

GEBCO/Seabed 2030 Progress as of Feb 1, 2024

GEBCO/Seabed 2030 Report to the 47th Meeting of
US Canada Hydrographic Commission

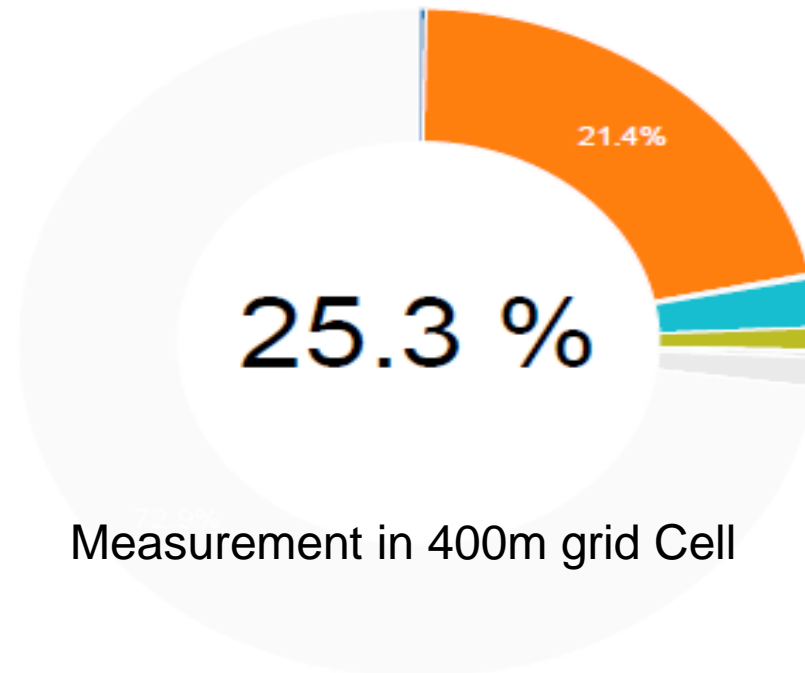
Presented by Andrew Armstrong
USCHC GEBCO/Seabed 2030 Coordinator

Information compiled by Juliet Kinney, Ph.D.
Arctic and North Pacific Regional Center at University of New Hampshire



Seabed 2030 Coverage:

% Global Ocean Mapped by Technique



Measurement in 400m grid Cell

- Singlebeam
- Multibeam
- Seismic
- Isolated sounding
- ENC sounding
- Lidar
- Depth measured by optical light sensor
- Combination of direct measurement methods
- Bathymetric sounding
- Land (negative topography)
- Upcoming, processing, Inactive, Predicted based on satellite-derived gravity data
- Interpolated based on a computer algorithm
- Digital bathymetric contours from charts
- Predicted based on helicopter/flight-derived gravity data
- Depth estimated by calculating the draft of a grounded iceberg using satellite-derived freeboard measurement
- Grid compilation including interpolated
- Unknown source
- Steering points
- No data

<https://seabed.geo.su.se/contribute-stats/stat>

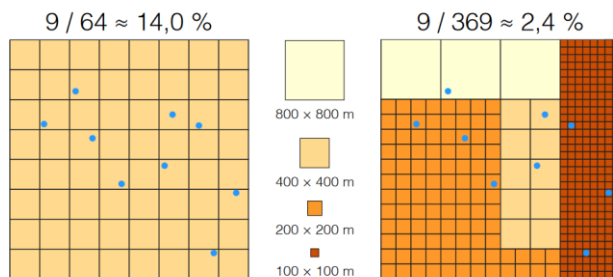
Seabed 2030:

Percentage mapped counts observed data presence in the 400m grid cells.

Future work is to develop 100m, 200m, 400m, and 800m grids where data is available to support these resolutions in their respective depth bands. Plans for 2024 after release of 400 grid are for internal testing of higher resolution products.

