

Wet deposition in the Coast of the Gulf of Mexico

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In the Gulf of Mexico, the coast has a rich variety of natural resources, such as a wide range of agriculture, cattle farming, fishing, tourism and industrial activities. According to the latest National Mexican emissions inventory, the state of Veracruz (which lies in the gulf coast area), ranks respectively in second and third place in terms of sulphur dioxide and nitrogen oxide emission. This is mainly driven by activities carried out within and outside the coastal zone (for example, the oil industry), which makes this region an interesting destination for this study analyzing the wet deposition.

Since 2002, four stations were installed, in order to evaluate both dry and wet deposition in the State of Veracruz at the following locations: the San Juan de Ulúa Fortress, the Archaeological Site of “El Tajín”, the Universidad Veracruzana in the City of Veracruz, and the Instituto de Ecología, A.C. in “La Mancha”. The last one is still operating with a strict quality assurance and analytical quality control. The protocol has been followed and made this station a prototype for studies of atmospheric deposition in the Gulf of Mexico. The pH levels found in rainwater show a strong presence of the phenomenon of acid rain in the study area, with pH values in a range of 3.8 to 5.6.

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