CARNIVOROUS PLANTS IN IRELAND

1. NATIVE SPECIES

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An island, set on the western fringe of Europe, with an impoverished native flora of about twelve hundred species, may not seem too propitious a place for an interesting carnivorous flora. But, with a mild and equable climate due to the ameliorating influence of the North Atlantic Ocean, and a thick blanket of acid peat covering about 17% of the land surface, Ireland does harbour a diverse group of insectivores, representatives of three genera. These plants provide botanists with interesting geographical problems, and the historical associations of the carnivorous plants are also worth recording.

The earliest published records of native Irish plants appeared in Theatrum botanicum, published at London in 1640 by the English herbalist, John Parkinson. He noted two plants, the strawberry tree (Arbutus unedo) and a sundew which had been sent to him by an Irish apothecary, Zanchie Sylliard. We cannot be certain which species of sundew Parkinson received, but it was most probably Drosera angelica. The publication of this record provoked a correction ten years later, when the Rev. Richard Heaton, retorted that "I gave some of the plant to Zanchie Sylliard, Apothecary of Dublin, which he sent to Mr. Parkinson, who in his description mentions the said Zanchie as if he had found it" (How, 1650). Heaton, an English priest who arrived in Ireland in 1633 (Walsh, 1978), provided several other first records of Irish species, but none of the others was carnivorous (Nelson, 1979).

Richard Heaton described his sundew thus: "Long-leaved Rosa Solis... the leaves are above a span long" - a span is reckoned to be about nine inches—and he found it "... plentifully in a Bogge by Edenderry," which is a small town in the centre of Ireland. surrounded by extensive peatlands. The only Drosera species in Ireland with leaves approaching this size is D. anglica, which is not as common in Ireland as D. rotundifolia. D. anglica is most frequent in the western part of the island, whereas D. rotundifolia can be found throughout Ireland in suitable habitats. The third native species is D. intermedia, and like D. anglica, this has a predominently western distribution pattern. A fourth taxon is also recorded in Ireland, D. x oboyata, the natural hybrid between D. rotundifolia and D. anglica.

All the Irish sundews are restricted to acidic, peaty habitats, and although commercial exploitation of peat is extensive, none of the species is endangered as there are many small peat bogs that cannot be used for peat cutting. Peat or turf is still dug by hand, and the sods, once dried, provide winter fuel for many people - until the discovery of natural gas offshore this was Ireland's only natural fuel source apart from a very small coal reserve. In the pools left by peat cutting, it is not unusual to find bladderworts. There are four species of *Utricularia* recorded from Ireland, and they all inhabit the pools of acid water associated with the peat lands.

The bladderworts are not conspicuous plants, even when in flower, and many amateur naturalists may not realize what these "pond weeds" are. The native species are Utricularia vulgaris, U. neglecta, U. minor and U. intermedia. U. vulgaris is not common in the centre and west of Ireland, but is frequent in the south. The other species tend to be more common in the west, but these trends reflect the distribution of suitable habitats rather than the ecology of separate species.

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Pinguicula grandiflora photographed near Laragh, County Kerry, in June 1985.



Pinguicula vulgaris photographed in County Fermanagh June 1985; growing in wet flush in the foothills of Cuilcagh Mountain.



Pinguicula vulgaris photographed in County Fermanagh June 1985; growing in wet flush in the foothills of Cuilagh Mountain.



Drosera intermedia growing near Clifden, County Galway in the west of Ireland.



Sarracenia purpurea at Termonbarry, County Roscommon, photographed in July 1982.

Photos by E.C. Nelson

Neither *Drosera* nor *Utricularia* are particularly conspicuous members of the native flora - to be sure, sundews are abundant on the peatlands, but they never form a floral spectacle. Nor, indeed, do the genera excite interest among plant geographers. But, the butterworts do provide one of the finest of Ireland's flowering plants and there is considerable interest in the extraordinary distribution pattern of this one spectacular plant.

Three species of butterwort occur in Ireland, Pinguicula lusitanica, P. vulgaris and P. grandiflora. The tiny, pale-flowered, grey leaved P. lusitanica is so small that it is often overlooked. It grows mainly in the west of Ireland in habitats which are not so impoverished as the peat bogs, for example, in wet flushes on hillsides where the water trickling down the rocks contains some dissolved mineral salts. In Britain, this species occurs only in the southwest and in the northwest of Scotland; it is often characterized as a member of the "Arctic" element of the flora. More abundant and more easily seen is P. vulgaris, the common butterwort, which has elegant purple flowers, like a small violet. I remember this plant very well, for I was shown it on the very first botanical trip that I ever made, when my parents brought me on an excursion organized by the local field naturalists' club. I must have been a lad of about seven. We went to an abandoned quarry in the hills of County Fermanagh, near my home, and on the quarry floor, where brown mineral-rich water was oozing from cracks in the rocks. were hundreds of the butter-green rosettes of a strange plant that ate flies! I still enjoy finding P. vulgaris, and admiring its rosettes and three-lipped flowers. Like P. lusitanica, it prefers a moist, mineral-enriched habitat and does not grow on the unadulterated peatlands.

