

Hay fever study interrogates prime suspect: pollen

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A new online tool indicating pollen risk will allow people who suffer from hay fever and asthma to be more informed about air-borne organic irritants this spring. It's part of a larger project designed to help those for whom warmer weather heralds the onset of hacking and wheezing.

Researchers from The Australian National University and the University of Tasmania have set out on a 12-month study to record pollen levels in Canberra and Hobart. The parallel projects will also monitor the number of people in both cities seeking medical treatment for respiratory conditions such as hay fever, and then test for links back to the amount of floating pollen. This information will be posted online over the course of the study as a weekly pollen risk meter, giving ratings from low to very high.

“Canberra is said to be one of the highest hay fever areas in the country, and there's always been an anecdotal link between the high levels of pollen and respiratory problems – yet there've been very few studies that have tried to prove it,” said project leader Dr Simon Haberle, a palaeoecologist at the Research School of Pacific and Asian Studies at ANU.

“Our results indicate that there was a relatively high pollen risk in Canberra this week, and we've heard a lot of anecdotal reports of hay fever being on the rise. In Hobart, by comparison, the pollen risk has remained comparatively lower. It will be interesting to see how the two cities compare on incidence of hay fever.”

Dr Haberle and his collaborators in Canberra are using a machine that sucks pollen out of the air. His colleagues at the University of Tasmania – including Dr Fay Johnston from the Menzies Research Institute – are using the same technique, before sending the sample to ANU for analysis by Dr Haberle. Taking samples from two comparable southern Australian cities will allow for a more rigorous experiment. The researchers have previously collaborated on a similar project in Darwin between 2004 and 2006, which suggested there was a strong correlation between high pollen levels and increased incidence of respiratory complaints.

Apart from the possible benefits for health, the researchers are interested in exploring the relationship between rates of atmospheric pollen and climate change. Dr Haberle, who has spent years studying organic material like pollen to understand more about the ancient past, said the same kinds of analysis can reveal much about the current state of the planet, as well as indicating future developments. But the results could also highlight change on a city level. “The last major study of pollen count in Canberra was done in the late 1950s,” Dr Haberle said. “It will be interesting to see how urban planting decisions have changed levels of atmospheric pollen.”

Canberra and Hobart pollen risk meters:
palaeoworks.anu.edu.au/aerobiology.html

Source: Australian National University

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