



CF Standard Names: Current Status and a New Vocabulary Editor

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CF Standard Names: Current Status





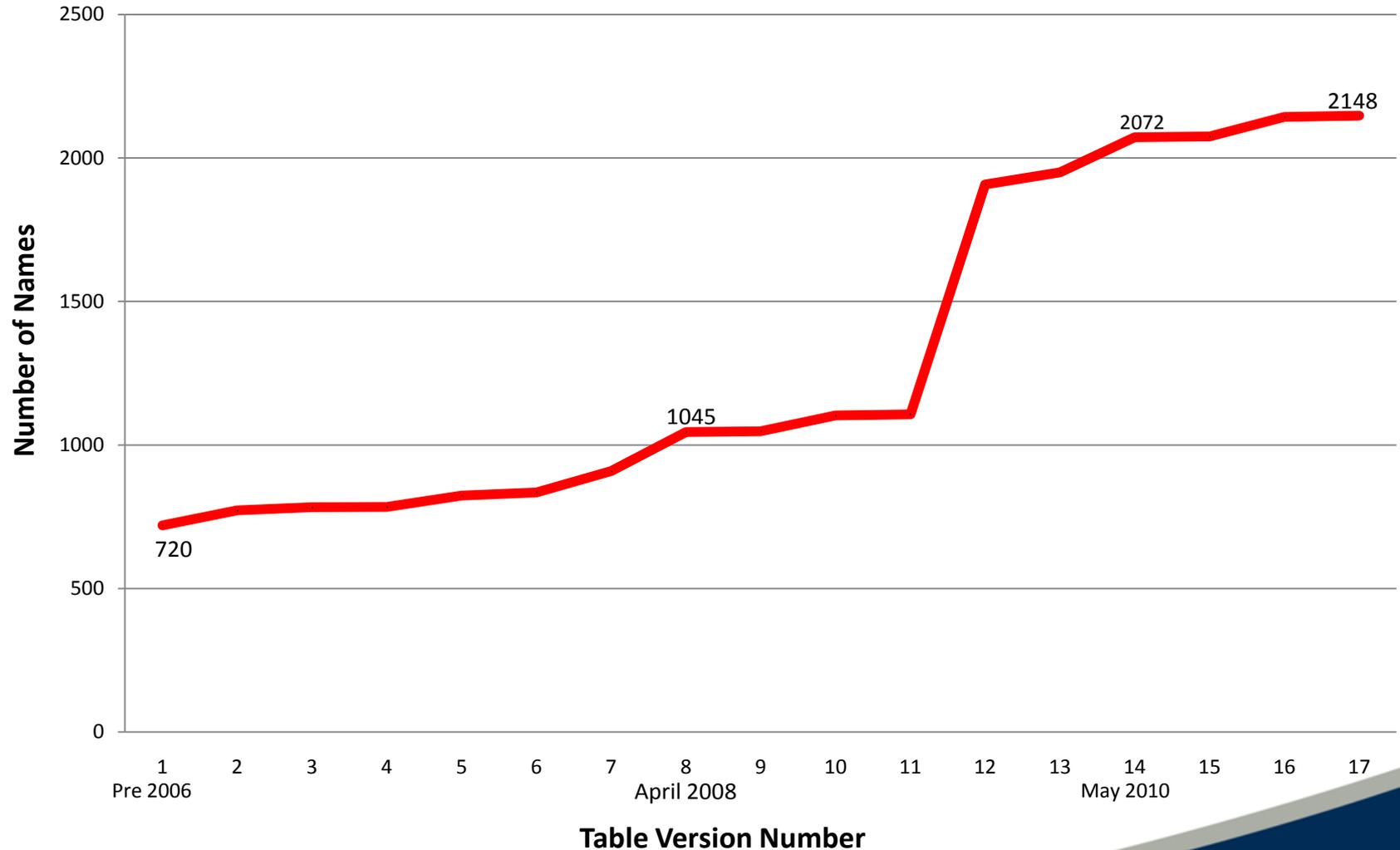
CF standard names: current status

- Currently the standard name table is at Version 17, dated 24 March 2011
- The table contains 2148 names
- In addition there are currently 22 aliases (accepted but not yet published) and 30 new standard names under discussion



