



Where I work Edmund Blades

Tourists come here to Ragged Point, at the easternmost part of Barbados, for the view. I climb the 17-metre tower of the University of Miami's Barbados Atmospheric Chemistry Observatory and collect samples of ash, dust and microorganisms, some of which have come all the way across the Atlantic Ocean. Reddish, iron-rich clouds from Africa reach us every year, usually between June and September, making Barbados hazy. When it's clear, I enjoy the air and the landscape while making scientific observations – behind me in the photo is the northern coast.

The observatory has been collecting dust data since 1966. As site manager, I liaise with collaborators and lead tours for local students. I earned my PhD here, from 1996 to 2005, investigating the microbes that reach Barbados from Africa and their potential health effects. Many people suspected that the dust caused asthma attacks.

Nearly every day for those ten years, I climbed the tower to collect filters in pumps like the one I'm working on here. I took the

filters back to the Best-dos Santos Public Health Laboratory in Bridgetown, which I was managing at the time, to grow bacteria and fungi. I was so surprised to find living microbes; I didn't think they'd survive the transatlantic crossing. These were spore-formers – microbes that can form a tough coating to withstand harsh conditions, but that don't usually affect people.

I found no correlation between dusty days and visits by children to the asthma clinic at the emergency department of Bridgetown's Queen Elizabeth Hospital. Rather, asthma visits correlated with local grass pollen and rainfall. This research led to a further surprise in 2020, when I received the Barbados Service Star, a medal from the government, in recognition of my contribution to public health.

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