

Multibeam database and bathymetric DTMs of New Caledonia

J. COLLOT

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Seabed 2030 5th SaWPaC Regional Mapping Community Meeting

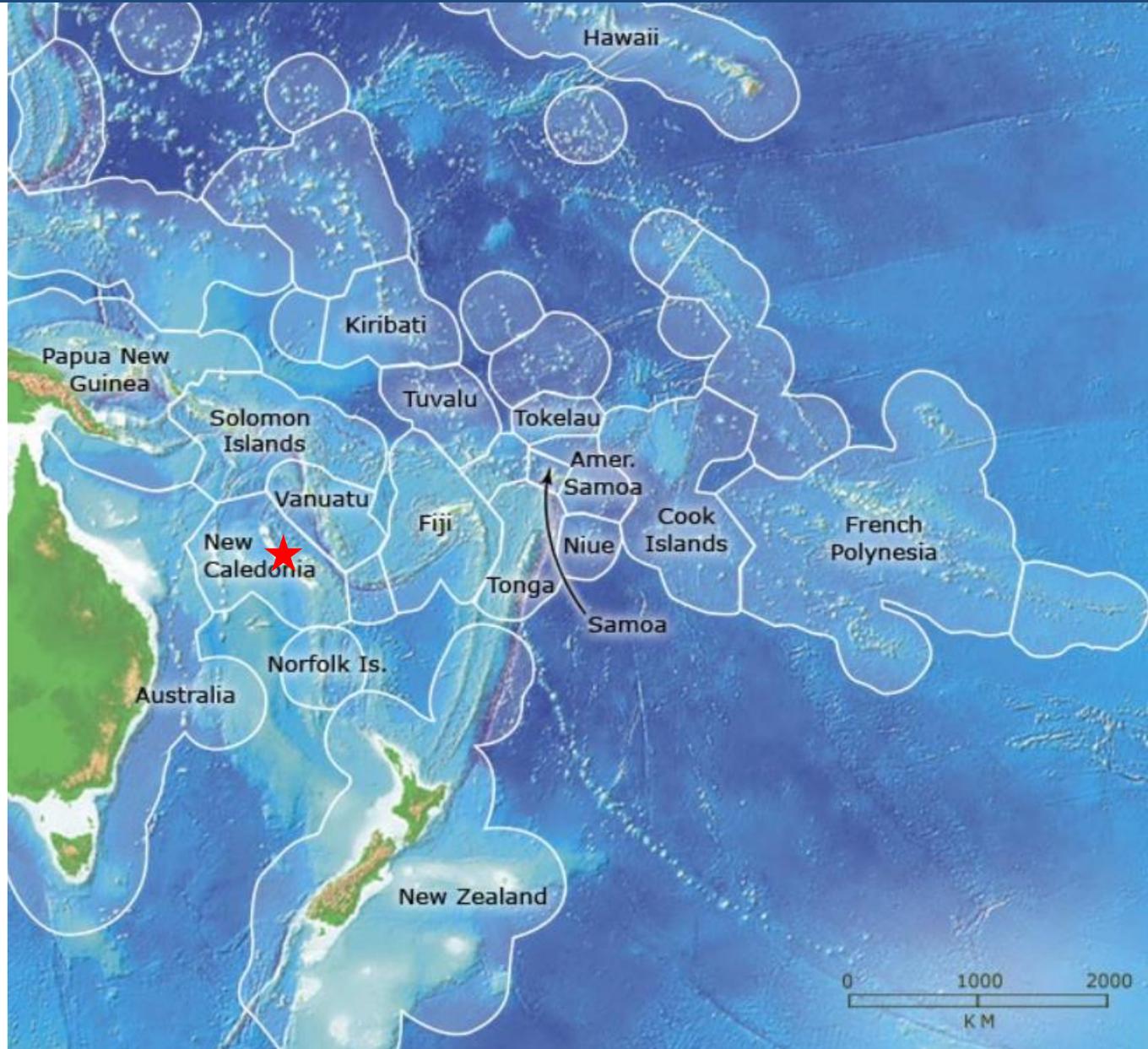
12-14 July 2023

Lima, Peru

Nippon Foundation – GEBCO Seabed2030 Project South and West Pacific



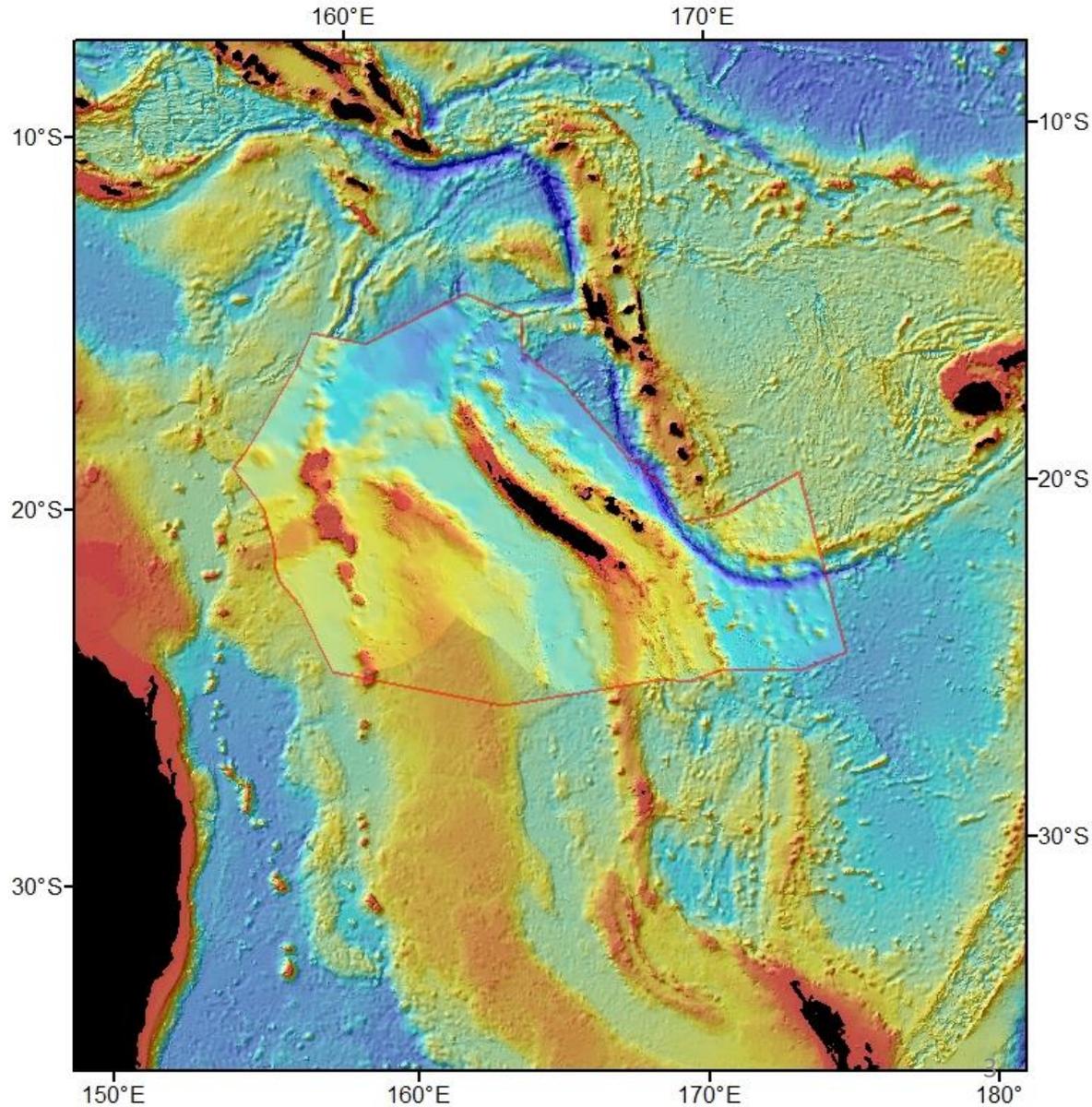
New Caledonia



EEZ and ECS of New Caledonia

1.45 million km²

Marine Parc of the
Coral Sea

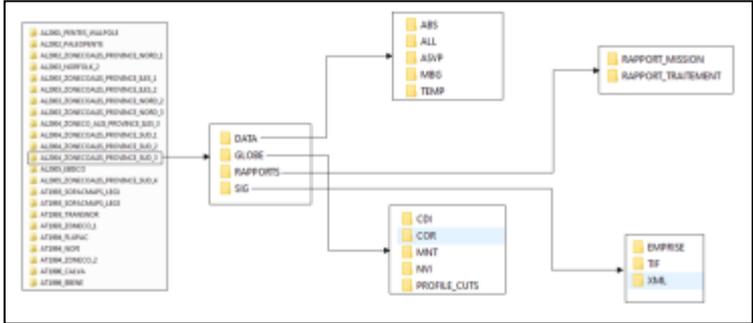


1. Data inventory and gathering

