

Malacology collections: And the preservation of the marine environments biodiversity in Venezuela

Julia A. Alvarez-Barco, Samuel E. Narciso Fejura

CIAC-FUDENA, Venezuela

The biological collections represent a natural heritage of the planet; are repositories of information of the natural history, of the biodiversity and are the source to the study for the management of conservation area with public and science matters. Since 60's the Venezuelan oil industry sponsored universities and scientific institutions for the biodiversity study. From 1995, CIAC-FUDENA have been collecting marine mollusk over the coast line, in the 2010 we got the registration at the Biodiversity National System of Biological Collections. The objective of the study is promoted and communicates the existing and the importance of Mollusca collections in Venezuela as natural history heritage. To evaluate the importance of the collection we compared the status condition of the Mollusca collections all over the country and the main biological collections in the world. Resulting, Venezuela has only 4 Mollusca collections (including ours) registered at the national collection system. Also, we compare with others from Europa, Asia, North America and South America who contained mollusk from Venezuela and we obtained that CIAC-FUDENA's collection is the most complete Venezuelan Mollusca collections in the world, with 11.223 registers, 8 of them are type. Those registers came from 257 campaign, expeditions and field works from occidental, central and oriental coast, insular zone and Atlantic faces. The collections include samples from Chile, Argentina, Cuba, Colombia, Panamá and Bonaire, as well. We have to add, we had

gotten donations from Ecuador, Spain, Denmark, Indonesia, Filipinas and USA, with 700 registers.

Biodiversity:

Biodiversity is a term which describes every living organism within a single ecosystem or habitat, including numbers and diversity of species and all environmental aspects such as temperature, oxygen and carbon dioxide levels and climate. Biodiversity can be measured globally or in smaller settings, such as ponds. A healthy ecosystem has a rich level of biodiversity. The less inhabitable an ecosystem, the less life it can support. For example, a single organism ecosystem was recently discovered deep in a South African gold mine, where only one type of bacteria – *Desulforudis audaxviator* – is able to survive. Should something drastic happen to affect the health of this bacteria and it becomes extinct, there is no other organism to take advantage of this inhospitable environment. In other terrestrial, aquatic or marine environments, a lack of biodiversity of plant life (producers) means the numbers of consumers are limited. From the ground up, or from the ocean floor up, biodiversity increases soil formation, nutrient storage, energy storage, recycling, and the breaking down of toxins and pollutants. Rich biodiversity will speed the recovery of the environment after a natural disaster. Just days after a savannah fire, new plant life springs up from those species which allow their seeds to be blown by the wind, or from those whose seeds can withstand high temperatures.