

plants. I thought it was especially interesting to see heliamphoras and nepenthes, so coveted here, being sold by the hundreds to die. But he always has his parent plants so nothing is really lost since production is strictly commercial.

After some business matter discussion, the plant auction took place and was very successful. Plants donated by attendees were sold with precedes going towards next year's meeting.

The 1995 southeastern meeting will be hosted by Larry Mellichamp at the University of North Carolina in Charlotte, the dates being 22-24 September 1995. Mailings will be sent well ahead, and we look forward to seeing everyone again next year! Remember that the meeting is open to anyone in the CP world.

BYBLIS - A BOTANICAL PROBLEM ONCE AGAIN

by Miloslav Studnicka,
Botanic Gardens, Purkynova 1,
460 01 Liberec, Czech Republic

More attention is being given to this genus at present time, because very interesting and major differences among various populations of the species *Byblis liniflora* have been claimed (Meyers-Rice 1993). For instance, I can confirm the statement, that *B. liniflora* subsp. *occidentalis* Conran et Lowrie is autosterile. The mechanism of autogamy, which can be observed in the typical *B. liniflora* (fig. 1), does not work in the subspecies *occidentalis*.

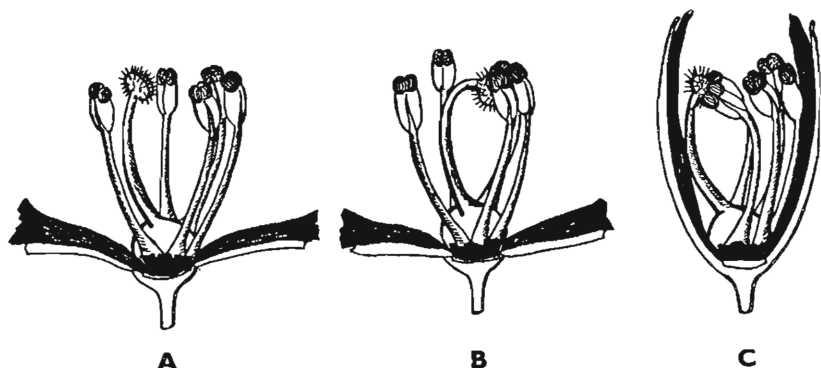


Fig. 1.- Pollination in typical *Byblis liniflora*. A - a freshly opened flower in the morning, B - a moment of autogamy in the afternoon, C - autogamy inside a flower-bud, if weather is unfavourable (cleistogamy). Notice the different function of stamens in B and C.

The genus has been fairly intensively studied previously because its systematic position had been uncertain. It has been placed in the families Pittosporaceae, Droseraceae, and or Lentibulariaceae (Lecoufle 1990: 86). Bearing sympetalous and at least suggestively zygomorphic flowers, *Byblis* can be related to the last family. An important article has been published supporting the idea. Research data on embryo sacs, ovules, and glands in *Byblis gigantea* indicate that *Byblis* could be a primitive ancestor of Lentibulariaceae (Lang 1901). A Czech botanist Prof. Karol Domin (of the Charles University in Prague) has studied particular characters of *Byblis* and

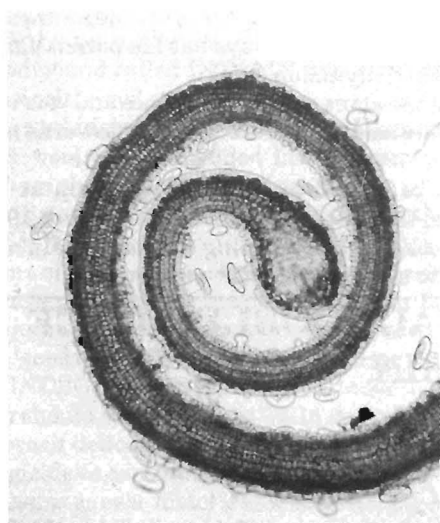


Fig. 2.- An enlarged tip of a growing leaf of *Byblis liniflora*, equipped with fully developed sessile & stalked secretory glands.

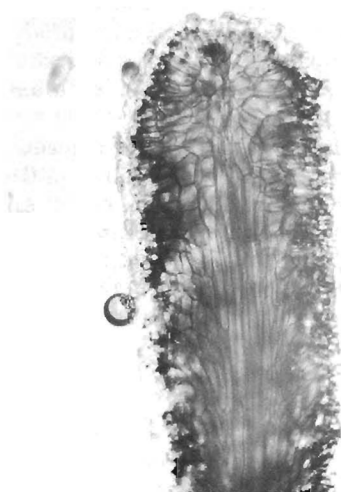


Fig. 3.- A lengthwise section of a leaf tip in *Byblis gigantea* with numerous tracheids.

subsequently he established the generally accepted family Byblidaceae (Domin 1922).