2. Database structuration

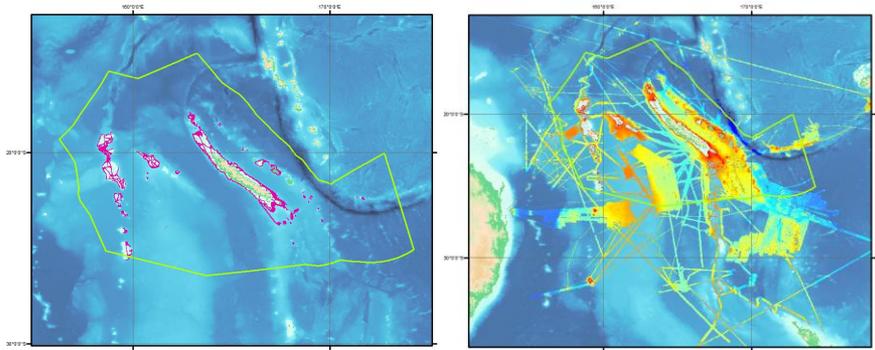
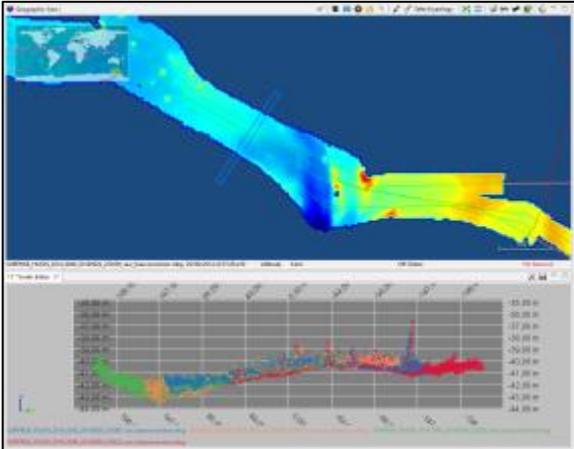


NOM DE CAMPAGNE	CODE DE CAMPAGNE	ANNEE	NAVIRE	SONDEUR	CHEF(S) DE MISSION
SPANBIDS		2021	Alis	Simrad EM1002	S. Samadi
KANARECUP		2020	Alis	Simrad EM1002	K. OLU, V. ALLAIN
NORFOLK 1		2001	Alis	Simrad	B. Richer de Forges
NORFOLK 2		2003	Alis	Simrad	B. Richer de Forges
EBISCO		2005	Alis	Simrad EM1002	B. Richer de Forges
BOISALIS 1		2001	Alis	Simrad	G. Cabioch
BOISALIS 2		2001	Alis	Simrad	G. Cabioch
BIFURCATION		2012	Alis	Simrad EM1002	C. MAES

