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THE FLORA OF THE ARAN ISLANDS[1]

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Abstract

The floristic results are presented of a number of expeditions to the Aran Islands made during the years 1969-1976 by the author and by Professor Moore, Mr. White and other members of the Botany Department of University College, Dublin, and a few other helpers. They are critically compared with the results obtained by nineteenth-century explorers of the islands; the numerous discrepancies are analysed and to some extent explained. The flora of today amounts to 437 species (excluding apomicts), of which 78 represent new and hitherto unpublished records. Of the nineteenth-century records 93 could not be confirmed. Of these 36 are believed to have become extinct since 1895 (all but four being aliens which never became permanently naturalized), 12 may well have been overlooked in the recent visits, and 45 are believed to have been recorded in error. The problem presented by records of a large number of calcifuge species on this exclusively calcareous terrain is discussed in detail.

Introduction

The Aran Islands attracted a good deal of attention from botanists during the nineteenth century, and several of the more interesting plants of the Burren were recorded from Aran before they were found on the mainland. Praeger's visit of 1895 was, however, followed by a period of almost sixty years in which I can find no trace of plants collected or recorded, save for a visit by the Swedish botanist Degelius, who visited Inishmore in 1933, solely, it would seem, to collect fruits of *Taraxacum spp.* (Haglund 1935). In 1953

Miss B. Salkeld, then on the staff of the National Museum, collected a few plants while on holiday on Inishmore, and in 1955-6 two lists were contributed by visiting English amateurs towards the data used in the production of the *Atlas* of *the Distribution* of *British Plants* (Perring and Walters 1962), hereinafter referred to as the *Atlas.*

As the islands are, physiographically and botanically, an extension of the Burren, it was clearly desirable that they should be re-explored for the projected *Flora* of *Connemara and the Burren.* Fortunately, just at the time I became conscious of this need, Professor Moore had the enterprise to organize a number of excursions to the islands by members of the Botany Department of University College, Dublin. These were primarily field-courses for the education of students, but he and members of his staff kindly offered to fill up some cards of the pattern which were used in collecting data for the Flora, and these were in due course sent on to me, ten from Inishmore and three, together with some fragmentary lists, from Inisheer. As a byproduct of the interest aroused by these visits I also received five cards from Inishmaan, compiled by Mr J. White and four students, and some short lists from Inishmore and Inishmaan made by Mr C. Breen. Between them their lists provided some valuable confirmation (or in other cases some interesting lack of confirmation) for old records; they also added substantially to the number of plants known from Aran. Some problems and anomalies in the lists prompted me to visit Aran myself, and I spent four days on Inishmore in 1972, followed by two days in 1973. And hearing that Mr R. Goodwillie was going to Inishmaan on holiday in 1974 I gave him a list of records requiring confirmation; in a number of cases he was able to provide this, and he also added some novelties, and a few more in 1976.

By this time our record of the Aran flora was a complicated palimpsest, and I decided that a synthesis and comparison of all the lists was needed. At an early stage I was struck with the great

[1] David Webb published a set of Additions and Corrections in the Irish Naturalist Journal vol 20 p.451 in 1982. The particulars are added as footnotes here. n.b. footnote 2 was the only footnote in the original paper.

disparity between the different lists. It would be an exaggeration to say that each visitor came back with a different set of records, but a few genera give almost that impression. Take, for example, *Equisetum.* In the turlough-like marsh southwest of Kilronan (referred to below as Turloughmore) Hart recorded *E. hyemale* with some doubt. Colgan decided that the plant was *E. arvense.* Praeger confirmed *E. arvense,* but found also *E. variegatum.* The only species recorded for the island by the *Atlas* recorders were *E. fluviatile* and *E. palustre.* The latter was confirmed for Turloughmore by the UCD party, who recorded no other species; I, on the other hand, saw only *E. arvense.*

This is surely rather disquieting. The case of *Juncus* is almost as bad. Nine species have been recorded, but I am forced to reject two as errors; two others, which are extremely common, were passed over in silence by the earlier visitors, and three, admittedly rather rare, were not recorded till 1976.

Plants, of course, come and go; they may be introduced or become extinct; some species can lie dormant for years; nomenclatural confusion can give apparent new records; and even the most careful searcher misses something, especially on Aran. But there is another reason for discrepancies which, by a gentlemanly convention, is usually ignored: botanists, even the most eminent, can make mistakes. They can make *lapsus calami* when tired or interrupted; they can sort dried specimens into the wrong pile; they can rely too long on memory for localities; they can take too much on trust from inexperienced companions; and they can, from laziness, carelessness or ignorance, make wrong identifications. I know that I have erred myself in all these respects, not often but occasionally, and knowing this I feel less diffidence in assuming such errors on the part of others. Moreover, Aran presents an environment favourable to error, for there are difficulties of transport, accommodation and exploration. Most visitors, especially to the two smaller islands, are hurried; nowhere is there accommodation conducive to leisurely and critical examination of specimens; and the frequency and height of the stone walls, especially on the smaller islands, makes it very difficult to explore any area thoroughly. And if this is true today, how much more a century ago. A *cri de coeur* by Wright in 1866 is worth quoting: '. . . the only choice of light between a farthing dip candle of the worst description . . . and a slender cotton thread floating in a saucer of fish-oil. ' To the man who attempts to identify diatoms under these conditions much may be forgiven.

I began to write up this paper with the discrepancies which I have mentioned before me, but they weighed on me so heavily that I decided that a final search of all three islands should be made, with the doubtful and unconfirmed species as the primary objective. Mr White kindly agreed to accompany me, and we visited Inisheer and Inishmaan in early July of 1976, together with C. Roden and C. Moore, and Inishmore two months later, together with a small party organized by the Irish branch of the BSBI.

These visits solved a fair number of problems, but a good many discrepancies in the records remained. For this reason I have sifted them very carefully, weighing for each species positive against negative evidence, the latter including lack of corroboration, obvious mistakes in the same list, critical nature of the species concerned, and ecological improbability. The last is of some importance, as a surprisingly large number of the records refer to species normally reckoned as calcifuge, whereas the environment is almost entirely calcareous. This problem is discussed further below.

I have therefore accepted as definitive records only those attested by two independent observers (not necessarily from the same island) or else backed by a voucher specimen which I have seen. This rule has been varied on a very few occasions in both directions; in a few cases I have admitted a plausible record, even if unconfirmed, for a species which is more or less unmistakable, or for an alien (where an error would do relatively little harm); in a few others I have excluded a species, even if reported by two observers, if it is ecologically unlikely and has been searched for subsequently in vain. I have no doubt that the application of this rule has excluded a few true, and perhaps interesting records, but I think it better to run this risk than to give currency to errors. The gaps can be filled by the next diligent visitor to Aran, but errors are likely to persist in the literature for a century. I have applied the rule to my own findings as well as those of others, and have excluded two species which I am morally certain occur in Aran because I have neither confirmation nor a voucher. Vouchers for most of the rare or critical species will be found in the National herbarium (**DBN**) or the Herbarium of Trinity College (**TCD**).