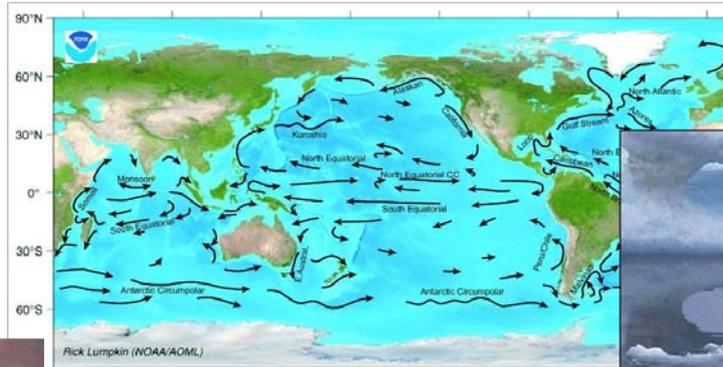


Number of CF Standard Names by Table Version





Standard Name Science Domains





The CEDA Vocabulary Editor





The CEDA vocabulary editor

- The editor is a workflow tool that allows CEDA staff to directly manage vocabulary terms in the NERC vocabulary server at BODC
- Pylons web application running within a mod-wsgi framework on a Virtual Machine (OpenSuse Linux)
- <http://ndg.nerc.ac.uk/vocab-term-editor/home>
- Security and role mapping is controlled by CEDA OpenID
- Only users with correct privileges can edit terms





CF names in the CEDA vocab editor (1)

- The editor records the current status of all proposals for new or amended CF standard names
- The status of each proposal is exposed to the CF community via two web pages: “Status of current work” and “Completed work”
- The “Completed work” page will act as a permanent record of all changes to terms in the CF standard name table





CF names in the CEDA vocab editor (2)

- Proposals for new standard names or amendments to existing names should still be sent to the CF mailing list
- The vocabulary editor status pages are intended to complement the information on the mailing list, not compete with it!
- Facility for the editor to generate emails regarding individual terms





CF vocabulary list in
NERC vocab server

Vocab list
version no.

Current status
of proposal

Date of proposal
to CF mailing list

Viewing current change requests for vocab list, 'http://vocab.ndg.nerc.ac.uk/list/P071/17'

Created Date	Status	Proposer	Proposed Date	Comment
2011-04-06T14:23:10Z	Accepted	Alison Pamment	2010/11/29	Standardize all mass_content names.

Mailing list thread [Mass content standard names](#)

Link to relevant
post on CF
mailing list

Name as initially
proposed

2006-09-26T17:12:43Z cloud_ice_content_of_atmosphere_layer

Standard Name
- update term
**INCLUDING NEW
ALIAS**

Explanation
of standard
name

Most recent
incarnation of
proposed name

2011-04-06T14:23:10Z mass_content_of_cloud_ice_in_atmosphere_layer

Description	Units	Units ref	AMIP	GRIB
"Content" indicates a quantity per unit area. "Layer" means any layer with upper and lower boundaries that have constant values in some vertical coordinate. There must be a vertical coordinate variable indicating the extent of the layer(s). If the layers are model layers, the vertical coordinate can be model_level_number, but it is recommended to specify a physical coordinate (in a scalar or auxiliary coordinate variable) as well.	kg m-2			
"Content" indicates a quantity per unit area. "Layer" means any layer with upper and lower boundaries that have constant values in some vertical coordinate. There must be a vertical coordinate variable indicating the extent of the layer(s). If the layers are model layers, the vertical coordinate can be model_level_number, but it is recommended to specify a physical coordinate (in a scalar or auxiliary coordinate variable) as well.	kg m-2	http://vocab.ndg.nerc.ac.uk/term/P061/37/KMP2		

URL of units
term in BODC
P061 list

Quantity

<http://vocab.ndg.nerc.ac.uk/term/P061/37/KMP2>

Flow Diagram of New System for Maintaining CF Standard Names

CEDA Vocabulary Editor Home Page
<http://ndg.nerc.ac.uk/vocab-term-editor/home>

Login via CEDA single sign on

CEDA Vocabulary Editor GUI

Provides a web form with following functionality:

1. Edit existing name (i.e. create alias)
2. Add new name
3. Amend units and/or definitions of existing name.
4. Record new phrase or term for inclusion in many names (e.g. "primary_productivity", "due_to_emission")

Key

- CEDA vocabulary editor files and processes
- Pages that CEDA will serve to CF website
- BODC files and processes

CEDA Vocabulary Editor Internal Database
 This is an XML file stored on the local host containing each name and its accompanying details.

