

The International Bathymetric Chart of the Southern Ocean Version 1.0

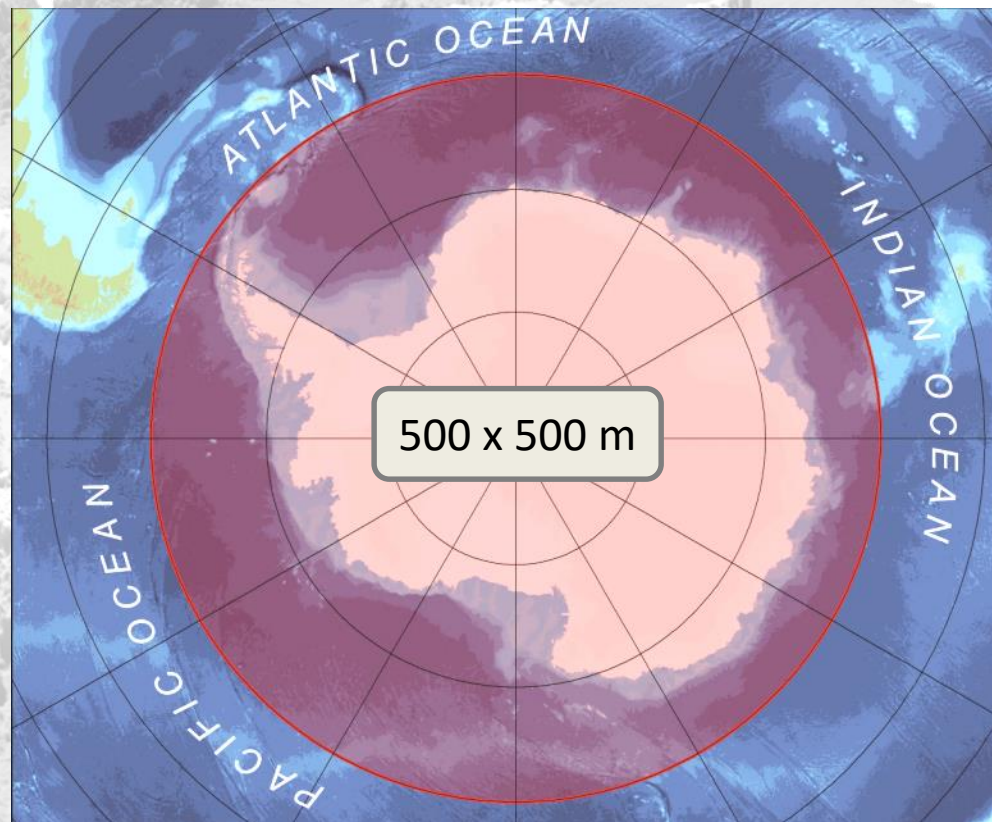
*A new bathymetric compilation
covering circum-Antarctic waters*

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What is IBCSO?

- The first seamless bathymetric grid covering all circum-Antarctic waters using all available bathymetric data



Organization of the IBCSO



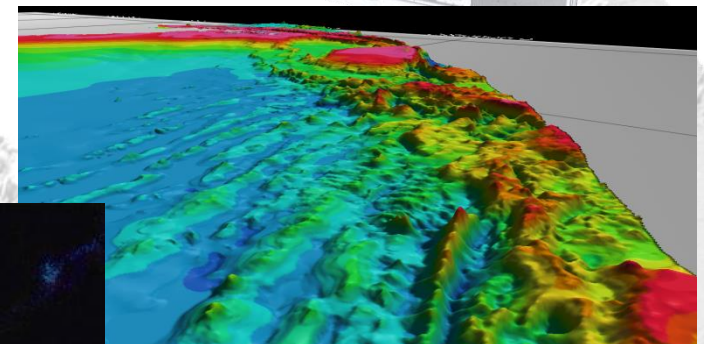
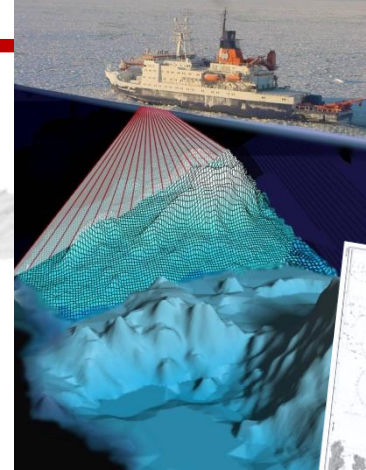
- Expert Group of SCAR since 2004
- Regional Mapping project of General Bathymetric Chart of the Oceans (GEBCO)
- Operates under the joint auspices of the Intergovernmental Oceanographic Commission (IOC) (of UNESCO) and the International Hydrographic Organization (IHO)
- Cooperation with the IHO Hydrographic Commission on Antarctica (HCA)
- Located at the Alfred Wegener Institute (AWI)

Data Contributors

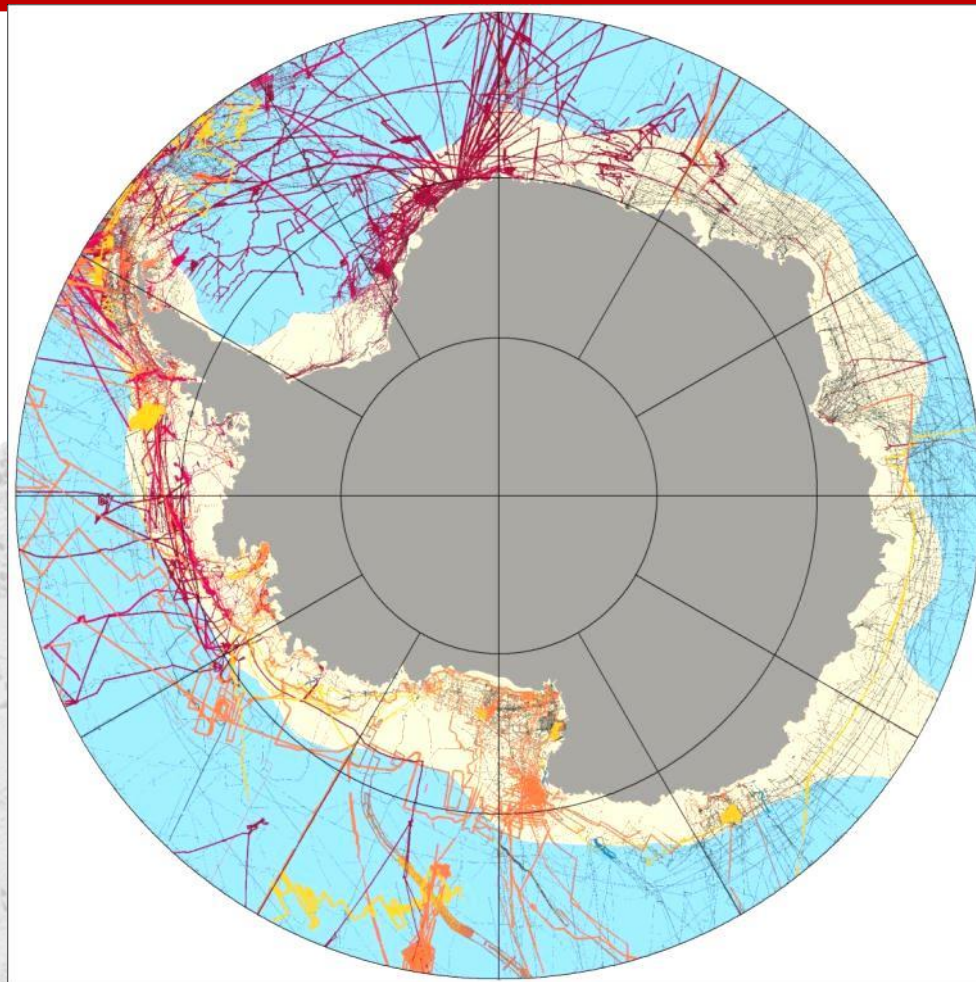


IBCSO Database

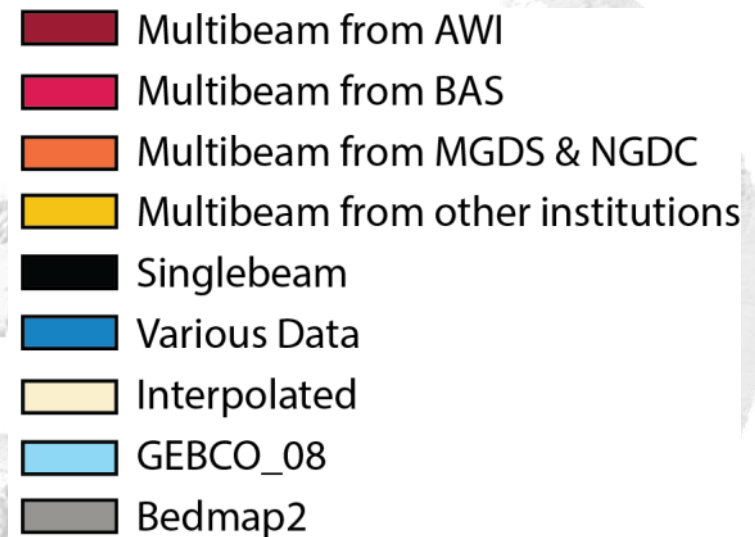
- Soundings
 - Multibeam
 - Singlebeam
- Nautical Charts
- Bathymetric Compilations
- Predicted bathymetry from satellite altimetry
- Continental Data

