

Orchid named after UC Riverside researcher

April 17 2014



Lophiaris silverarum, named after a UC Riverside researcher, is known to grow only in central Panama. Credit: Katia Silvera, UC Riverside.

One day about eight years ago, [Katia Silvera](#), a postdoctoral scholar at the University of California, Riverside, and her father were on a field trip in a mountainous area in central Panama when they stumbled upon an orchid they had never seen before.

Unable to identify it, they contacted German Carnevali, a world authority on orchids. The orchid turned out to be an unnamed species. So Carnevali recently named it after the Silveras: *Lophiaris silverarum*.

"Lophiaris" is the genus name, comprising about 40 species in the world. Carnevali, the director of the Natural Resources Department at the Scientific Center of Yucatan, Mexico, announced the new [orchid species](#) in a [research paper](#) published in the March issue of the journal *Phytotaxa*.

Naming a species is invariably a long process. It can take many years to officially name a plant species, the time depending on how well the plant group is studied and whether there is funding to do research on that particular group.

"Orchids are a difficult and confusing taxonomic group," said Silvera, who joined the lab of Norman Ellstrand, a professor of genetics at UC Riverside, in 2011. "People who specialize in the Orchid Family usually spend years naming different species based on DNA and morphology. Sometimes plants can look alike morphologically, but DNA informs us that they are very different species, which makes naming the species difficult."

Silvera explained that because the Orchid Family is so large, there are many species that have not been found before. As a result, new orchid species are being named every year and the number is rising.



Katia Silvera is a postdoctoral researcher in the Department of Botany and Plant Sciences at UC Riverside. Credit: Marcos Guerra, STRI.

"The diversity of orchids is best seen in the tropics, where, unfortunately, habitat is being destroyed very fast," she said. "As a result, we are rapidly losing the diversity of orchid species. Although there are many orchid species unnamed in nature, it is actually quite difficult to determine for sure that an orchid is unnamed. They are difficult to find and difficult to tell apart. Orchid species are the raw materials for hybrids, and there is a lot to discover about how these species evolved and became such a successful group. Orchid research will only thrive if efforts to conserve tropical rainforest are put in place."

The Orchid Family contains the largest number of [plant species](#) in the world. They are the most collected group of plants by hobbyists. Close to 30,000 known species exist worldwide; many remain undiscovered. Panama alone has about 1,100 known orchid species. The United States has about 200 known orchid species.

Orchids are unique in that the flower's female and male reproductive parts are fused together. An interesting aspect is that orchids can easily hybridize or cross. As a result, some 300,000 orchid hybrids are man-made and commercially available to the public. Not found in nature, they only occur in laboratories and greenhouses for commercial purpose.

Currently, *Lophiaris silverarum* is known to grow only in central Panama. It is not known if it grows in other areas of Central America. The plant blooms only in November, the flowers lasting about a month. It is not sold in the US because it is very rare and it reproduces very slowly.

"We are in the process of propagating the species *in vitro* in Panama for commercial purposes," Silvera said. "My father, Gaspar Silvera, is the owner of a [small orchid company in Panama](#) that specializes in propagating native orchid species but because *L. silverarum* grows slowly, taking about four years to reproduce *in vitro*, from seed to the first bloom, it will take many years before it is available to the public in Panama first, and then made commercially available outside of Panama."

Provided by University of California - Riverside

Citation: Orchid named after UC Riverside researcher (2014, April 17) retrieved 18 April 2024 from <https://phys.org/news/2014-04-orchid-uc-riverside.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.