software application to help people identify Plant Community Types (PCTs) in the field or office. It has a clear focus on structural and floristic data (Figure 3).
- **VegetationClassification_PCTAssessmentData:** The intention of this entity set is to provide the data that business applications would use to evaluate the value of the PCT once it has been identified. It has a clear focus on vegetation extent, condition and associated threatened entities (Figure 4).

Detailed descriptions of the data fields available within each category are given in the tables in the following sections.

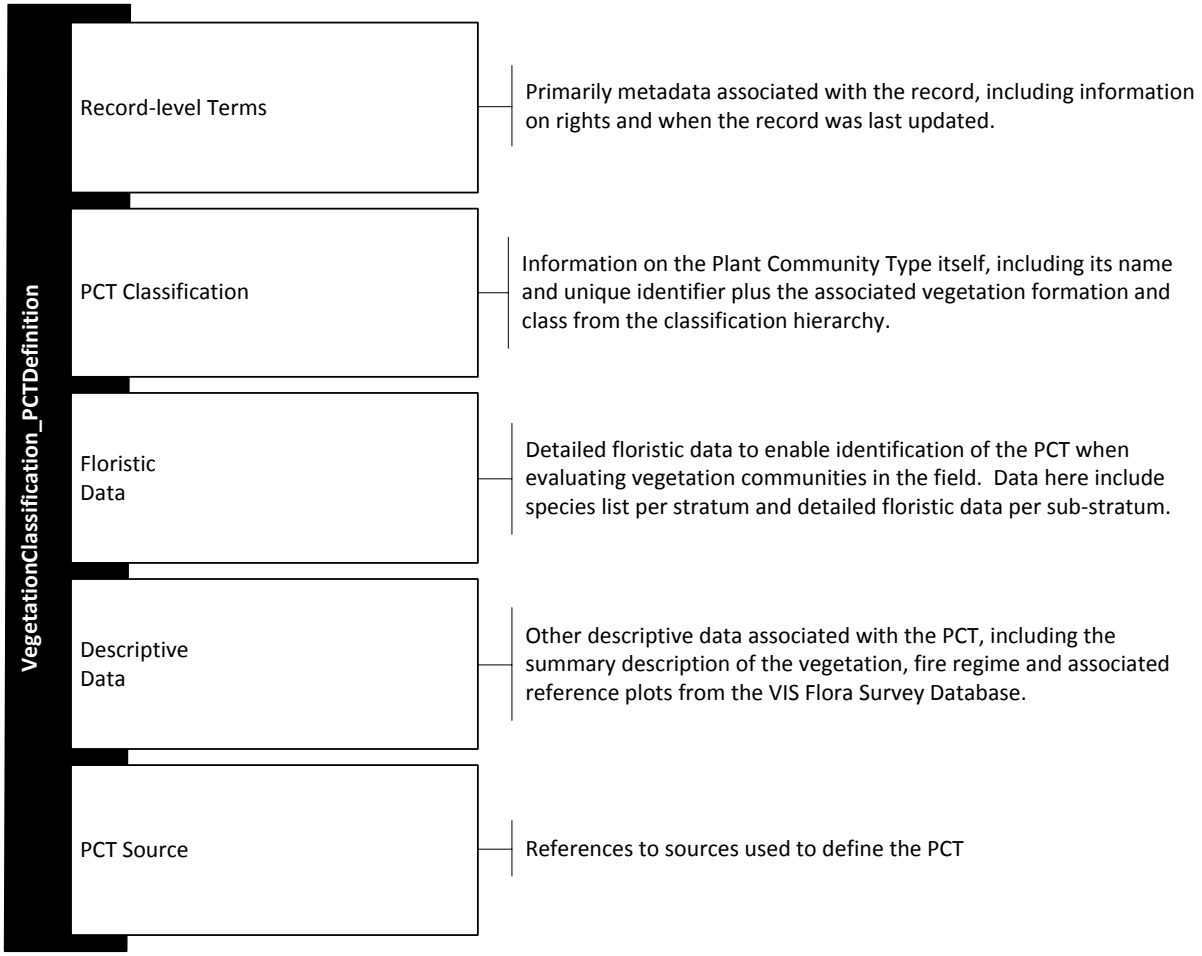

Figure 3: Overview of the categories of data shared via the VegetationClassification_PCTDefinition entity set.