Nineteenth-century records

The early visitors to Aran recorded individual species which caught their fancy, but made no attempt at comprehensive lists. We find, accordingly, that Lhwyd (1712), Mackay (1806, 1825), Ball (1839), Andrews (1845), Ogilby (1845), Oliver (1851, 1852), Balfour (1853) and David Moore (1854), are jointly responsible (after deducting 9 species almost certainly recorded in error) for 54 records, of which all but one have since been confirmed. Most of the interesting species are included in, these early lists, e. g. *Gentiana verna, Astragalus danicus, Adiantum capillus-veneris, Minuartia verna.*

The list published by Wright (1867), following his visit in August, 1866, marks a new departure, as he claims that it is 'a list of all, or nearly all, the species to be met with in the month of August. ' It contains 159 species, of which 34 had already been recorded. Of his 125 novelties all but 4 have since been confirmed; *Ranunculus lingua* and *Lotus uliginosus* are probably errors; *Artemisia absinthium* soon became extinct, and *Sagina subulata* may very probably still be there, awaiting detection. But Wright's list, although it marks substantial progress, is a curious document. It contains no ferns, grasses or sedges; indeed there are only 7 monocotyledons, of which 5 are orchids. And even among the dicotyledons the absence of such extremely common species as *Anthyllis vulneraria, Rumex acetosa* and *Linum catharticum is* hard to explain.

Next came Hart, who spent a fortnight on the islands in 1869; his list (Hart 1875) is the fullest that has yet been published. He recorded 372 species in all; 17, however, were included on the authority of earlier visitors and were not seen by him. Deducting 10 more for taxa not now given specific rank and for aggregate names of uncertain application, we are left with 345. Of these 161 were confirmations of earlier records and 184 were new. The last figure may in its turn be divided into 154 which have since been confirmed, 15 (mainly weeds and ruderals) probably correctly recorded but now extinct, 7 which probably await rediscovery, and 8 which I judge to be errors or at least unacceptable without confirmation. Hart may, therefore, be credited with 176 reliable new records, and thereby to have almost exactly doubled the known flora of the islands. He also was the first to give unambiguous data for the distribution of species between the three islands. His data indicated that of the total flora 94% were found on Inishmore, 71% on Inishmaan and 65% on Inisheer.

After an interval of 23 years three further visitors came in quick succession: Nowers and Wells in June, 1890, Colgan in May, 1891, and Praeger in July, 1895. Nowers and Wells (1892) published a short paper consisting mainly of new records. I can discover nothing about the authors; they seem to have been reasonably competent English amateurs, but like many English botanists visiting Ireland for the first time they are under suspicion of occasionally recording without critical examination species common in the south of England, but unknown in Connaught, or sometimes even in Ireland. Almost all their observations relate to Inishmore, only 2 species being recorded from the smaller islands. Excluding 3 transient casuals, they reported 37 species as new to the islands. Of these 25 have since been confirmed; 1 fails from uncertainty in the application of the name; 4, though not confirmed, may very probably still be there; 2 are thought to be short-lived introductions; and 5 are rejected as probable errors.

The paper by Colgan (1893) is an informal *causerie* without any attempt at systematic listing, but it gives useful confirmation of some earlier records and adds 3 species, all from Inishmaan. Finally, Praeger (1895a) spent three days on Inishmore in July, and combed it with his customary thoroughness. He mentions only rare or new species, 63 in all; of these 23 were new to Aran. 16 of his novelties have since been confirmed, 4 are aliens which have disappeared since his visit, 2 are likely to be there still but have not been found, and one requires confirmation before it can be accepted.

By 1895, therefore, the reliably recorded flora of the three islands amounted to 408 species, though it is unlikely that more than 400 of these were ever present at the same time, some of the earlier introductions having died out before the later ones appeared. Of the 408, 31 may be rated as certainly, 35 as probably and 27 as possibly introduced by man, leaving 315 as presumed natives.

Twentieth-century records

The only published records of the present century are those of Haglund (1935) of 5 microspecies of *Taraxacum* (2 of them new to science), and those appearing in the *Atlas.*

Dots in the *Atlas* have an ambiguous status as records; in one sense they are published, but they are not exactly comparable to a record expressed in words. There is no information as to habitat or to exact location, nor can the authority for the record be easily ascertained. Although, therefore, we draw attention to those species whose presence in the Aran Islands is first indicated by a dot in the *Atlas* we do not reckon them as formal 'records', and in this paper we include them (if confirmed) under the head of new records. All nineteenth-century records were, of course, included in the *Atlas*, but these were supplemented by two lists provided by recorders in 1955-6, during the general campaign to bring in as many recent field records as possible. One of these is a modest list of 64 species, of which I suspect only 2 as probable errors. The other has 265 species on it, but calls for great caution in its interpretation, as it contains many certain errors. The grosser of these (including a few species not hitherto recorded for Ireland) were 'edited out' in the preparation of the dot-maps, but there was not time to go through all such lists very critically and a number of almost indubitable errors got through the net. These recorders added to the Flora of the islands 15 species which there is no reason to doubt, but I feel compelled to reject 12 as errors, or, at the least as 'requiring confirmation'. Besides this, records for 4 species were attributed to Aran in the Atlas on account of editorial errors, and two more were based on herbarium sheets which I believe to have been mislabelled. All these are discussed in detail below.

I have amalgamated the two Atlas field-lists together, and I think it unnecessary to give the names of the recorders. They were amateurs doing their best in a co-operative enterprise, and I do not think that their mistakes should be publicly pilloried.

The remaining records included in this paper have not hitherto been published in any form. They derive from the visits, detailed below, of members of the Botany Department of University College, Dublin, of myself and some of my students, of Mr Roger Goodwillie, and of a small party composed of members of the Irish branch of the Botanical Society of the British Isles. The details of these visits may be summarized as follows:-

(1) May, 1966. Professor J. J. Moore and a group of his students and colleagues spent 2½ days on Inishmore. Species were recorded from 10 different localities; they numbered 344 in all, of which 12 were new to Aran.

(2) May, 1969. Another party from University College, again led by Moore, paid a hasty visit to Inisheer, spending about 5 hours on the island. Limited time and the difficulties of the terrain prevented the listing of more than 172 species, of which 3 were new to Aran; the lists, however, were of great value, providing the first twentieth-century records for Inisheer, and also as adding 23 new species to the flora of the island.

(3) July, 1969. Mr C. Breen compiled two lists from Inishmore, from stations not visited by the 1966 party, and two shorter ones from Inishmaan. 3 of his species were new to Aran.

