

All CPN members who ordered the Japanese CP books should have received them by this date. As mentioned before, no new orders can be taken at this time until a new announcement appears in a future CPN issue. One more book on the list is now "out of print" and another is "out of stock" so those people who ordered these books can consider themselves lucky to receive their orders. We regret that some orders could only be partially filled because of the fact one book was "out of print" rather suddenly before the list could be modified. Refund checks for this book should have been returned by now to those who were affected.

If a unilateral exchange of plants is carried out, we feel that the receiver should compensate the sender with the cost of the postage plus a little for the packaging. It would also be considerate if after receiving the package of plants, a little note be sent acknowledging the safe receipt of the plant package as soon as possible. This way, the sender wouldn't have to worry about the outcome of his effort and generosity. These are just a few kind tips to those people who desire plants but weren't sure of the customs regarding unilateral exchange.

#### RECENT LITERATURE

Ah-Lan, Lim, Prakash, N.: Life History of Nepenthes gracilis. Malays Jour. Science. 2: 45-53, 1973.

The biology of the anther and dehiscence of the pollen tetrads which are viable for three days after anthesis are discussed. Also, the development of the ovule and maturation of the seed embryo is described. The seeds are viable only for about a week after the fruit dehisces and germination takes place in about a month. Seedling characters are also described.

Beltz, C.K.: A developmental study of the bladders of Utricularia macrorhiza. Amer. Journ. Bot. (5) 61, 4, Supp., 1974.

Gross morphological changes in the bladder color, size, length and ability for the plants to flower were noted with plants taken at different locations.

Beltz, C.K., Horner, Harry T.: Possible pathways for the secretory and ingestive products of the bladders of Utricularia macrorhiza. Amer. Journ. Bot. (5) 61, 5, Supp., 1974.

Both the chemistry and physiology of digestion in this organism is discussed.

Casper, S.J.: Eine neue Pinguicula-Art aus Mexico. Fedd. Rep. 85 (102). pp 1-6 + 1 plate. 1974. IN GERMAN

Pinguicula kondoi sp. nov. (Lentibulariaceae) from Mexico is described. This species is named after Katsu Kondo, and is a member of subgenus Isoloba, section Heterophyllum. The chromosome number is  $2n=22$  determined by Katsu Kondo.

Cody, William, Talbot, Stephen: The pitcher plant Sarracenia purpurea L. in the northwestern part of its range. Can. Field-Nat. 87 (3): 318-320, 1973. The history of collection reports of the above species from Alberta and British Columbia (Canada) is recounted. Information on associated plants, habitats at collection sites and a map of central Canadian distribution records are included.

Hansen, Carlo: Note on Drosera rotundifolia L. in Greenland. Bot. Tidsskr. 67 (4): 342-343 (1973)

Now twelve locations are known of this species in Greenland and all plants have a chromosome number of  $2n=20$  which agrees with species found elsewhere.

Kondo, K.: Chromosome numbers of five taxa. Chromo. Inf. Serv. No. 15, 33-34, 1973.

The author gives the chromosome numbers for five angiosperms, including two CP: Utricularia vulgaris ( $n=21$ ) and Drosera spathulata Labill. ( $2n=40$ ) with some discussion of the ploids of the latter.

Kondo, K.: The karyotypes of the species of Byblis. Bull. Torrey Bot. Club. 100: 367-369, 1973.

The chromosome counts of Byblis gigantea ( $2n=14$ ,  $x=7$ ) and B. liniflora ( $2n=24$ ,  $x=12$ ) are presented along with ideograms of the two species.

Krizo, Milan: Occurrence of Drosera rotundifolia L. on the Polana in the Slovak midland range. Biologia (Bratisl) 28 (7): 595-597, 1973.

This species of plant was found in peat sedimentation that depended on the presence of impermeable underlying layers of bentonitic clays.

Lobareva, L.S., Rudenskaya, G.N.: Pepsin-like protease from insectivorous plant Nepenthes. Biokhimiya 38 (3): 640-642, 1973

IN RUSSIAN

A proteolytic enzyme was isolated from the juice of unopened pitchers of a hybrid Nepenthes species and is named nepenthesin. Its properties for digesting protein are very similar to the animal enzyme called pepsin, found in the stomach. In contrast to pepsin, nepenthesin is more stable at neutral pH and further tests confirm that the structure of the active centers of the two enzymes are very much alike.

Maier, Rudolf: Effect of dryness on the ejection of turions in Utricularia L. Oesterr. Bot. Z. 122 (1/2): 15-20, 1973

IN GERMAN

The turions of U. vulgaris, U. neglecta, U. intermedia and U. minor can be released from dormancy by both high temperature and short photoperiods. Even after a prolonged drying, the turions are able to sprout. Inhibition of sprouting is probably best produced by cold water during winter.

Stoutamire, W.P.: Sphagnum. Cranbrook Institute of Science Newsletter. 36: 98-104, 1967. A good paper on the chemistry, anatomy and ecology of Sphagnum mosses in the U.S.; quite pertinent to all CP people.

Sydenham, P.H. and Findlay, G.P.: The rapid movement of the bladder of Utricularia sp. Aust. J. Sci. 26: 1115-1126, 1973.

The authors describe variations in internal pressure, volume, membrane potential and membrane resistance during the firing of bladders of Utricularia. The trap door closes within 10-15 milliseconds after mechanical stimulation. The luminal volume increases more than 40%. The internal hydrostatic pressure increases threefold.

Thurston, E.L., Seabury, F.: Fine structure of the pavement epithelium of Utricularia biflora. Amer. Journ. Bot. (5) 61, 65 Supp., 1974.

The utricle door and pavement epithelium of this organism was investigated to determine the origin of the membranous velum and its relationship to the trap door.

Williams, Stephen E., Pickard, B.G.: Connections and Barriers between cells of Drosera tentacles in relation to their electrophysiology. Planta (Berl.) Vol. 116, 1-16, 1974.

The physiology of the tentacle of Drosera capensis was studied which showed that the head consists of a secretory cap that secretes mucilage, an inner layer called the endodermoid layer and a core of xylem in the innermost structure. The stalk that supports the head consists of a layer of outer stalk cells, a layer of inner stalk cells and finally the xylem of the stalk. The authors show that tiny fibers called plasmodesmata unite different cells in the head and stalk which permits the electronic spread of receptor potentials and action potentials between cells.

Pietropaolo, James and Patricia: The World of Carnivorous Plants. R.J. Stoneridge Co., 128 pages, 1974. (Available directly from the author at 4646 Emerson Road, Canandaigua, NY 14424. Cost: \$5.95 plus 35¢ postage US surface)

This soft cover book contains about 60 black and white photos of many US carnivorous plants and a few foreign species; there are some color photos on the covers. The text concentrates mainly on culture and propagation, and there is a long introductory chapter summarizing some of the myths and stories of carnivorous plants which has historical interest. There are many photos of the comparative effects of different growing techniques.