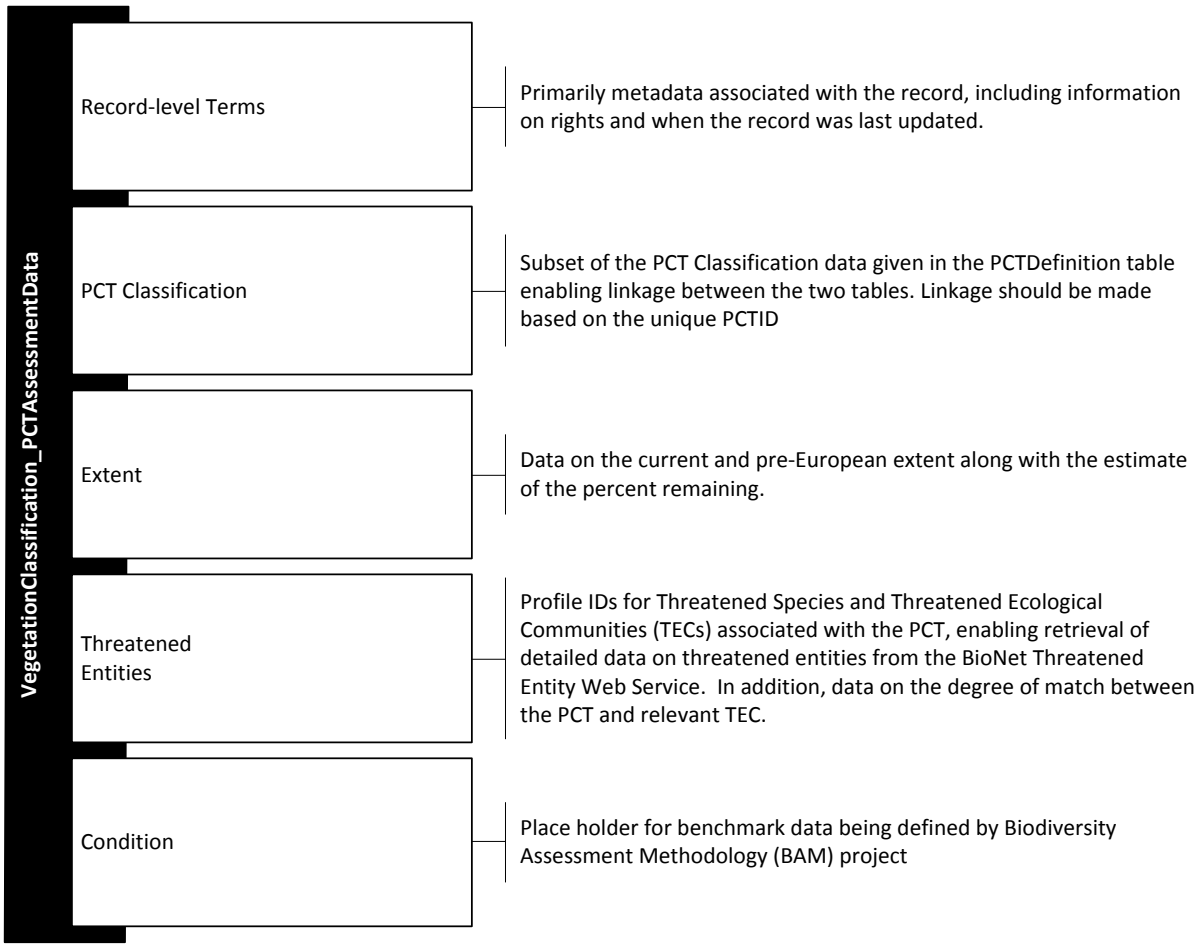

Figure 4: Overview of the categories of data shared via the VegetationClassification_PCTAssessmentData entity set.

Specifications for the VegetationClassification_PCTDefinition dataset

The following tables provide the exact specifications of the data fields available in each category of VegetationClassification_PCTDefinition via the Vegetation Classification Web Service.

Data fields used in the Record-level terms category

Field name	Occurrence	Definition	Example	Data type
collectionCode	1	The name, acronym, coden, or initialism identifying the collection or data set from which the record was derived. This will always be 'BioNet Vegetation Classification'.	'BioNet Vegetation Classification'	VARCHAR (50)
datasetName	1	The name identifying the dataset from which the record was derived.	'PCT Classification'	VARCHAR (100)
dcterms_bibliographic Citation	1	A bibliographic reference for the resource, as a statement indicating how the record should be cited (attributed) when used. This reference will be formatted as follows: 'BioNet Vegetation Classification <current date> <HH:MM> <AM/PM> + <HH:MM offset from UTC>' Note: The date and time are Australian Eastern Standard Time adjusted for daylight saving and reflect the date and time when the web service data were last refreshed from the source data (VIS Classification).	'BioNet Vegetation Classification 22/08/2014 12:47 AM + 10:00'	VARCHAR (50)
dcterms_language	1	The language of the resource based on RFC 4646 [RFC4646].	'en'	VARCHAR (3)
dcterms_modified	1	The most recent date and time when the resource was changed, based on ISO 8601:2004(E). Note: The date modified relates to any change made in the source system (VIS Classification). It is thus possible that the date modified is updated but no actual changes are carried through into the data fields presented via the web service.	'15/03/2011 4:42:31 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.	'Creative Commons by Attribution'	VARCHAR (300)

Data fields used in the Record-level terms category *continued*

Field name	Occurrence	Definition	Example	Data type
dcterms_rightsHolder	1	The person or organization owning or managing rights over the resource.	'NSW Office of Environment and Heritage'	VARCHAR (150)
dcterms_type	1	The nature or genre of the resource. In this case it will always be 'dataset'.	'dataset'	
institutionCode	1	The name (or acronym) in use by the institution that has custody of the object(s) or information referred to in the record.	'NSW Office of Environment and Heritage'	VARCHAR (200)