(4) June, 1971. White and four students from University College spent four days on Inishmaan. Five lists were forwarded to me, containing 252 species in all, of which 12 were new to Aran and 58 new to Inishmaan.

(5) June, 1972. I spent four days on Inishmore with two of my students, and returned for a single day in August, 1973. The result of the two visits was a list of 352 species, of which 21 were new to Aran and 33 new to Inishmore.

(6) Goodwillie made some observations at my request while on holiday on Inishmaan in 1974, and again in 1976. He did not attempt complete lists, but checked various species which I had asked him to confirm, and also reported 4 species new to Aran and 28 new to Inishmaan.

(7) July, 1976. I visited Inishmaan and Inisheer with White and two others. We listed 16 species new to Aran, 33 new to Inishmaan and 63 new to Inisheer.

(8) A party of seven members of the BSBI (including White and myself) spent four or five days on Inishmore. We were handicapped by the effects of an exceptionally dry summer, but recorded 382 species. By this time the law of diminishing returns was beginning to operate, and only 7 were new to Aran, but the results provided valuable confirmation for several old records which were still in need of it. This expedition was greatly helped by Mr Tim Robinson, who lives on Inishmore and gave us

the benefit of his local knowledge; he also sent me several specimens in 1977-8 which helped to resolve some outstanding doubts.

The terrain

The Aran Islands have been so often described that it is not necessary to give more than the briefest summary here. They are situated so as to form a natural breakwater across the mouth of Galway Bay, and they receive the full force of the Atlantic gales. They have an extreme Atlantic climate, though owing to their low elevation (maximum height 108 m) they receive less rain than do the mountains of County Galway. Inishmore has an area of about 30. 1 sq. km, Inishmaan of 9. 1 sq. km and Inisheer of 4. 1 sq. km. All are composed of horizontally bedded carboniferous limestone, which weathers into terraces separated by cliffs from 2 to 10 m high. On the coast there are imposing vertical cliffs of up to 70 m in height. Something like 10% of each island is covered by glacial drift, which includes some erratics of Connemara granite but is mainly calcareous. This fraction supports normal pastureland of fair quality. There is also a little machair-like grassland at the back of the dunes on each island. Most of the surface, however, is occupied with bare limestone pavement, which for the most part carries a very scanty vegetation cover. This consists partly of plants rooted in the deep crevices which intersect the pavement, and partly of usually rather small sods of vegetation filling solution-hollows. Drainage is entirely karstic; there is nothing one can call a stream, but there are numerous small springs and seepage lines and a few fairly extensive marshes. Some of these flood and drain with sufficient frequency to be nearly comparable to the turloughs of the Burren. All the sizable lakes are very close to the coast and are therefore brackish. Shrubs and trees are very few; they are mostly kept down by the combined effects of wind and grazing to a height of less than a metre, but there are a few patches of fairly well-grown hazel-scrub on Inishmore. The islands are divided up into very small parcels of land by high stone walls, which makes thorough exploration very tedious and exhausting. Exploration has, however, been recently made easy by an excellent map (available locally and in Galway) by Mr Tim Robinson, which gives an up-to-date rendering of the numerous small lanes and tracks which traverse the islands.

The calcifuge flora

One of the puzzles of the nineteenth-century lists is the number of species normally regarded as calcifuge which were reported from this exclusively calcareous terrain, and in most cases reported without any comment or explanation. It is true that it was only during the latter part of the nineteenth century that the faithfulness of certain species to acid or to calcareous soils became widely recognized; but, although the words ‘calcicole’ and ‘calcifuge’ may have meant little to Hart, by 1895 Colgan and Praeger must have been conscious to some extent of their significance. But neither author says a word on the matter. The west of Ireland is, of course, anomalous with regard to the ecological preferences of some species, and one has to accustom oneself to seeing *Schoenus nigricans* sharing the Connemara blanket-bog with strictly calcifuge species, and to see *Calluna vulgaris* in the Burren with only a very thin layer of neutral peat separating it from the limestone. But the Burren can be used, as it were, as a control, and when a normally calcifuge species which does *not* grow on the Burren limestones or in its fens, lakes or turloughs, is reported from Aran then one feels entitled to demand a voucher specimen or independent confirmation. It is difficult to believe that a dozen or more species are combining to defy the general ecological rules in this one place.

What is remarkable about this list of calcifuge species is that those which were confirmed in our visits of 1971-6 are, almost without exception, those that *do* occur in the Burren, and which cannot, therefore, be considered strictly calcifuge within a western Irish context. These comprise *Pteridium aquilinum, Stellaria alsine, Chrysosplenium oppositifolium, Umbilicus rupestris, Calluna vulgaris, Erica cinerea, Aira caryophyllea, A. praecox.* But what are we to make of the early records of *Ranunculus hederaceus, Viola palustris, Hypericum humifusum, Ulex gallii, Chrysanthemum segetum, Pedicularis sylvatica, Rumex acetosella, Agrostis canina, Stachys arvensis* and *Blechnum spicant* Many of these were reported from all three islands, and some by more than one observer, yet they are unknown on the Burren limestones, and not a trace of them can be found in Aran today. But, before we face this question, we must note that two ‘thorough’ calcifuges, which do not grow on the Burren limestones - *Athyrium filix-femina* and *Sedum anglicum* - have recently been seen on Aran and

that there are voucher specimens to back them. On the other hand two of the missing calcifuge species, recorded in the past but not seen recently, are relatively tolerant and occur, though rarely, in the Burren in habitats which can be paralleled on Aran; these are *Polygonum hydropiper* and *Filaginella uliginosa* (*Gnaphalium uliginosum*).

It is evident that our problem is partly about plants and partly about botanists. As for so many biological conundrums there is no single answer. Some of the early records of calcifuge species are plainly errors. For others this is very difficult to believe. But there is one historical factor which may, I think, be invoked to explain the former abundance and present absence of some at least of these calcifuge species. This is the fact that up till about thirty years ago there was a regular and considerable traffic in turf[2] shipped from Connemara to the islands. Not long after the end of the war this ceased, or at any rate shrank to a very small volume, the islanders being now dependent on bottled gas and coal for their fuel. A considerable number of seeds of peat-loving species must have come in with the turf, and the peaty debris lying around in the neighbourhood of the houses or the landing-places enabled them to persist. I am certain that this is the right explanation for *Rumex acetosella,* as it is virtually impossible to find anywhere in Ireland a site of a former turf-stack without finding this species dominant on the peaty debris left behind. With some other missing calcifuge species, such as *Ranunculus hederaceus,* this explanation is much less convincing, and between the two lies a graded series of species for which the reader must make up his own mind as to whether they are likely to be what I call long-term 'turf-casuals' or not.