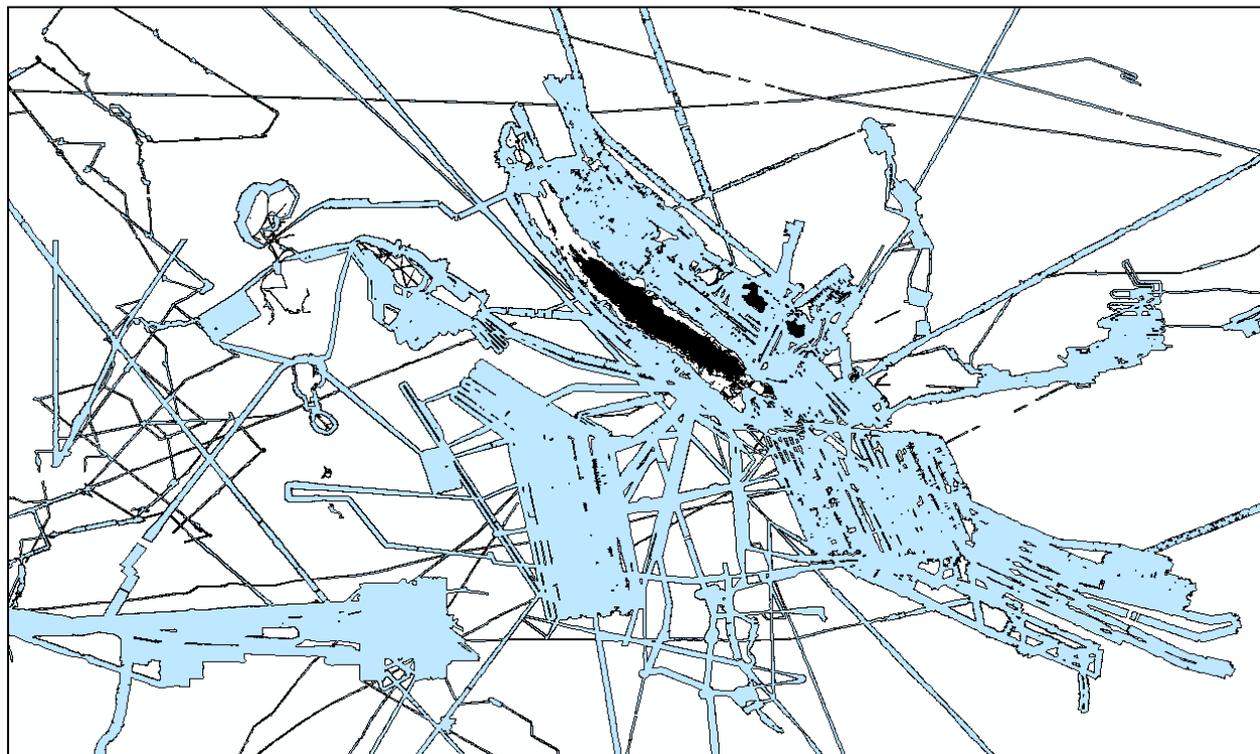


3. Data processing

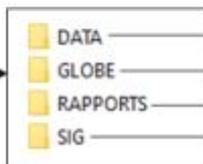
4. Production and diffusion of DTMs



Individual survey information



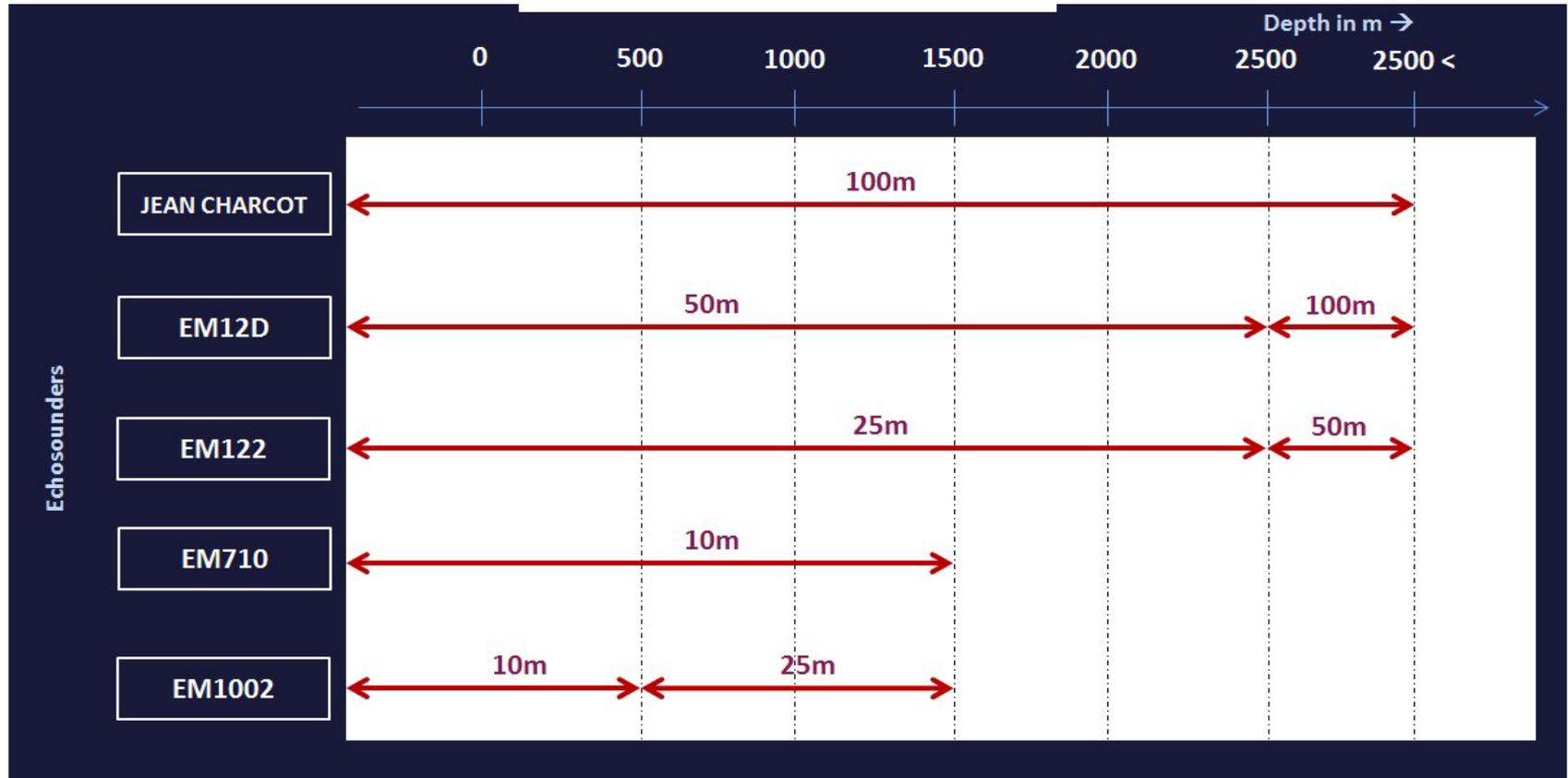
- AL2001_PENTES_WALPOLE
- AL2002_PALEOPENTE
- AL2002_ZONECOALIS_PROVINCE_NORD_1
- AL2003_NORFOLK_2
- AL2003_ZONECOALIS_PROVINCE_ILLES_1
- AL2003_ZONECOALIS_PROVINCE_ILLES_2
- AL2003_ZONECOALIS_PROVINCE_NORD_2
- AL2003_ZONECOALIS_PROVINCE_NORD_3
- AL2004_ZONECO_ALIS_PROVINCE_ILLES_3
- AL2004_ZONECOALIS_PROVINCE_SUD_1
- AL2004_ZONECOALIS_PROVINCE_SUD_2
- AL2004_ZONECOALIS_PROVINCE_SUD_3**
- AL2005_EBISCO
- AL2005_ZONECOALIS_PROVINCE_SUD_4
- AT1993_SOPACMAPS_LEG1
- AT1993_SOPACMAPS_LEG3
- AT1993_TRANSNOR
- AT1993_ZONECO_1
- AT1994_FLUPAC
- AT1994_NOFI
- AT1994_ZONECO_2
- AT1996_CALVA
- AT1996_EBENE



