2011 Awards for Research in Gesneriaceae

Laurence E. Skog <skogl@si.edu>
Chair, Elvin McDonald Research Endowment Fund
and Nellie D. Sleeth Scholarship Endowment Fund

In 2011 The Gesneriad Society gave one award each from the Elvin McDonald Research Endowment Fund (EMREF) and the Nellie D. Sleeth Scholarship Endowment Fund (NDSSEF) for research in the Gesneriaceae.

The first award was from EMREF to **Cassandra L. Coleman** for her study, "A revised phylogeny and study of pollinator shifts in the neotropical genus *Gasteranthus* (Gesneriaceae)." Cassandra is currently a graduate student working with John L. Clark at the University of Alabama in the Department of Biological Sciences. She received her B.S. degree in Biological Science from the University of Alabama in May 2010, and is currently working on her Master of Science degree.

Cassandra's proposal was for funds to undertake field work in Ecuador for her research on *Gasteranthus* "to generate pollination data and specimen collection" for her Master's thesis. This will lead toward "a thorough understanding on the character evolution of the flowers and the type of pollination specialization or generalization in the tropics as pertains to the genus *Gasteranthus*, as well as to create a more concise and encompassing phylogeny of the genus."

According to Cassandra's proposal, there are no encompassing pollination studies of *Gasteranthus*. Fifteen of the species have tubular corollas and are probably pollinated by Euglossine bees. The other 40 species in the genus have pouched flowers and may be pollinated by hummingbirds, but there have been no pollination studies in the field. She hopes to make observations in the field of about 15-20 species in Ecuador where the genus is most common.

In addition, she will combine her pollination studies with ongoing molecular work to attempt to explore the transition between the pouched and non-pouched flowers. The phylogenetic studies of *Gasteranthus* show that the genus is monophyletic. Morphological studies suggest a single shift from pouched to non-pouched flowers, but molecular studies suggest multiple evolutionary shifts. She hopes that field work, with field observations of plants and possibly pollination systems, as well as continuing laboratory research will be able to elucidate pollination systems in *Gasteranthus* and increase knowledge of tropical pollination syndromes.

Cassandra presented a paper on the rediscovery of *Phinaea* in Cuba at the World Gesneriad Research Conference in Sarasota in October 2010, and gave a presentation on her current work at the meetings of the Botanical Society of America in St. Louis in July 2011.

The 2011 Sleeth Scholar is **Laura Clavijo Romero**, currently a Ph.D. student at the Department of Biological Sciences at the University of Alabama, also working with Professor John L. Clark. Laura will receive $4,500 from the Nellie D. Sleeth Scholarship Endowment Fund (NDSSEF). The title of her proposal was "Systematics of the neotropical plant genus *Drymonia* (Gesneriaceae): Elucidating patterns of morphological evolution." She proposed to use the award to do field work in Colombia, visit important

Colombian herbaria, and present her preliminary results at the VI Colombian Botany Conference. The genus *Drymonia* has more than 30 species in Colombia, the largest number in any country. Field work and sampling of the species would generate data for her thesis research by gathering morphological characters to test the monophyly of the genus, look at the evolution of the morphological characters, e.g., floral shape and fruit type. She hopes to gather more morphological, biogeographical, and ecological information to resolve the relationships at the species level. She plans to do field work on the western slopes of the Andes in Colombia, a poorly explored area of northwestern South America, with several specific localities in mind in a limited time frame. She also intends to interact with locals involved in similar research on groups that have diversified in the Andes.

Laura was a 2010 awardee of funds from the Elvin McDonald Research Endowment Fund (EMREF), which she used for preliminary research. As was reported last year in the 2010 report, she has been involved in research in Gesneriaceae for several years, following her receiving a B.S. degree in Biology at the Universidad Nacional de Colombia. She has been the curator of Gesneriaceae at the National Herbarium of Colombia in Bogotá and involved in the checklist of the Flora of Colombia responsible for the family Gesneriaceae. She has traveled extensively in Colombia as well as Cuba for research and been involved in several research projects in Gesneriaceae as well as other plant families. In 2008 she had an internship supported by The Gesneriad Society at Marie Selby Botanical Gardens where she completed a project "Taxonomic revision of the genus *Drymonia* (Gesneriaceae) for Colombia." Laura also participated in the Gesneriaceae World Conference in October 2010 where she was involved in two presentations on *Drymonia*.

The Gesneriad Society wishes both Cassandra and Laura well and success in their research.

Both the Elvin McDonald Research Endowment Fund and the Nellie D. Sleeth Scholarship Endowment Fund rely on donations to continue to support research so that we can all learn more about Gesneriaceae. If any members of The Gesneriad Society know of worthy students, and/or wish to have more information about the funds or copies of the guidelines, they can write to me at the email address above.

Cassandra Coleman in Ecuador researching *Gasteranthus*

Laura Clavijo Romero in Colombia researching *Drymonia*