

LOOKING AHEAD

How about something on the effects of air, water and soil pollution on carnivorous plants, especially potential differential effects of various pollutants?

The next issue of CPN will include an important note by Warren Stoutamire detailing his experiences with sterile culture of seeds. From this we will learn that there may be a lot of life left yet in those older seeds that just do not germinate with standard methods.

The next issue (the fourth and last of the first volume) will be mailed in January, and the editorial deadline for submitting material is 15 December 1972.

RECENT LITERATURE

Anonymous: Swamp weed might hold cure for cancer. The Mississippi Press August 2, 1972

Dr. D. Howard Miles, assistant professor of Chemistry at Miss. State University, is currently engaged in a two-year study trying to isolate various drugs from the rhizomes of Sarracenia plants that appear to have inhibiting qualities in combating the growth of cancerous tumors. The natives of this area have been concocting a brew made from "moonshine" alcohol and the stem of this genus for many years contending that it had curative powers. The National Cancer Institute apparently is convinced by the preliminary evidence to award Dr. Miles \$30,000 to find the drug or drugs from the alcoholic extract that are responsible for the anti-tumor activity. We are happy to report that Dr. Sidney McDaniel, a CPN member, has aided the professor in identifying the plants and has helped gather them for the experiments currently underway at MSU.

Franck, Daniel H.: Early ontogeny of the adult leaves of Darlingtonia californica and its bearing on the interpretation of epiascidiate foliar appendages. Amer. Journal of Botany Vol 59, p 678 (1972) Abstracts

Ontogenetic studies show that the primordium arises by a monopodial rather than a sympodial mode of growth, as previously reported. Following the formation of a small, erect primordium, a restricted adaxial meristem is initiated and expands both adaxially and upwards. A ring or "doughnut" meristem is established around the apical area of the incipient tube just below the primordial hood and mouth. Growth of this ring meristem and maturation of the subjacent portions cause elongation of the young leaf.

Godfrey, Michael A.: Flowers that kill to eat. National Wildlife
10: 10-13 August-September 1972.

A brief popular article on southeastern U. S. species with some color photos.

Hotchkiss, Neil: Common Marsh, underwater and floating-leaved plants of the United States and Canada 1972 Dover Publications, Inc., 180 Varick St., New York, N. Y. 10014
This guide is designed for identification of marsh plants without recourse to technical botanical keys. Drawings and descriptions are sufficient to identify most of the plants. About 13 species of Utricularia are discussed in this book along with drawings which an amateur may use for his benefit.

Komiya, Sadashi: Exotic species of Lentibulariaceae in Japan.
Journal Jap. Bot. 47: 83-95 March 1972
The author reviews the nomenclature, provides brief descriptions and some photos and drawings of lentibuliads that are basically exotic to Japan since they have been introduced into collections.

Kondo, K.: The chromosome number of Heliophora heterodoxa. Journ.
Jap. Bot. 47 (8), 238 1972

Courtesy of Dr. D. E. Schnell, North Carolina, the author could count the chromosome number of Heliophora heterodoxa. This species has the somatic chromosome number $2n=42$ which is the same number as of H. nutans.

Kondo, K. and Whitehead, B.: The chromosome number of Utricularia dichotoma (Lentibulariaceae). Chromosome Information Service 13 pp 6-7 1972
Utricularia dichotoma shows fourteen bivalent chromosomes at metaphase I of meiosis in PMC's. The same chromosome number ($n=14$) was previously counted in Utricularia biflora Lam. (Kondo, 1971) which was placed in the genus Utricularia by Barnhart (1915). This chromosome number does not indicate any morphological correlation in character between these species. Utricularia biflora is aquatic to sub-aquatic, and U. dichotoma is terrestrial to sub-aquatic. However, this chromosome data does not support Barnhart's segregation of genera in the Lentibulariaceae. There is no chromosome relation between Utricularia dichotoma and the New World endemic species of Utricularia studied.

Kondo, Katsuhiko and Whitehead, B.: The chromosome numbers of Utricularia dichotoma var. uniflora and U. lateriflora.
Phyton 29: 95-98 1972

The chromosome numbers of U. dichotoma var. uniflora ($n=28$) and U. lateriflora ($n=14$) are reported for the first time.

Swamy, R. Dore and Ram, H. Y. Mohan: Studies on growth and flowering in axenic cultures of insectivorous plants. Z
Pflanzenphysiol Vol 65 (4) pp 315-325 1971
Flowering in Utricularia inflexa was actually inhibited when stolons were grown on White's liquid medium fortified with

various proteins, amino acids and vitamins. Exposure to 20 cycles of 16 hour dark and 8 hour light periods initiated the inflorescence primordia and resulted in normal flowers, and seed set. Kinetins and gibberellic acids were used in conjunction with the above inductive conditions.

Wan, A. S., Aexel, R. T., Ramsey, R. B., and Nicholas, H. J.:
Sterols and Triterpenes of the pitcher plant.
Phytochemistry Vol 11 (1) pp 456-461 1972
In N. albomarginata, the authors found seven free sterols such as cholesterol and ten esterified sterols in the plant. Sitosterol was the major sterol in both the free and esterified fractions.

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