

Abstract

United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea

Marine Genetic Resources

Panel Discussion, Segment 2a – “Understanding the activities related to marine genetic resources and other relevant aspects: experiences in collection”

Jamaica’s marine genetic resources: challenges and opportunities

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Jamaica has a long history of studying the marine environment and is the type locality for many Caribbean species. Also, there are a significant number of publications on research done in the marine environment but these are related for the most part to the biology or ecology of the respective species. Few publications deal specifically with biodiversity or marine genetic resources.

A number of species that occur widely in the Caribbean are known to have useful pharmacological properties and have been extensively studied for their bioactive properties, largely outside of the region. Presently at the University of the West Indies, investigations into the biomedical potential of marine species are limited to a few, commonly occurring marine algae, sponges and fungi. Compounds have been extracted and are being evaluated for their potential therapeutic applications. In addition, a project is now being implemented to determine the genetic composition of the symbiotic algae associated with reef- building corals that are susceptible to bleaching as a result of elevated sea surface temperatures.

There are significant challenges that a small country such as Jamaica faces in establishing a database of marine genetic resources and in carrying out research to identify and utilize these resources. These challenges include, but are not limited to, the lack of facilities and training to carry out biotechnological investigations. Despite these challenges there are opportunities for the discovery new compounds from existing and/or new species, with biotechnological utility, which can be developed through meaningful partnerships with external research institutions.

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