

LITERATURE REVIEWS

By Doug Darnowski.

Butler, J.L. and Ellison, A. M. 2007. Nitrogen cycling dynamics in the carnivorous northern pitcherplant, *Sarracenia purpurea*. *Functional Ecology* 21: 835-843.

In another excellent paper from Ellison's lab, the reader learns that nitrogen cycling in *S. purpurea* emphasizes pitcher production in the use of nitrogen. ¹⁵N-studies showed that for early-season pitchers, the greatest amount of nitrogen came from the previous year's stores while later leaves used more newly-obtained nitrogen. As has been found in many other carnivorous plants, photosynthetic activity is relatively low for the amount of photosynthetic tissue, and nitrogen possessed by the plant is mostly used for making more pitchers and catching more prey rather than for increasing photosynthetic activity or increasing the amount of photosynthetic tissue. (DWD)

Fritsch, P. W., Almeda, F., Martins, A. B., Cruz, B. C., and Estes, D. 2007. Rediscovery and phylogenetic placement of *Philcoxia minensis* (Plantaginaceae), with a test of carnivory. *Proc. Cal. Acad. Sci.* 58: 447-467.

Perhaps there are yet more carnivores in Brazil? The authors describe their rediscovery of a species in a small and similarly poorly-known and poorly-studied taxonomic tribe, previously known only from one very incomplete herbarium specimen. Of greatest interest to readers here will be the fact that the leaves, emerging through white sand from an underground stem, are covered with glandular hairs which trap a large number of nematode worms. The tests for protease activity used by the authors were good ones, but the humidity levels used and the state of the plants at the time of testing make the negative result highly questionable. The authors plan to continue their work, though propagation of plants has been a major obstacle thus far. (DWD)

Mann, P. 2007. *Drosera gibsonii* (Droseraceae) a new pygmy *Drosera* from south-west Western Australia. *Nuytsia* 16: 321-323.

Phill Mann has named a new species of pygmy sundew, from the Stirling Range National Park in Western Australia, for well-known carnivorous plant expert Dr. Robert Gibson. This species is one of the pygmies with a more elongate leaf blade, closest to *D. silvicola* and reminiscent of *D. scorpioides* and *D. roseana* in leaf form. The points of distinction from *D. silvicola* are shorter scapes with fewer flowers/scape, mauve (vs. red) styles, whiter and more club-shaped stigmas, yellow pollen, sepal apex not pointed, petal color more mauve, erect fruit, and non-persistent scapes. (DWD)



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