SOME NOTES ON THE FLORA OF LIMERICK.

By R. A. PHILLIPS.

Being located in Limerick during the Summer of 1904, I had, in the course of a few afternoon and evening rambles, opportunities of botanizing in a district quite new to me, the flora of which, from the fact that it includes both the tidal and higher waters of the river Shannon and its limestone basin, presents a collection of aquatic and calcicole plants unsurpassed for interest in any other part of Ireland.

During these rambles the river had most attraction, and I seldom strayed far from its banks, which I was able to explore fairly well both above and below the city, and also in the neighbourhood of Castle-connell and Doonass.

The district has been well worked by members of the Limerick Field Club and others during recent years, and I was pleased to meet with many of its rarer plants already recorded in "Irish Topographical Botany" and elsewhere, as well as several species and varieties not yet recorded.

The flora as a whole seems similar to that which prevails throughout the central parts of Ireland, but presents marked contrasts to that of other southern districts where the country is more hilly, watered by comparatively small rivers, and the chief rock formations are noncalcareous, and is characterized by the peculiar abundance of certain plants which are absent or very rare elsewhere.

One of the most interesting areas in the whole district is that comprised within a radius of about two miles from the centre of the city, and there may be found a large number of the most characteristic Limerick plants. Of these I can here notice only a few of the more remarkable, chief among them being the Triangular Club-rush, *Scirpus triqueter*, discovered by Mr. R. D. O'Brien in 1900, but found nowhere else in Ireland, and in Great Britain confined to the Thames, the Arun and the Tamar rivers; it grows for miles along the Shannon from King's Island to Cratloe Creek, forming the outer fringe of vegetation along the muddy banks. In similar situations, though higher up, the typical form

of the English Scurvy-grass, Cochlearia anglica, as well as its variety C. Hortii, whitens with its flowers the river edges, and with it grows the Creeping Yellow Water-cress, Nasturtium sylvestre, elsewhere found only sparingly on the banks of a few rivers in south-east Ireland. River Sedge, Carex riparia, is, I believe, nowhere else in Ireland so abundant as along the Shannon marshes, where its sea-green foliage and brown flower-heads form quite a feature in the landscape. Another plant more plentiful here than elsewhere, is the Crow Garlic, Allium vineale, which in other places usually occurs very sparingly, but about Limerick both north and south of the city covers many acres of the meadow land on both sides of the river, quite taking the place of grass during the first three months of the year. But the loveliest denizen of our tidal marshes is the Summer Snowflake, Leucojum æstivum, another of Mr. O'Brien's discoveries, which is frequent and sometimes abundant by the banks and in the creeks and estuaries along the Shannon and some of its tributaries, its green-tipped snow-white flowers showing in perfection during the month of May, as illustrated in the beautiful photograph taken by Dr. George Fogerty near the mouth of the Ballinacurra creek. (1) The Flowering Rush, Butomus umbellatus, is another very beautiful tenant of watery places, its umbels of rose-red blossoms springing from ditches and drains, particularly in the neighbourhood of King's Island and Corbally. Everywhere along the river sides the handsome Yellow Loose-strife, Lysimachia vulgaris is to be seen in July, and higher up, towards Plassy, the Broad-leaved Water Parsnip, Sium latifolium, so rare elsewhere in Ireland, occurs occasionally.

Among other plants, less conspicuous though not less interesting, to be found in the city district, may be mentioned,—in the river the Pondweeds, Potamogeton densus, P. lucens, P. heterophyllus and P. per/oliatus, and in the canal, which, with the ditches near it, possesses quite a distinct group of its own, the Water Crowfoots, Ranunculus circinatus, and R. trichophyllus; the Arrowhead, Sagittaria Sagittifolia; the Least Spike-rush, Eleocharis acicularis; Tolypella glomerata, and the four Duckweeds, Lemna minor, L. trisulca, L. polyrrhiza and L. gibba, the last two being very rare in Ireland. In the Shannon fields just beyond the canal the rare hybrid grass Festuca loliacea grows with its parents F. pratensis and Lolium perenne, and the Meadow Barley, Hordeum secalinum is plentiful.

⁽¹⁾ Frontispiece.

On the river bank to the north of the city two rare plants hitherto found only in the north of Ireland may be seen, they are *Polygonum mite* and *Carex aquatilis* var. virescens.

Before leaving the neighbourhood of the city a few words must be said about its alien flora which in certain spots is exceedingly rich and consists of species some of which, like the Wallflower that in May brightens our old walls and ruins, are well established and likely to remain permanent members of the flora; while others are merely casuals, such being the numerous annuals, apparently from all ends of the earth, that appear for a season or two in disused quarries and waste ground where the city rubbish and ballast are deposited, making these places look more like gay botanic gardens than the dumping ground for refuse that they are. Among the most interesting of these aliens may be mentioned Lepidium latifolium, found elsewhere only in Co. Cork, and an Aster whose identity I have not yet been able to discover which is well established in some places by the river near Lansdowne. following casuals in addition to those recorded by other botanists were found by me in the Carey's Road quarry-Clarkia concinna and Silia capitata, natives of California; Bromus unioloides from South America; Matricaria occidentalis from North America; the Chick Pea, Cicer arietinum of South Europe and Egypt; Malcolmia africanus, Silene conica, Medicago apiculata, Camelina sativa, Sisymbrium orientale, S. panonicum, Bromus secalinus, Anthemis arvensis, Carum carvi, Cynosurus echinatus, and others that I have, so far, been unable to get named.

Space will not permit me to enumerate all the plants to be found in the suburban districts of Limerick, and the foregoing notes refer to species more or less uncommon mostly of special interest to the botanist only, but even the most casual observer cannot fail to be struck by the beauty, variety and abundance of bloom which appears, particularly along the river embankments, in monthly succession from early spring to autumn.

At Castleconnell and Doonass, by the river and in its rocky bed, we have outlying stations for the Marsh Stitchwort, Stellaria palustris; Buckthorn, Rhamnus catharticus; Stone Bramble, Rubus saxatılis; Northern Bedstraw, Galium boreale; and Water Germander, Teucrium scordium, all characteristic Shannon lake plants; and here also we find

the rather rare and handsome sedges, Carex Hudsonii and C. stricta, and, in the water, the Bright-leaved Pondweed, Potamogeton nitens and various species of Chara in great masses.

The bogs near Castleconnell yield many things of interest, including two Sundews, *Drosera rotundifolia* and *D. anglica*; Lesser Bladderwort, *Utricularia minor*; Dog Violet, *Viola canina*; *Andromeda polifolia*; *Carex pallescens*; and the Lesser Broad Fern, *Lastrea spinulosa*.

A few short excursions to various "beauty spots" in other districts resulted in the finding of several rare species, some of them not yet recorded for the county. For instance, in the glen at Glenstal was gathered Lynohnis diurna, Saxifraga granulata, and the large handsome grass Festuca sylvatica; at Adare, in the course of a short walk was found Hieraciuno murorum, Crepis biennis and Poa nemoralis; and in the course of a drive with Mr. R. D. O'Brien to Rinekirk, at the mouth of the Maigue, we met with giant specimens of Nasturtium officinale var. siifolium and Geranium pyrenaicum.

The fact that these very brief visits were the means of adding new species shows that the flora of Limerick is not yet fully worked, and that in all directions many interesting botanical discoveries remain for members of the Limerick Field Club.