VARCHAR, variable character field; VIS, Vegetation Information System

Data fields used within the PCT Classification category

Field name	Occurrence	Definition	Example	Data type
PCTID	1	The unique identifier for the PCT.	'1658'	INT
status	1	The formal listing status of the PCT, as determined by the NSW Plant Community Type Change Control Panel, as per the following controlled vocabulary; • Approved • Decommissioned • Provisionally Approved • Provisionally Approved – CMA Change • Provisionally Decommissioned.	'Approved'	
PCTName	1	A colloquial plant community description that can be understood by non-botanists. It may include common names of dominant plant species, or names of a geographical region, a substrate, a soil type or a climatic zone.	'Rough-barked apple – narrow-leaved ironbark – Blakely's red gum – bull oak – coast banksia woodland on sands of the Warkworth area'	VARCHAR (MAX)

Data fields used within the PCT Classification category *continued*

Field name	Occurrence	Definition	Example	Data type
PCTcommonName Synonym	0–1	Any other classification or community common name relevant to this community type that serves as a synonym. If there is no synonym then this field will show 'null'.	'Estuarine mangrove forest'	VARCHAR (MAX)
vegetationFormation	1	Equivalence of a community to one of the Vegetation Formations in the Keith (2004)[1] Statewide Vegetation Map. Uses the following controlled vocabulary: • Alpine Complex • Arid Shrublands (Acacia sub-formation) • Arid Shrublands (Chenopod sub-formation) • Dry Sclerophyll Forests (Shrub/grass sub-formation) • Dry Sclerophyll Forests (Shrubby sub-formation) • Forested Wetlands • Freshwater Wetlands • Grasslands • Grassy Woodlands • Heathlands • Rainforests • Saline Wetlands • Semi-arid Woodlands (Grassy sub-formation) • Semi-arid Woodlands (Shrubby sub-formation) • Wet Sclerophyll Forests (Grassy sub-formation) • Wet Sclerophyll Forests (Shrubby sub-formation).	'Dry Sclerophyll Forests (Shrubby sub-formation)'	VARCHAR (MAX)
vegetationClass	1	Equivalence of a community to one of the Vegetation Classes in the Keith (2004)[1] Statewide Vegetation Map. Uses the following controlled vocabulary: • Aeolian Chenopod Shrublands • Alpine Bogs and Fens • Alpine Fjaeldmarks • Alpine Heaths • Alpine Herbfields • Brigalow Clay Plain Woodlands	'Sydney Sand Flats Dry Sclerophyll Forests'	VARCHAR (MAX)

Data fields used within the PCT Classification category *continued*

Field name	Occurrence	Definition	Example	Data type
vegetationClass	1	• Central Gorge Dry Sclerophyll Forests • Clarence Dry Sclerophyll Forests • Coastal Dune Dry Sclerophyll Forests • Coastal Floodplain Wetlands • Coastal Freshwater Lagoons • Coastal Headland Heaths • Coastal Heath Swamps • Coastal Swamp Forests • Coastal Valley Grassy Woodlands • Cool Temperate Rainforests • Cumberland Dry Sclerophyll Forests • Desert Woodlands • Dry Rainforests • Dune Mallee Woodlands • Eastern Riverine Forests • Floodplain Transition Woodlands • Gibber Chenopod Shrublands • Gibber Transition Shrublands • Hunter–Macleay Dry Sclerophyll Forests • Inland Floodplain Shrublands • Inland Floodplain Swamps • Inland Floodplain Woodlands • Inland Riverine Forests • Inland Rocky Hill Woodlands • Inland Saline Lakes • Littoral Rainforests • Mangrove Swamps • Maritime Grasslands		

Data fields used within the PCT Classification category *continued*

Field name	Occurrence	Definition	Example	Data type
vegetationClass	1	• Montane Bogs and Fens • Montane Lakes • Montane Wet Sclerophyll Forests • New England Dry Sclerophyll Forests • New England Grassy Woodlands • North Coast Dry Sclerophyll Forests • North Coast Wet Sclerophyll Forests • Northern Escarpment Dry Sclerophyll Forests • Northern Escarpment Wet Sclerophyll Forests • Northern Gorge Dry Sclerophyll Forests • Northern Hinterland Wet Sclerophyll Forests • Northern Montane Heaths • Northern Tableland Dry Sclerophyll Forests • Northern Tableland Wet Sclerophyll Forests • Northern Warm Temperate Rainforests • North-west Alluvial Sand Woodlands • North-west Floodplain Woodlands • North-west Plain Shrublands • North-west Slopes Dry Sclerophyll Woodlands • Oceanic Cloud Forests • Oceanic Rainforests • Pilliga Outwash Dry Sclerophyll Forests • Riverine Chenopod Shrublands • Riverine Plain Grasslands • Riverine Plain Woodlands • Riverine Sandhill Woodlands • Saltmarshes • Sand Plain Mallee Woodlands		

Data fields used within the PCT Classification category *continued*

Field name	Occurrence	Definition	Example	Data type
vegetationClass	1	• Sand Plain Mulga Shrublands • Seagrass Meadows • Semi-arid Floodplain Grasslands • Semi-arid Sand Plain Woodlands • South Coast Heaths • South Coast Sands Dry Sclerophyll Forests • South Coast Wet Sclerophyll Forests • South East Dry Sclerophyll Forests • Southern Escarpment Wet Sclerophyll Forests • Southern Hinterland Dry Sclerophyll Forests • Southern Lowland Wet Sclerophyll forests • Southern Montane Heaths • Southern Tableland Dry Sclerophyll Forests • Southern Tableland Grassy Woodlands • Southern Tableland Wet Sclerophyll Forests • Southern Warm Temperate Rainforests • Southern Wattle Dry Sclerophyll Forests • Stony Desert Mulga Shrublands • Subalpine Woodlands • Subtropical Rainforests • Subtropical Semi-arid Woodlands • Sydney Coastal Dry Sclerophyll Forests • Sydney Coastal Heaths • Sydney Hinterland Dry Sclerophyll Forests • Sydney Montane Dry Sclerophyll Forests • Sydney Montane Heaths • Sydney Sand Flats Dry Sclerophyll Forests • Tableland Clay Grassy Woodlands		