Id	NOM_MISSIO	CODE DE CAMPAGNE	ANNEE	NAVIRE	SONDEUR	CHEF(S) DE MISSION	EMAIL DU CHEF(S) DE MISSION	ORGANISME	DATE DEPART	PORT DEPART	DATE ARRIVEE	PORT ARRIVEE	DOI	TYPE DE DONNEES	RESOLUTION DE MNT
54	PAPNOU99		1999	L'Atalante	Simrad EM12D	B. Pelletier	Bernard.Pelletier@ird.fr	IRD	01/10/1999	Papeete	12/10/1999	Nouméa	https://doi.org/10.17600/99010110	.mbg	100m
55	ZONÉCO 5		1999	L'Atalante	Simrad EM12D	J.M. Auzende	NA	IRD	13/10/1999	Nouméa	07/11/1999	Nouméa	https://doi.org/10.17600/99010120	.mbg	100m
56	ALAUFI		2000	L'Atalante	Simrad EM12D	B. Pelletier	Bernard.Pelletier@ird.fr	IRD	29/02/2000	Nouméa	17/03/2000	Suva	https://doi.org/10.17600/10030	.mbg	100m
57	AUSTREA 1	GA_222	1999	L'Atalante	Simrad EM12D	P. Hill	NA	GEOSCIENCE AUSTRALIA	17/12/1999	Nouméa	11/01/2000	Hobart	https://doi.org/10.17600/99010140	.mbg	100m
58	ION_RIDGE	GA_2346	2000	L'Atalante	Simrad EM12D (12kHz)	R. Wood	r.wood@gns.cri.nz	GNS	11/02/2000		24/02/2000	Noumea	https://doi.org/10.17600/10020	.mbg	100m
59	NOUCAPLAC 1		2004	L'Atalante	Simrad EM12D	W. Roest	walter.roest@ifremer.fr	IFREMER	05/08/2004	Nouméa	05/10/2004	Nouméa	https://doi.org/10.17600/18000825	.mbg	50m, 100m
60	NOUCAPLAC 2		2004	L'Atalante	Simrad EM12D	B. Loubrieu	benoit.loubrieu@ifremer.fr	IFREMER	25/08/2004	Nouméa	07/09/2004	Nouméa	https://doi.org/10.17600/18000825	.mbg	100m
61	ZONÉCO 11		2004	L'Atalante	Simrad EM12D	Y. Lafoy	yves.lafoy@gouv.nc	DIMENC	08/03/2004	Nouméa	05/10/2004	Nouméa	https://doi.org/10.17600/1010090	.mbg	50m, 100m
62	SHOMCAL		2015	L'Atalante	Kongsberg EM122	SHOM	NA	SHOM	19/06/2015	Nouméa	15/07/2015	Nouméa	https://doi.org/10.17600/15018400	.mbg	25m, 50m, 100m
63	TECTA		2015	L'Atalante	Kongsberg EM122	J. Collot	julien.collot@gouv.nc	SGNC	02/09/2015	Nouméa	10/10/2015	Nouméa	https://doi.org/10.17600/15001300	.mbg	25m, 50m, 100m
64	VESPA		2015	L'Atalante	Kongsberg EM122	M. Patriat	martin.patriat@ifremer.fr	IFREMER	22/05/2015	Nouméa	17/06/2015	Nouméa	https://doi.org/10.17600/15001100	.mbg	25m, 50m, 100m
65	CHUBACARC		2019	L'Atalante	Kongsberg EM122	S. Hourdez	hourdez@obs-banyuls.fr	CNRS	25/03/2019	Nouméa	07/06/2019	Nouméa	https://doi.org/10.17600/18001111	.mbg	25m, 50m, 100m
66	KANADEEP 2		2019	L'Atalante	Kongsberg EM122	S. Samadi	sarah@mnhm.fr	MNHN	04/03/2019	Nouméa	02/10/2019	Nouméa	https://doi.org/10.17600/18000883	.mbg	25m, 50m, 100m
67	SHOMPAC		2019	L'Atalante	Kongsberg EM122	SHOM	NA	SHOM	12/06/2019	Nouméa	01/08/2019	Nouméa	NA	.xyz, .txt	25m, 50m, 100m

