



## IMPACTS OF DUST ON CORALS

Charles Darwin recorded the "falling of impalpably fine dust" during his crossing of the Atlantic on board the *Beagle* in 1832. It is now known that this dust, which comes from the Sahara region of Africa, appears to have a negative impact on coral reefs.

### Disease carried in the dust

Aspergillosis causes tissue loss and breakdown of the skeleton, resulting in small lesions across the sea fan blade. These lesions may increase in size, and eventually kill the colony.



Millions of tons of this desert dust falls over the Caribbean basin each year bringing with it a wide variety of soil bacteria and fungi. Overgrazing and climate change in drought-stricken North Africa increased dustfall in the 1970s, and it continues to rise. Four times as much dust now settles in Barbados than in 1970.

The fungus *Aspergillus sydowii*, recently identified as the cause of aspergillosis, a disease of sea fans, is carried by these dust falls and can also be washed from deforested areas via water. The importance of these two mechanisms and their effect on coral reefs is being actively researched.

<http://coral.unep.ch>



### Distribution of *Aspergillosis* in the Caribbean

The locations of observations of *aspergillosis* on coral reefs (orange) in the Caribbean (the disease may have been observed at the same location more than once and on more than one species).

### Overall increase in African dust reaching Barbados since 1965.