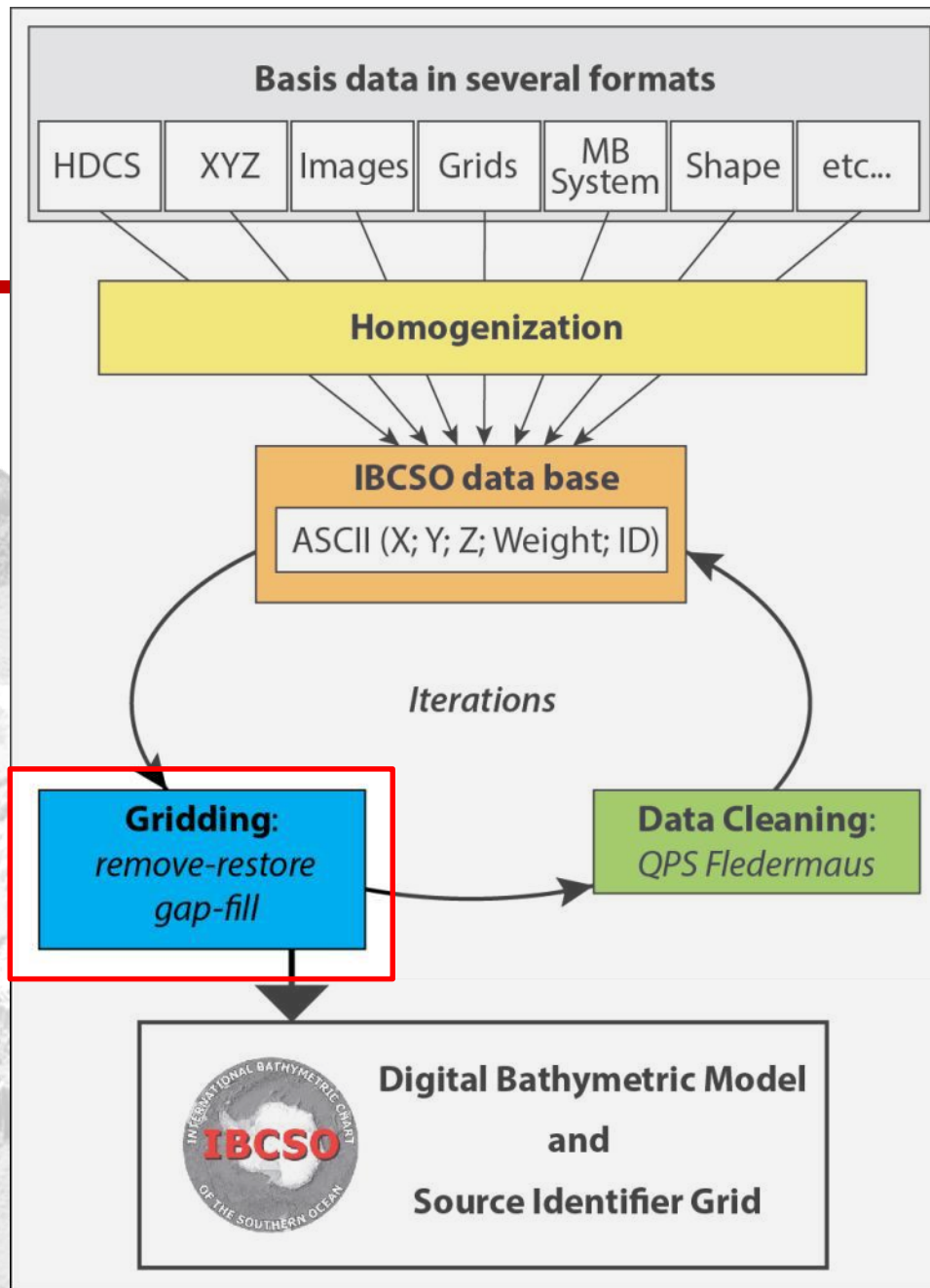


Data Distribution



- More than 4200 million soundings
- About 98.7 % multibeam





Gridding (remove-restore)

IBCSO Database

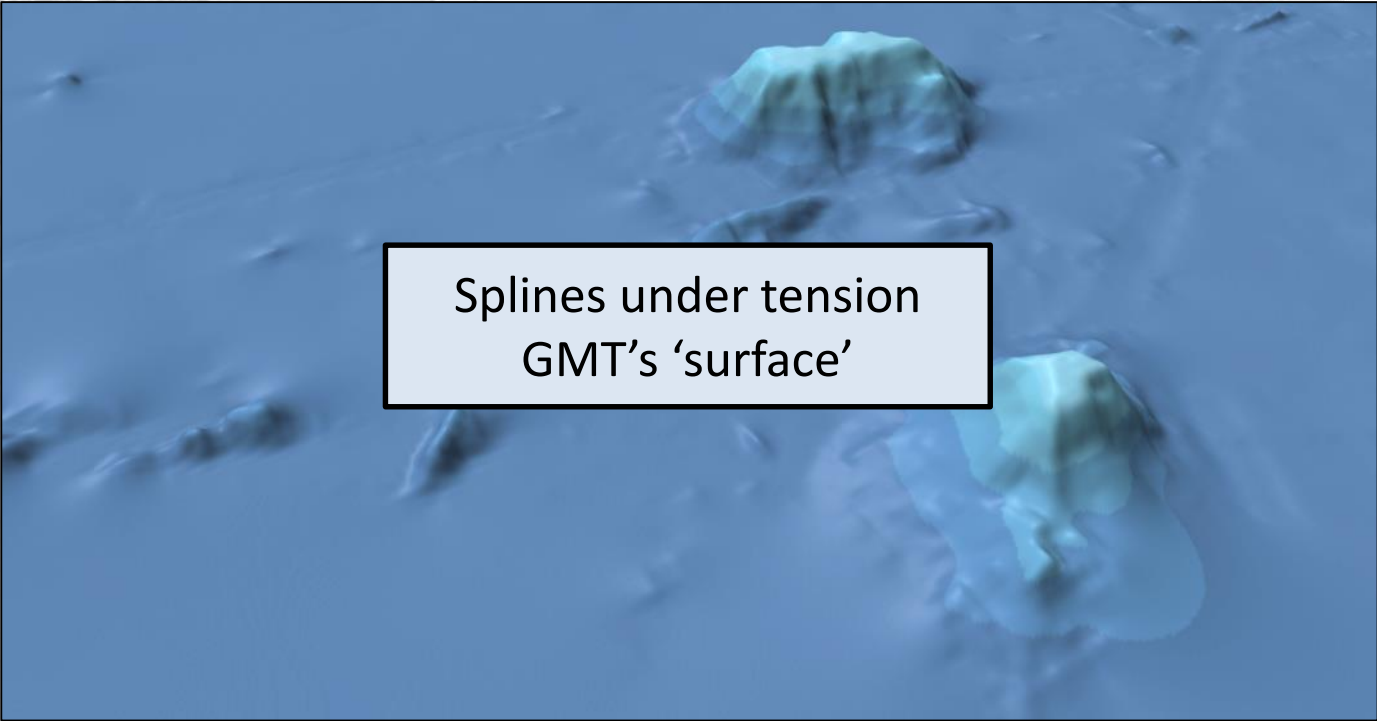
Blockmedian 2000 m

Splines under tension
GMT's 'surface'

Gridding (remove-restore)

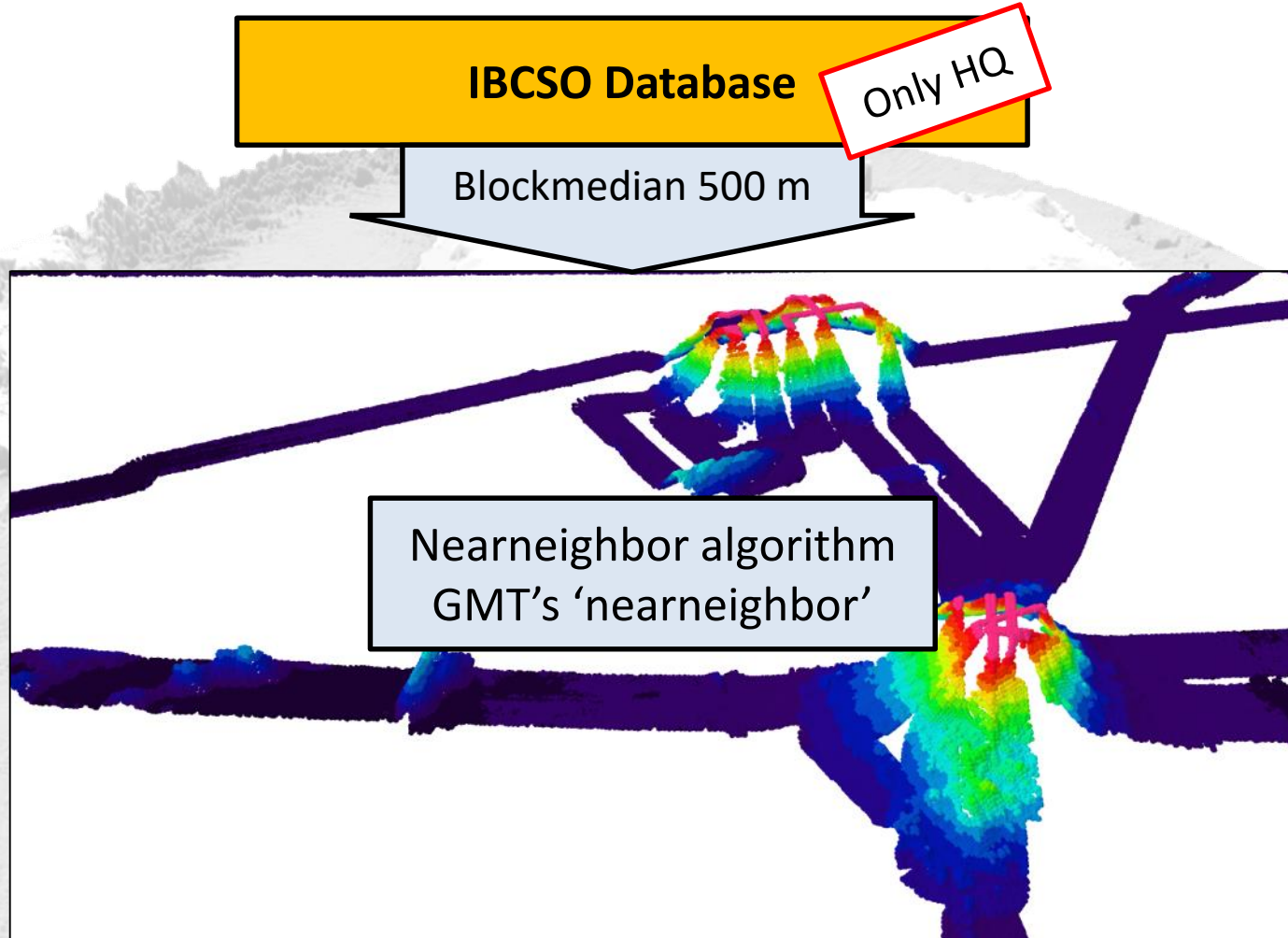


IBCSO Database

A 3D visualization of a bathymetric dataset, likely from the IBCSO Database. It shows a deep-sea environment with a prominent seamount or ridge in the center. The seamount is colored in shades of blue and green, indicating different depths or elevations. The surrounding seafloor is a lighter blue. The entire visualization is set against a background of a grey, textured map of the Southern Ocean.

Splines under tension
GMT's 'surface'

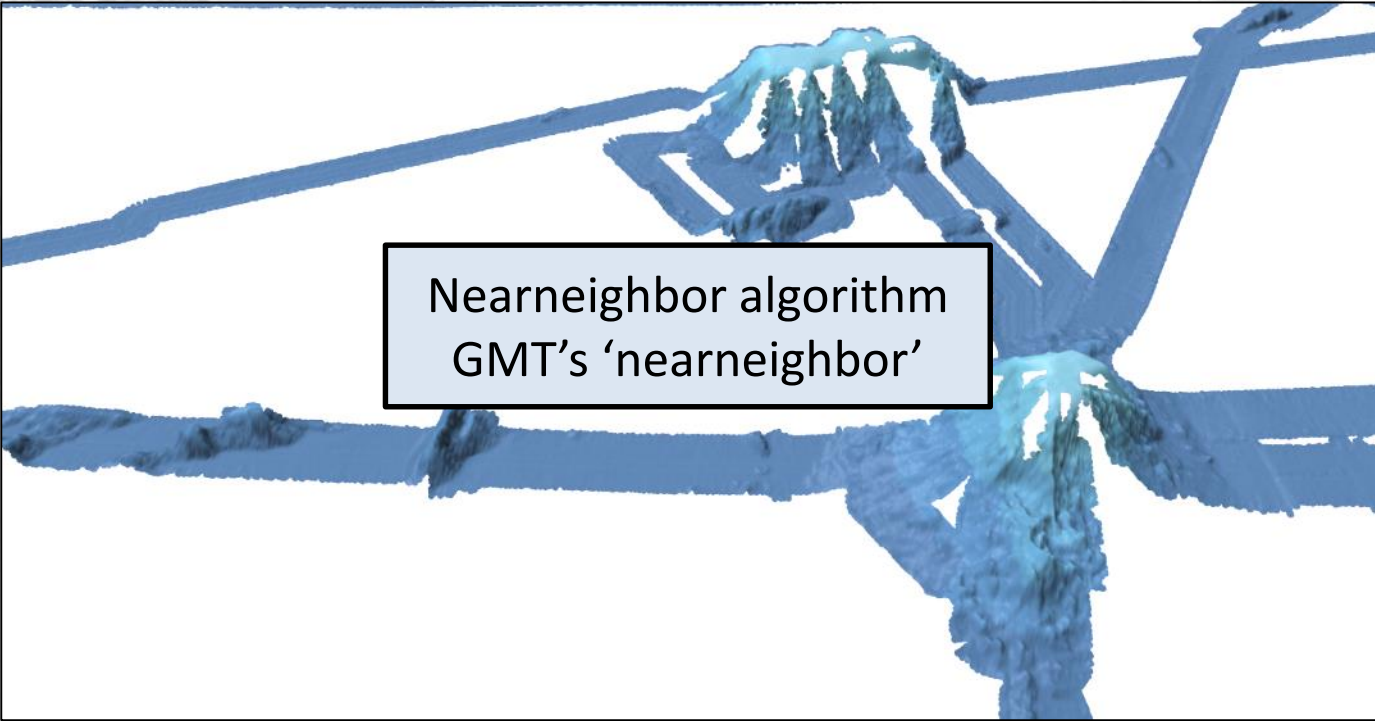
Gridding (remove-restore)



