

COOPERATIVE RESEARCH ON PETROLEUM POLLUTION
IN THE CARIBBEAN: THE CARIPOL PROGRAM

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ABSTRACT

The CARIPOL program is a cooperative regional effort to assess the state of pollution of the marine environment in the Caribbean and adjacent regions. In its initial phase, CARIPOL has concentrated on the assessment of petroleum pollution through the monitoring of three easily determined variables: the occurrence of tar aggregates on beaches, of floating tar at sea, and of dissolved or dispersed petroleum hydrocarbons. A data base of greater than 7,000, 680, and 1,460 data points, respectively, for the three variables has been accumulated through submissions from 14 countries in the region.

Tar on beaches is a serious problem in the region, especially in the Windward islands, the Cayman islands, and the archipelago of Aruba, Curacao, and Bonaire where loads of up to 1 kg of tar/m of beach front have been reported. Other affected areas include the east coast of Florida, the Yucantan peninsula, and Campeche Sound. The occurrence of floating tar has been closely correlated with tanker traffic in areas such as the south coast of Puerto Rico and the Straits of Florida. Dissolved and dispersed petroleum hydrocarbons reach critical levels only in enclosed waters such as bays and harbors subject to intense maritime traffic or industrial petroleum sites.

The CARIPOL program has now embarked upon a second phase to assess the accumulation of petroleum hydrocarbons in sediments and organisms. Initial results indicate that although these compounds are rapidly degraded when released to the water, they may persist for extended periods upon reaching marine sediments.