Allergens under study [1]

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Calificación:

No

CienciaPR Contribution:

By Liz Yanira Del Valle/Special for El Nuevo Día endi.com [2] The roof of the main building of MSC has a black box that has nothing to do with the ones from airplanes. Also, there is weather station connected to this box, but it is not competing with local meteorologists. Both instruments make up the station-laboratory, where for the first time in Puerto Rico, a fungi spore and pollen count in the air of the Metropolitan Area is being done, paying close attention to the particles that can be potential allergens. In order to measure the particles, the black box sucks 15 liters of air during a period of 10 minutes. When their comes in, it hits a microscope slide located within te box tat collects the particles that are later counted in the mycology lab of MSC. This count, will in the future allow the creation of a particle calendar that will serve as a preventive indicator for allergists, pneumologists, environmental health experts, patients with asthma or any other respiratory affection and the general public. Doctor Benjamín Bolaños, specialist in mycology, affirmed that although in this tropical region asthma has a high prevalence a count has never been done. Bolaños, associate professor of MSC added that in studies within Latin American groups, Puerto Ricans lead the list of asthmatic. Statistics of 2006 from the federal Environmental Protection Agency (EPA) indicate that a 20% of the Puerto Ricans suffer of asthma, being the highest number of incidence of that condition in the United States. As well, the Island has the highest asthma mortality rate in all United States. Results from the count verified that the presence of pollen in the studied air is sporadic and rarely surpassed high concentrations. “Pollen

grains are classified by their origin: trees, grass and weeds. Of these three, the grass one is the more abundant, but without alarming registries", indicated the scientist. These conclusions are very different from those from fungi spores, with the exception of January to March (quite windy), their concentration in San Juan was always in high levels. "By high we are talking about higher than 13,000 spores by cubic meter and very high he is if they go over 50,000", the scientist explained. Bolaños identified a total of six types of spores of which 4 can cause allergies. These are basidium spores, aspergillus/Penicillium, cladosporium spp and ganoderma. Less worrisome are the asocespores and leptoshaeria. The scientist anticipates there is a possibility that in Puerto Rico exist allergenic spores that have not been identified in the United States, country that manufactures the allergy medicines used locally by populations susceptible to these allergies. "Ideally we can motivate other studies to confirm the previous thing because therefore antigens specific to these particles can be used to create vaccines targeted to patients affected by the allergies", the physician thought. According to Bolaños, climatic phenomena like rain, wind and gusts act like disperse spores, whereas humidity and dew point stimulates their concentration and perhaps these are the reasons why they are seen most frequently during midnight and at dawn. Other environmental factors, like ashes of the Soufriere volcano from the Island of Montserrate and the dust of the Sahara desert, affect the concentration and dispersion of the fungi spores. This investigation ranges from May 2005 to May 2006. To do this investigation, Bolaños required a certification of the American Academy of Ashtma, Allergy and Immunology, organization that along with MSC collaborated with the project. The station mk3, located in the roof of the main building of the MSC is one of the 78 stations that AAAAI has. Currently the particle count in the Island is still being done. For more information visit American Academy of Ashtma, Allergy and Immunology [3]

Categories (Educational Resources):

- Texto Alternativo [4]
- Noticias CienciaPR [5]
- Ciencias ambientales [6]
- Salud [7]
- Ciencias Ambientales (superior) [8]
- Salud (Intermedia) [9]
- Salud (Superior) [10]
- Text/HTML [11]
- Externo [12]
- Ingles [13]
- MS. Growth, Development, Reproduction of Organisms [14]
- MS/HS. Matter and Energy in Organisms/Ecosystems [15]
- 9no-12mo- Taller 3/4 Montessori [16]
- Noticia [17]
- Educación no formal [18]

Links
[1] https://www.cienciapr.org/en/external-news/allergens-under-study [2]
http://endi.com/XStatic/endi/template/nota.aspx?n=30783 [3] https://www.cienciapr.org/en/www.AAAAI.org/nab [4] https://www.cienciapr.org/en/categories-educational-resources/texto-alternativo [5] https://www.cienciapr.org/en/educational-resources/noticias-cienciapr [6] https://www.cienciapr.org/en/educational-resources/ciencias-ambientales [7] https://www.cienciapr.org/en/educational-resources/salud [8] https://www.cienciapr.org/en/educational-resources/ciencias-ambientales-superior [9] https://www.cienciapr.org/en/categories-educational-resources/salud-intermedia [10] https://www.cienciapr.org/en/categories-educational-resources/salud-superior [11] https://www.cienciapr.org/en/educational-resources/texthtml [12] https://www.cienciapr.org/en/educational-resources/externo [13] https://www.cienciapr.org/en/taxonomy/term/32180 [14] https://www.cienciapr.org/en/educational-resources/ms-growth-development-reproduction-organisms [15] https://www.cienciapr.org/en/educational-resources/mshs-matter-and-energy-organismsecosystems [16] https://www.cienciapr.org/en/educational-resources/9no-12mo-taller-34-montessori [17] https://www.cienciapr.org/en/categories-educational-resources/noticia [18] https://www.cienciapr.org/en/educational-resources/educacion-no-formal