Data fields used within the PCT Classification category *continued*

Field name	Occurrence	Definition	Example	Data type
vegetationClass	1	• Temperate Montane Grasslands • Upper Riverina Dry Sclerophyll Forests • Wallum Sand Heaths • Western Peneplain Woodlands • Western Slopes Dry Sclerophyll Forests • Western Slopes Grasslands • Western Slopes Grassy Woodlands • Western Vine Thickets • Yetman Dry Sclerophyll Forests.		

[1] Keith D 2004, *Ocean Shores to Desert Dunes: the Native Vegetation of New South Wales and the ACT.* NSW National Parks and Wildlife Service, Sydney.

CMA, Catchment Management Authority; INT, integer; PCT, Plant Community Type; VARCHAR, variable character field.

Data fields used within the Floristic Data category

Note that the following document should be consulted for additional information regarding the definitions of the stratum and sub-stratum: http://www.environment.nsw.gov.au/nswvca20app/Static/StructuralTerms.pdf

Field name	Occurrence	Definition	Example	Data Type
emergentStratumSpeciesList	0–n	The list of species, separated by semi-colon(s), present in the emergent stratum. If this stratum is not present, this is indicated by 'null'. The format for the species name is as follows: <*genus*> <*specific epithet*> <connecting term> <*intraspecific epithet*>; where the connecting term can be one of the following: • subsp. = subspecies • var. = variety	'*Eucalyptus maculata*'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upperStratumSpeciesList	0–n	The list of species, separated by semi-colon(s), present in the upper stratum. If this stratum is not present, this is indicated by 'null'. The format for the species name is as follows: <*genus*> <*specific epithet*> <connecting term> <*intraspecific epithet*>; where the connecting term can be one of the following: • subsp. = subspecies • var. = variety	*'Angophora floribunda*;*Eucalyptus crebra*;*Eucalyptus blakelyi*;	VARCHAR (MAX)
midStratumSpeciesList	0–n	The list of species, separated by semi-colon(s), present in the mid-stratum. If this stratum is not present, this is indicated by 'null'. The format for the species name is as follows: <*genus*> <*specific epithet*> <connecting term> <*intraspecific epithet*>; where the connecting term can be one of the following: • subsp. = subspecies • var. = variety	'*Allocasuarina luehmannii*;*Hibbertia linearis*;*Grevillea montana*;*Acacia filicifolia*;*Breynia oblongifolia*;*Banksia integrifolia*;'	VARCHAR (MAX)
groundStratumSpeciesList	0–n	The list of species, separated by semi-colon(s), present in the ground stratum. If this stratum is not present, this is indicated by 'null'. The format for the species name is as follows: <*genus*> <*specific epithet*> <connecting term> <*intraspecific epithet*>; where the connecting terms can be one of the following: • subsp. = subspecies • var. = variety	*'Lomandra confertifolia*;*Cheilanthes austrotenuifolia*;*Dianella revoluta*;*Cymbopogon refractus*;*Aristida vagans*;*Cynodon dactylon*;*Pteridium esculentum*;*'*	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
emergentGroupFrequency	0–n	Data on the frequency at which a species occurs within the emergent stratum (if present). If the stratum is not present this is indicated by 'null'. If more than one species is present then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>,<group frequency>,<group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in the emergent stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the stratum when it is present.	'null'	VARCHAR (MAX)
upper1GroupFrequency	0–n	Data on the frequency with which a species occurs within the first upper sub-stratum (if present). If the sub-stratum is not present this is indicated by 'null'. If more than one species is present, then the data blocks are separated by a semi-colon. The format for the frequency data is as follows:	'*Angophora floribunda*,46,3;*Eucalyptus crebra*,46,3;*Eucalyptus blakelyi*,46,3;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upper1GroupFrequency	0–n	<species name>,<group frequency>,<group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.		
upper2GroupFrequency	0–n	Data on the frequency with which a species occurs within the second upper sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT.		

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upper2GroupFrequency	0–n	For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.	'null'	VARCHAR (MAX)
upper3GroupFrequency	0–n	Data on the frequency with which a species occurs within the third upper sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum.		

