RAPID ASSESSMENT PROGRAM (RAP) IN A SUBURBAN WETLAND IN MEXICO

PAOLETT LOYA-OLIVAS[1], HECTOR RUBIO[1], ALBERTO SANCHEZ[2], ROSA FLORIDO[2]*

[1]*Autonomous University of Chihuahua, Chihuahua, 31000, Chihuahua, Mexico*
[2]*Juarez Autonomous University of Chihuahua, Villahermosa, 85000, Tabasco, Mexico*
rosyflorido@gamil.com

The objective was to conduct a Rapid Assessment Program (RAP) in a wetland located in Villahermosa, Tabasco, Mexico. This water reservoir is located at the College of Biological Sciences at the Juarez Autonomous University of Tabasco. This wetland is a potential area for study and a source of research practices for Tabasco´s students. The great landscape on the grounds of the university is also of great value. The study analyzed the water quality in two artificial reservoirs (A and B) that were sampled in June and December. The following variables were measured; depth, temperature, pH, transparency, DO, SO, EC, turbidity, total solids, nitrates, total phosphorous, total phosphorous in sediment, chlorophyll, DBO and fecal coliformes. Using these variables, a Water Quality Index (WQI) was calculated. An inventory of both aquatic and terrestrial flora and fauna was recorded. The results showed that the water quality in B reservoir was lower during both the June and December samples. It was especially low in June, where a WQI of 41 was calculated. Consequently, some species which are contamination indicators were present in this ecosystem such as, the Pomacea flagellate and others of the dipteral order. Moreover, some flora species, which are also indicators of pollution, were present like Pistia stratiotes and Salvinia auriculata. Eight classes of fauna were recorded. Eighty-six species of wild birds dominated this aquatic ecosystem followed by reptiles with 36 species. The lowest classes were the gastropod (5), crustacean (2), insect (7) and arachnidan (1). Eleven species are in the risk category according to the Mexican Norm concerning the protection of flora and fauna, including the fish Gambusia yucatana which is an endemic of the Grijalva-Usumacinta hydraulic ecosystem. This aquatic ecosystem has ornamental, medical and fruit plants. It is also important to point out that we found the specie Dieffenbachia seguine, which is under special protection status.

Keywords: wetlands, RAP, urban reservoir