Weeds and ruderals

A considerable proportion of the species recorded during the last century, but not now apparent, are plants of cultivated or waste ground, and their disappearance is more easily explained, as the frequency of most weeds and ruderals has declined greatly throughout Ireland since the beginning of this century. A few relatively recent imports, such as *Veronica persica* and *Chamomilla suaveolens* (*Matricaria matricarioides*), are ubiquitous, but they have achieved their success by ousting a number of competitors which were formerly widespread; for the rest, the decline of subsistence farming, the use of selective weed-killers and the improvement in screening seed is sufficient to explain the virtual disappearance from our flora of numerous weeds, of which few, if any, were originally native to the country. The decline in ruderals, though equally conspicuous, is not so readily explained; it has been discussed in relation to the flora of Inishbofin by Webb and Hodgson (1968). As regards Aran it must be accepted as part of a phenomenon which affects the whole country, even if the explanation is not very clear.

The floristic results

The net result of this floristic and literary investigation has been to show that the present flora of the islands amounts to some 437 species (excluding apomicts in *Rubus* and *Taraxacum*). *417* of these are recorded from Inishmore, 352 from Inishmaan and 289 from Inisheer. My estimates indicate that of the 437 species about 370 can be reckoned as native and 67 as introduced. 78 of the species on our lists had not been recorded in words before for Aran, though 17 were indicated in the *Atlas* as present there. Of our novelties we may reckon 53 as natives and 25 as introductions. Of the 78 novelties 63 were seen on Inishmore, 46 on Inishmaan and 34 on Inisheer. These figures are fairly well proportioned to the total floras of the three islands, but the fact that the smaller islands had been far less thoroughly explored is shown by the fact that, whereas we added only 69 species to the known flora of Inishmore, we added 119 to Inishmaan and 96 to Inisheer.

Of our 78 new species 20 may be fairly described as 'splits', that is to say segregates which were not recognized at specific rank by nineteenth-century workers; 58, however, have for long been recognized as species.

Of equal interest, however, is the list of species previously recorded. which we failed to find. These numbered ¯no fewer than 93, so that our deductions from the flora exceed our additions. They are analysed below into 12 which we may well have overlooked, 4 natives which have probably

[2] Readers from outside Ireland may need to be informed that this is the word universally used to denote peat cut for fuel.

become extinct, 32 aliens which were no more than long-term casuals and have now disappeared, and 45 which I believe to have been recorded in error, at any rate to require confirmation before they can be accepted.

The considerable instability which these figures reveal is due chiefly to two causes. Firstly, the aliens appear to have been waxing and waning at a greater rate than for any comparable area on the mainland. Secondly, the compilation of accurate and complete lists is made difficult not only by the nature of the accommodation and the terrain, but also by the fact that a surprisingly large number of native species are confined to very small populations. This may be illustrated by the fact that it was only on the last day of our final visit that we confirmed for the flora of Inishmore as conspicuous a plant as *Juncus effusus*, for it formed only a small patch among other species of the same genus.

In the lists which follow the order of species is based on Scannell and Synnott (1972). The names are those adopted by Webb (1977), and are, with only two or three exceptions, identical with those used in *Flora Europaea.* When these differ from the names used in Scannell and Synnott, or have been replaced by other, generally agreed names since the publication of *Flora Europaea*, or are for any other reason confusing or unfamiliar, appropriate synonyms have been added in italics. *, ‡ and † are used in their customary sense of certainly, probably and possibly introduced by man - meaning, of course, introduced to Aran, not to Ireland as a whole. Names in capitals are of plants which have not hitherto been recorded for the islands (except in a few cases as dots in the Atlas). The three islands are designated, following Hart, as N (north) for Inishmore, M (middle) for Inishmaan and S (south) for Inisheer. When the letter is set in bold type it means that the species had not been recorded before for that island; when it is set in lower case instead of capitals it means that we failed to confirm an old record for that island. Capital letters in italics indicate an old record which we confirmed.

Place-names are used for Inishmore alone, and follow the ½-inch Ordnance Surve; map, except that Oortnagapple (surely a long persisting misprint) has been changed to Gortnagapple. One name not on the map has been used: this is Turloughmore, by which I designate a large area of marsh (scarcely a turlough in the usual sense of the word) situated 1-1½ km to the southwest of Kilronan.

The agreed flora of today

PTERIDOPHITES

EQUISETUM FLUVIATILE. **N**. Filling a small ditch by Pollnagapple. First recorded in the Atlas. The hybrid with *E. arvense* (*E.* x *litorale*) *was* seen in a *Salix viminalis* plantation close by.

E. PALUSTRE. **N**. Frequent at Oorgowla. First recorded in the Atlas.

E. arvense. *N* **M**. At Turloughmore and a few other wet places. Recorded from Inishmore by Colgan and Praeger.

OPHIOGLOSSUM VULGATUM. **N M**. First recorded by White for Inishmaan; rare on both islands.

Adiantum capillus-veneris. *N M S*. Locally abundant; much commoner than in the Burren. Mainly in crevices in the pavement, but seen growing unprotected in several places, on seepage-lines on inland cliffs, or round the edge of small turloughs.

Pteridium aquilinum. *N M S.* Abundant, as in the Burren, despite its general calcifuge tendency.

Asplenium marinum. *N M S.* Frequent. Above Blind Sound it grows some 55 m above sea-level.

A. trichomanes. *N M S.* Abundant.

A. adiantum-nigrum. *N M* s. Occasional on Inishmore, rare elsewhere.

A. ruta-muraria. *N M S.* Very frequent on the pavement.

Ceterach officinarum (*Asplenium ceterach L.*). *N M S.* Common on the two smaller islands; local and rather rare on Inishmore.

Phyllitis scolopendrium (*Asplenium scolopendrium L.*). *N M S.* Abundant everywhere.

ATHYRIUM FILIX-FEMINA. **N**. One large plant on pavement at Oorgowla (D. A. W. , 1972).

Polystichum setiferum. *N M.* On pavement, and at the base of inland cliffs. Recorded by Hart for Inishmaan, and by Praeger for Inishmore. It is rather peculiar that this species, rather than

P. aculeatum[3], should occur in Aran, for in the Burren the latter is frequent on pavement and the former, though it occurs, is much rarer.

Dryopteris filix-mas. *N* **M S**. Widespread, but always as isolated plants. Perhaps increasing.

D. PSEUDOMAS (*D. borreri*). **N**. Two isolated plants were seen W. of Kilronan in 1976; also recorded in the *Atlas.* Earlier workers would not have discriminated it from *D. filix-mas.*

POLYPODIUM AUSTRALE. **N M S**. Very frequent throughout. Many fronds are so stunted and wind-shrivelled that they are difficult to refer to a species. but in several cases a count of the annular cells confirmed the provisional diagnosis from leaf shape.