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upper3GroupFrequency	0–n	• **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.	'null'	VARCHAR (MAX)
mid1GroupFrequency	0–n	Data on the frequency with which a species occurs within the first mid sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.	'*Allocasuarina luehmannii*,63,2;'	

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
mid2GroupFrequency	0–n	Data on the frequency with which a species occurs within the second mid sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present, then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.	'*Hibbertia linearis*,63,1;*Grevillea montana*,54,1;*Acacia filicifolia*,50,2;*Breynia oblongifolia*,50,1;*Banksia integrifolia*,33,2;'	VARCHAR (MAX)
mid3GroupFrequency	0–n	Data on the frequency with which a species occurs within the third mid sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present, then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where:	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
mid3GroupFrequency	0–n	• **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example. if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.		
ground1GroupFrequency	0–n	Data on the frequency with which a species occurs within the first ground sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present, then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, the group frequency would be	'*Lomandra confertifolia*,75,1;*Cheilanthes austrotenuifolia*,67,1;*Dianella revoluta*,67,1;*Cymbopogon refractus*,63,1;*Aristida vagans*,50,1; *Cynodon dactylon*,46,2;*Pteridium esculentum*,33,4;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
ground1GroupFrequency	0–n	(4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale. For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.		
ground2GroupFrequency	0–n	Data on the frequency with which a species occurs within the second ground sub-stratum (if present). If the sub-stratum is not present, this is indicated by 'null'. If more than one species is present, then the data blocks are separated by a semi-colon. The format for the frequency data is as follows: <species name>, <group frequency>, <group score>; where: • **species name** = <genus> <specific epithet> <connecting term> <intraspecific epithet> • **group frequency** = how often the species has been recorded as occurring within a plot within this sub-stratum, expressed as a percentage of the total number of plots used to define the PCT. For example, if species x occurred in sub-stratum y in 4 of the 20 plots used to define this PCT, then the group frequency would be (4/20) x 100 = 20. The intent is to provide a measure of how common the species is within the sub-stratum. • **group score** = the mean cover score of the species within the sub-stratum across the plots where it occurs, expressed by using the Braun-Blanquet scale.	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
ground2GroupFrequency	0–n	For example, if species x occurred in sub-stratum y in 4 of the 20 plots with cover scores of 3, 4, 4 and 5, then the 16 plots where it did not occur would be excluded and the mean would be (3+4+4+5)/4 = 4. The intent is to provide a measure of how abundant the species is within the sub-stratum when it is present.		
dominantStratum	1	Indication of the dominant stratum (entered at sub-stratum level).	'1st upper sub-stratum'	VARCHAR (100)
upper1CoverData	0–1	Data on the combined foliage cover of all species within the first upper sub-stratum (if present) as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: • **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	20.0;40.0;33.3;1C;no	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upper2CoverData	0–1	Data on the combined foliage cover of all species within the second upper sub-stratum (if present), as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: • **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	'null'	VARCHAR (MAX)
upper3CoverData	0–1	Data on the combined foliage cover of all species in the third upper sub-stratum (if present) as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area.	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upper3CoverData	0–1	For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.		
mid1CoverData	0–1	Data on the combined foliage cover of all species within the first mid-storey sub-stratum (if present), as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: • **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area.	'3.5;35.3;18.4;2N;no;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
mid1CoverData	0–1	• **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.		
mid2CoverData	0–1	Data on the combined foliage cover of all species within the second mid-storey sub-stratum (if present), as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: • **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	'null;16.4;7.8;2N;no;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
mid3CoverData	0–1	Data on the combined foliage cover of all species within the third mid-storey sub-stratum (if present), as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: • **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	'null'	VARCHAR (MAX)
ground1CoverData	0–1	Data on the combined foliage cover of all species within the first ground sub-stratum (if present), as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area.	'20.2;69.8;45.0;2N;no;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
ground1CoverData	0–1	For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area • **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (=n o). If there are no species data for the sub-stratum the value 'null' is given.		
ground2CoverData	0–1	Data on the combined foliage cover of all species within the second ground sub-stratum (if present), as a percentage of the plot area. The format of the cover data is as follows: <min>;<max>;<mean>;<cover type code>;<cover surrogate derived> where: • **min** = the minimum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. For example, if 3 plots were used to define the PCT, with cover scores in this sub-stratum of 10%, 15% and 18%, then the min would be 10%. • **max** = the maximum score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area. • **mean** = the mean score recorded for the foliage cover from all plots used to define the PCT, expressed as a percentage of the plot area	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
ground2CoverData	0–1	• **cover type code** = a code indicating the type of measure used to calculate the cover values (min, max and mean). See Appendix A for a definition of the codes. • **cover surrogate derived** = an indication of whether the cover was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.		
upper1HeightData	0–1	Data on the height of species occurring within the first upper sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: • **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (=n o). If there are no species data for the sub-stratum the value 'null' is given.	'18.0;25.0;21.7;no;'	VARCHAR (MAX)
upper2HeightData	0–1	Data on the height of species occurring within the second upper sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
upper2HeightData	0–1	measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.		
upper3HeightData	0–1	Data on the height of species occurring within the third upper sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: • **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (=yes) or quantitatively determined (=no). If there are no species data for the sub-stratum the value 'null' is given.	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
mid1HeightData	0–1	Data on the height of species occurring within the first mid-storey sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: • **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	'2.0;13.0;6.0;no;'	VARCHAR (MAX)
mid2HeightData	0–1	Data on the height of species occurring within the second mid-storey sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: • **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc.	'null;null;null;no;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
mid2HeightData	0–1	• mean = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.		
mid3HeightData	0–1	Data on the height of species occurring within the third mid-storey sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: • **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	'null'	VARCHAR (MAX)
ground1HeightData	0–1	Data on the height of species occurring within the first ground sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc.	'0.2;2.0;1.0;no;'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
ground1HeightData	0–1	For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.		
ground2HeightData	0–1	Data on the height of species occurring within the second ground sub-stratum (if present). The format for the height data is as follows: <min>;<max>;<mean>;<height surrogate derived> where: • **min** = the minimum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. For example, if 3 plots were used to define the PCT, with estimated heights in this sub-stratum of 25m, 26m and 30m, then the min would be 25. • **max** = the maximum estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **mean** = the mean of the estimated maximum height (in metres) of the sub-stratum from all plots used to define the PCT. Note that the height is measured to the top of the crown, tussock etc. • **height surrogate derived** = an indication of whether the height was estimated (= yes) or quantitatively determined (= no). If there are no species data for the sub-stratum the value 'null' is given.	'null'	VARCHAR (MAX)