Gridding (remove-restore)

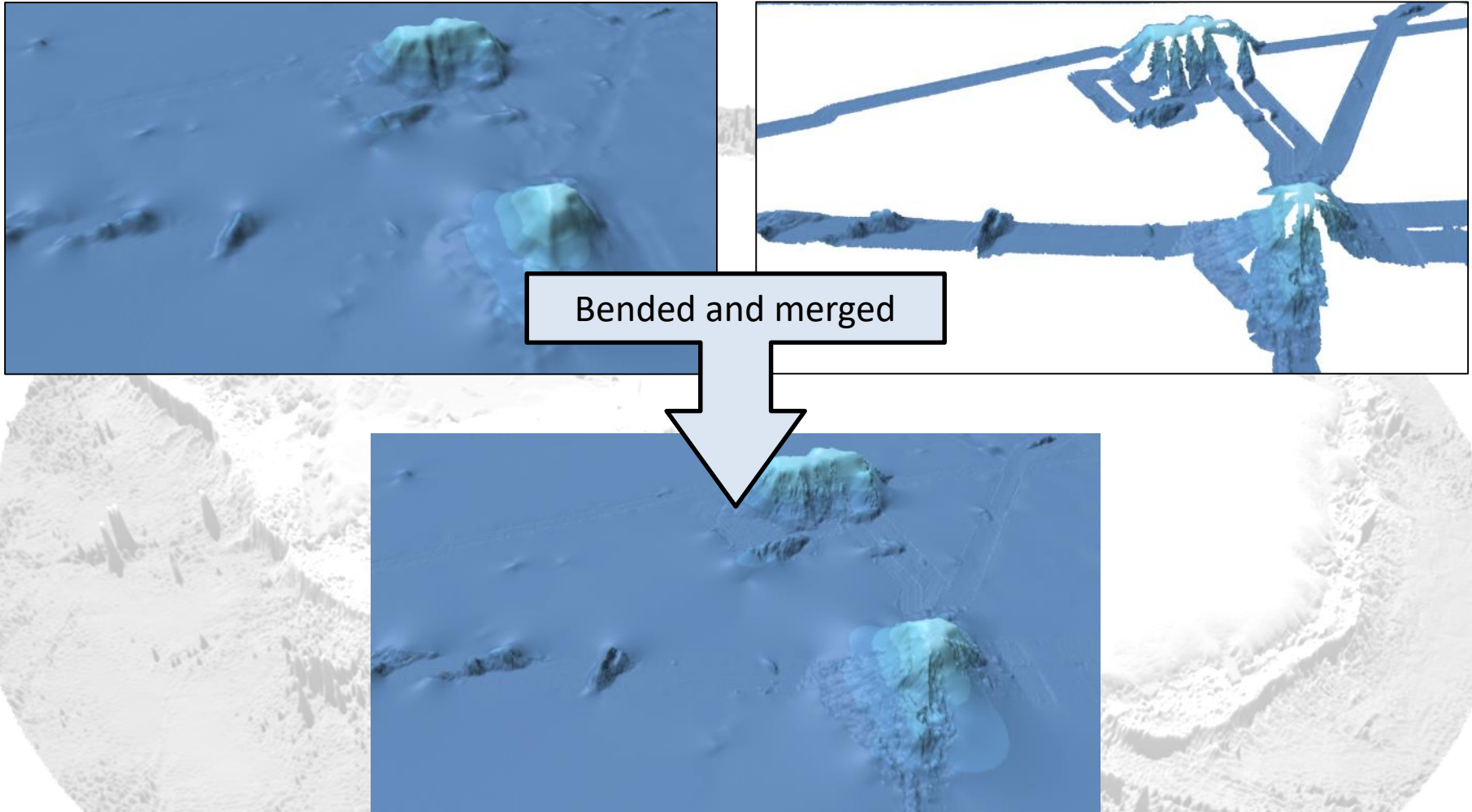
IBCSO Database

Only HQ

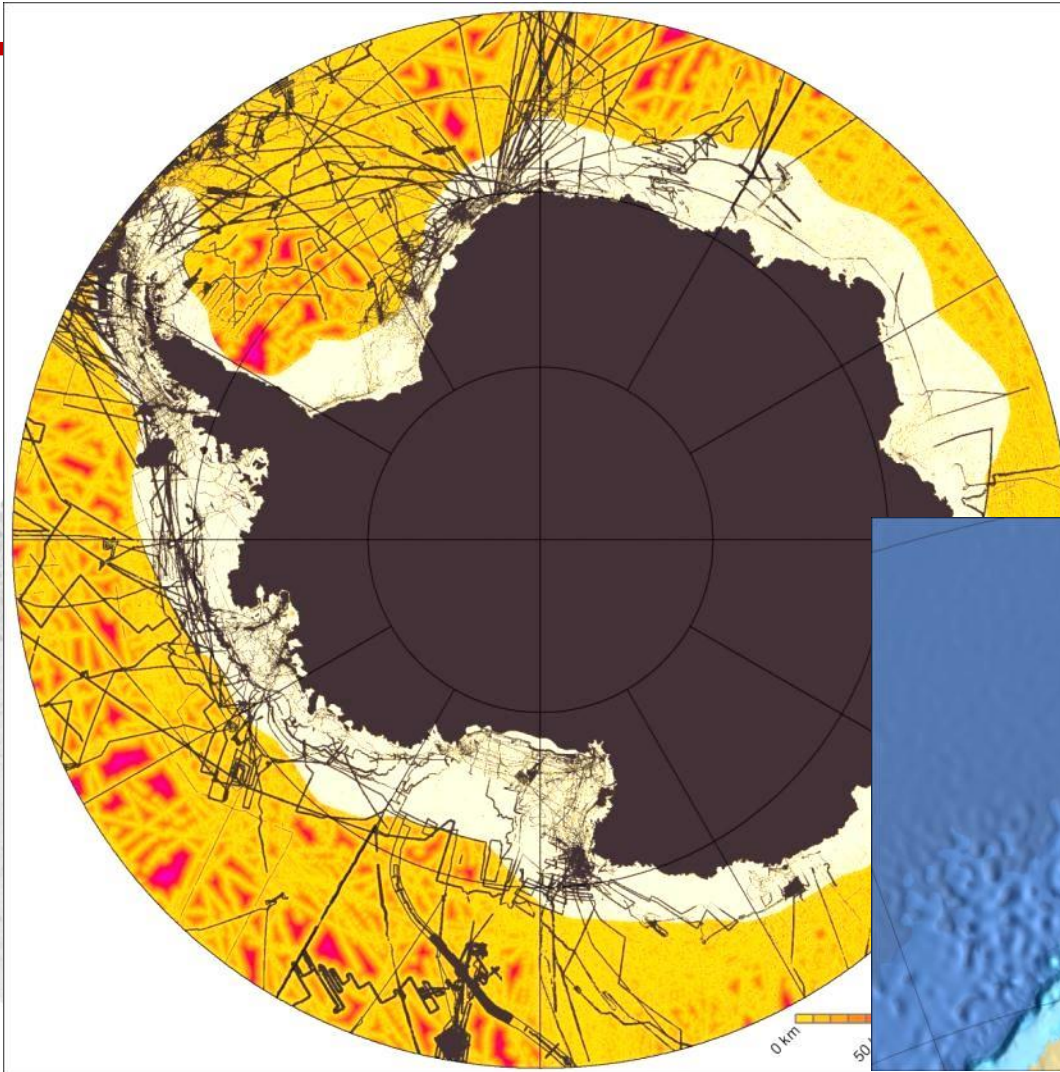


Nearneighbor algorithm
GMT's 'nearneighbor'

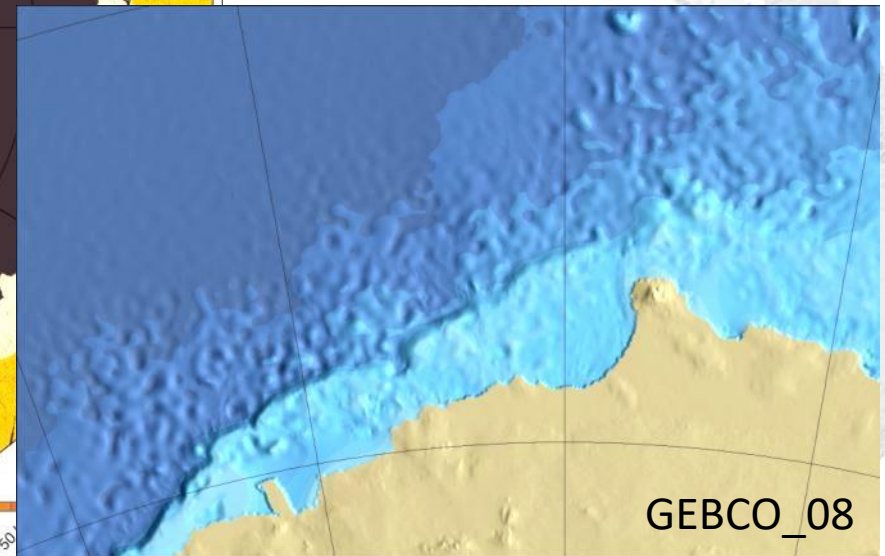
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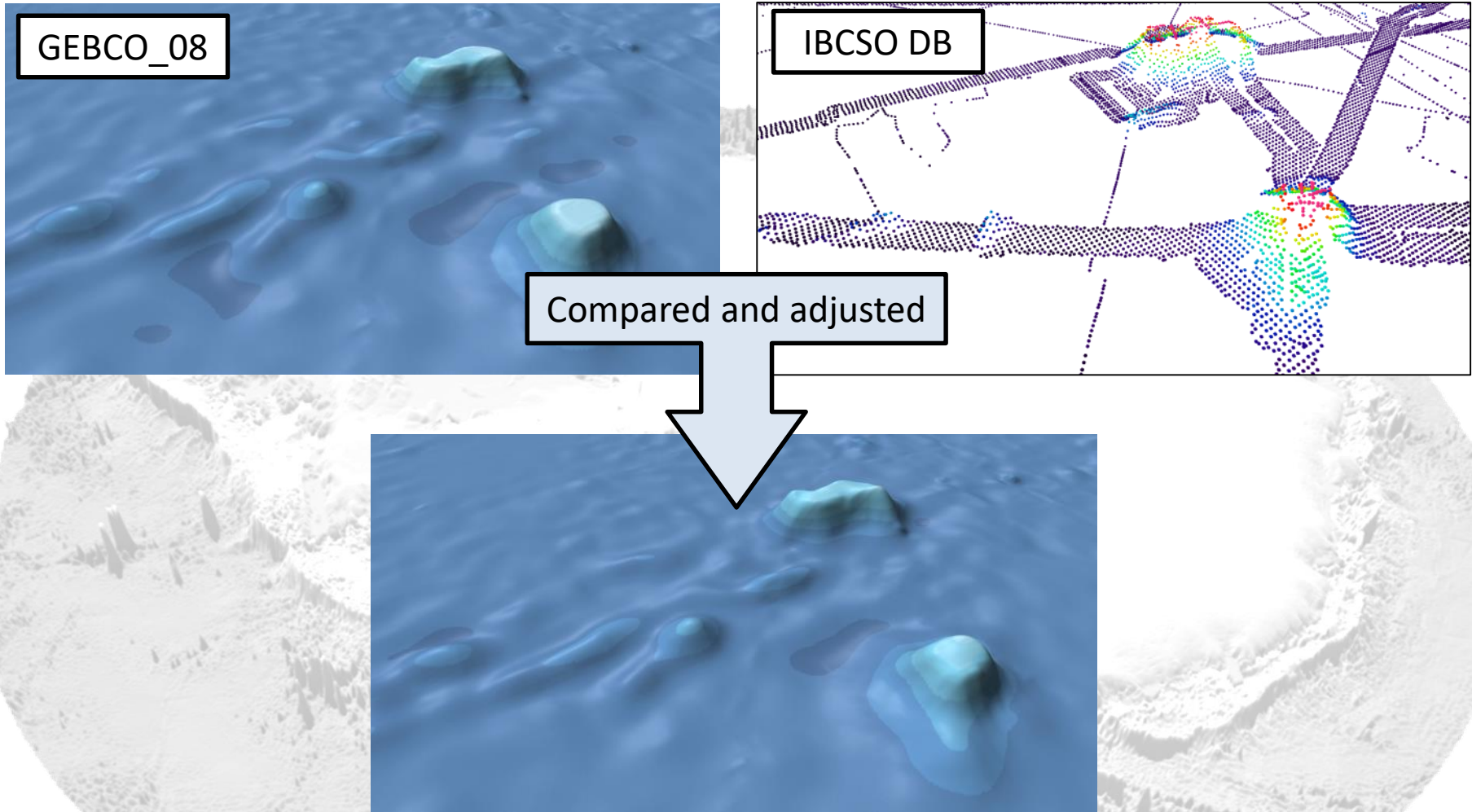
Gridding (gap-fill)