P. INTERJECTUM. **M**. A few plants were seen which, although there were no ripe sporangia, could be referred to this species with some confidence. It is, however, much rarer than *P. australe.*

GYMNOSPERMS

JUNIPERUS COMMUNIS. *N* **M** s. Abundant in a few places near the middle of Inishmore; rare elsewhere on the island and on Inishmaan. Colgan reported it as rare on Inisheer and threatened with extinction by its use as 'palm' on Palm Sunday; it seems to be extinct there now. All bushes are prostrate; Balfour originally recorded it as *J. nana* and Praeger (1895a) determined it as 'certainly *J. nana* and not *J. communis',* but later changed his mind (Praeger 1934). His second thoughts were right, but the initial mistake was pardonable since, as a result of extreme exposure, the leaves of many bushes are somewhat incurved.

DICOTYLEDONS

SALIX ATROCINEREA. **M S**. A few small bushes on the pavement.

†S. caprea. **S**. One small bush on pavement near the sea. Noted by Hart for Inishmore (Kilmurvy); there are several well-grown trees in a copse here, but all seem to have been planted. Hart made no consistent attempt to distinguish between planted, naturalized or native trees or shrubs, and we have ignored such of his records as seem to refer to planted specimens.

S. repens. *N M.* Occasional on the pavement.

*S. viminalis. *N M.* Planted for basket-making, and very sparingly naturalized.

Corylus avellana. *N M s.* Frequent on Inishmore, forming small patches of scrub in sheltered places; rare on Inishmaan, and apparently extinct on Inisheer.

*Humulus lupulus. *N.* Noted by Hart and Wright; we had thought it extinct, but Robinson reports it as surviving in small quantity at Killeany (1978).

‡Urtica dioica. *N M S.* Very frequent.

‡U. urens. *N M S.* Occasional to frequent in cultivated fields and gardens. This species has diminished greatly over most of Ireland since 1900, and persists mainly in remote regions with relatively primitive agriculture.

Parietaria diffusa. *N M S.* Abundant in a wide variety of habitats, including limestone pavement, maritime shingle, and under the lee of stone walls. We did not see it growing on a mortared wall.

Polygonum oxyspermum subsp. raii. *N M* **S**. Occasional on most of the sandy shores.

†P. aviculare. *N M S.* Occasional.

†P. ARENASTRUM. **N S**. Locally frequent on paths and roadsides.

P. MINUS. **N**. A few plants were found by Scannell in 1976 beside a swallow-hole at Turloughmore.

‡P. persicaria. *N M s.* Occasional as a weed around the villages, but rarer than in most parts of Ireland.

P. amphibium. *N M.* Portcowrugh and Oorgowla, and abundant by the lake on Inishmaan.

‡Fallopia convolvulus (*Bilderdykia convolvulus, Polygonum convolvulus*). *N M S.* Occasional.

Rumex acetosa. *N M S.* Abundant.

[3] *Polystichum aculeatum* has been reported to me from Inishmore by Henry Noltie of Dundee, one of the authors of the recent Flora of Angus. He found it there last May (1981). [Ir. Nat. J. 20:451].

‡R. crispus. *N* **M S**. Very frequent to abundant now, but not recorded by Wright or Hart, and recorded by Praeger merely as 'in several places' (on Inishmore). This suggests that, although it is undoubtedly native on stony beaches in much of Ireland, it may have been introduced to Aran about 100 years ago.

†R. conglomeratus. *N* **M S**. The only early record is by Wright.

‡R. sanguineus. *N* **M**. Occasional in lanes and at the base of inland cliffs. The first record is by Praeger, which again suggests the possibility of fairly recent introduction.

R. obtusifolius. *N M S.* Generally abundant, but apparently absent from the west end of Inishmore.

Beta vulgaris subsp. maritima. *N* **M S**. Frequent, though local, on Inishmore and Inisheer; rarer on Inishmaan.

Chenopodium rubrum. *N*. By the lagoon at Portcowrugh. First recorded by Praeger, who described it as a growing here 'in great abundance'. Only a few small plants were seen in 1976, but Robinson informed us that it had been much more abundant in 1975. Such variation from year to year is common in this species.

‡C. album. *N m S.* Occasional in potato-fields.

ATRIPLEX LACINIATA. **N M S**. Apparently a very recent arrival. It was first seen in small quantity on Inishmaan by White in 1971; by 1976 it was very abundant on several of the sandy beaches on all three islands. Since then its abundance has diminished, *fide* Robinson. It seems originally to have been confined to the east coast of Ireland, but has been spreading steadily westwards along the south coast during this century and was noted on the west coast of the mainland for the first time by Smythies in 1972 at Dog's Bay in Connemara.

‡A. patula. *N M* S. Hart's records of *A. angustifolia* are included here, though it is possible that under this name he also included *A. hastata.*

A. hastata (*sensu lato*). *N* **M S**. Most plants are maritime, and are probably referable to *A. glabriuscula,* but we have found it impossible to distinguish this with confidence from prostrate forms of *A. hastata* proper. Erect plants are rare, but occur on the upper part of some of the beaches on Inishmore. It is curious that the only pre-1950 record is Praeger's, as it is impossible to believe that the plant is a recent introduction, and it is most unlikely, in view of its abundance on the west coast of Ireland, that it is a recent immigrant by natural means like *A. laciniata.*

Salicornia europaea. *N*. In fair quantity at Atalia and Portcowrugh.

Suaeda maritima. *N M* s. Locally abundant on Inishmore, around brackish lagoons and on cliff-tops; also on cliff-tops on Inishmaan.

Salsola kali. *N M.* Apparently diminishing; only one plant was seen on each island in 1976.

Arenaria serpyllifolia. *N M S.* Abundant on disturbed ground, on patches of bare soil on the pavement, and in sandy fields.

Minuartia verna. *N M* s. Locally abundant on cliff-tops and dunes in the southern half of Inishmore; rare on Inishmaan.

Honkenya peploides. *N M.* Locally abundant on sandy shores, and more sparingly on boulder-beaches.

†Stellaria media. *N M S.* At least as frequent on roadsides as in cultivated ground.

S. ALSINE. **M S**. Rare.

Cerastium arvense. *N M S*. Very frequent throughout and locally abundant.

C. fontanum. *N M S.* Very common.

C. glomeratum. *N M* S. Fairly frequent.

C. diffusum. *N* **M S**. Very abundant, not only on all the dunes, but also on roadsides, in tilled fields near the sea, and on pavement above Blind Sound. The only pre-1950 record is by Praeger, who noted it only on cliff-tops on Inishmore. It is possible that some of the early records for *C. glomeratum* belong here, as the distinction between these two species, at any rate in western Ireland, is not nearly as clear as the Floras imply.

Sagina nodosa. *N M* S. Occasional in small, damp hallows.

S. procumbens. *N M S*. Frequent.

S. apetala. *N m S*. Apparently rare, but easily overlooked.

S. maritima. *N* **M S**. Frequent on rocks by the sea.

Spergularia rupicola. *N*. Occasional on the higher cliffs of Inishmore.