Data fields used within the Floristic Data category *continued*

Field name	Occurrence	Definition	Example	Data type
diagnosticSpecies	0–n	The list of species, separated by semi-colons, considered to be diagnostic of the community. The format for the species name is as follows: <*genus*> <*specific epithet*> <connecting term> <*intraspecific epithet*> (vernacular name); Where the connecting term can be one of the following: • subsp. = subspecies • var. = variety	'*Aristida vagans* (threeawn speargrass); *Cheilanthes austrotenuifolia* (rock fern); *Cymbopogon refractus* (barbed wire grass); *Cynodon dactylon* (common couch); *Dianella revoluta* (blueberry lily); *Lomandra confertifolia* (matrush); *Pteridium esculentum* (bracken);'	VARCHAR (MAX)
diagnosticSpeciesMethod	1	Method used to identify diagnostic species, according to the following controlled vocabulary: • Quantitative – e.g. fidelity analyses • Qualitative - expert opinion • Combination of quantitative and qualitative.	'Quantitative – e.g. fidelity analyses'	VARCHAR (100)

PCT, Plant Community Type; VARCHAR, variable character field

Data fields used within the Descriptive data category

Field name	Always present?	Definition	Example	Data type
vegetationDescription	1	Summary description of the plant community. Format is free text.	'Eucalypt-dominated Open Forests to Woodlands with a typically two-layered mid-stratum and a mixed graminoid/fern groundcover.| This community is confined to the Warkworth Sands in the Central Hunter. These are Quaternary Aeolian sands, most of which have been cleared of their native vegetation. Elevation is from 50m to 400m.'	VARCHAR (MAX)

Data fields used within the Descriptive data category *continued*

Field name	Always present?	Definition	Example	Data type
variationAndNaturalDisturbance	0–1	Description of floristic variation in the community and natural disturbances that affect successional stages and species composition. Format is free text. If no description exists, 'null' is given.	'null'	VARCHAR (MAX)
fireRegime	0–1	Description of known or postulated fire regimes for the appropriate management of the community, and comments on the impacts of fire on the community. Format is free text. If no description exists, 'null' is given.	'null'	VARCHAR (MAX)
associatedReferencePlots	0–n	The list of plotIDs, separated by semi-colons, from the VIS Flora Survey database associated with this PCT. If no plots are currently associated with the PCT, then 'null' is given.	'null'	VARCHAR (MAX)
isADerivedPlantCommunityType	0–1	Used to indicate whether the PCT is never derived, partially derived, or always derived. Uses the following controlled vocabulary: • No – never occurs as a derived community • Yes – is fully derived • Partial – occurs as both derived and original.	'Partial – occurs as both derived and original'	VARCHAR (50)
originalCommunityThisPCT DerivedFrom	0–n	Where the community is a derived community, the community type(s) from which this community has been derived. If there is more than one community type they are separated by semi-colons. The following format is used: <PCTCommonName>; Where PCTCommonName = the PCTCommonName as defined in this standard. If the community is not derived, 'null' is given.	'Black olive berry – black sassafras cool temperate rainforest in high altitude areas of the Barrington Tops and New England Tablelands;'	VARCHAR (MAX)
derivedFromCommunityType Comment		Free text comments pertaining to the PCT if derived type. If there are no comments or the community is not derived, 'null' is given.	'null'	VARCHAR (MAX)

PCT, Plant Community Type; VARCHAR, variable character field; VIS, Vegetation Information System

Data fields used within the PCT Source category

Field name	Always present?	Definition	Example	Data Type
fullReference	0–n	Full details for references for community information, as would be cited in a scientific journal, e.g. Short, J. Database Referencing. In *Journal of Database Referencing*, Vol. 2, pp213–234. Database Publishing, Sydney. Where there is more than one reference, the references are separated by semi-colons.	'Sivertsen, D., Roff, A., Somerville, M., Thonell, J. and Denholm, B. 2011. *Hunter Native Vegetation Mapping*. Geodatabase Guide (Version 4.0), Internal Report for the Office of Environment and Heritage, Department of Premier and Cabinet, Sydney, Australia; Somerville, M. (2009a) *Hunter, Central & Lower North Coast Vegetation Classification & Mapping Project Volume 1: Vegetation Classification Technical Report*. Hunter-Central Rivers Catchment Management Authority, Tocal, NSW;'	VARCHAR (MAX)
profileSource	0–n	An indication of which vegetation community in each reference source (see fullReference field) is relevant for PCT information. Format is free text, but each reference should give a code number corresponding to the vegetation community within the reference that is relevant to the PCT. Where there is more than one reference, the references are separated by semi-colons. If no data are present, 'null' is given.	'Vegetation Groups 147, 148 and 151 (Gellie 2005); Community 8 (Benson 1994); '	VARCHAR (MAX)

PCT, Plant Community Type; VARCHAR, variable character field

Specifications for the VegetationClassification_PCTAssessmentData dataset

The following tables provide the exact specifications of the data fields available in each category of VegetationClassification_PCTAssessmentData via the Vegetation Classification Web Service.