Physiology of *Byblis* seems be less interesting than phylogeny and taxonomy. In spite of this, let me discuss a function of a very remarkable organ in *Byblis*. It is a leaf tip which has similar morphology and anatomy in both species of *Byblis* (fig. 2 and 3). The leaf tips are club-shaped and they are equipped with large stalked glands, sessile glands and stomata. Inside there are numerous tracheids, which are linked to vascular bundles of the leaf (fig. 4). Meristem (an actively growing primary tissue region) is inserted between differentiated tissues of the tip and the mature part of the leaf (fig. 5). It is so-called intercalary meristem. What special functions are performed by the

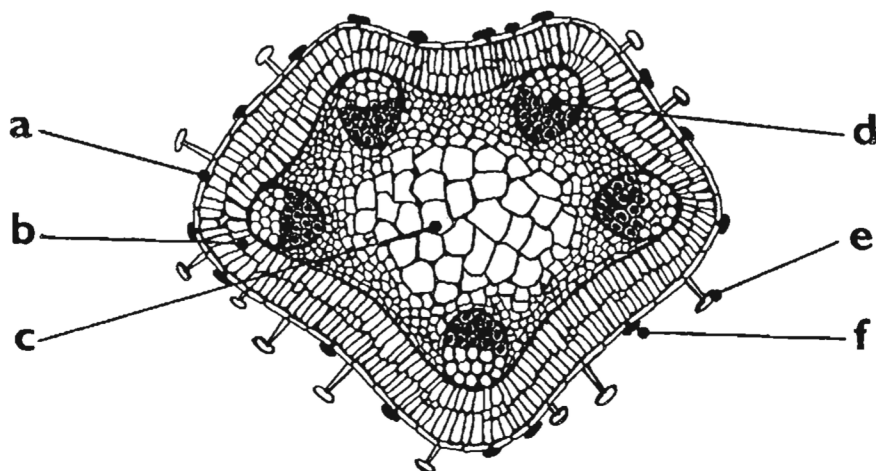


Fig. 4.- Vascular system of a leaf of *Byblis gigantea* (a transverse section). a - epidermis, b - green parenchyma, c - water-storage tissue, d - vascular bundle, e - stalked gland, f - sessile gland. (Drawings 1 and 4 by Regina Novotna.)

described leaf tips? It stands to reason that they take part in the water regime of the plant. The leaf tip is an organ established to maximize water vapour or discharge (Lang 1901).

According to my hypothesis, the leaf tip supports transpiration so that above all the growing meristem is substantially fed. Gardeners leave a so-called "shoot of drought" in grafted trees for the same purpose (fig. 5). This is a logical explanation, but an experimental proof is required.

Literature

Domin K. (1922): Byblidaceae, a new archichlamydeous family.- Acta Bot. Bohem., Prague, 1: 3-4.

Lang F. X. (1901): Untersuchungen über Morphologie, Anatomic und Samenentwicklung von Polypompholyx und Byblis.- Flora, Marburg, 88: 149-206.

Lecoufle M. (1990): Carnivorous Plants.- London.

Meyers-Rice B. (1993): Byblis - notes on forms new to cultivation. Carniv. Pl. Newslett., Fullerton, 22: 39-40.

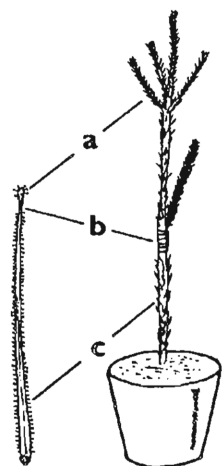


Fig. 5.- Analogy between functions of the leaf tip in *Byblis gigantea* and the "shoot of drought" in a grafted fir tree. a - water expelling apices, b - areas of actively growing tissue, c - mature basal parts. Both apices support transport of nutrient solution to growing tissues by means of expelling water by transpiration.

THE LIMONIUM PEREGRINUM OF CAROLUS CLUSIUS

Martin Cheek and Malcolm Young
Herbarium, Royal Botanic Gardens, Kew,
Richmond, Surrey, TW9 3AE, U.K.

5 Normington Close,
Leigham Court Road,
London SW16 2QS, U.K.

The history of the introduction of *Sarracenia* from North America to Europe has been examined by J.D. Hooker (1874: 484; 1875: 6) who is followed by Lloyd (1942: 18), Slack (1979:26,46) and Juniper *et al.* (1989: 14). All are agreed that the first description and plate to be published were by Clusius (as *Limonium peregrinum*/congener, 1601:lxxxij), apart from the illustration of *S. minor* Walt. by L'Obel in his *Nova Stirpium Adversaria* (1576). Slack (1979:49) and Cheek (1994) show that the work of Clusius concerns the northern subspecies of the most widespread species, that is, *Sarracenia purpurea* L. subsp. *purpurea*, as was first pointed out by Wherry (1933: 5).

In order to conserve existing usage of nomenclature for the subspecies of *S. purpurea* (Cheek, 1994; Cheek *et al.*, in press), the plate of Clusius has been proposed as the new nomenclatural type of the species, and incidentally that of the genus *Sarracenia* L. and the family Sarraceniaceae.

Since the plate and text of Clusius are thus not without interest, and since it has not been possible to trace any reproduction or translation of this text or plate other than the original, they are presented below, together with some biographical notes on Clusius. For the sake of exactness, our translation is as literal as possible. This has resulted in some quaint sentences but should give the reader a flavour of the original. The plate around which the original text was arranged is reproduced in Fig. 1.