

Scientists start aerobiological research

RESEARCHERS from the Institute of Tropical Marine Ecology (ITME), in Belfast, Dominica, and from the University of Puerto Rico, have begun measuring the amount of dust particles reaching Dominica and Puerto Rico and the types of fungi associated with these particles.

The atmospheric haze seen frequently during the summer months in the eastern Caribbean results from the long-range transport of Saharan dust particles across the Atlantic Ocean. These fine-grained particles bring loads of potentially dangerous fungi and bacteria, according to scientists.

Microorganisms are able to survive the weeklong trip across the ocean by living within the cracks and crevasses of the dust particles where they are shielded from the harmful ultraviolet radiation. In addition to the

potentially harmful microorganisms present in the dust, the dust particles themselves are known to cause respiratory and allergic reactions. One study in Barbados found a 17-fold increase in asthma attacks between 1973 and 1996, and increased period of dust transport.

"In the past, mass mortalities of soft corals in the Caribbean resulted from fungal infestations by the genus *Aspergillus* transported by Saharan dust," according to Dr. Armstrong, principal investigator from the University of Puerto Rico. "Some of the diseases affecting corals in Dominica may also be linked air born germs from the Sahara," says Dr. Steiner, Director and Marine Biologist of ITME Inc., Dominica.

The amount of African dust transported across the ocean has increased in recent years with increasing drought in northern Africa.

Dominica offers a strategic windward location for the sampling of Saharan dust particles. Researching these phenomena is of imminent importance to our understanding of several environmental health issues in the greater Caribbean region. Dominica is now among leading scientific contributors in the Caribbean. First results are expected by the end of this year.

The investigations are being carried out at the Youth Training Center in Castle Bruce and the facilities of ITME in Belfast, and are supported by the collaboration of the Youth Division as well as the Ministry of Finance. Jules Pascal, Chief Youth Division Development Officer, and the staff and students for the YESCORPS programme are providing vital assistance towards the successful execution of this project.