

October 11, 2002

Lisa Brandon, Public Relations Dept.

(314) 577-5141 (*for media use only*)

lisa.brandon@mobot.org
(*for media use only*)

02080

For Immediate Release

MISSOURI BOTANICAL GARDEN BOTANISTS DISCOVER NEW PLANT GENUS
A Distinctive New Member of the Cunoniaceae Family Discovered in New Caledonia

(ST. LOUIS): Missouri Botanical Garden researchers collecting plants on the remote South Pacific island of New Caledonia have discovered a new genus belonging to the plant family *Cunoniaceae*, a group of Southern Hemisphere tropical trees. Garden botanists say their find is particularly exciting because it is very rare to discover a genus in the field (a genus is a group of species, like oaks or maples, that look different from their nearest relatives).

“Although the flora in New Caledonia is better documented than in many other parts of the tropics, the recent discovery of this new genus, which will be named *Hooglandia*, clearly demonstrates that additional exploration is still needed,” said Dr. Gordon McPherson of the Garden’s research staff, who made the discovery with his colleague Dr. Pete Lowry. The genus is being named in honor of Dr. Ru Hoogland, who was the world’s recognized expert on *Cunoniaceae* until his death in 1994.

The tropical island of New Caledonia, a French territory located east of Australia, is slightly smaller than New Jersey. “This is a botanical paradise, with one of the world’s most interesting and distinctive floras,” said Lowry. “Ask any botanist to name the five most intriguing places in the world, and New Caledonia will be on everyone’s list.” Missouri Botanical Garden staff have conducted research there since 1979.

Currently they are involved in a joint project with the National Museum of Natural History in Paris to identify areas of exceptional botanical richness that are priority sites for conservation activities. This collaborative project, which has the full support of the local provincial authorities, involves the careful mapping of a large sample of New Caledonia’s nearly 3,500 plant species, almost three-quarters of which are found nowhere else in the world. As part of the project, American and French researchers are also inventorying plants in the most poorly explored corners of the island to ensure full botanical coverage. The Garden’s project in New Caledonia is supported

(over)

ADD ONE: New Genus

by the John D. and Catherine T. MacArthur Foundation. Important assistance has also been provided by local authorities in New Caledonia.

In May, McPherson and Lowry were exploring Mt. Ignambi, a 4,300 ft. peak in the Panié Massif in the northeast part of the island. Working with New Caledonian forestry agents and a student from the local university, they camped about half way up the mountain and collected botanical specimens along a foot-trail leading to the summit.

“After a few days of collecting, we found a tree with flowers and fruits of a kind that we had never seen before, despite many years of field work in New Caledonia” said McPherson. “A bit further down the trail a second tree of the same species yielded flowers with much longer male parts, and we realized that our remarkably unusual species has separate male and female plants.

“After careful study of our specimens in the field and later back in St. Louis, we had a clear idea of the characters of our plant,” he continued, “but they did not exactly match the description of any family of plants, and our material certainly did not belong to any known genus. We knew we had something new, but we could not determine what it was related to.”

Patrick Sweeney, a graduate student in St. Louis, analyzed the DNA sample that they had collected, and his study settled the question. The new plant belongs to the family *Cunoniaceae*, but it is unlike all previously known members of this family because it has a simple, one-chambered ovary and single-seeded fruits that have a fleshy outer layer surrounding a stone, as in a peach or cherry, rather than being dry and splitting open to release the seeds.

The new discovery is also significant because it was made directly in the field, allowing McPherson and Lowry to prepare freshly collected specimens and take color photos. According to Lowry, “botanists almost always recognize new genera and species while studying museum specimens long after they are collected. It is a once in a lifetime experience to know you have something this special – a completely new genus – as soon as you see it!”

The type of focused, detailed botanical collecting used in the New Caledonia project “is still very much needed, even in places where the flora is supposedly well known,” said McPherson.

Lowry and McPherson, along with several collaborators, plan to publish their findings in two papers in the *Annals of the Missouri Botanical Garden* next year, describing the new genus and species and discussing the relations of the new plant to other *Cunoniaceae* and its significance for understanding the evolutionary history of the family.

###

EDITOR’S NOTE: Images available electronically upon request.