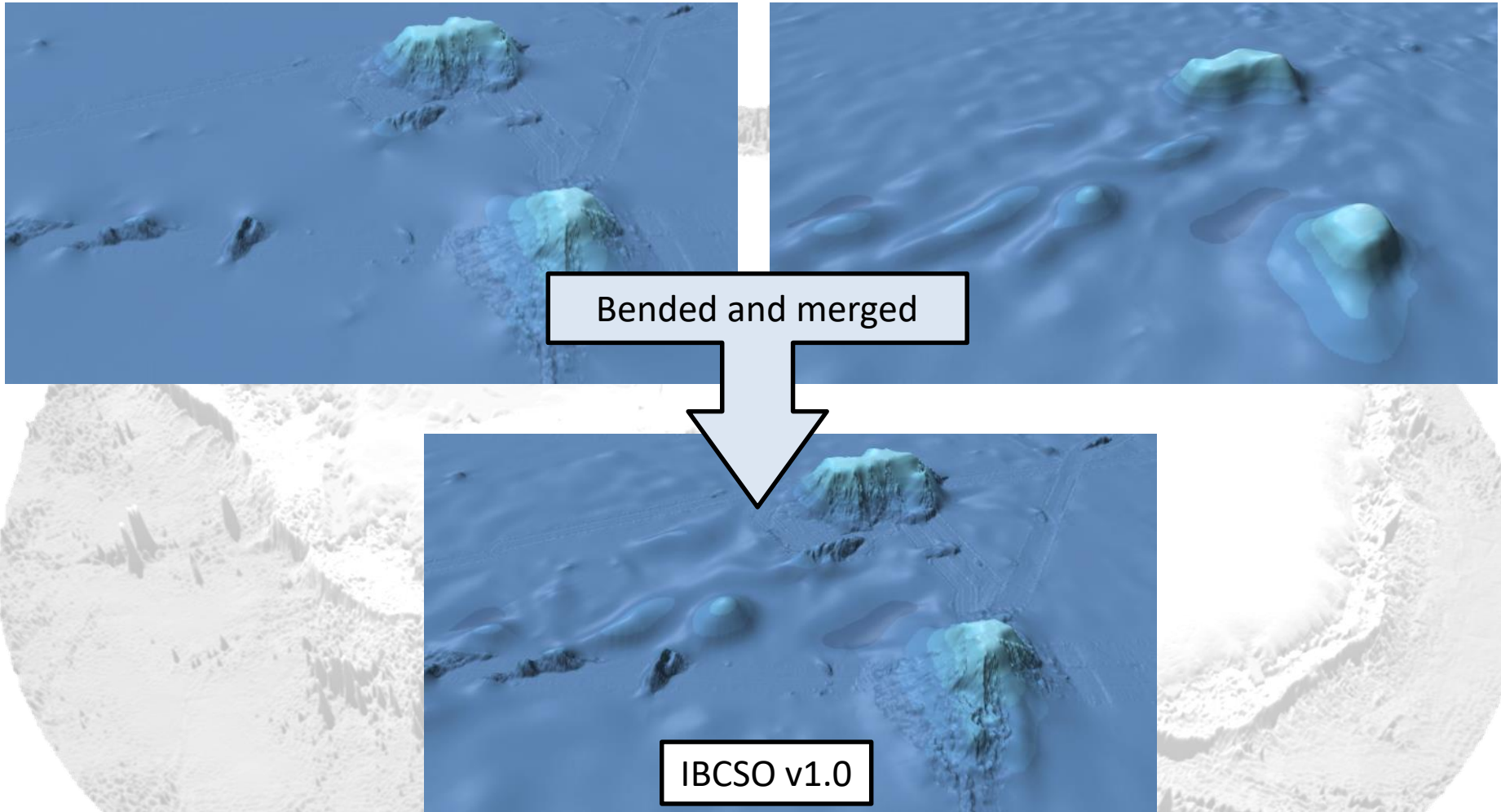
- Fill these gaps with predicted bathymetry from GEBCO_08
- **But:** not for continental shelves and southernmost parts



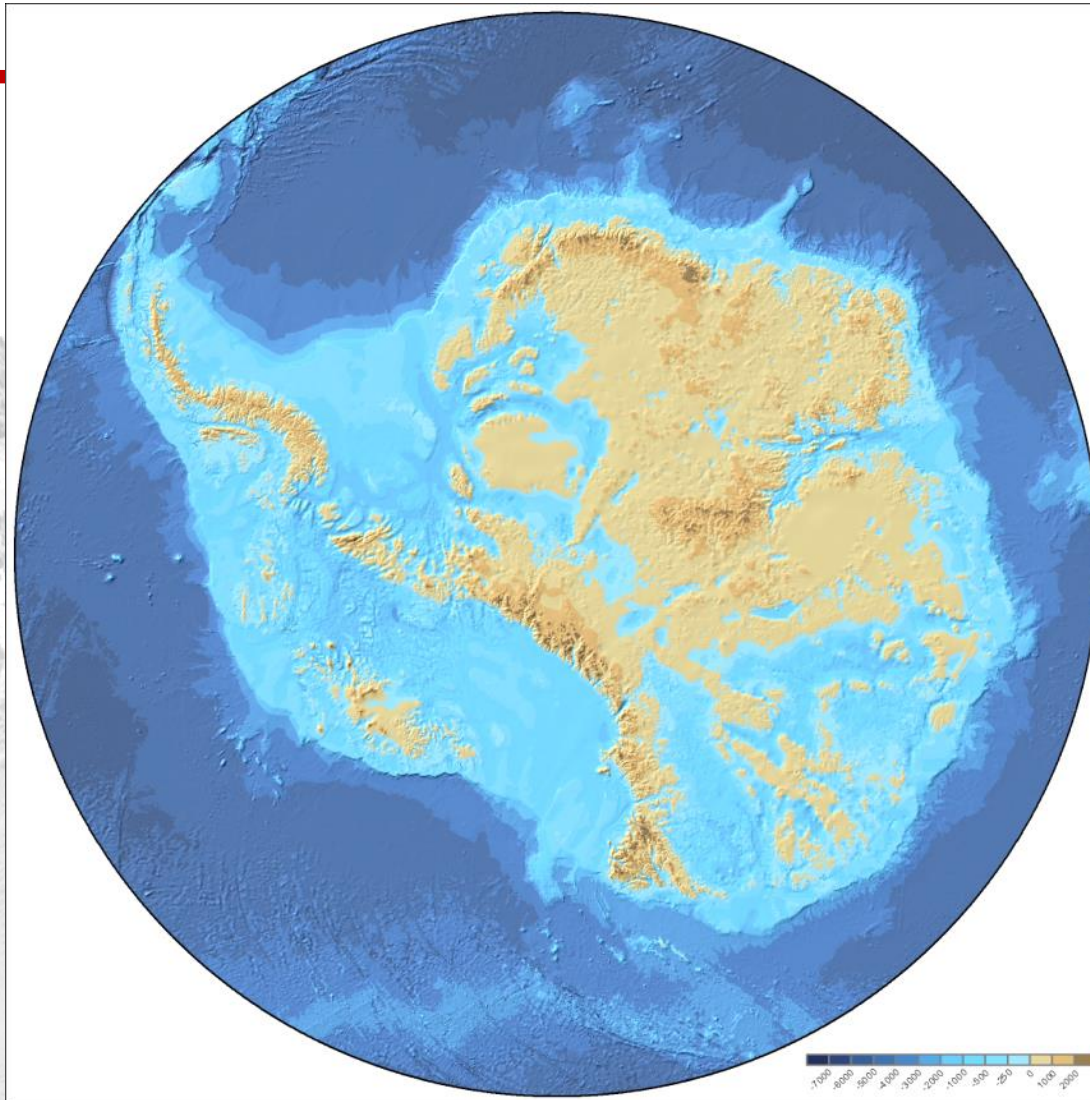
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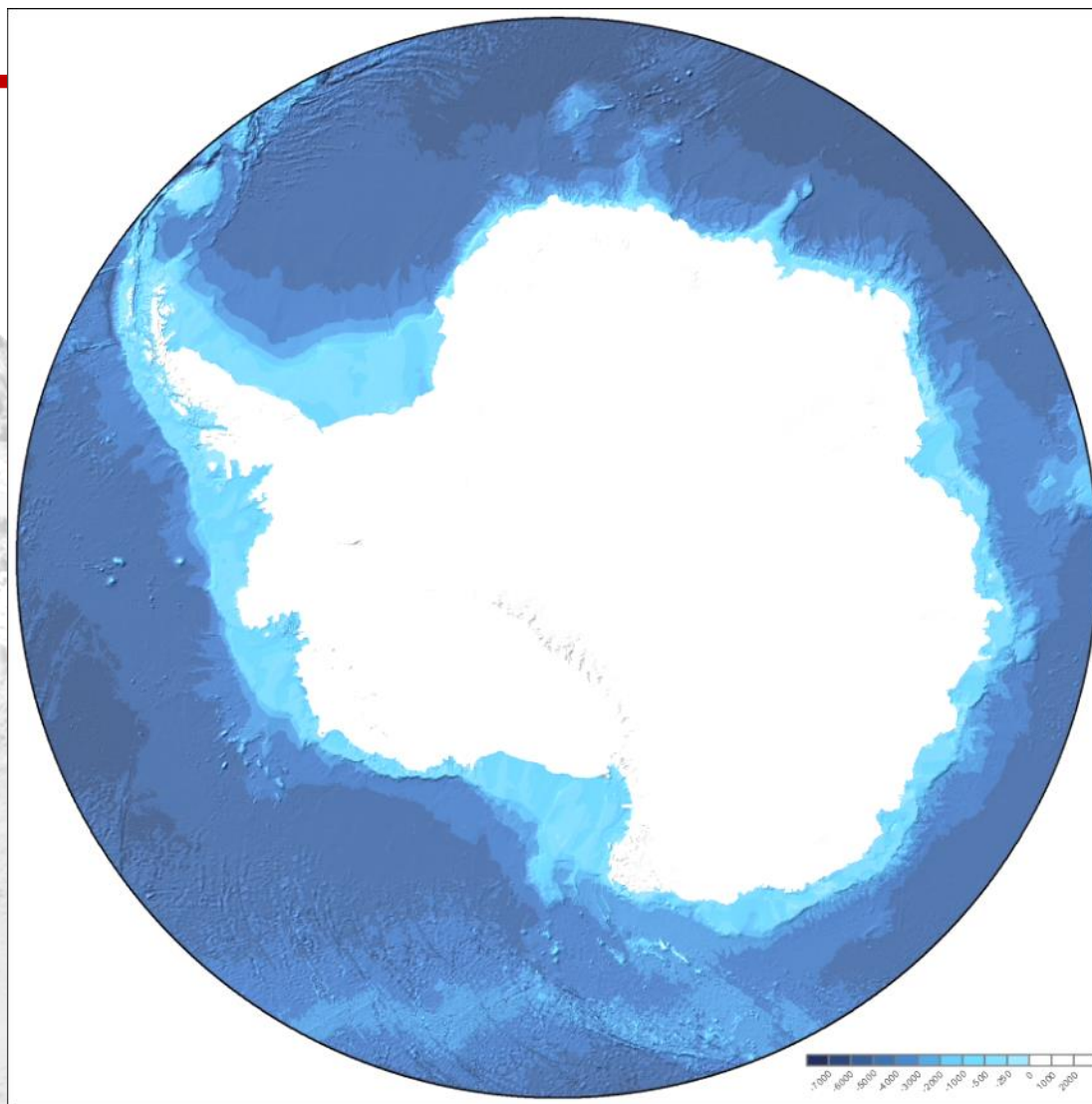
Gridding (gap-fill)



