

**How should SCUFN deal with micro undersea features?:  
A question raised for the “high-resolution bathymetry” era**

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It is needless to say that the primary function of SCUFN is to standardize undersea feature names. In section 2-i on page 1-v of the GEBCO document B-6 (4<sup>th</sup> edition, 2008), it reads that “It is the function of the Sub-Committee to select those names of undersea features in the world ocean appropriate for use on GEBCO graphical and digital products, on the IHO small-scale INternational chart series, and on the regional International Bathymetric Chart (IBC) series”. According to this sentence, it appears that SCUFN should deal with the undersea features that can be described on the maps at scales of 1:10,000,000, 1:3,500,000, and/or 1:1,000,000.

Starting in the late 70’s, high resolution bathymetric maps generated with multi-beam mapping systems have revolutionized our understanding of geologic and tectonic processes that produced undersea features. Before this revolution, undersea features had been described in less detailed maps generated with single-beam mapping system.

It appears that we are witnessing the second revolution in our understanding of geologic and tectonic processes of undersea features, thanks to the very detailed bathymetry generated with AUVs, for example. By utilizing these very detailed bathymetric maps, scientists now start discussing the detailed story of the geologic and tectonic processes of these undersea features, as well as locating the sites of hydrothermal field and potential polymetallic sulphide mines. For these purposes, scientists want to name these “micro” undersea features now identified with the latest technologies. The scales of these micro undersea features appear to vary from hundred to several hundred meters orders. Before this “AUV era”, the smallest scale of the undersea features with which SCUFN has dealt are several kilometers orders.

In section 1 on page 1-v of the GEBCO document B-6, it also reads that “In recent years, considerable concern has been expressed at the indiscriminate and unregulated naming of undersea features which often get into print in articles submitted to scientific publications, or on maps and charts, without any close scrutiny being made concerning their suitability, or even whether the feature has already been discovered and named”. It seems that this situation is now about to occur in the science community dealing with “micro” undersea features. Scientists are now giving some “micro” undersea features the names with their own rules. Although this situation was not expected at the time when B-6 was initially drafted, it seems now necessary for SCUFN to seriously consider how to cope with this issue.