

23rd SCUFN MEETING
Lima, Peru, 11-14 September 2010

**Report to SCUFN on meeting of the Undersea Names Committee of the New Zealand
Geographic Board.
Vaughan Stagpoole, 22 August 2009**

Summary

- The NZ Undersea Names Committee was established under the NZGB Act 2008 to advise the NZ Geographic Board on the naming of undersea features
- The undersea names committee agreed to accept all the names within the New Zealand extended continental shelf and Ross Sea that are in the GEBCO gazetteer, with the exception of the 12 names that need further investigation.
- A review of New Zealand charts, maps, scientific papers and other sources has identified a total of 857 undersea names within the New Zealand extended continental shelf and Ross Sea (360 names are within New Zealand territorial seas). The committee is reviewing these names, identifying those that meet the NZGB's standards and guidelines and will make recommendations to the NZGB to adopt as official those that are appropriate.
- It is expected that those names of features beyond the 12 NM limit that are accepted by the NZGB will be referred to SCUFN for consideration.

Introduction

The Undersea Names Committee was established under schedule 1 clause 5, NZGB Act 2008 and currently comprises 8 members including administrative support. It is hosted and chaired by Land Information New Zealand *Toitu Te Whenua* (LINZ).

Draft Terms of Reference

The New Zealand Geographic Board (NZGB) are reviewing all names within the New Zealand extended continental shelf and Ross Sea, Antarctica, and have established the Undersea Names Committee to advise the Board on the naming of undersea features. The committee is guided by the Interim Standard NZGBS60000 and the SCUFN standards, particularly for generic geographic feature terms. The NZGB follows the SCUFN template for naming of undersea features. The terms of reference for the Undersea Names Committee are expected to be ratified by the NZGB at the next meeting in late 2010.

Existing Undersea Names

The NZGB is required to review existing undersea names and to adopt as official those that are appropriate, and which meet NZGB standards and guidelines. Once official, it is expected that the undersea names beyond New Zealand territorial seas will be submitted to SCUFN for consideration, review and possible selection for GEBCO products. There are two tasks:

1. Review names in the GEBCO Gazetteer and on GEBCO products (GEBCO charts, maps, digital products, etc) to recommend the NZGB's official/recorded name status.

2. Collate existing undersea names and information from New Zealand hydrographic charts, maps, gazetteers and other appropriate sources for consideration by the NZGB and SCUFN.

Within the New Zealand extended continental shelf and Ross Sea there are 857 undersea names that have so far been identified in gazetteers and scientific publications, on charts and maps, and in general use. Of these, 360 names are within New Zealand territorial seas. The Committee agreed that, with the exception of one clarification (Rennick Basin), the NZGB communicate to SCUFN only those names that have been gazetted by the Board and are outside of New Zealand's 12NM limit.

In terms of Task 1, within the New Zealand extended continental shelf and Ross Sea there are 98 names in the GEBCO gazetteer, of which 36 names are accredited by SCUFN. Issues were noted about 12 names in the gazetteer, Balleny Seamounts, Bellona Valley, Bounty Seachannel, Devonport Seamount Chain, Hikurangi Seachannel, Hikurangi Terrace, Lee Hill, North Chatham Escarpment, Pukaki Seamount, Rennick Trough, Tangaroa Seamount, Taranui Valley. The Committee agreed to accept all names that are already in the GEBCO gazetteer, with the exception of the 12 names identified above, and recommend these names be determined as official geographic names by the NZGB, and be notified in terms of s.21 of the NZGB Act 2008.

In terms of Task 2, there are about 450 undersea feature names beyond New Zealand territorial seas and within the New Zealand extended continental shelf and Ross Sea. These names have been collated along with reference information for review by the Undersea Names Committee. The committee has begun a process of reviewing these names, identifying those that are appropriate, and which meet the NZGB's standards and guidelines, and those that are in long term common use. The Committee agreed to review the existing undersea names and make recommendations to the NZGB to adopt as official those that are appropriate, and which meet the Board's standards and guidelines. Those names accepted by the NZGB will be referred to SCUFN for consideration.

