

EGU2020-3529

<https://doi.org/10.5194/egusphere-egu2020-3529>

EGU General Assembly 2020

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



IBCSO V2.0: An updated Antarctic bathymetry product of Seabed 2030

Laura Hehemann, Jan Erik Arndt, and Boris Dorschel

Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Geophysics, Germany

(laura.hehemann@awi.de)

The International Bathymetric Chart of the Southern Ocean (IBCSO), part of the Nippon Foundation – GEBCO – Seabed 2030 project, is a collaborative effort to create high-resolution bathymetric compilations off Antarctica. Detailed knowledge of seafloor morphology is fundamental to almost all marine and maritime scientific activities. For example, it can be used to understand past glacial development, to create habitat models and maps, and to identify ocean current pathways that may contribute to increased basal melt of the Antarctic ice sheets. In comparison to IBCSO V1.0, which extended to 60° south, the new version now extends up to 50° south increasing the ocean area by a factor of approximately 2.5. With this extension, the new bathymetric model will include important submarine features like the Drake Passage, the South Sandwich Arc, and the southern parts of the Kerguelen Plateau and Campbell Plateau. IBCSO continues to build on the on the largest database of bathymetric soundings for the Southern Ocean that was gathered by a variety of international institutions. We will present the new IBCSO V2.0 data set for the first time and will highlight its improvement in comparison to its predecessor.