



## **THE EFFORTS TO BUILD AN INTEGRATED HUB FOR QUARANTINE AND INVASIVE SPECIES STUDIES IN AMERICA**

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The Center for Excellence in Quarantine and Invasive Species, a multiagency initiative, is located in a key strategic position and is playing a crucial role in studies of Prevention and Preparedness for Invasive Species that represent a multi billion dollar threat to Caribbean and US agriculture. The state of art laboratories and greenhouses facilities support the center's mission that is to develop expertise, promote education and generate tools to aid in the quarantine and mitigation of invasive species and support sound decision-making. The Center, at Agricultural Experimental Station, Botanical Garden South, San Juan, was established in 2014 with a view to strongly enhancing the technological aspects of agricultural education and training in Puerto Rico. The Center possesses lab space, greenhouses and a quarantine facility for the study of invasive pests and pathogens, constituting a front line initiative for their control. The Center is currently hosting to 18 undergraduate and graduate students (from six different countries), being trained in modern techniques of pest and pathogen detection, monitoring (GIS) and biological and biomolecular characterization, including Next Generation Sequencing (NGS) techniques and High throughput (HT) systems. In addition, the Agricultural Experimental Station possesses a comprehensive library and multimedia seminar rooms devoted to agricultural science, having been dedicated to agricultural research for over 100 years. Our purpose is to (1) improve networking capability; this will enable groups in diverse parts of the island to easily access and contribute expertise and knowledge. An important function is to increase connectivity with groups outside Puerto Rico, in the mainland US, Caribbean region, and rest of the world; (2) to offers computational infrastructure that facilitates high throughput analyses, in particular genomics and GIS that can be used as training tools in undergraduate and graduate research and education programs; and (3) to maintain and upgrade experimental equipment to the state of the art, optimizing sampling screening and biological process documentation.

Keywords: biodiversity, science education, networking, training tools.

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