Undersea Names in GEBCO Gazetteer

The following 12 undersea features in the GEBCO gazetteer were not accepted by the NZ Undersea Names Committee and are discussed below along with information for SCUFN to consider.

1. Balleny Seamounts: *65°40' S, 161°45' E*

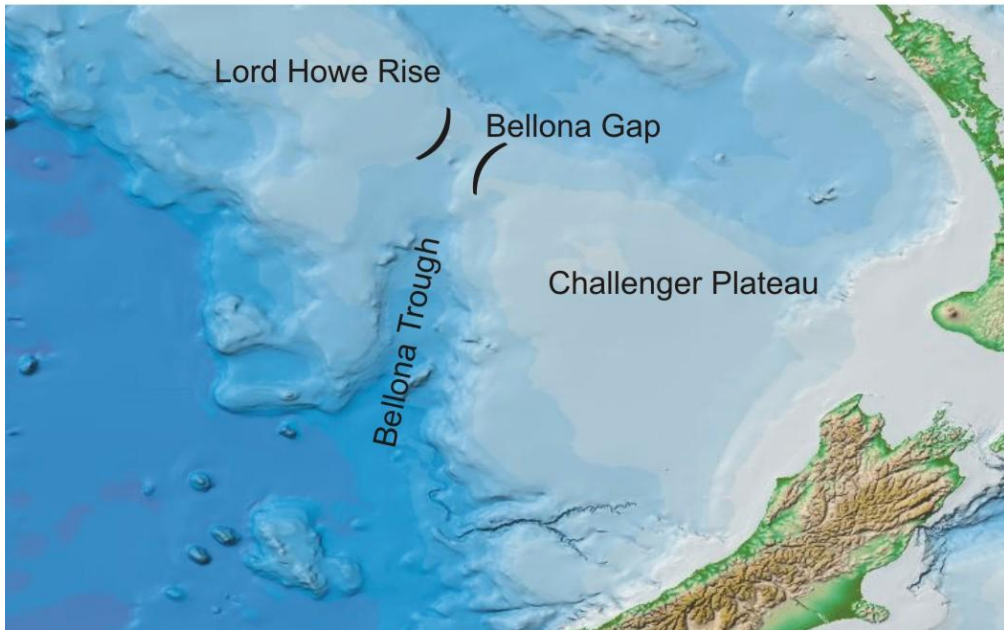
The name Balleny Seamounts was accredited by SCUFN in May 1995. A hydrographic survey by LINZ in 2004 revealed there is only one peak, and it is located at 65°30' S, 161°00' E.

- Consider altering the generic term from 'Seamounts' to 'Seamount' and amending the location

2. Bellona Valley: *40°00' S, 165°45' E*

This feature commonly appears on New Zealand charts and maps as Bellona Trough. It is about 350km long and 100 km wide (about the area of Belgium), similar in size to other troughs in the New Zealand region (Hikurangi Trough and Solander Trough). The GEBCO gazetteer notes that SCUFN-12 changed the generic term from "Gap" to "Valley" and that it is shown as Bellona Saddle in ACUF Gazetteer. Bellona Gap is a separate feature to Bellona Trough and also commonly appears on New