Data fields used within the Record-level terms category

Field name	Occurrence	Definition	Example	Data type
collectionCode	1	The name, acronym, coden, or initialism identifying the collection or dataset from which the record was derived. This will always be 'BioNet Vegetation Classification'.	'BioNet Vegetation Classification'	VARCHAR (50)
datasetName	1	The name identifying the dataset from which the record was derived.	'PCT Classification'	VARCHAR (100)
dcterms_bibliographic Citation	1	A bibliographic reference for the resource, as a statement indicating how this record should be cited (attributed) when used. This reference will be formatted as follows: 'BioNet Vegetation Classification <current date> <HH:MM> <AM/PM> + <HH:MM offset from UTC>'. Note: The date and time are Australian Eastern Standard Time adjusted for daylight saving and reflect the date and time when the web service data were last refreshed from the source data (VIS Classification).	'BioNet Vegetation Classification 22/08/2014 12:47 AM + 10:00'	VARCHAR (50)
dcterms_language	1	The language of the resource, based on RFC 4646 [RFC4646].	'en'	VARCHAR (3)
dcterms_modified	1	The most recent date and time when the resource was changed, based on ISO 8601:2004(E). Note: The date modified relates to any change made in the source system (VIS Classification). It is thus possible that the date modified is updated but no actual changes are carried through into the data fields presented via the web service.	'15/03/2011 4:42:20 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.	'Creative Commons by Attribution'	VARCHAR (300)

Data fields used within the Record-level terms category *continued*

Field name	Occurrence	Definition	Example	Data type
dcterms_rightsHolder	1	The person or organization owning or managing rights over the resource.	'NSW Office of Environment and Heritage'	VARCHAR (150)
dcterms_type	1	The nature or genre of the resource. In this case it will always be 'dataset'.	'dataset'	
institutionCode	1	The name (or acronym) in use by the institution that has custody of the object(s) or information referred to in the record.	'NSW Office of Environment and Heritage'	VARCHAR (200)

VARCHAR, variable character field; VIS, Vegetation Information System

Data fields used within the PCT Classification category

Field Name	Occurrence	Definition	Example	Data Type
PCTID	1	The unique identifier for the PCT.	'1658'	
status	1	The formal listing status of the PCT, as determined by the NSW Plant Community Type Change Control Panel, according to the following controlled vocabulary: • Approved • Decommissioned • Provisionally Approved • Provisionally Approved – CMA Change • Provisionally Decommissioned.	'Approved'	VARCHAR (MAX)
PCTName	1	A colloquial plant community description that can be understood by non-botanists. It may include common names of dominant plant species, or names of a geographical region, a substrate, a soil type or a climatic zone.	'Rough-barked apple – narrow-leaved ironbark – Blakely's red gum – bull oak – coast banksia woodland on sands of the Warkworth area'	VARCHAR (MAX)

CMA, Catchment Management Authority; PCT, Plant Community Type; VARCHAR, variable character field

Data fields used within the Extent category

Field name	Always present?	Definition	Example	Data type
preEuroExtent	0–1	A measured or estimated pre-European extent of the plant community, based on the best available information, including mapping, modelling or expert advice. The extent is given in hectares (ha). Where no information is available, 'null' is given.	'350,000'	INT
currentExtent	0–1	A measured or estimated extent of the plant community, based on the best available information, including mapping, modelling or expert advice. The extent is given in hectares (ha). Where no information is available, 'null' is given.	'150,000'	INT
PCTEstimatePercent Remaining	0–1	The percentage area of the Plant Community Type remaining, calculated by dividing currentExtent by preEuroExtent. The percentage remaining is given as a decimal, 0.43 = 43%. Where no information is available, 'null' is given.	'0.43'	DECIMAL (18,2)

INT, integer

Data fields used within the Threatened Entities category

Field name	Always present?	Definition	Example	Data type
TSProfileID	0–n	The unique identifier for the related threatened species profile, as stored in the Threatened Species Profile Database maintained by OEH. Where more than one threatened species is associated with a PCT, the profile IDs are separated by commas. If no threatened species profiles are associated with PCT, 'null' is given.	'10015'	VARCHAR (MAX)
stateTECProfileID	0–n	The unique identifier for the related state-listed TEC profile, as stored in the Threatened Species Profile Database maintained by OEH. State-listed TECs are defined in the *NSW Threatened Species Conservation Act 1995*. Where more than one TEC is associated with a PCT, the profile IDs are separated by commas. If no threatened species profiles are associated with PCT, 'null' is given.	'10065,10973'	VARCHAR (MAX)
countryTECProfileID	0–n	The unique identifier for the related Commonwealth-listed TEC profile, as stored in the Threatened Species Profile Database maintained by OEH. Commonwealth-listed TECs are defined in the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. Where more than one TEC is associated with a PCT, the profile IDs are separated by commas. If no threatened species profiles are associated with PCT, 'null' is given.	'10973'	VARCHAR (MAX)
stateTECDegreeOfFit	0–1	Description of the degree of match between the PCT and the relevant TEC, as per the following controlled vocabulary: • The PCT is the listed community by definition. • The PCT is represented by the TEC to a large degree. • The PCT is part of the TEC and is defined as a finer scale community. The PCT does not occur other than within the TEC. The TEC may occur in some areas where the community does not represent the PCT. • The PCT completely includes the TEC and is defined as a broader community than the TEC. The TEC never occurs except as part of this community, but the PCT may occur in some areas that do not represent the TEC.	'The PCT is represented by the TEC to a large degree.'	VARCHAR (500)

