

News and Views

China is making significant progress in the nomenclature of international undersea features

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With the arising global awareness of the ocean, relevant countries are competing to name the discovered undersea features at the international seabed areas in recent years. The Sub-Committee on Undersea Feature Names (SCUFN) is a joint organization under the Intergovernmental Oceanographic Commission of United Nations Educational, Scientific and Cultural Organization and the International Hydrographic Organization. The role of SCUFN is to consider and decide on names submitted for the undersea features beyond national jurisdiction. By the end of 2016, SCUFN has approved 4 084 proposals of the naming of the geographic entities at the international seabed areas.

According to the definition by SCUFN, “undersea features” is a part of the ocean floor or seabed that has measurable relief or is delimited by relief. The nomenclature of undersea features is to follow the naming guidelines by SCUFN, including specific terms and generic terms. The specific term is associated with geographic features, while the generic term should reflect physiographic descriptions of features. For instance, in the name of “Zhinyu Guyot”, “Zhinyu” is the specific term and “Guyot” is the generic term. The nomenclature of the undersea feature is progressed with the development of scientific knowledge of the ocean. Especially with the advancement of multi-beam undersea detection technology, the nomenclature of international undersea feature has undergone profound changes, transits from large-scale measurement and naming of huge undersea features via geophysical methods to currently carrying out naming with refinement, characterization, and miniaturization. It contributes increasingly to support the marine activities, such as deep sea scientific research in which the undersea feature names are more and more widely used.

In 2011, China officially launched the project of the nomenclature of the undersea features. By the end of 2016, 72 undersea feature names submitted by China have been approved by SCUFN and included in the International Gazetteer of Undersea Features. As an important part of the nomenclature of the undersea features of China, China Ocean Mineral Resources Research and Development Association has systematically carried out the nomenclature of the undersea features by mining and statistically analyzing the data accumulated in the international seabed investigations over the past 26 years (1990–2016). First of all, we studied the procedures and technical requirements of the undersea feature naming work and established the generic name identification rules which meet the SCUFN standards. Directed by practicability, representative and dominant geographical entities were identified and named inside the investigation area (Fig. 1); Then, we incorporated the Chinese culture in the naming work by building specific name system with Shijing,

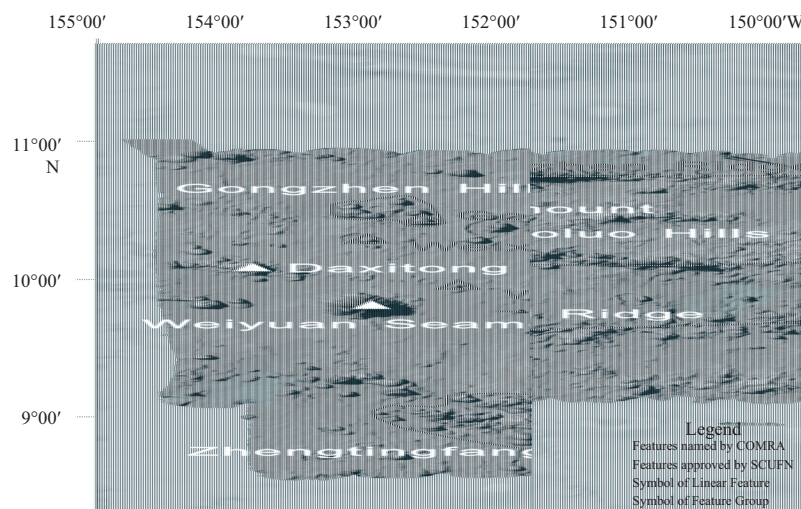


Fig. 1. Locations of the undersea features in the Western Nodule Area by China Ocean Mineral Resources Research and Development Association.

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the famous collection of ancient Chinese poems from 11th century BC to 6th century BC, and historical celebrities, which opened up a new way to promote the Chinese culture.

Of the 72 approved feature names, 63 were compiled and submitted by China Ocean Mineral Resources Research and Development Association. Including these 63 undersea feature names, China Ocean Mineral Resources Research and Development Association has newly named, translated and standardized a total of 230 standard names of undersea hydrothermal fields. Technically reviewed by China Sub-Committee on Undersea Feature Names, they were included in Chinese Gazetteer of Undersea Feature Names on the International Seabed, which were published in both Chinese and English, and synchronized on the website (<http://cufis.comra.org>), for the users at home and abroad. These 230 international seabed feature names contain Chinese traditional culture elements, in accordance with relevant laws and regulations in China, and the corresponding provisions of SCUFN. These names have not only filled the blanks in this field, but also contributed greatly to the marine science and symbolic significant progress of the nomenclature of the undersea features in China.