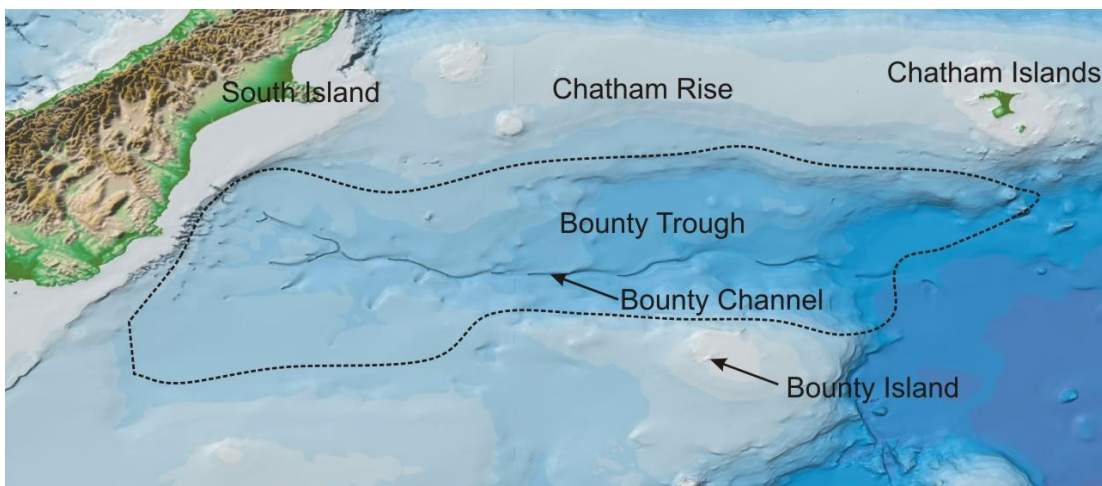
Zealand charts and maps. Bellona Gap is a 1500 m deep saddle along Lord Howe Rise that separates the Challenger Plateau from the remainder of the Lord Howe Rise. It was named after HMNZS Bellona that surveyed the Lord Howe Rise in 1952.



- Consider altering the generic term to 'Trough' and correcting remarks in gazetteer
- Information for SCUFN: NZGB may adopt the generic descriptor of 'Trough' and have an additional feature name 'Bellona Gap'

3. Bounty Seachannel: 45°15' S - 46°15' S, 172°00' E - 179°00' W

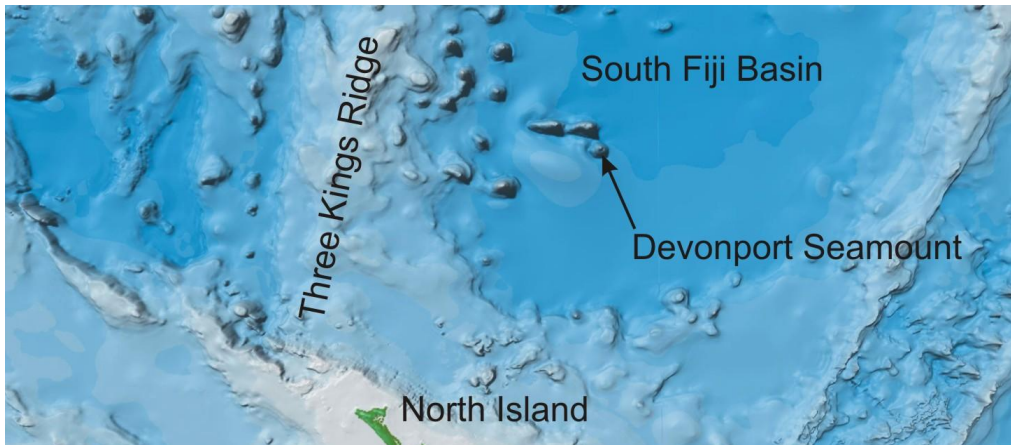
This is noted in the GEBCO gazetteer as 'Formerly, Bounty Trough. Renamed Bounty Seachannel at GEBCO with revised position taken from NZOI Bathymetric Map "Bounty" and accredited by SCUFN in May 1995. The term is Bounty Seachannel is not used on NZ charts or in NZ publications. The commonly used term Bounty Trough (not listed in GEBCO Gazetteer) is for a broad depression 800 km long by 250 km wide between the Chatham Rise and the Bounty Islands and extending from the continental shelf, east of the south Island, to the deep ocean south of Chatham Islands. The Bounty Trough is cut by the series of channels that unite to form the Bounty Channel.



