

UiT The Arctic University of Norway

Z CHSH-POLARINSTITS

A compiled open-access geological map of Dronning Maud Land, Antarctica

Tamer Abu-Alam1 and Synnøve Elvevold2

1 UiT The Arctic University of Norway, The University Library, Tromsø, Norway (tamer.abu-alam@uit.no)2 Norwegian Polar Institute, Tromsø

https://doi.org/10.5194/egusphere-egu21-12872

Challenge

Geological mapping of the mountain chain in Dronning Maud Land (DML) has been carried out by a number of geologists from different nations over the last 40-50 years. The produced geological maps of these teams are, for a large part, based on fairly old data which makes these maps inhomogeneous. The maps are at different scales, contain different levels of details, and the standards for classification of the rock units may also differ between the maps.

This limits the ability to use these maps to draw an overview tectonic model of the evolution of DML



Aim

In this contribution, we present a newly compiled geological map and GIS database of the DML. The map will be available soon as an open-access database, but the readers can test a test version

of it at: <u>https://geokart.npolar.no/Html5Viewer/index.html?viewer=Geology_DML</u>.



The new database covers the area between 20-degree W and 45-degree E and was compiled at a scale level of 1:250 000. However, the database provides another scale level of 1:5 000 000 to put the DML in the regional framework of the Gondwana. The geological map is descriptive based on the new topographic dataset of the Landsat 8.

The map is part of the activities of the SCAR GeoMAP (Geological Mapping Update of Antarctica) action group Dronning Maud Land The project was based at the Norwegian Polar Institute from 2014 to 2018 and supported by a research grant from the Ministry of Foreign Affairs, Norway.