S. MEDIA. **N M S**. Locally abundant, by lagoons, on boulder-beaches and on cliff-tops. The early records of this genus are confusing. Hart recorded '*S. marina'* from all the islands; from a study of his other writings, however, it seems quite possible that by this name he intended *S. media*. Praeger collected two specimens from Inishmore (now in **DBN**). One is labelled *Buda marginata*, but he did not mention the species in his paper; the other he wrongly labelled *B. salina*. Accordingly, though it is probable that both Hart and Praeger saw the species, this must count as its first definite record for Aran.

S. marina. *N*. Sparingly at Portcowrugh and north of Kilronan. First recorded by Praeger. A small flowered form of *S. media* occurs here and there on Inishmore and Inishmaan, which has been mistaken for this species, but, in the two places here cited, its identity seems quite certain.

LYCHNIS FLOS-CUCULI. **N**. In the marshy hollow below Gortnagapple. First recorded in the *Atlas*.

Silene vulgaris. *N M S*. subsp. *maritima* is abundant in all types of coastal habitat; subsp. *vulgaris*, noted near the church at Kilronan by Hart, is still there a century later, but was not seen elsewhere.

Ranunculus repens. *N M* S. Abundant, especially on roadsides.

R. acris. *N M S*. Occasional in meadows.

R. bulbosus. *N M* **S**. Abundant on dunes and in sandy fields on Inishmore; rarer on the smaller islands.

*R. parviflorus. **N M S**. Cultivated fields; rare. Seen by Moore on Inishmore in 1966 and on Inisheer in 1969; also by Goodwillie on Inishmaan in 1974. Almost extinct elsewhere in Ireland.

R. ficaria. *N* **M S**. Most of the early recorders came too late in the season to see this, but it was seen by Nowers and Wells on Inishmore; it is, in fact, very frequent on all three islands.

R. baudotii. **N** *m* **S**. I refer here with some doubt plants found around several of the turloughs on Inishmore, and at the southwest end of the lake on Inisheer. Many plants have no floating leaves, and could be mistaken for *R. trichophyllus*, but the flowers are slightly too large, and the achenes are perfectly glabrous, and in at least some cases slightly winged, though they are less numerous than is usual in *R. baudotii*. The only early record is by Colgan for Inishmaan, where we did not find it.

R. trichophyllus. *N*. In a few places near the central part of Inishmore (Robinson). Recorded by Wright from Oorgowla.

‡Aquilegia vulgaris. *N* **M**. Widespread, but not common. Most observers are inclined to regard it as a garden escape, but a few plants seen remote from houses on Inishmore leave room for doubt, especially as it occurs in some abundance, and with the appearance of a native, on the limestone crags northeast of Galway.

Thalictrum minus. *N*. Rare, and mostly from the west half of Inishmore. The only recent sightings are from pavement west of Gortnagapple.

*PAPAVER RHOEAS. **M**. Seen by the *Atlas* recorder on Inishmore in 1955 and by White on Inishmaan in 1971. Perhaps only casual.

*P. dubium. *N M S*. Occasional, but apparently fairly securely naturalized.

‡Fumaria capreolata. *N* **M S**. Occasional.

*F. MURALIS (*sensu lato*). **N M S**. Frequent. I include here *F. bastardii*, as, although most Irish plants are referable to the latter, a good many show a confusing mixture of characters or intermediate states, and no clear separation is possible. The species so interpreted has been spreading over the past half-century or more at the expense of other members of the genus, and is by now far the commonest in Ireland. The earliest record for Aran is by the *Atlas* recorder in 1955.

*F. officinalis. *N m s*. A few plants were seen near Portcowrugh, but it is plainly nearing extinction.

†Sisymbrium officinale. *N M S.* Very frequent on roadsides; much commoner than in most of the west of Ireland.

Alliaria petiolata. *N M.* Recorded by Hart for Inishmaan and by Praeger for Inishmore. It is distinctly rare, but was seen by White at the base of a cliff below the village in Inishmaan (1976), and reported by Robinson (1976-8) from three places on Inishmore.

Arabidopsis thaliana. *N* **M S**. The only early record is one by O'Kelly (1894), cited by Colgan and Scully (1898).

*Hesperis matronalis. *N.* First noted by Andrews. Frequent near cottages, but only sparingly naturalized.

Rorippa palustris. *N m.* Sparingly at Pollnagapple[4] and Portcowrugh.

*ARMORACIA RUSTICANA. **N**. Well established on waste ground at Kilronan (1972-6).

*BARBAREA INTERMEDIA. **N M**. Occasional in the villages. First seen in 1976. Clearly a recent introduction.

Nasturtium officinale. *N M S.* Frequent by springs and in marshes. Hart's records must all be interpreted *sensu lato,* but as this species *sensu stricto is* much commoner than *N. microphyllum* they are best referred here.

N. MICROPHYLLUM. **N**. By a spring near Onaght (Webb 1972).

Cardamine pratensis. *N M S.* Frequent in suitable habitats.

C. FLEXUOSA. **N M S**. Occasional, mainly on the north side of walls. Some of Hart's records of *C. hirsuta* may, of course refer to this species.

C. hirsuta. *N* **M** *S*. Frequent, mainly on roadsides.

Arabis hirsuta. *N* **M** *S*. Widespread, but very local. The variant usually known as A. *brownii,* but, according to most modern authors, not entitled to specific rank, is known only from Inishmore, where it occurs rather sparingly on pavement, dunes and roadsides.

Erophila verna. **N** *M* **S**. Probably frequent on the pavement, but most visits have been too late to find it. The record for Inishmore is by Robinson, for Inishmaan by Colgan, and later Goodwillie, and for Inisheer by myself.

Cochlearia danica. *N m*. Sparingly at Onaght 1978 (Robinson).

C. officinalis. *N M S*. Common everywhere near the sea.

C. SCOTICA. **N**. Very dwarf plants, which probably represent the taxon from western Ireland which has passed under this name, have been found on the higher cliffs of Inishmore. They retain most of their characters in cultivation, but whether they are really *C. scotica* (if indeed such a species exists) is a matter on which the experts are not agreed.

†Capsella bursa-pastoris. *N M S*. Occasional to frequent.

*Thlaspi arvense *N m*. Now very rare in Ireland, but still persists as a weed near Oatquarter (Robinson 1976).

*Coronopus didymus. *N M* S. Frequent. Probably introduced c. l870-80, as Hart did not see it, but Nowers and Wells found it frequent on all three islands in 1890.

†C. squamatus. *N* **M** *S*. frequent around Kilronan; rather rare elsewhere.

*Brassica rapa. *N* **M S**. Very frequent on roadsides and in fields. Apparently a fairly recent introduction; the only pre-1896 record is by Nowers and Well;.

‡Sinapis arvensis. *N* **M S**. Occasional. This also seems to be a fairly recent introduction; it was not seen by Hart, and in only one station by Praeger.

