INTERNATIONAL HYDROGRAPHIC ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

UNDERSEA FEATURE NAME PROPOSAL (See IHO-IOC Publication B-6 and NOTE overleaf)

Name Proposed:	Manawai Caldara	Ocean or Sea	Couth Desifie Ocean
Name Proposed:	Nionowal Caldera	Ocean or Sea:	South Pacific Ocean

Geometry that best defines the feature (Yes/No) :						
Point	Line	Polygon	Multiple points	Multiple lines*	Multiple	Combination of
					polygons*	geometries*
		Y				

* Geometry should be clearly distinguished when providing the coordinates below.

	Lat. (e.g. 63°32.6'N)	Long. (e.g. 046°21.3'W)
Point Coordinates**:	25°48'S	177°08.4'W
	25°45.63'S	177°08.83'W
	25°47.16'S	177°06.29'W
	25°49.48'S	177°05.70'W
	25°50.90'S	177°07.04'W
	25°51.00'S	177°08.29'W
Coordinates:	25°50.25'S	177°10.23'W
	25°49.19'S	177°11.48'W
	25°48.39'S	177°11.63'W
	25°47.34'S	177°12.91'W
	25°46.68'S	177°12.79'W
	25°46.35'S	177°11.24'W

Factoria	Maximum Depth:	1627m	Steepness :	
Feature	Minimum Depth :	620m	Shape :	Roughly circular
Description:	Total Relief :	1007m	Dimension/Size :	~9x8 km

Associated Features:	Monowai Seamount (NOTE: SCUFN to confirm that on the basis of the
	polygon that Dr Stagpoole resubmitted to SCUFN in June 2017 that it has
	altered Monowai Seamounts to Monowai Seamount. Monowai Caldera
	had originally been included in the larger polygon).

	Shown Named on Map/Chart: Named in internationally peer reviewed journals	Wright, Ian C, William W Chadwick Jr, Cornel EJ de Ronde, Dominique Reymond, Oliver Hyvernaud, Hans- Hermann Gennerich, Peter Stoffers, Kevin Mackay, Miles A Dunkin, and Stephen C Bannister. "Collapse and reconstruction of Monowai submarine volcano, Kermadec Arc, 1998-2004." <i>Journal of Geophsical</i> <i>Research: Solid Earth</i> 113, no. B8 (2008).
Chart/Map References:		Chadwick, WW, IC Wright, U Schwarz-Schampera, O Hyvernaud, D Reymond, and CEJ de Ronde. "Cyclic eruptions and sector collapses at Monowai submarine volcano, Kermadec arc: 1998-2007." <i>Geochemistry,</i> <i>Geophysics, Geosystems</i> 9, no. 10 (2008).
	Shown Unnamed on Map/Chart:	
	Within Area of Map/Chart:	Chart NZ 14600 INT 600, INT 605

Reason for Choice of Name (if a	Named after the Royal New Zealand Navy research vessel HMNZS Monowai.
person, state how associated with the	'Monowai' is a compound of the Greek 'mono' lit. 'one', and the Māori 'wai' lit.
feature to be named):	'water'.

Diagovory Egoto	Discovery Date:	1984
Discovery Facts:	Discoverer (Individual, Ship):	HMNZS Monowai

	Date of Survey:	September 2004
	Survey Ship:	R/V Tangaroa
	Sounding Equipement:	EM300 multibeam
Supporting Survey Data, including	Type of Navigation:	GPS
Track Controls:	Estimated Horizontal Accuracy, in nautical miles (M):	10m
	Survey Track Spacing:	100% coverage
	Supporting material can be submitted a	as Annex in analog or digital form.

	Name(s):	Mr Anselm Haanen (Acting Chairperson of the NZGB) & Mr Adam Greenland (National Hydrographer)
	Date:	4 June 2019
	E-mail:	agreenland@linz.govt.nz
Proposer(s):	Organization and Address:	New Zealand Geographic Board PO Box 5501 Wellington 6145 New Zealand
	Concurrer (name, e-mail, organization and address):	Mr Kevin Mackay NIWA Private Bag 14901 Kilbirnie Wellington 6241 Kevin.Mackay@niwa.co.nz

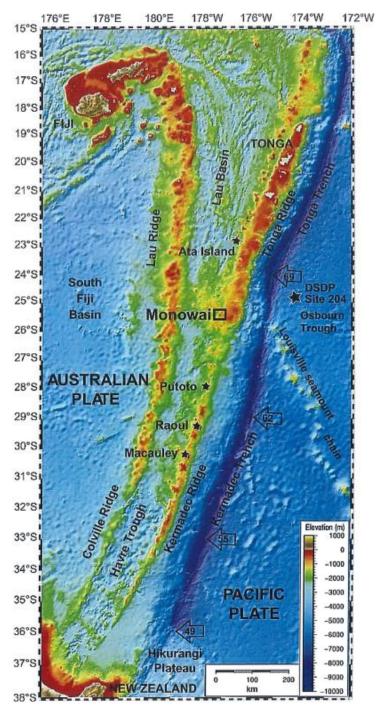
Remarks:	The New Zealand Geographic Board gazetted Monowai Caldera as an
	official undersea feature name on 20 May 2019.