Seabed depth bands

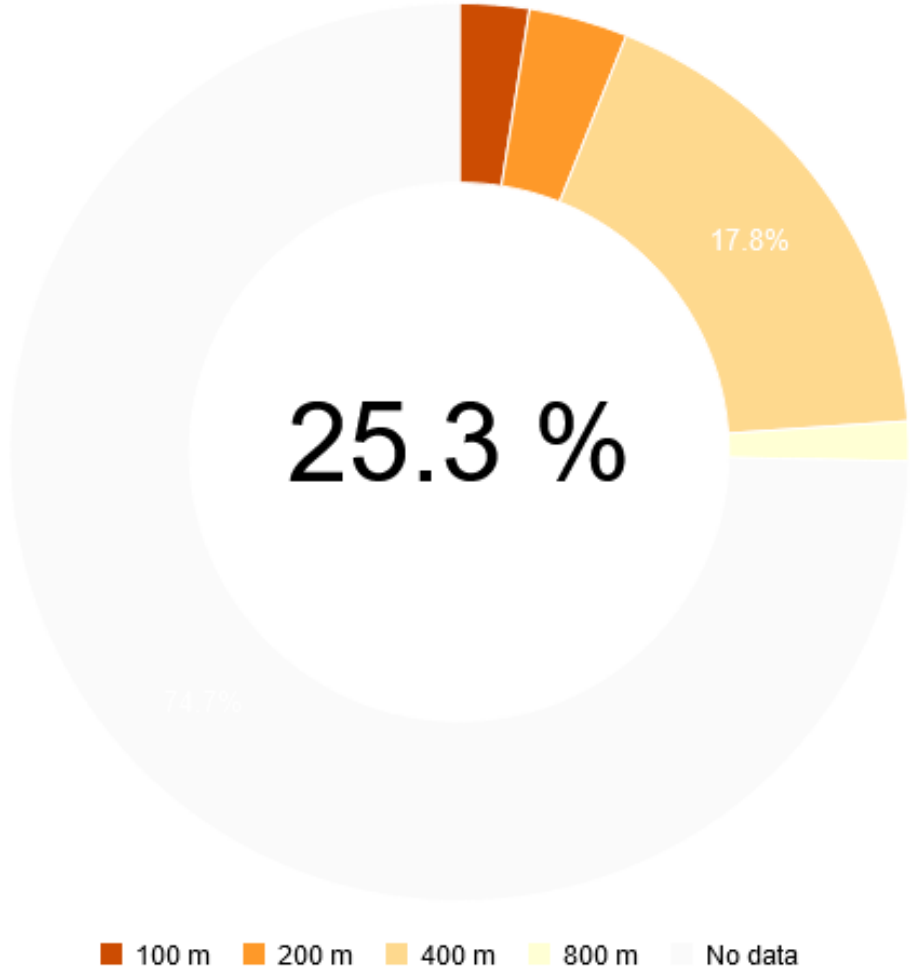
Impact on data coverage



Björn, Eriksson, Carlos F. Castro¹, Caroline Bringensparr¹, Martin Jakobsson¹, Rezwann Mohammad¹ [https://seabed.geo.su.se/misc/Seabed 2030 statistics - 2020200505.pdf](https://seabed.geo.su.se/misc/Seabed%202030%20statistics-2020200505.pdf)

Seabed 2030 Coverage:

Global Ocean % Mapped Depth Bands

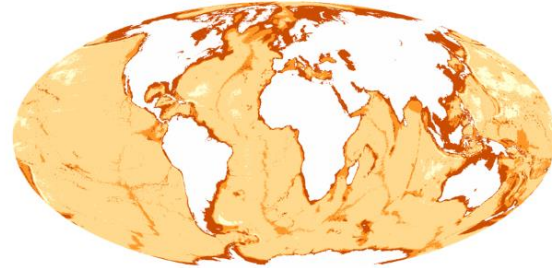
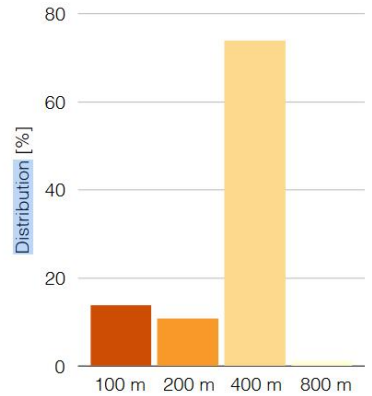
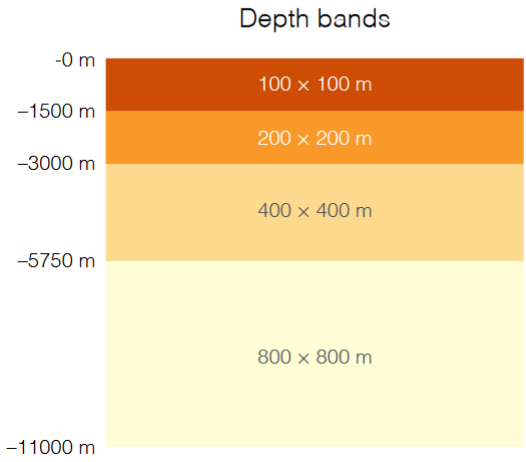


<https://seabed.geo.su.se/contribute-stats/stat>
 Seabed depth band ocean coverage chart