Resolution of DTMs

according to echosounder and depths



Produced DTMs

10 m resolution

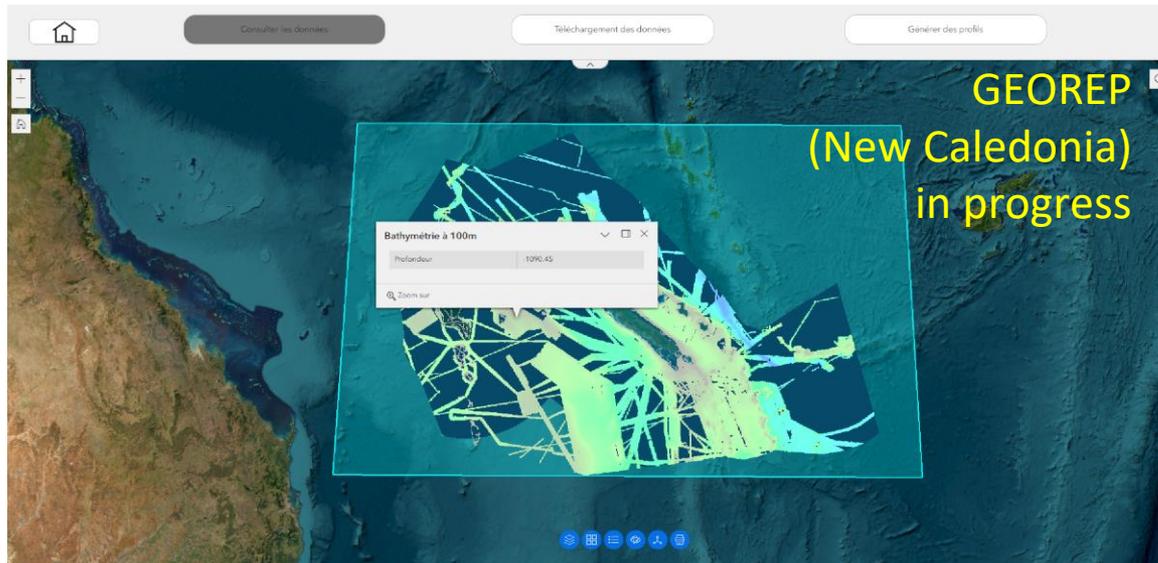
25 m resolution

50 m resolution

100 m resolution

250 m resolution
DTM to come





Online map explorers



Online report (french)

Base de données de sondeurs multifaisceaux et modèles bathymétriques de la Nouvelle-Calédonie – hors lagon.