Text file containing name-unit pairs. (Sent to BODC via email).

"Submit" currently selected names.

"Update" currently selected names

Current work status page
 shows names currently open for discussion

Completed work status page shows names that are either published or rejected

NERC Vocabulary Server

Contains:

1. List P071 (CF standard names)
2. List P061 (BODC units vocabulary)

(Currently excludes units data)

(Includes units string)

cf-standard-name-table.xml

Version numbered CF master document. Stored in BADC subversion repository.

cf-standard-name-table.html

Browsable version of standard name table with search functionality and links to other CF web pages.

BODC Vocabulary Editor

handles incoming calls to the BODC API.

BODC pending table

Overnight transfer.

The local XML file

- The local XML file to records details on all terms in the editor, including the local term status (new, update) as well as the status of the term in the CF Table and BODC editor.
- Incorporates the RDF-SKOS XML used to update the NERC Vocabulary API via an HTTP-POST (also requires authentication and type of update required – Delete, New or Update)

```
<?xml version="1.0" encoding="UTF-8"?>
<ChangeRequest>
  <ID>f57e1958-bcdf-102e-8003-00163e71d643</ID>
  <VocabListURL>http%3A%2F%2Fvocab.ndg.nerc.ac.uk%2Flist%2FP071%2F16</VocabListURL>
  <ProposedDate>2010/12/06</ProposedDate>
  <ProposedBy>Alison Pamment</ProposedBy>
  <ChangeType>update term</ChangeType>
  <Comment></Comment>
  <mailThreadTitle>"Mini" standard name table update: software testing</mailThreadTitle>
  <mailThreadUrl>http://mailman.cgd.ucar.edu/pipermail/cf-metadata/2010/007487.html</mailThreadUrl>
  <CreateDate>2010-12-07T01:41:02Z</CreateDate>
  <Status>Pending</Status>
  <UpdatesMailed>False</UpdatesMailed>
  <Version>3</Version>
  <Records>
    <entry id="area_fraction">
      <entry id="area_fraction">
        <rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:skos="http://www.w3.org/2004/02/skos/core#" xmlns:dc="http://purl.org/dc/elements/1.1/">
          <skos:Concept rdf:about="http://vocab.ndg.nerc.ac.uk/term/P071/16/CFSN0001">
            <skos:externalID>CFSN0001</skos:externalID>
            <skos:prefLabel>area_fraction</skos:prefLabel>
            <skos:definition>"Area fraction" means the fraction of horizontal area. To specify which area is quantified by a variable of area_fraction, provide a coordinate variable or scalar coordinate variable of land_cover or surface_cover. Alternatively, if one is defined, use a more specific standard name of "X_area_fraction" for the fraction of horizontal area occupied by X.</skos:definition>
            <date xmlns="http://purl.org/dc/elements/1.1/">2010-12-07T13:58:07Z</date>
          </skos:Concept>
        </rdf:RDF>
        <canonical_units>1</canonical_units>
        <canonical_units_id associatedTermType="units" associatedTermElement="canonical_units" associatedTerm="True">http://vocab.ndg.nerc.ac.uk/term/P061/31/UUUU</canonical_units_id>
        <description>"Area fraction" means the fraction of horizontal area. To specify which area is quantified by a variable of "area_fraction", provide a coordinate variable or scalar coordinate variable of "area_type". Alternatively, if one is defined, use a more specific standard name of "X_area_fraction" for the fraction of horizontal area occupied by X.</description>
        <vocab_term_name entryPosition="2" associatedTermType="alias" associatedTermElement="area_fraction" associatedTerm="True">CFSN0001</vocab_term_name>
      </entry>
    </Records>
  </ChangeRequest>
```

XML used by editor to record term details – encapsulates XML used to update CF Standard Name Table and POST update to NERC Vocabulary API

CF Standard Name XML

RDF-SKOS Code used for BODC Editor



Next steps

- Implement a web service to expose the current version controlled CF table. Previous versions will also be served
- Extend vocabulary editor to interact with more lists in the vocabulary server.
- In cooperation with BODC, supply units mappings as skos:minorMatches
- Facility to provide skos matches can then be used to aid future ontology development