31 May 2024

USCHC 47 - St. John's Newfoundland and Labrador

Decreasing resolution with depth

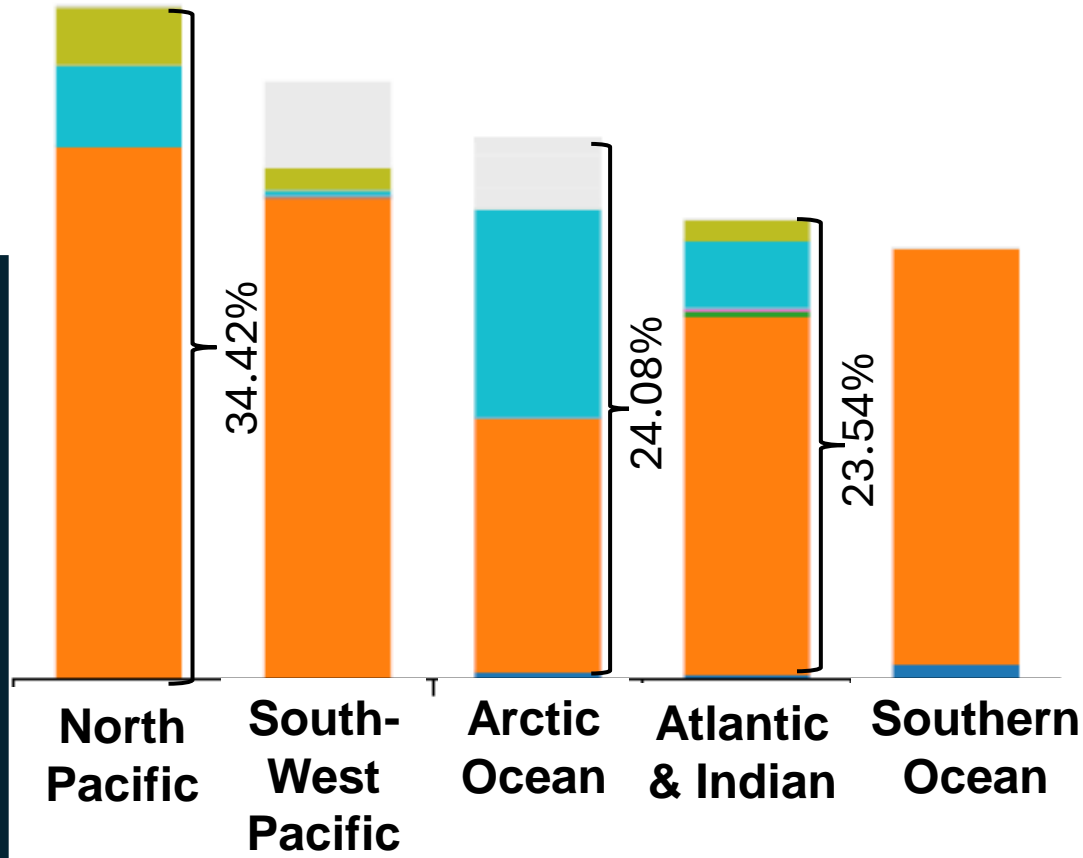


Calculation Methods: Björn, Eriksson, Carlos F. Castro¹, Caroline Bringensparr¹, Martin Jakobsson¹, Rezwann Mohammad¹ [https://seabed.geo.su.se/misc/Seabed 2030 statistics - 2020200505.pdf](https://seabed.geo.su.se/misc/Seabed%2030%20statistics%2020200505.pdf)