NOTE: This form should be forwarded, when completed:

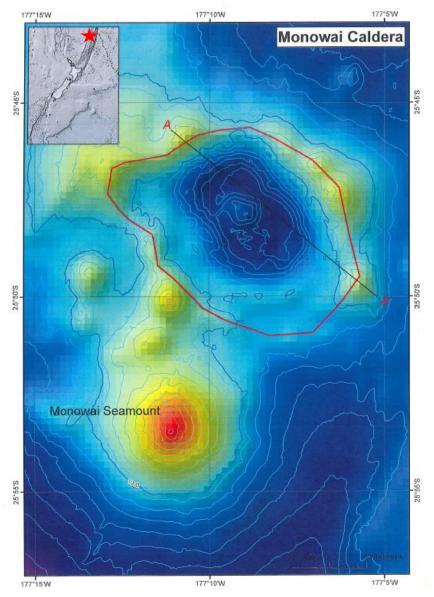
- a)
- If the undersea feature is located <u>inside the external limit</u> of the territorial sea: - to your "National Authority for Approval of Undersea Feature Names" (see Publication B-6) or, if this does not exist or is not known, either to the IHO or to the IOC (see addresses below);
- b) If at least 50 % of the undersea feature is located <u>outside the external limits</u> of the territorial sea:

- to the IHO or to the IOC, at the following addresses :

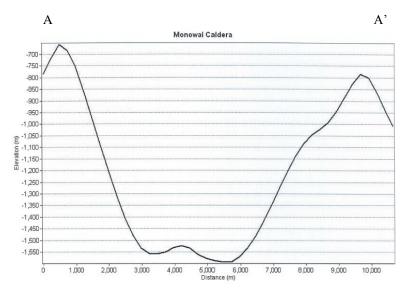
International Hydrographic Organization (IHO)	Intergovernmental Oceanographic Commission (IOC)
4b, Quai Antoine 1er	UNESCO
B.P. 445	Place de Fontenoy
MC 98011 MONACO CEDEX	75700 PARIS
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Fax: +377 93 10 81 40	Fax: +33 1 45 68 58 12
E-mail: <u>info@iho.int</u>	E-mail: info@unesco.org
Web: <u>www.iho.int</u>	Web: http://ioc-unesco.org/



Index map showing the location of the feature on a regional scale



2D bathymetric oriented profile of the feature with an idex map showing the location of the profile. Contours are in 50m. The polygon defining Monwai Caldera is in red. Bathymetric profile A-A is below.



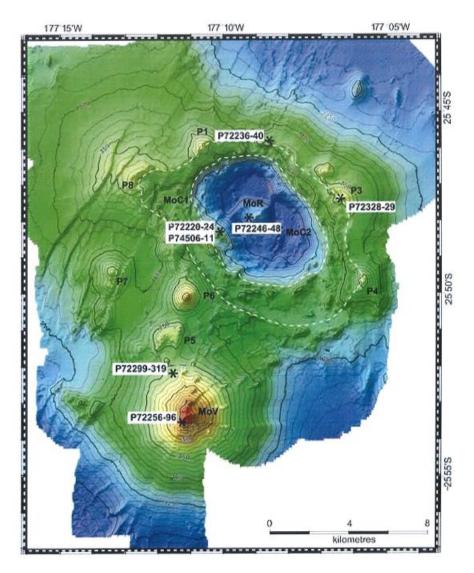
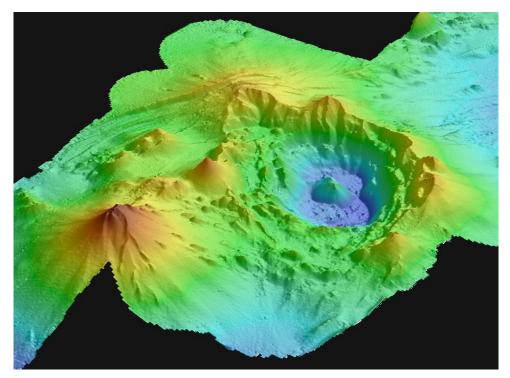


Figure 7 in Graham et al., 2008. Structure and petrology of newly discovered volcanic centers in the northern Kermadec–southern Tofua arc, South Pacific Ocean. *Journal of Geophysical Research*, Vol. 113, 1-24.



Oblique perspective view of Monowai Seamount and Monowai Caldera. View from the southeast looking towards the northwest.