‡S. alba. *N*. Occasional in cultivated fields.

Cakile maritima. *N M S*. On several of the beaches, and abundant at Portmurvy.

Crambe maritima. *N* **M**. Apparently extinct at Kilronan, where it was seen by Wright and Hart. Praeger saw it on the boulder-beach below Onaght 'in great abundance'; his specimen in **DBN** is

[4] The *Rorippa* from Pollnagapple has been determined by Jonsell as *R. islandica*. [Ir. Nat. J. 20:451].

labelled Portcowrugh, but this may be an error. In 1972 1 saw 3 large flowering plants and about 20 smaller ones at the western end of the Onaght beach; in 1976 there were perhaps a few more. On Inishmaan we saw 4 plants a short distance north of the landing-place; local information suggested that they were recent immigrants. After a period of decline, almost to extinction, this species seems to be regaining some of its lost grounds in Ireland.

Raphanus raphanistrum. *N M S*. subsp. *maritimus* is frequent on Inisheer and occasional on the other islands. Like many biennials it seems to vary a good deal in abundance from year to year. Subsp. *raphanistrum*, reported by Hart from all three islands, has now disappeared, as from most of its former Irish stations.

Umbilicus rupestris. *N*. On walls; rather rare. Although normally calcifuge it also occurs sparingly in the Burren. Hart records it as 'common and growing to a great size'; we did not observe this.

Sedum acre. *N M S*. Very common, both on pavement and sand-dunes.

*S. ALBUM. **N**. Seen in 1972, naturalized in small quantity on rocks by the sea at Pormurvy. Judging from its distribution in the Burren it is likely to spread.

S. anglicum. *n m S*. This is one of the mystery plants of Aran. Although there are no records of its occurrence elsewhere on limestone, and it has never been recorded from the Burren, it was reported without comment by Hart and Colgan as plentiful on all three islands. Diligent search on all three islands had convinced us that it did not grow there now, until in 1976 White found it abundant in a single large 'field', consisting of level pavement with a sparse and discontinuous vegetation cover, some 275 m south (and very slightly west) of the highest point of Inisheer. Robinson subsequently found a smaller quantity in an adjacent field, but no other stations have been found. For a further discussion see under 'T he calcifuge flora' (p. 6).

Rhodiola rosea. *N*. Abundant on pavement at the western end of Inishmore; also above the larger cliffs, and on a few inland cliffs. One plant was even seen on the roadside near Oorgowla.

Saxifraga tridactylites. *N* **M S**. Very frequent on walls, roadsides and pavement. The only early records are by Colgan and Praeger, but it is a plant that is easily overlooked in August.

S. rosacea. *N M S*. Frequent and locally abundant on pavement and roadsides. First recorded by Balfour, and subsequently by almost every visitor, usually as *S. hypnoides* or *S. sternbergii*. Colgan was the first to point out that its affinities were with the *S. rosacea* of the Kerry mountains (at that time known as *S. hirta*). It is fairly uniform, and identical with the plant of the Burren, with many of the leaf-segments distinctly mucronate. This makes it possible to confuse it with *S. hypnoides*, but the segments are only mucronate, not aristate, the foliage is much coarser, creeping stolons are absent, and the flower-buds are erect, not nodding.

Chrysosplenium oppositifolium. *N*. Recorded by Nowers and Wells and by Colgan from Oghil and Portcowrugh. Not found in any of these places, but reported in 1977 by Robinson from north of Kilronan.

Filipendula ulmaria. *N M S*. Locally frequent in wet places, and occasional on drier grassland.

Rubus saxatilis. *N M s*. Very frequent on the pavement.

R. fruticosus agg. *N M S*. Frequent to abundant. By far the commonest of the microspecies is *R. ulmifolius*, which probably accounts for 90% of the brambles on the islands; it was recorded by Praeger as *R. rusticanus*. Most of the remainder are indeterminable hybrids, coming under the head of *Rubi corylifolii*. One of Praeger's specimens was determined as *R. mollis*, but this name has been variously used, and we do not know what a modern specialist would make of it.

R. caesius. *N M* s. Abundant on Inishmore, in places forming large thickets. It is curious that neither this nor *R. saxatilis* were seen recently on Inisheer, although Hart describes them as common there.

Rosa pimpinellifolia. *N M S*. Very abundant.

R. canina. *N M S*. Frequent.

Agrimonia eupatoria. *N M S*. Occasional.

Sanguisorba minor *N M S*. Abundant; much more common than in the Burren.

Geum urbanum. *N M S*. Frequent in the small lanes on Inishmore; rare on the other islands.

Potentilla anserina. *N M S*. Abundant, especially in the small turloughs.

P. erecta. *N M S*. Frequent on pavement and in grassland.

P. ANGLICA. **N**. Rare, but seen by several observers, 1969-76. Some plants were seen which looked like hybrids with *P. erecta.*

P. reptans. *N M.* Frequent on Inishmore and very abundant on Inishmaan; its apparent absence from Inisheer is all the more remarkable.

P. sterilis. *N* **M**. Rather rare. First recorded by Praeger.

Fragaria vesca. *N M S*. Frequent on pavement and roadsides.

*F. x ANANASSA. **N**. Well naturalized on a strip of roadside verge north of Kilronan (Webb 1972-6).

ALCHEMILLA FILICAULIS. subsp. VESTITA **N M** s. Rare. Seen on Inishmaan by White (1971) and Goodwillie (1974), and on Inishmore by the *Atlas* recorder and by Robinson (1978). Hart's records of *A. vulgaris* (including his var. *montana*) *may* be presumed to refer to this plant.

Aphanes arvensis. **N** *M* **S.** Roadsides; very frequent on Inishmore and Inisheer; rarer on Inishmaan.

*Malus domestica. *M.* Colgan reported 'one tortured shrub spread flat over the ground like a juniper. ' We saw a single sapling, erect but very weather-beaten, on the pavement northwest of the landing-place (1976).

Crataegus monogyna. *N M S*. Occasional throughout.

Prunus spinosa. *N M S*. Very frequent on the pavement, though usually very stunted; much the commonest shrub on the islands. Hart's records of *P. communis* presumably belong here.

‡Ulex europaeus. *N.* A few thickets north and west of Kilmurvy. First recorded by Praeger. Rather rare in the Burren, and probably a late nineteenth-century introduction to Aran.

Astragalus danicus. *N M.* Discovered on both islands by Ball[5], and seen also by Nowers and Wells, Colgan and Praeger, but not by Hart. It grows mainly on stabilized sand-dunes, and is occasional in the southeast part of Inishmore and the northeastern part of Inishmaan (White 1971), but it has also been seen in a few other places on Inishmore, including the tops of the cliffs running westwards from Dun Aengus. No convincing explanation is available for the occurrence of this species in Aran, but nowhere else in Ireland; its general distribution is continental, and in Britain it has a strong eastern bias.