Data fields used within the Threatened Entities category *continued*

Field name	Always present?	Definition	Example	Data type
stateTECDegreeOfFit	0–1	• The PCT is, to some greater or lesser degree, a part of the TEC, and it is defined as a finer scale community. The PCT and the TEC may occur in some areas independently of each other. • The PCT, to some greater or lesser degree, includes the TEC, and it is defined as a broader community than the TEC. The PCT and the TEC may occur in some areas independently of each other. • The PCT and the TEC are likely to be related in some way, but the exact relationship is unknown.		
countryTECDegreeOfFit	0–1	Description of the degree of match between the Plant Community Type and the relevant TEC, as per the following controlled vocabulary: • The PCT is the listed community by definition. • The PCT is represented by the TEC to a large degree. • The PCT is part of the TEC and is defined as a finer scale community. The PCT does not occur other than within the TEC. The TEC may occur in some areas where the community does not represent the PCT. • The PCT completely includes the TEC and is defined as a broader community than the TEC. The TEC never occurs except as part of this community, but the PCT may occur in some areas that do not represent the TEC. • The PCT is, to some greater or lesser degree, a part of the TEC, and it is defined as a finer scale community. The PCT and the TEC may occur in some areas independently of each other. • The PCT, to some greater or lesser degree, includes the TEC, and it is defined as a broader community than the TEC. The PCT and the TEC may occur in some areas independently of each other. • The PCT and the TEC are likely to be related in some way, but the exact relationship is unknown.	‘The PCT is represented by the TEC to a large degree.’	VARCHAR (500)

PCT, Plant Community Type; TEC, threatened ecological community; VARCHAR, variable character field

Appendix A: Cover type codes

The cover type codes specify the type of measure used for the cover values (i.e. minimum, maximum, mean and median percentage cover). The letter part of each codes denote whether the measure is a numeric real value ('N') or includes the upper and lower ranges of a cover class category ('C').

Code	Explanation
1N	**Crown or canopy cover**: Crown cover is defined as the percentage of the sample site within the vertical projection of the periphery of the crowns. In this case, crowns are treated as opaque (Walker & Hopkins 1990). Crown cover is estimated using the mean gap between crowns divided by mean crown width (the crown separation ratio) (Walker & Hopkins 1990).
2N	**Foliage cover:** Foliage cover is defined as the percentage of the sample site occupied by the vertical projection of foliage and branches (if woody) (Walker & Hopkins 1990). For ground vegetation, it is measured by using line-intercept methods. It will, to some degree, take into account the thickness of a clump of grass. % crown cover x crown type (Walker & Hopkins 1990).
3N	**Percentage cover:** The percentage of a strictly defined plot area, covered by vegetation, generally applicable to ground vegetation that has been estimated rather than measured using line-intercept methods. It does not necessarily take into account the thickness of a clump of grass.
4N	**Projective foliage cover:** The percentage of the sample site occupied by the vertical projection of foliage only (Walker & Hopkins 1990).
1C	**Crown or canopy cover:** As for 1N above, but for data derived from, or containing, class intervals. Crown cover is defined as the percentage of the sample site within the vertical projection of the periphery of the crowns. In this case crowns are treated as opaque.
2C	**Foliage cover:** As for 2N above, but for data derived from or containing class intervals. Foliage cover is defined as the percentage of the sample site occupied by the vertical projection of foliage and branches (Walker & Hopkins 1990). For ground vegetation it is measured by using line-intercept methods. It will, to some degree, take into account the thickness of a clump of grass.
3C	**Percentage cover:** As for 3N above, but for data derived from, or containing, class intervals. It is the percentage of a strictly defined plot area covered by vegetation and is generally applicable to ground vegetation that has been estimated rather than measured by using line-intercept methods. It does not necessarily take into account the thickness of a clump of grass.
4C	**Projective foliage cover:** As for 2N above, but for data derived from, or containing, class intervals. The percentage of the sample site occupied by the vertical projection of foliage only (not branches) (Walker and Hopkins 1990).
5C	**Cover abundance rating:** Abundance class system e.g. Braun-Blanquet.

Source: http://www.environment.nsw.gov.au/NSWVCA20app/Static/Cover_Type_Codes.pdf

Walker J & Hopkins MS, 1990. Vegetation. In RC McDonald, RF Isbell, JG Speight, J Walker & MS Hopkins (eds), *Australian Soil and Land Survey Field Handbook*. Inkata Press, Melbourne