But the glory of the Irish flora is the greater butterwort, *P. grandiflora*, often called the Kerry butterwort because it is so abundant in that far southwestern county. Its home is the mountainous region around the famous lakes of Killarney, but it also occurs in very small numbers in the Burren

in County Clare. Outside Ireland it grows in the mountains of southwestern France and in moist habitats in the Iberian Peninsula. With the strawberry tree (Arbutus unedo), Irish spurge (Euphorbia hyberna), a clutch of Saxifraga species, and several heathers, among other plants, the Kerry butterwort forms the "Lusitanian" element of the Irish flora. This is characterized by species that are intolerant of frequent and severe frosts, and thus the plants have a distinctive distribution pattern, being generally restricted to the western and southwestern parts of Ireland. Some of the species mentioned, but not P. grandiflora, also occur as native plants in southwestern England.

In Ireland, P. grandiflora is abundant where it finds a suitable habitat. I have seen it growing like a weed on damp, shady roadsides and on the moorlands and mountain ridges above Killarney. It tends to occur where there is mineral enrichment, but will colonize areas of blanket peat.

The Kerry butterwort has large, deep blue flowers - the gems of the Irish summer. The colour has to be seen to be fully appreciated. The lower lip of the flower is not three-lobed as in P. vulgaris whose flowers are about half the size of the Kerry butterwort. Pink-flowered forms of P. grandiflora have been reported from Ireland, and Reginald Scully, author of the The Flora of County Kerry (1916) also reported that "forms with pure white flowers are, however, occasionally seen and have been gathered in the Gap of Dunloe by Lady Godfrey and on the east side of Caragh Lake by Capt. Creaghe-Howard . . . "This white form is not recorded elsewhere, nor is it in cultivation, and should anyone find such a plant, it should be left alone in its peaty home to flower undisturbed.

Lastly, P. grandiflora and P. vulgaris occasionally grow side by side and they then may hybridize. The hybrid, with flowers intermediate in size and shape between the parents, have been named P. x scullyi, after the author of the county flora.

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WANT ADS

When submitting Want Ads, please be sure to print clearly for best results and to eliminate mistakes. Please circle the correct letter before each item (Want, Trade, Sell or Buy). Want ads are limited to carnivorous plants, terrariums, greenhouses and moss. There is a charge of ten cents per item, with no limit to the number of items you may submit per issue.

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Matthew Hochberg (5500 Fieldston Road, Bronx, New York 10471) (WTB) Any South American Drosera except intermedia, capillaris, montana and villosa "Ascendens"), Any South African Drosera (except capensis and aliciae including unnamed species), Unusual or rare Drosera species, Drosera hybrids, Drosera linearis, Drosera falconeri; Any Heliamphora (except minor): (W) overseas and demostic correspondence.

Lee's Botanical Gardens (12731 SW 14th St., Miami, FL 33184) B-S-T all varieties of Carnivorous plants. List free. S-N.x excellens \$10. ea., N. sanguinea \$35. ea., S. flava var. atropurpurea \$12. ea.

David Pillars (122 Nelson St., Hastings, MI 49058) (W) Any species of *Heliamphora*, seeds and established plants. Send me your price.

Jim Scott (1375W. 1000 North Markle, IN 46770) (B) plants or seeds of the following: D. anglica, D. linearis, D. brevifolia, D. filiformis, D. filiformis tracyi; P. villosa, P. pumila, P. vulgaris, P. lutea, P. caerulea, P. planifolia P. primuliflora, P. grandiflora; S. rubra jonesii, S. oreophila, S. minor (giant), S. flava (red splotch on the id column), S. flava (green lid, red tube), S. flava (all red form), S. flava (heavy veined), S. purpureaf. heterophylla. Send me your price.

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Those are the native carnivorous plants, but Ireland now is the home of an exotic alien, Sarracenia purpurea, and at least one other American carnivore, Darlingtonia californica, will grow out-of-doors without protection.

REFERENCES

[How, W.] 1650. Phytologia Britannica... London.

Nelson, E.C. 1979. Records of the Irish flora published before 1726. Bull. Irish Biogeog. Soc. 3:51-74.

Walsh, L. 1978. Richard Heaton of Ballyskenagh. Roscrea.

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