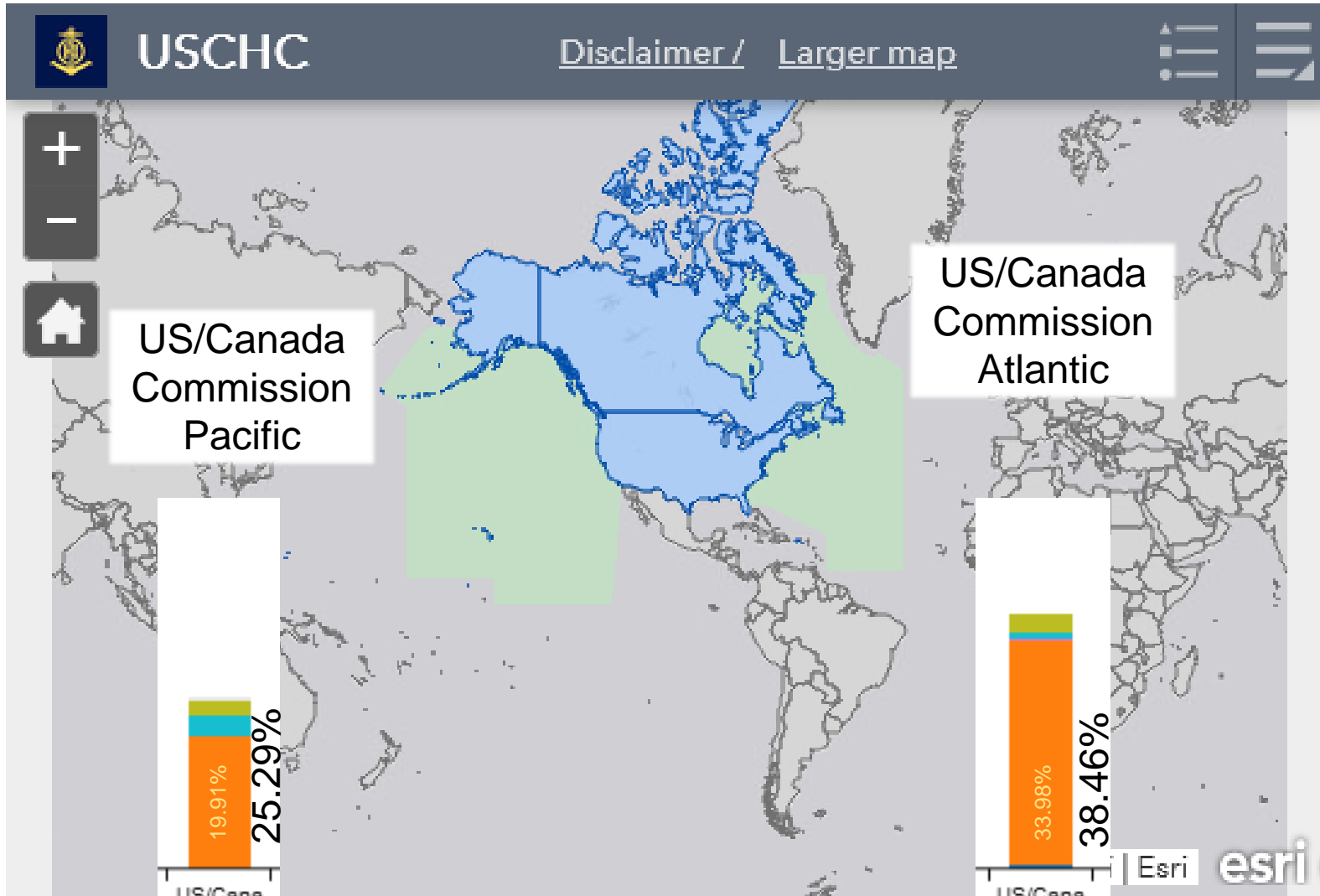


% of Region Mapped

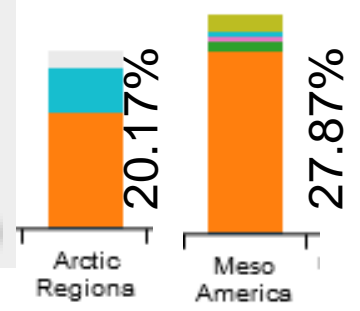
	North Pacific	Arctic	Atlantic & Indian
Total	34.42	24.08	23.54
Singlebeam	0.12	0.42	0.27
Multibeam	27.12	12.95	18.30
Seismic	0.00	0.00	0.27
Isolated sounding	0.00	0.00	0.00
ENC sounding	0.00	0.00	0.00
Lidar	0.00	0.00	0.01
Depth measured by optical light sensor	0.01	0.01	0.14
Combination of direct measurement methods	4.17	10.69	3.47
Bathymetric sounding	3.00	0.00	1.08



<https://seabed.geo.su.se/contribute-stats/stat>



- Total
- Singlebeam
- Multibeam
- Seismic
- Isolated sounding
- ENC sounding
- Lidar
- Depth measured by optical light sensor
- Combination of direct measurement methods
- Bathymetric sounding



Stats figures: <https://seabed.geo.su.se/contribute-stats/stat>
 Map: <https://iho.int/en/us/canada-hc-0>

Percent of Region Mapped	Hydrographic Commissions		
	US/Canada Pacific	US/Canada Atlantic	Arctic
Total (%)	38.46	20.17	25.29
Single Beam	0.06	0.48	0.39
Multibeam	19.91	0	14.4
Depth measured by optical light sensor	0	0.09	0.01
Combination of Direct Measurement Methods	3.2	1.07	5.37
Bathymetric Sounding	2.12	2.83	0