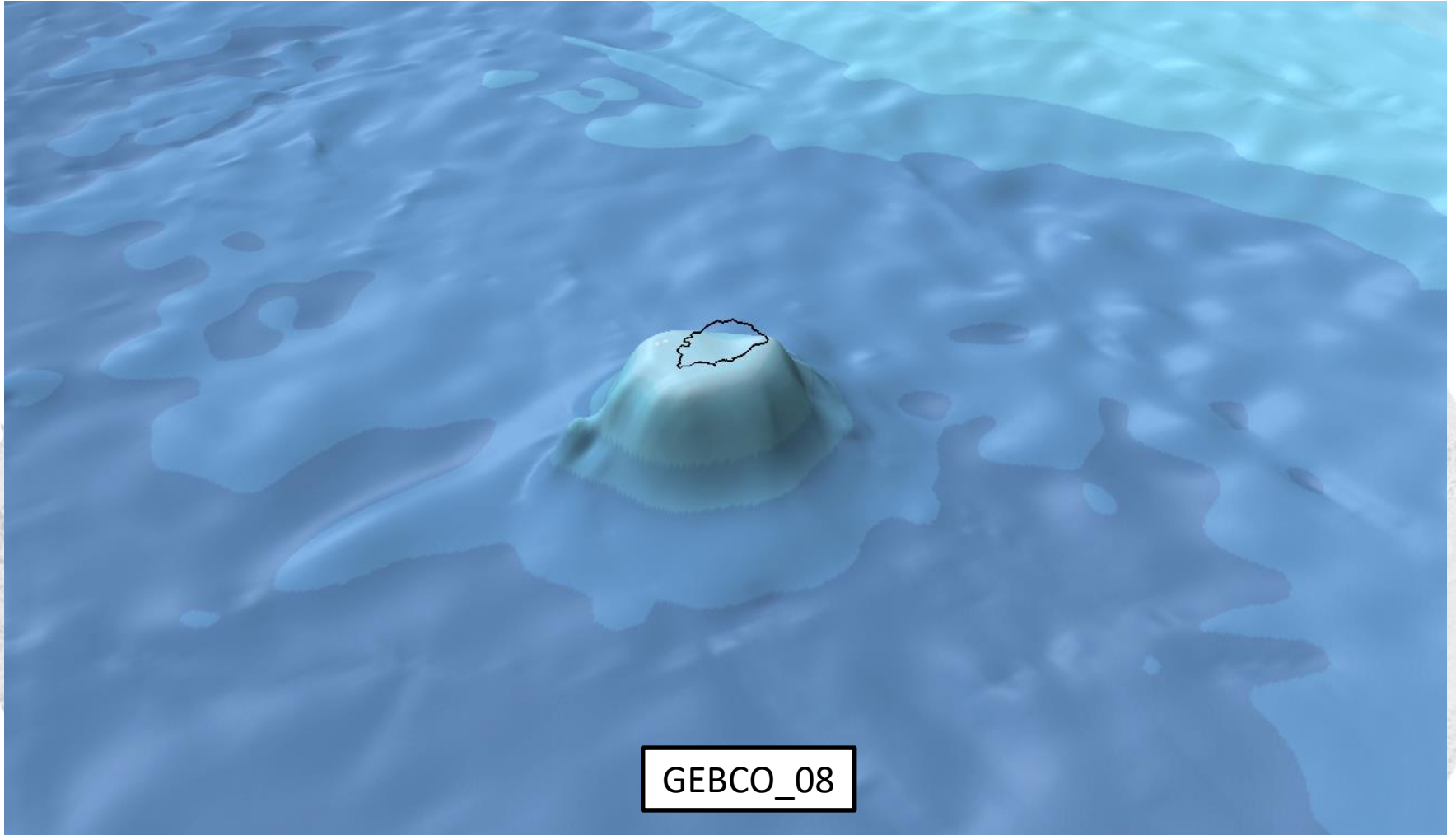
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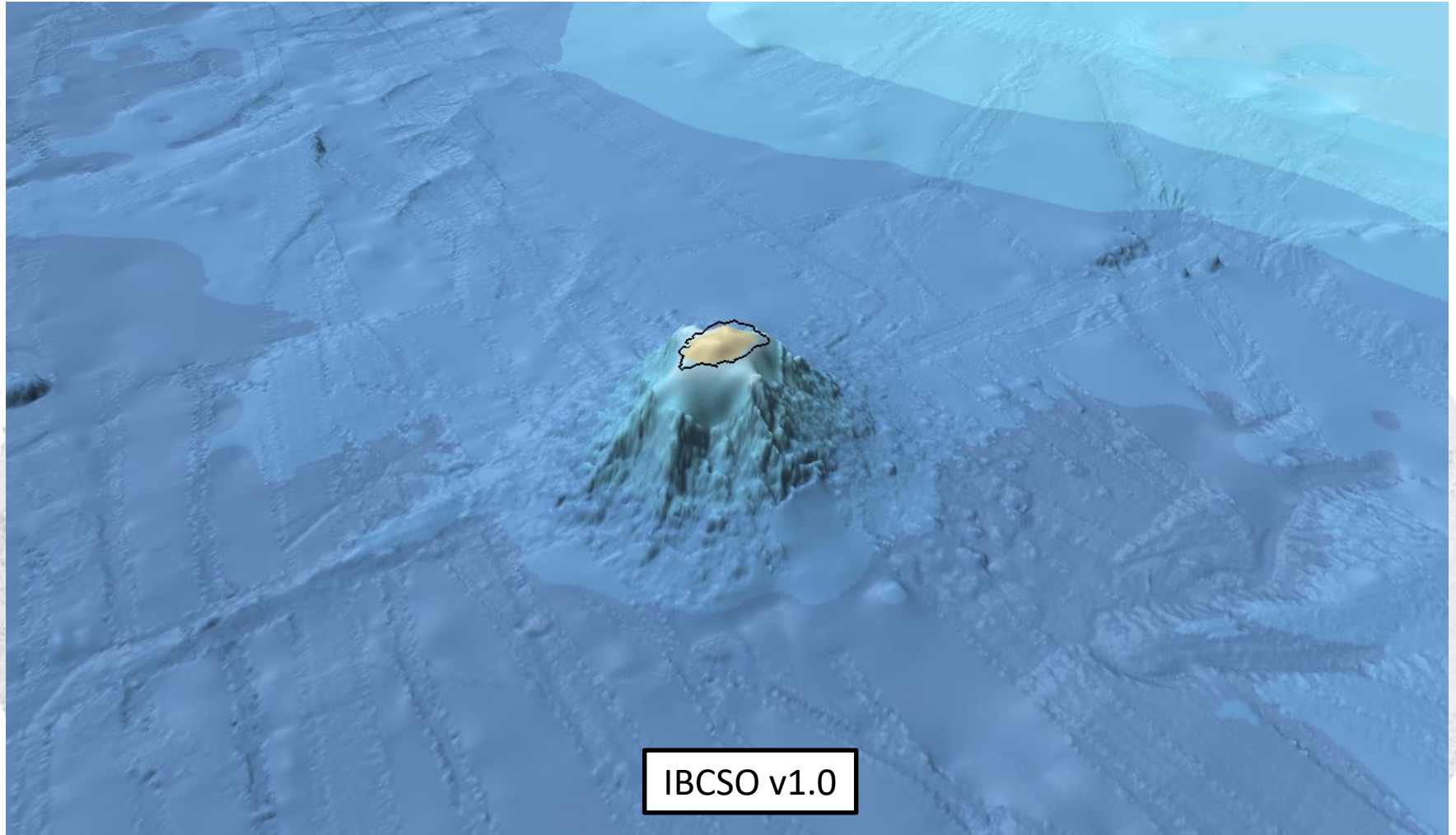
IBCSO Version 1.0