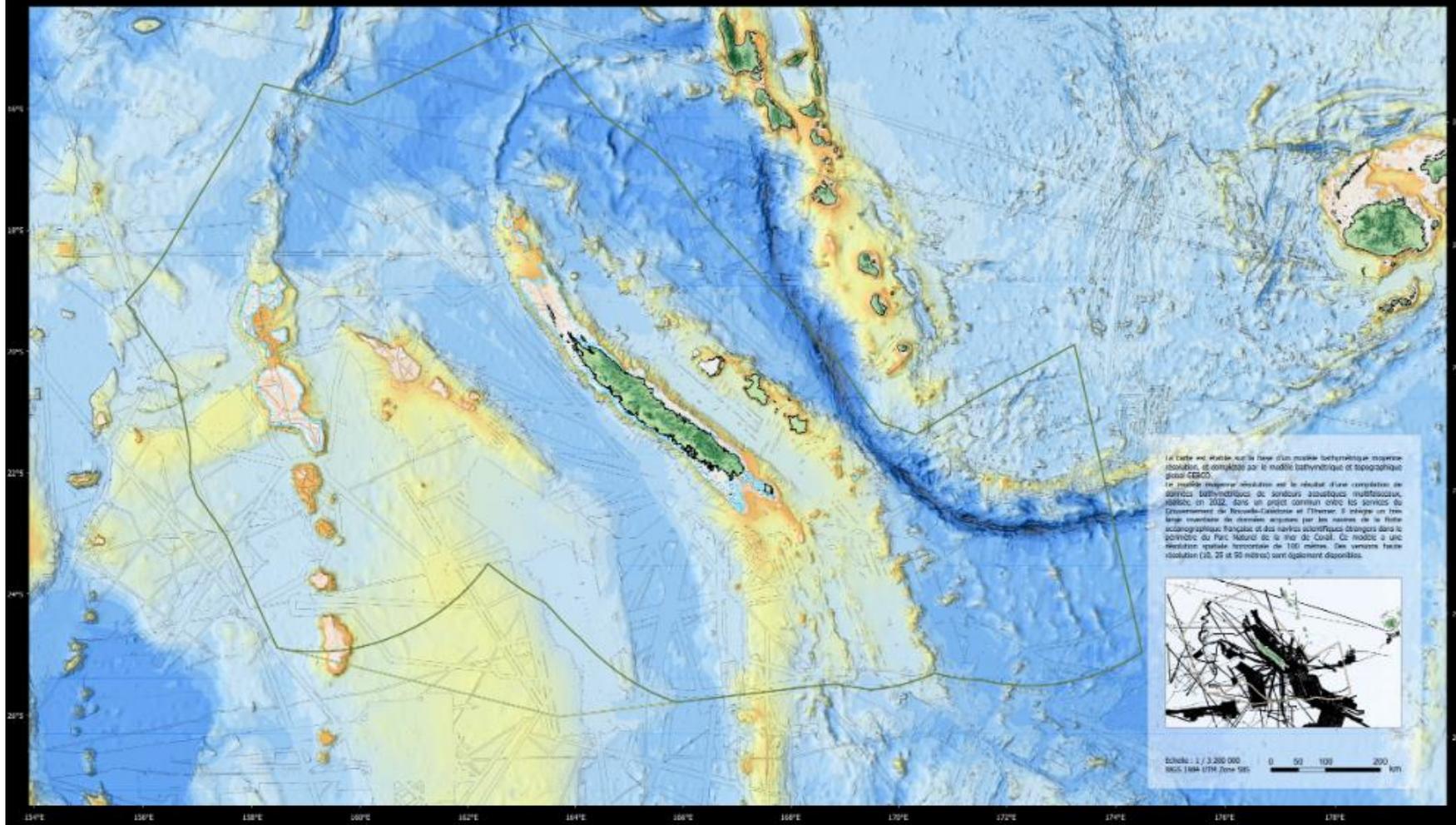
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¹ Service Géologique de Nouvelle-Calédonie, DIMENC, BP M2, 98645 Nouméa, Nouvelle-Calédonie.
² IFREMER, Unité Géosciences Marines, 20280 Plouzané, France
³ IFREMER, Unité Lagons, Ecosystèmes et Aquaculture Durable, Nouvelle-Calédonie

Octobre 2022
Référence: rapport SGNC-2022(12)

ARCHIMER

NOUVELLE-CALEDONIE - BATHYMETRIE DU PARC NATUREL DE LA MER DE CORAIL



Légende

- Limite du Parc Naturel de la Mer de Corail
- Limite extérieure de plateau continental de Nouvelle-Calédonie
- Récif