- Information for SCUFN on Bounty Seachannel – consider altering remarks in gazetteer
- Consider adding Bounty Trough to gazetteer 44°30' S - 48°00' S , 172°00' E - 177°00' W

4. Devonport Seamount Chain: 31°30' S, 175°23' E

The name Devonport Seamount has been commonly adopted for only one (the first discovered) of four volcanoes clustered close to each other. NIWA bathymetry shows three volcanoes, but there is a fourth indicated on satellite gravity (that has also been dredged). Shown as Seamount in ACUF Gazetteer, and as Seamount on INT 600-605. It is in the GEBCO gazetteer but is not listed as being accredited by SCUFN.



- Information for SCUFN: NZGB may adopt the generic descriptor of 'Seamount' for the first discovered volcano, allowing for future proposals for other volcanoes in the group

5. Hikurangi Seachannel: 39°30' S, 179°00' E - 177°00' E

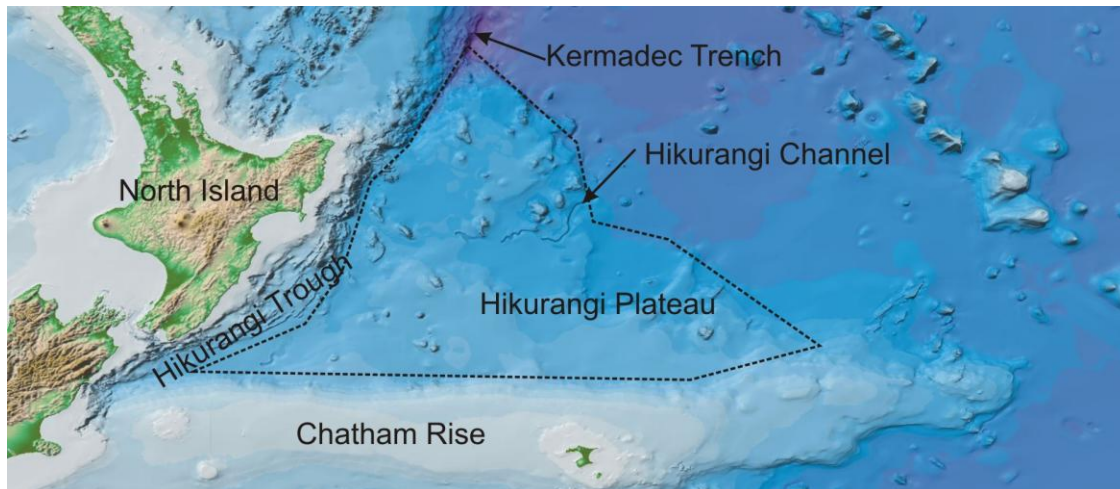
The name Hikurangi Seachannel was accredited by SCUFN in June 1997. This incised channel east of the North Island is commonly named the Hikurangi Channel. It is at least 1500 km long, and up to 10 km wide with levees 250 m deep. The feature was named after Mt Hikurangi, near East Cape. The term Hikurangi Seachannel is not used on any NZ chart or in any NZ publication. Note Channel does not appear in the SCUFN B-6 guidelines for generic terms, but is used for 17 features in the GEBCO gazetteer.

- Information for SCUFN

6. Hikurangi Terrace: 37°00' S - 39°00' S, 179°00' E - 177°00' E

The name Hikurangi Terrace was accredited by SCUFN in June 1997. This is a triangular shaped seamount-studded plain extending northwards from the base of the Chatham Rise to the Kermadec Trench. Depths typically range over 3250-3750 m. The term Hikurangi Terrace is not used on any NZ chart or in any NZ publication. It is geologically related to the Manihiki Plateau and Ontong Java Rise (more commonly named Ontong Java Plateau). They were once all part of the same large igneous province. The feature is by far largest terrace in the GEBCO gazetteer, being 380,000 sq km (about the area of Germany or Japan). The

coordinates listed in the gazetteer are in error, the plateau extending from 36°00' S - 42°00' S and 177°00' E - 173°00' W and centred on 40°00' S and 179°00' W.



