

# Literature Review

**Kiat, T.W. and W.C. Lum.** 1996. Aerial pitchers of *Nepenthes ampullaria* Nature Malaysiana 21:12-14.

The authors review the literature in which it is noted that *N. ampullaria* rarely or never (depending on author) has aerial or climbing pitchers as do other species of the genus. As an example, the ground and climbing pitchers of *N. rafflesiana* are pictured. The authors note that in plants they have cultivated in Malaysia have had intermediate or nearly aerial pitchers (This reviewer has also noted these in plants cultivated under glass in Virginia). After extensive searching through many natural areas where *N. ampullaria* was abundant, the authors did indeed find very rare individual plants with aerial pitchers. Further studies attempting to relate these rare aerial pitching stems to any other ecologic or genetic characteristics were apparently not done. The authors mention that the aerial pitchers were useless for purposes of trapping prey since they were tipped in growing, emptying any contents. Unfortunately, the photos of these aerial pitcher stems were entirely inadequate and we hope to see better ones some other time.

**Sullivan, JM.** 1995. *Utricularia subulata* in Missouri. Missouriensis 16:39-41 .

While visiting a Nature Conservancy property in Missouri called Shut-In Mountain Fens, the author's botanical club discovered a new state record, *U subulata* present in all three fens of the location. *U. macrorhiza* and *U. gibba* have been recorded in the state previously. *U. subulata* is on Steyermark's list of plants that might possibly be discovered in Missouri since the species occurs in neighboring Arkansas. As an interesting sidelight, while the group was confirming the find by presenting a specimen to the herbarium of the Missouri Botanical Garden, the keeper found an error while leafing through the genus sheets--A plant mislabeled *U. gibba* from another fen a few miles away from Shut-In Mountain was in actuality *U. subulata* ! Other records of *U. gibba* in Missouri are apparently still correct.

## News & Views

**Don Schnell,** ( Rt. 1, Box 145C, Pulaski, VA 24301)

Don sends the following. Readers will recall the recent discussion about using smoke to promote germination of certain stubborn CP seeds such as *Byblis*, tuberous *Droseras*, etc.(See CPN 25:49, 1996). Briefly, it was originally noted that seeds germinated much more readily if paper or debris was burned on the surface of the moist soil with the sown seed in place. One supposed the heat and steam helped. Botanists in the fynbos of South Africa first surmised that it was possibly the smoke, not the heat and steam, that expedited germination. Experiments with smoke of burning grass and brush wafted over the pots, or indeed the use of water through which smoke had been bubbled, was as helpful. One could make and store 'liquid smoker or Smoke Waters (That is not something out of the '60's!). Now, the Kirstenbosch Botanical Gardens in RSA have dried concentrated smoke water on disks of paper for easy use and storage. One simply swishes a disk around in 50 ml of water for a few minutes to reconstitute the solution, then soak your seeds in it for 24 hours. The disks can be stored in the fridge. It will be interesting to see if they analyze what it is that has been chemically created in the conflagration that acts as a germination promoter. If you wish a sample of proven smoke paper disks, send \$5.00 US for a packet and instructions to: Frank Wolpert, 10 Helderberg, Belmont Avenue, Oranjezicht, Cape Town, 8001, Republic of South Africa.