Rapport de traitement : DOI
Modèles numériques de bathymétrie à 10, 25, 50 et 100 m : DOI
Contacts : dimerc.geologie@guv.nc, gmcarto@ifremer.fr, ssmen@ifremer.fr

Sources :
Travaux de l'Etat Gouvernement de la Nouvelle-Calédonie et GSHHG
Topographie Gouvernement de la Nouvelle-Calédonie / D.I.T.T.
Topographie / Bathymétrie GEBCO 2022 / GEBCO Compilation Group (2022)
GEBCO_2022 Grid (doi:10.26103/42702649-4944-2729-4033-6d516bd2189c)
Délimitations maritimes SHOM 02/0222
Parc Naturel de la Mer de Corail

Ne pas utiliser pour la navigation.



Online data access (publicly available)

Data source

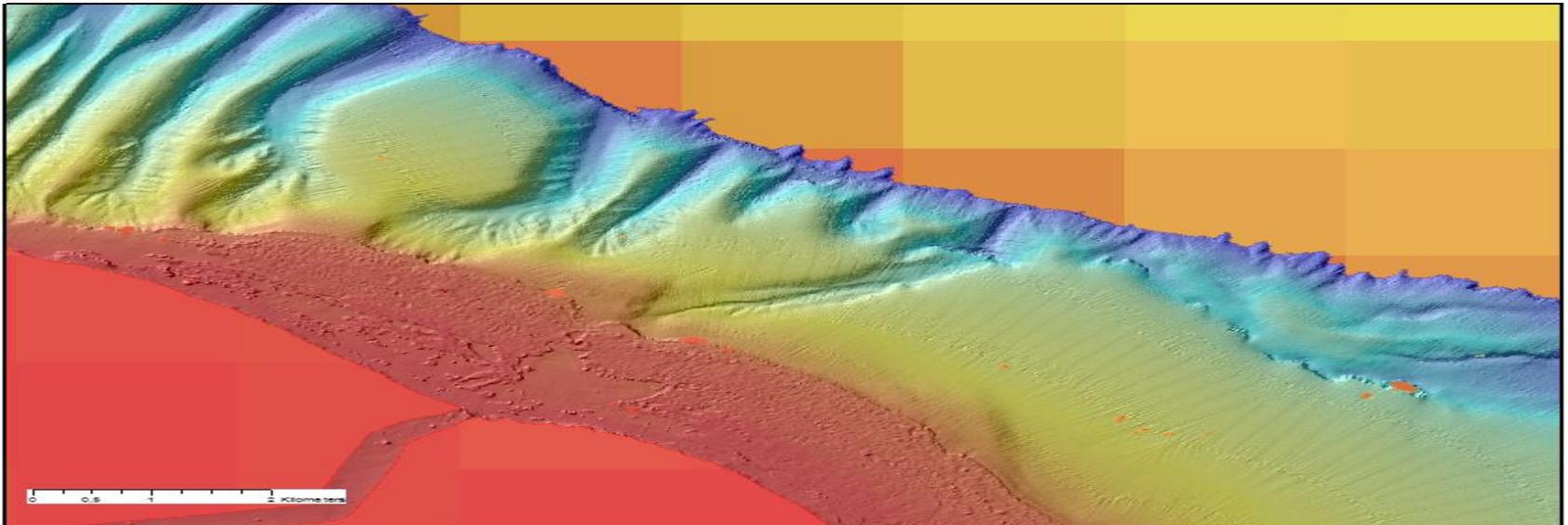
- Polygon data source: <https://doi.org/10.12770/38a24abd-9f5a-4108-bb86-a0add3c45d9d>

DTMs (geotiffs)

- 10m resolution DTM: <https://doi.org/10.12770/3db7cb0d-a13d-437f-af2f-c19047f02f83>
- 25m resolution DTM: <https://doi.org/10.12770/8a991807-9f83-47f6-a22f-e4895adeaa9e>
- 50m resolution DTM: <https://doi.org/10.12770/b6a9c630-aa1f-4a3e-9796-da63beb57413>
- 100m resolution DTM: <https://doi.org/10.12770/092b8302-9fb7-41d3-95ce-b777250d3ed1>

Reports

- PDF poster: https://drive.google.com/file/d/1ev_vtQwUzqx43ZUtZbK3DF4xpKg724oY/view?usp=share_link
- Report : <https://doi.org/10.13155/91834>



Exemple bathymétrie résolution 10 m

Altimétrie satellitaire

Sondeur multifaisceaux
ALIS

0 0.5 1 2 Kilometers