- Consider altering the generic term from 'Terrace' to 'Plateau' and correct coordinates

7. Lee Hill: 41°07' S, 179°32' W

The name Lee Hill was accredited by SCUFN in Oct 2005. Latest information from NIWA and NZ Ministry of Fisheries database indicate over 1000 m relief and this feature is therefore a seamount (summit -1750m, base -2800m, area 60 sq km). The feature is commonly termed Lee Seamount.

- Consider altering the generic term from 'Hill' to 'Seamount'

8. North Chatham Escarpment: 42°45' S, 175°00' E - 175°30' E

This feature is listed in the GEBCO gazetteer as accredited by SCUFN in May 1995, and appears in the NIWA gazetteer. Recent bathymetric surveys show that this feature does not exist.

- Consider removing from gazetteer

9. Pukaki Seamount: 49°30' S, 176°05' E

This feature is listed in the GEBCO gazetteer as accredited by SCUFN (Oct. 2005). It has never appeared in any local gazetteer and cannot be located on any historical or recent chart. Recent bathymetric surveys show that this feature does not exist.



- Consider removing from gazetteer

10. Rennick Trough: 69°25' S, 162°00' W

Rennick Trough is listed in the GEBCO gazetteer but is not listed as being accredited by SCUFN. It is a 900 m deep depression in the shelf located in Rennick Bay, east of Suvorov Glacier and north of Rennick Glacier. Named in association with Rennick Bay and Rennick Glacier, which were named after Lieutenant Henry E de P Rennick, Royal Navy, who was one of the officers responsible for the soundings taken on the voyage of the BAE vessel Terra Nova during the 1911 expedition. The common term for the feature is Rennick Basin and it is shown as such on hydrographic charts NZ14065, NZ14900. This feature is within 12NM of the coast and is likely to be gazetteed by the NZGB as Rennick Basin.

- Information for SCUFN

11. Tangaroa Seamount: 69°25' S, 178°40' W

This feature is listed in the GEBCO gazetteer as accredited by SCUFN in May 2008. *Tangaroa Seamount* is at the south end of Scott Rift (between Scott Island and Iselin Bank). It was named after *RV Tangaroa*, NZ research vessel (DSIR), 1972-1985. Proposed by Dr. Davey, Institute of Geological & Nuclear Sciences, New Zealand, Apr. 2008 as an alternative to his primary name proposed (Marion Seamount).

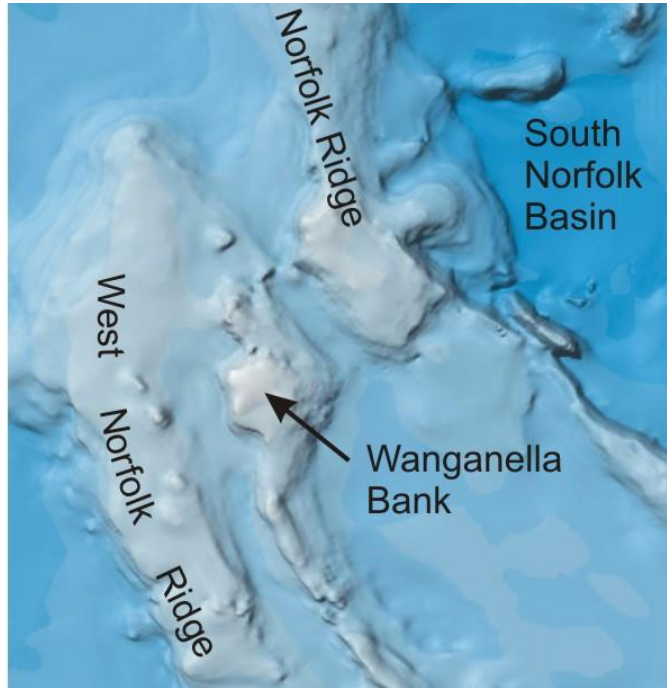
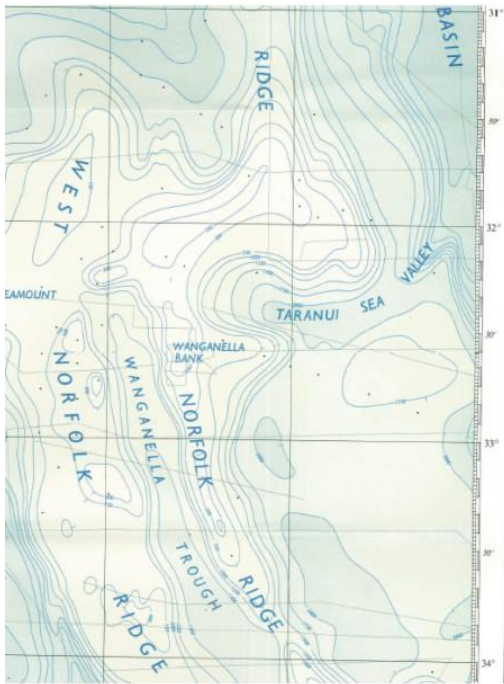
The name Tangaroa is in common usage as the Tangaroa Volcano (Gamble et al., 1993; Wright 1994; Wright et al., 1996; Wright, 1993; Blackmore & Wright, 1995 (Volcanoes Chart). The seamount, described as a stratovolcano, lying within the 35-37° S segment of the southern Havre Trough in the outer Bay of Plenty, was named after the NIWA research vessel *RV Tangaroa* (1991-), the Maori name for the God of the oceans.