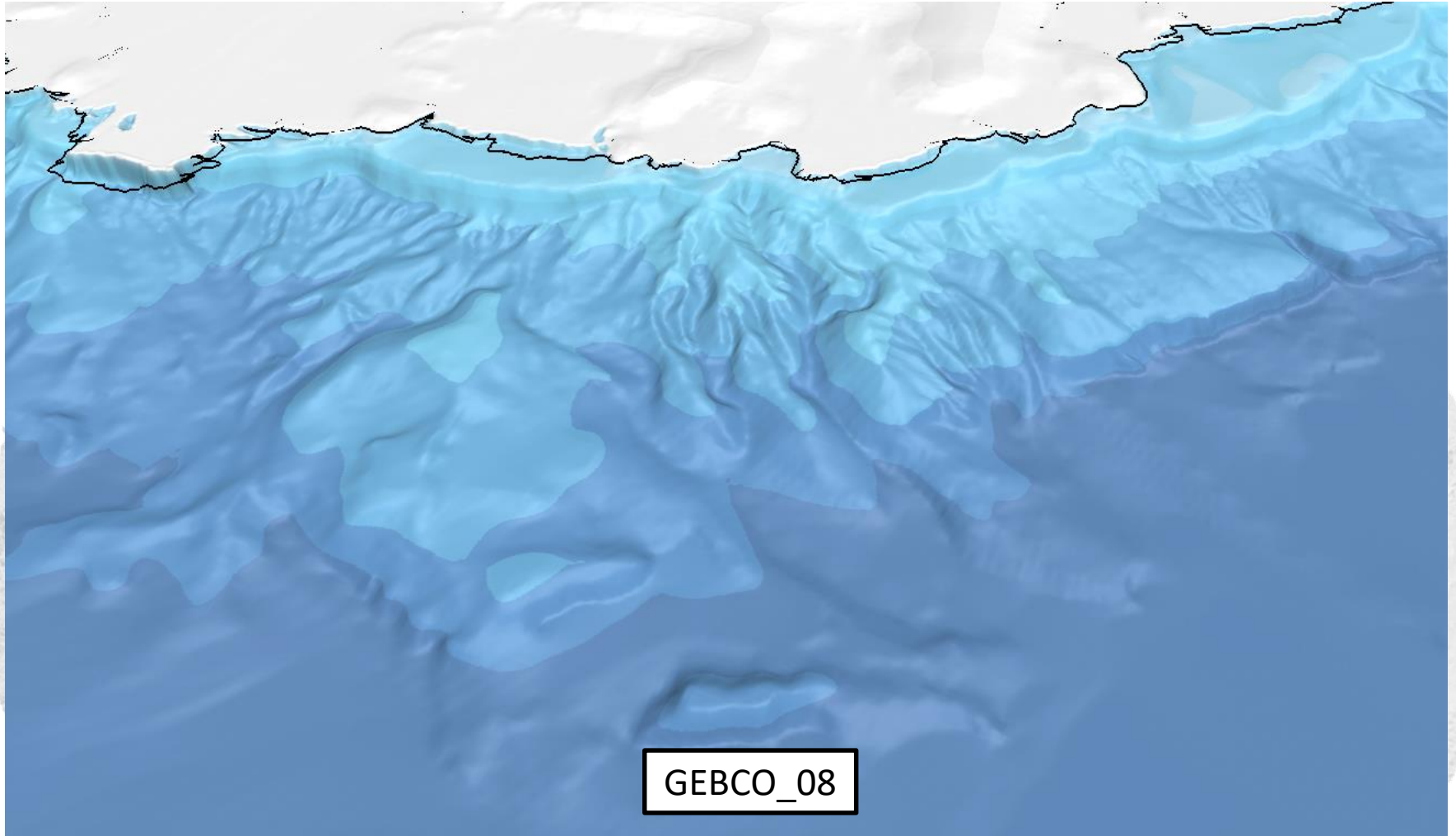
Comparison to GEBCO_08



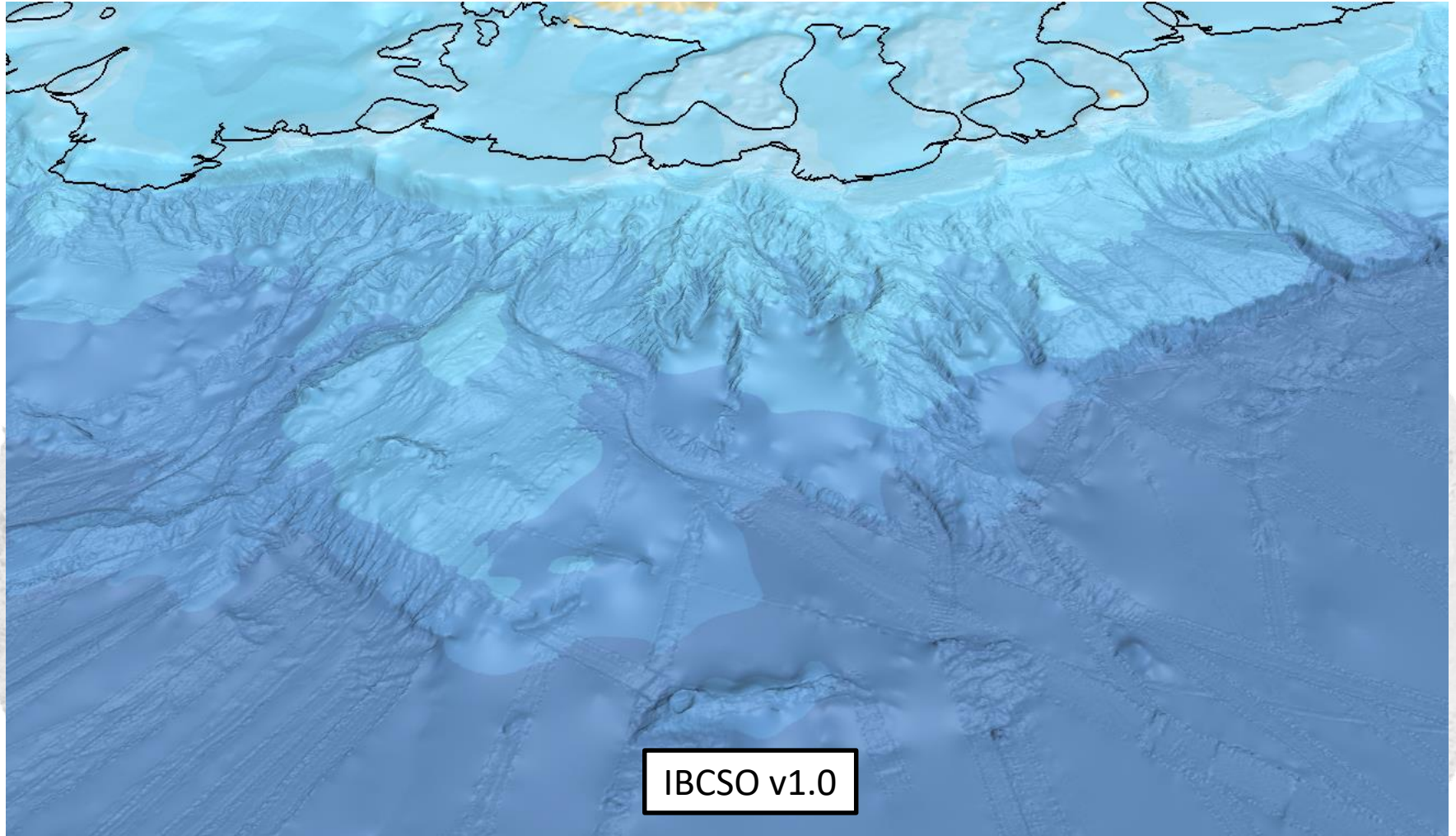
Comparison to GEBCO_08



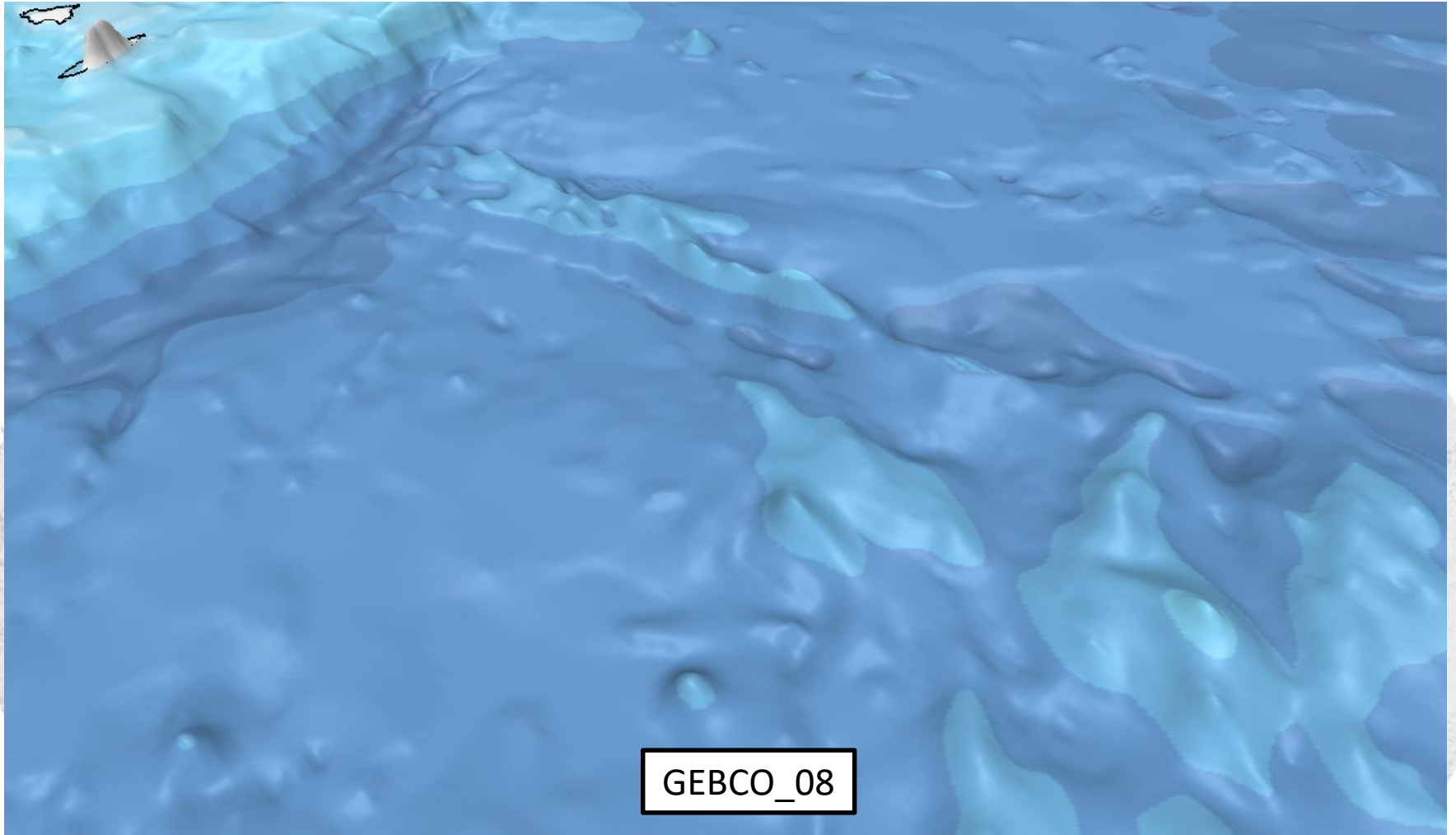
Comparison to GEBCO_08



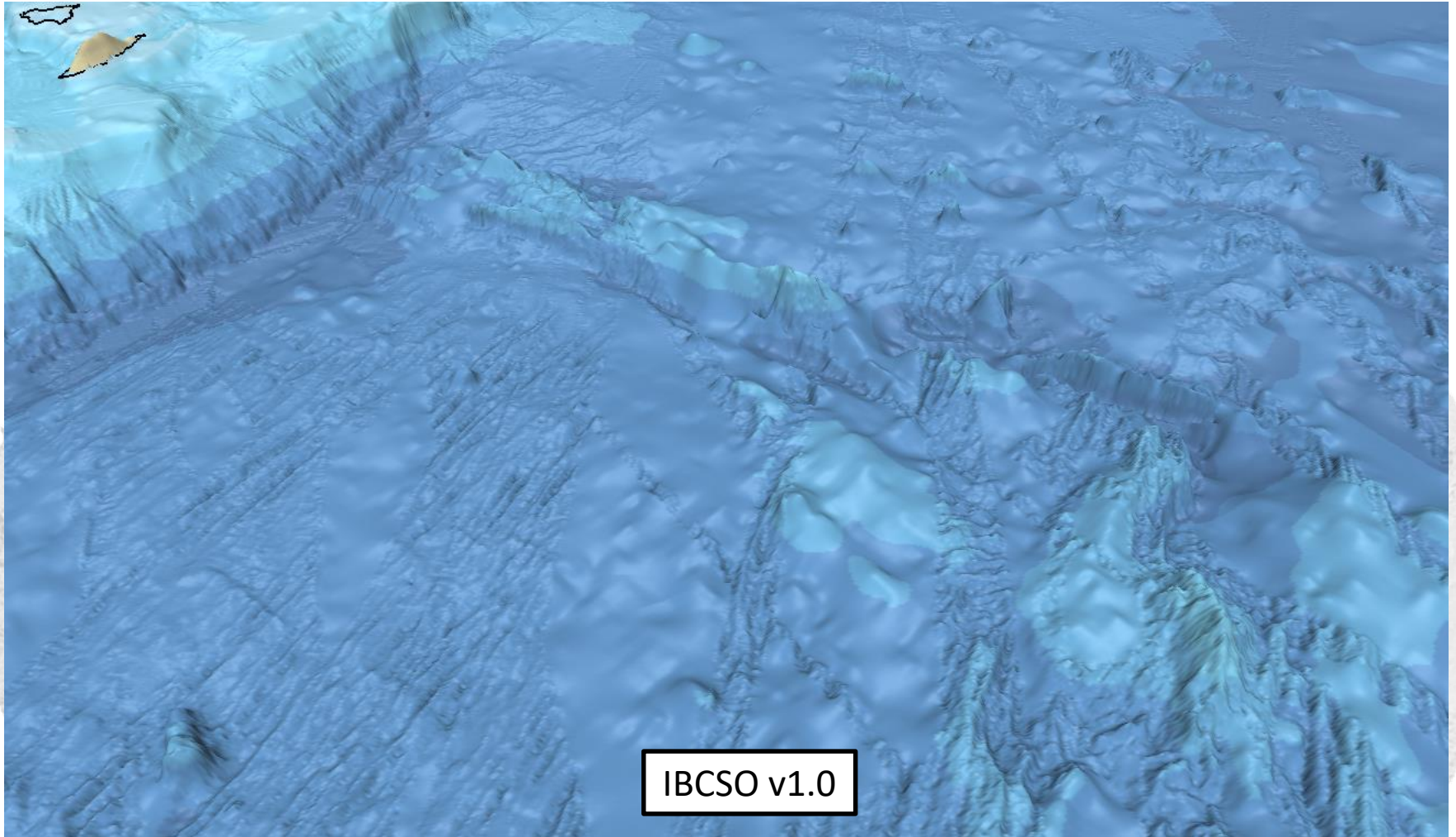
Comparison to GEBCO_08



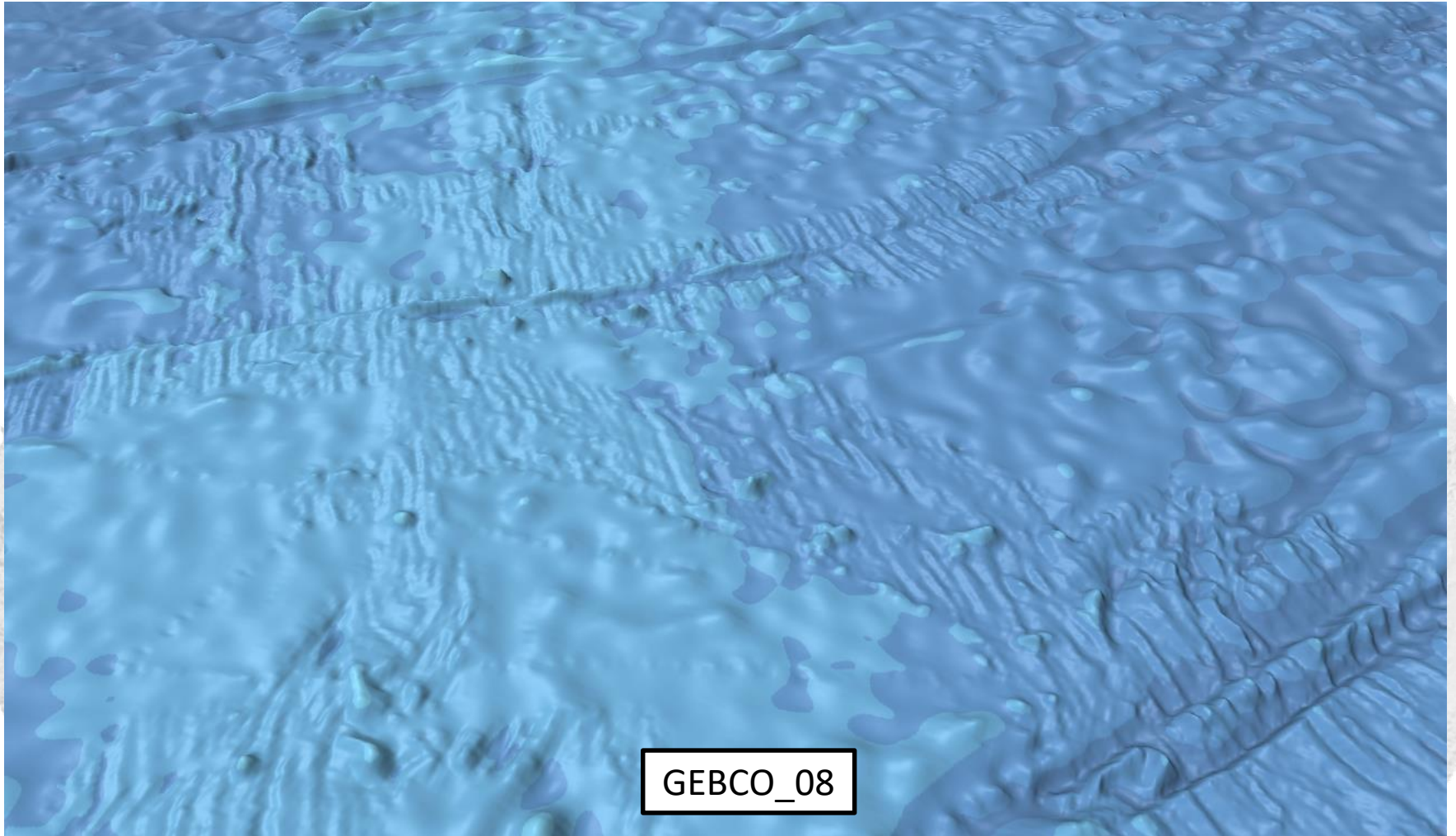
Comparison to GEBCO_08



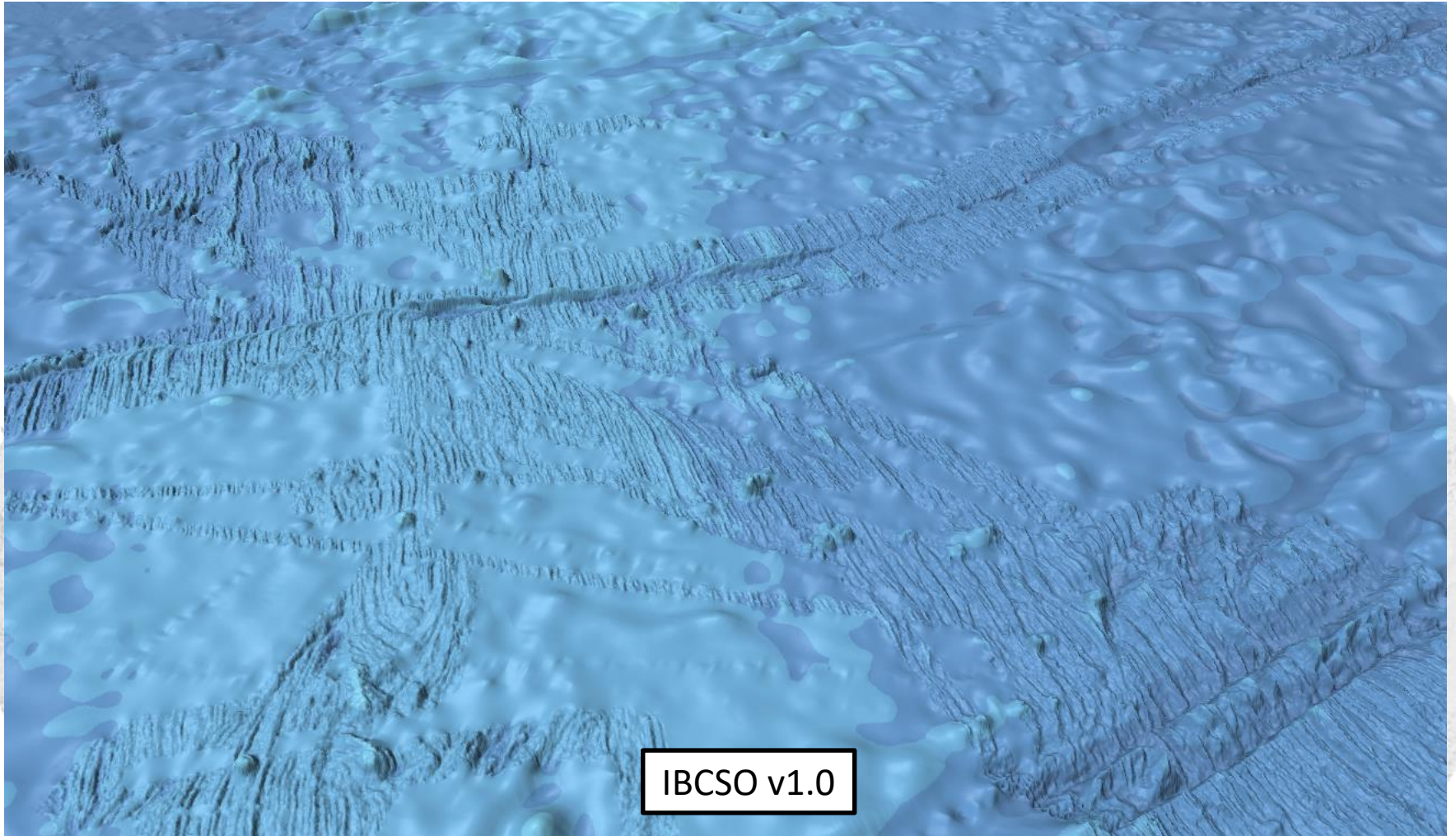
Comparison to GEBCO_08



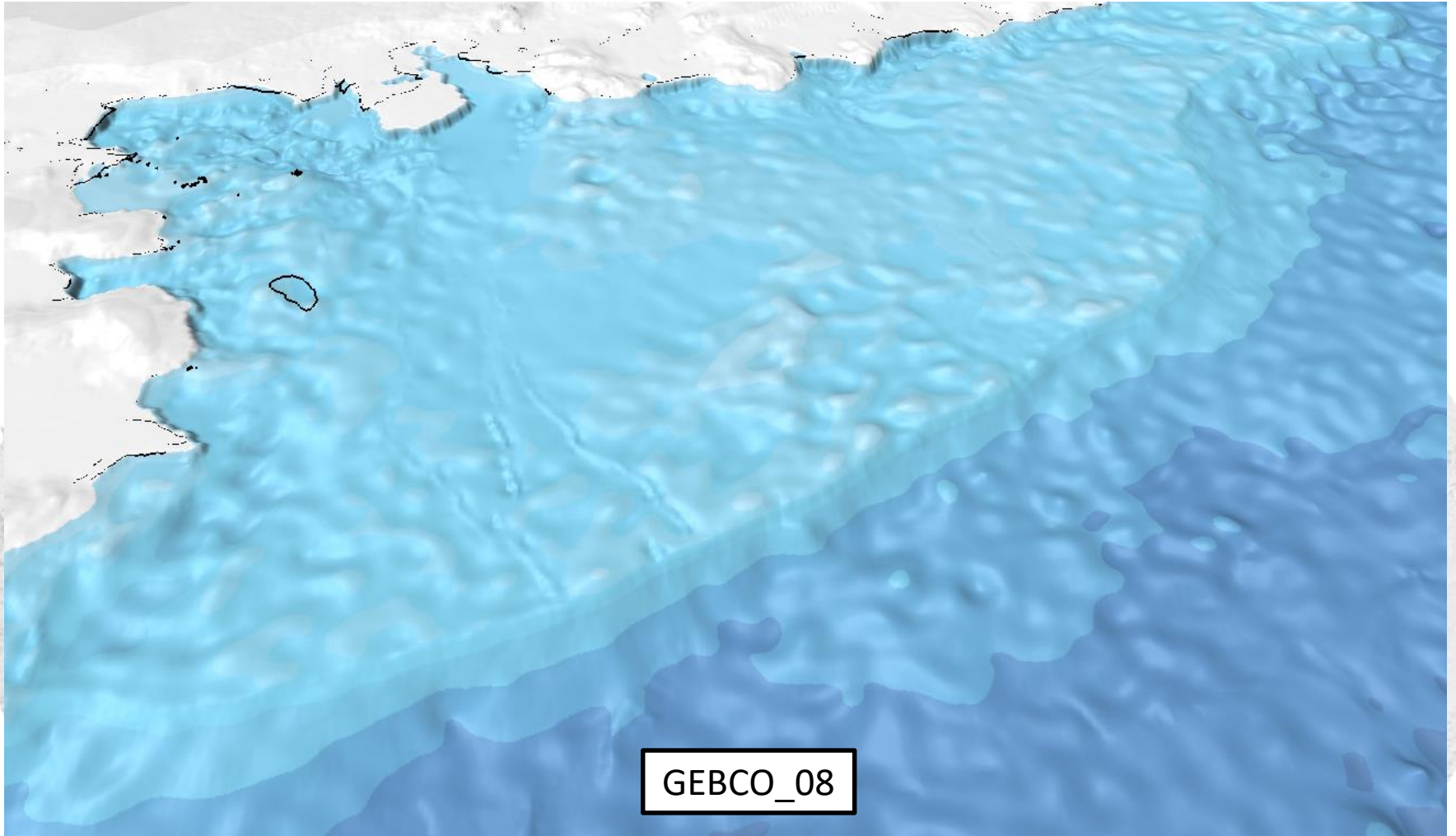
