

SUMMARY

The main target of the current project is to obtain, debate, interpret and publish new geological data concerning a poorly studied part of Livingston Island, Antarctica.

Hannah point is located 30 km to the west from the Bulgarian Antarctic Base. Owing to its favourable geographical location and geomorphological features a large area of the peninsula is free of ice and snow which gives the opportunity for detailed geological studies to be conducted. The most probable reasons for the little available information are the area's remoteness, complex logistics, unstable meteorological conditions and the need for building a field camp. Some data for the stratigraphy, lithology and paleontology of Hannah Point is found in the previous studies of Smellie et al. (1996), Pallas et al. (1999) and Leppe et al. (2007). The existent geological data is either not very thorough or contradictory.

The variety of lithotypes found in the area necessitates a more complex set of studies, namely applying a tectonic-structural, volcanological, sedimentological, stratigraphical, and paleontological methods.

The target of the new studies is creating more correct and detailed models, schemes and interpretations of already existent data in the world literature regarding the geological development of Hannah Point which will significantly help clarify the geological history of the area.

Collecting new geological data at distant from the Bulgarian base areas will contribute for obtaining a clear view on the regional geology of the island and creating a complex geological model of the overall geological evolution of that part of Antarctica.

Geological work will take place within two weeks in field camp conditions and will include geological mapping, detailed geological sections and cross sections, photo documentation, sample gathering for petrological and geochemical studies, as wells as fossil records and palynomorphs gathering, and sampling for organic matter studies. Thereafter, all collected materials will undergo various contemporary laboratory investigations.

All obtained results will be published in scientific magazines, presented at specialised scientific forums, and a part of them will be used for education and training of students from Geology department of Sofia University "St. Kliment Ohridski".

The project's implementation will not be possible without contribution from competent, ambitious and cohesive team. Our current team includes young scientists and students, owning experience in the specific scientific area, as well as in living and working in Antarctic conditions. Some of us are familiar with the geological setting of Livingston Island which will have a significant impact over the completion of the scheduled tasks.