Cieslak, T., Polepalli, J.S., White, A., Müller, K., Borsch, T., Barthlott, W., Steiger, J., Marchant, A., and Legendre, L. 2005. Phylogenetic analysis of *Pinguicula* (Lentibulariaceae): chloroplast DNA sequences and morphology support several geographically distinct radiations. Am. J. of Bot. 92: 17223-1736.

The authors tackle the heady task of a large sampling of molecular data and morphological characters to examine the relationships among nearly fifty members of the Lentibulariaceae (mostly *Pinguicula*). This kind of analysis can shed light on whether or not groups of plants are monophyletic, i.e. all closely related in a natural set. In recent years, this kind of analysis has revealed that many plant groups (such as the Scrophulariaceae; the snapdragon family) are actually assemblages of plants that are not particularly closely related to each other. Cieslak *et al.* demonstrate that *Pinguicula* is apparently monophyletic (so no compelling evidence that it should be split into separate genera was revealed), and that the family Lentibulariaceae is also apparently a natural group with no need for major revision.

The analysis suggests further, very interesting results within the genus *Pinguicula*. First and foremost, that the genus is perhaps subdivided into five major groups (or clades). The first clade consists of all Mexican and Caribbean species. This is comparable to De Candolle's (1844) section *Orcheosanthus*. Clade I is sister to clade II, which consists of the single species *P. alpina*. These two clades are, in turn, related to clade III (*P. ramosa*, *P. villosa*, and *P. variegata*). Clade IV consists of all the temperate, hibernaculum-forming species (except *P. alpina*). Finally, clade V consists of tropical growth type species, such as the remaining USA species and a few others.

This paper represents a great advance in our understanding of the genus *Pinguicula*, and it should be studied carefully for its many insights and interesting results. For example, the analysis suggests that some of the plants currently distributed under the name "*P. moranensis*" may be hitherto undescribed species. Furthermore, the species in clade IV are all very closely related to each other. This kind of research will only become even more fascinating as more species are included in the analysis—nearly half the genus awaits inclusion! (BR)

Li, H. 2005. Early Cretaceous sarraceniacean-like pitcher plants from China. Acta Bot. Gallica, 152: 227-234.

This is one of a large cluster of papers reporting on talks given at the ICPS conference in Lyon, all of which merit careful reading. The author reports on a remarkable set of fossils that are remarkably suggestive of pitchers of a pitfall carnivorous plant. The fossils are given the name *Archaeamphora longicervia*, and include small (30-40 mm long) pitchers and a structure that is consistent with a nectar spoon. Seeds found with the fossils are remarkably similar to those of modern *Sarracenia*. (BR)

Luken, J.O. 2005. *Dionaea muscipula* (Venus flytrap) establishment, release, and response of associated species in mowed patches on the rims of Carolina bays. Restoration Ecology. 13: 678-684.

Luken, J.O. 2005. Habitats of *Dionaea muscipula* (Venus; fly trap), Droseraceae, associated with Carolina bays. Southeastern Naturalist. 4: 573-584.

These two papers discuss issues related to Carolina bays, particularly those few remaining in South Carolina. The first paper outlines general *Dionaea* habitat characteristics, and the second focuses on active management methods. Plant communities associated with Carolina bays were historically associated with frequent wildfires that cleared competing plants. Fragmentation of habitat by human development has made the implementation of prescribed fire difficult because of fire safety and smoke issues, so land managers are seeking alternative management methods. Managing the rims of Carolina bays for *Dionaea muscipula* by mechanical mowing was found to be conducive to *Dionaea* (and other carnivorous species), although too much disturbance encouraged invasion by grasses and other monocots. This study also followed the success of introducing new propagules, such as seeding with *Dionaea*.

Luken has been trying to determine the best methods of stewarding *Dionaea*, an increasingly rare plant. It has been particularly frustrating that his research has been hampered by the effects of poachers stealing plants from his study areas. Poaching does not help scientific studies that could be used to help protect our remaining wild populations of *Dionaea*! (BR)