Comparison to GEBCO_08



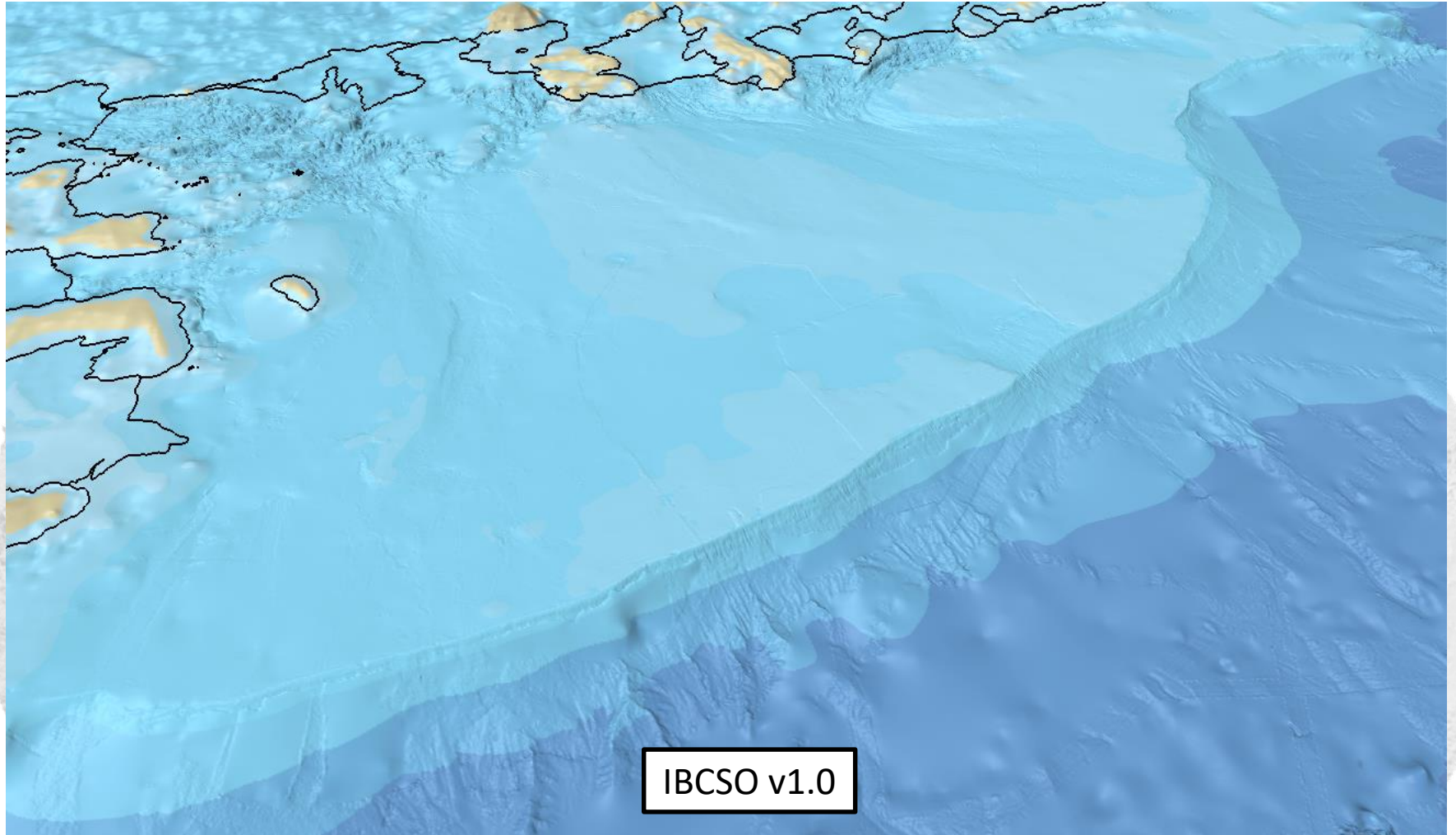
Comparison to GEBCO_08



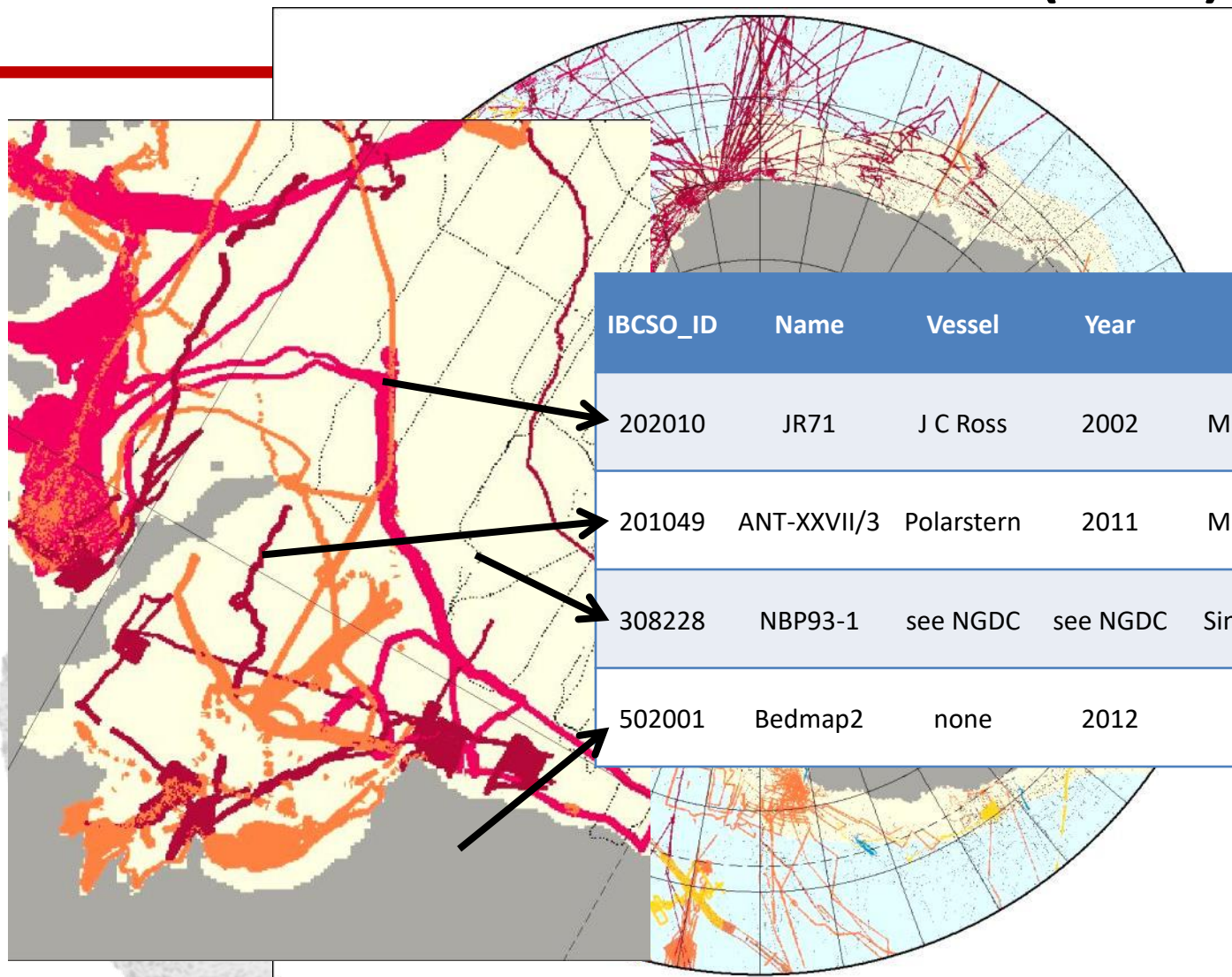
Comparison to GEBCO_08



Comparison to GEBCO_08



IBCSO Version 1.0 (SID)



Sources:

- IBCSO v1 grid
- ADD6
- SCAR Composite Gazetteer
- SCUFN Gazetteer

Scale: 1 : 7.000.000

Size: 1000 x 1200 mm

Data retrieval

www.ibcso.org -> Data

www.pangaea.de -> IBCSO

Available Data Versions	
Projections	Polar stereographic with truescale 65° S Polar stereographic with truescale 71° S Geographic WGS84
Resolution	500 x 500 m 1 x 1 min
Dataformats	GeoTiff (ArcGIS) NetCDF (GMT) SD (Fledermaus)

Arndt et al. (2013) *Geophys. Res. Lett.* (in press)

Thanks for your attention!

For further information visit

www.ibcso.org

or contact me via

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