The two features have the same name, although different generic terms (one is termed a seamount and the other a volcano – not in SCUFN B-6 guidelines). They are named after different research vessels that had the same name.

- Information for SCUFN - two similar features with the same name

12. Taranui Valley: 32°00' S - 32°20' S, 167°30' W - 168°50' W

Taranui Valley is shown on an early NZOI bathymetric map "Lord Howe" and listed in the GEBCO gazetteer as accredited by SCUFN in May 1995. Recent surveys show the valley does not exist over the area listed in the gazetteer, although a smaller valley-like feature appears to lie at the northeastern part of the original mapped valley.



- Consider removing from gazetteer
- NZGB may change coordinates to reflect the extent of the smaller valley 31°58' S - 32°20' S, 168°30' W - 168°55' W

Other Notes

Pukaki Seachannel coordinates are in error in the GEBCO gazetteer. Longitude should be E not W.

New Undersea Name Proposals

There is currently one new name proposal to be considered at the next meeting of the Undersea Names Committee.

Members of the Undersea Names Committee of the New Zealand Geographic Board

Chairperson:

Mr Geoff Howard, Chief Topographer
Land Information New Zealand *Toitu Te Whenua*
PO Box 5501
WELLINGTON 6145

Minister for Land Information appointment (to be replaced by another NZGB member):

Ms Sylvia Allan
LOWER HUTT 5012

Ngāi Tahu appointment

Dr Sir Tipene O'Regan, Aoraki Consultant Services Ltd
PO Box 13291
CHRISTCHURCH 8141

Undersea Names Committee and Member Representative from NIWA:

Mr Kevin Mackay, Marine Data Manager
NIWA
Private Bag 14901
WELLINGTON 6021

Undersea Names Committee Member and Representative from Ministry of Fisheries:

Ms Juliane Sellars, Team Leader, Spatial and Regulatory Data,
Ministry of Fisheries
PO Box 1020
WELLINGTON

Undersea Names Committee Member and Representative from Royal New Zealand Navy:

Lt Cdr William Spencer, Staff Officer Hydrographic Operations, Geospatial Intelligence Organisation
HMNZ Naval Base
Private Bag 32901
AUCKLAND

Undersea Names Committee Member and Representative from SCUFN

Dr Vaughan Stagpoole, Section Manager Ocean Exploration
GNS Science
PO Box 30 368
LOWER HUTT 5040

Administrative Support:

Mrs Jill Remnant, NZGB Assistant Advisor,
Land Information New Zealand *Toitu Te Whenua*
PO Box 5501
WELLINGTON 6145

Phone (Bus) 04 460 2756
Fax (Bus) 04 460 0112
E-Mail (Bus) jremnant@linz.govt.nz