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DISCOVERY OF RARE HAWAIIAN SPECIES

A recent discovery of an extremely rare new plant species in Hawaii was made in the context of a collaborative effort between the Department of Botany at the National Museum of Natural History and the National Tropical Botanical Garden (NTBG) to discover, describe, and understand plant diversity of the Pacific Islands. This effort is critical at this time to conserving the diversity of island ecosystems. Known from only four individuals, the plant species, *Labordia lorenciana*, is among ca. 120 other rare Hawaiian species that are limited to less than 50 individuals. It is now being cultivated for conservation at NTBG.

Labordia lorenciana is described and illustrated from the Hawaiian Island of Kaua'i. This new species, named for David H. Lorence, Director of Science at NTBG, who has made many valuable contributions to Pacific botany and to the study of the large tropical family Rubiaceae (coffee family), most closely resembles the O'ahu endemic species, *Labordia kaalae*. The new species is described in a paper published in *Systematic Botany* by Smithsonian scientist Warren Wagner and two colleagues.

Labordia (Loganiaceae) is one of 31 currently recognized vascular plant genera completely restricted to the Hawaiian Islands. It is closely related to the Pacific genus *Geniostoma*. *Labordia* comprises 16 species, with 11 species being single-island endemics and the remaining five species occurring on several islands. Three species and two varieties are currently listed as Federally Endangered under the Endangered Species Act. Recent field research by Ken Wood of NTBG within the northwestern canyon region of Kaua'i (i.e., Kawai'iki Valley), has documented another new species known from only a few remaining individuals and critically in need of protection.

A TROVE OF NEW SPECIES IN THE EASTERN PACIFIC

Smithsonian scientists have discovered a biodiversity bounty in a unique, understudied region off the coast of

Panama. Approximately 50 percent of the organisms found in some groups are new to science.

Coordinated by Rachel Collin of the Smithsonian Tropical Research Institute (STRI), a team of Smithsonian scientists and international collaborators with expertise in snails, crabs, shrimp, worms, jellies and sea cucumbers participated in an intensive effort over 11 days in the region to discover organisms from this ecosystem.

Although they expected to find new species, the team was surprised by the sheer number of novel marine organisms in the region. One group, known as ribbon worms, range in size from those so tiny they live between grains of sand to 6-foot-long specimens that eat entire crabs and sea hares. More than 50 percent of the ribbon worm species collected have never been seen before. One new species of ribbon worm discovered during the expedition live and reproduce among crab eggs. These worms can be important pests of commercial species, but they are often overlooked because they are smaller than the eggs themselves.

One unique feature of the islands off the coast of Panama is that they host animals that are found in the Indo-Pacific, half a world away. This implies that the larvae of species such as *Hymenocera picta*, a little shrimp collected on Isla Seca off the coast of Panama, can survive a journey of more than 3,000 miles from the Indo-Pacific.

The scientists hope their data will be useful for ANAM (Panama's environmental agency) and to STRI's Juan Mate, who leads the effort to develop an innovative management plan for Coiba National Park, a UNESCO World Heritage site.

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