Vicia cracca. *N M S*. Occasional.

V. sepium. *N M S*. Occasional. Hart found it much rarer than the preceding; it is now, if anything, rather commoner.

V. SATIVA. subsp. NIGRA. **N M S**. Although there is no published record (other than in the Atlas), there is a specimen in **DBN** collected in 1894 by P. B. O'Kelly 'near the sea north of Kilronan'. It is now widespread, but not common. Although it belongs to the subspecies believed to be wild in much of Ireland, its distribution on Aran suggests that it may be the relic of plants sown for forage.

Lathyrus pratensis. *N M S.* Occasional.

Medicago lupulina. *N M S*. Very frequent.

*M. sativa. *N* **M S**. Sparingly in meadows and pastures; it still seems to be cultivated in a half-hearted fashion. The earliest record is that of Nowers and Wells.

Trifolium repens. *N M S.* Abundant.

T. campestre. *N M S*. Frequent.

T. dubium. *N M S*. Abundant.

T. pratense. *N M S*. Very frequent.

[5] J. Ball did not visit Aran; I confused him with Robert Ball, who paid two visits in 1834 and 1835, accompanied by William Thompson, and it was they who discovered *Astragalus danicus* and confirmed the presence of *Matthiola sinuata.* A manuscript list of their findings is in DBN, but it was never published. A few of them were, however, communicated to Mackay, who incorporated them in his Flora Hibernica in 1836. (Mackay's date of 1804 for the Astragalus must be a misprint for 1834.) [Ir. Nat. J. 20:451].

Lotus corniculatus. *N M S.* Very abundant.

Anthyllis vulneraria. *N M* S. Abundant, though somewhat local.

Oxalis acetosella. *N.* Widespread, but not very common, mainly in the north half of the island. First recorded by Nowers and Wells.

Geranium sanguineum. *N M S.* Extremely abundant, not only on pavement, but also on pastures on relatively deep soil.

*G. PYRENAICUM. **N M S**. Very frequent on roadsides, and occasional on pavement. There is no published record, except in the Atlas, but there is an O'Kelly specimen of 1894 from Inishmore in **DBN**. Its very successful naturalization on Aran is unexpected, as, elsewhere in Ireland, it is well established only near the east coast.

G. molle. *N M S.* Abundant on Inisheer; frequent elsewhere.

G. COLUMBINUM. **N**. Very frequent around Killeany; more sparingly north of Kilronan and near Oatquarter. Once more, although the first record is to be found in the Atlas, there is a specimen in **DBN** collected by O'Kelly in 1894. As it is fairly frequent in the Burren, it can probably be accepted as native.

†G. dissectum. *N* **M S**. Frequent on the two larger islands; rare on Inisheer. Evidently increasing, as Hart regarded it as 'not common', and only on Inishmore.

G. lucidum. *N M S.* Abundant.

G. robertianum. *N M S.* Very abundant. Many of the plants near the sea, and especially on Inisheer, are referable to subsp. *celticum*, but intermediates are fairly common. Plants with pure white flowers occur here and there.

Erodium cicutarium. *N M S.* Frequent.

Linum catharticum. *N M S.* Abundant.

‡Euphorbia helioscopia. *N* **M** *S.* Occasional.

E. peplus. *N M S.* Very frequent to abundant, mainly on roadsides.

E. portlandica. *N M* **S**. Not seen on sand-dunes, but locally frequent on boulder-beaches, and on roadsides near the sea.

E. paralias. *N M* **S**. Very abundant on most of the dunes.

Polygala vulgaris. *N M S.* Very frequent.

*IMPATIENS GLANDULIFERA. **N**. Well naturalized on waste ground at Kilronan, 1972-6. It did not appear to be cultivated then in any garden close by.

Ilex aquifolium. *N M S.* Rare on Inisheer; occasional elsewhere, in crevices in the pavement. Usually kept down almost to ground level by grazing, but a few good bushes were seen.

Euonymus europaeus. *N M S.* Occasional. Like the preceding it rarely gets the chance to grow into a real shrub.

Rhamnus catharticus. *N M.* Apparently confined to one station on Inishmore (near Turloughmore) and two on Inishmaan (near the landing-place and near the lake).

‡Malva sylvestris. *N M S.* Very common on roadsides.

*M. neglecta. *N* **M S**. Frequent around the villages on Inisheer, and around Onaght on Inishmore; rare elsewhere. First recorded by Nowers and Wells.

Lavatera arborea. *N M s.* Native on cliffs near Dun Aengus on Inishmore and (*fide* Hart) on Rock Island. Elsewhere an obvious garden escape, as also on Inishmaan. It is in gardens on Inisheer, but is not now naturalized.

Hypericum androsaemum. *N M S.* Occasional on the pavement.

H. pulchrum. *N M* **S**. On the pavement and inland cliffs, but rarer than in the Burren.

H. PERFORATUM. **S**. One small colony, discovered by Roden in 1976.

H. tetrapterum. *N* **M** *S.* Widespread, but rare; on Inishmore only near the west end.

Viola hirta. *N* **M**. Fairly frequent in the east half of Inishmmore; rarer on Inishmaan.

V. riviniana. *N M S.* Frequent.

V. CANINA. **M**. Some very large and erect plants in the graveyard on Inishmaan (White 1971). There is an *Atlas* record for Inishmore, but as the list does not include the much commoner *V. riviniana* I have rejected it.

V. tricolor. *N M s.* The typical subspecies, noted by Hart on all three islands, is now very rare; a single plant was seen on Inishmaan (1971) and a few on Inishmore in 1976-8. Subsp. *curtisii* is abundant on the Killeany dunes and occasional on Inishmaan.

V. arvensis. *N* **S**. Locally frequent as a weed on Inishmore; seen only in one vegetable-patch on Inisheer. First noted by Praeger.

Helianthemum canum. *N*. Noted first by Andrews, and by almost every subsequent visitor. It is widespread on the pavement, though local.

Lythrum salicaria. *N M S.* In several of the marshes and lake-margins.

*FUCHSIA MAGELLANICA. **N M**. Occasional in planted hedges on all islands; rather widely naturalized on Inishmaan, and very sparingly on Inishmore. It is significant that on Inishmaan the typical form of the species, which is fertile, predominates, rather than the much commoner, but nearly always sterile var. *riccartonii.*

Circaea lutetiana. *N M S.* Rare on Inishmaan; frequent elsewhere. Hart describes it as growing 'in quite unsheltered situations', but we saw it mainly at the base of walls and small cliffs.

Epilobium hirsutum. *N M s*. Fairly frequent by springs and on seepage-lines at the base of inland cliffs.

E. parviflorum. *N M S*. In similar situations to the last, but in much greater abundance; it is by far the commonest species of the genus on the islands.

E. montanum. *N M S*. Occasional.

E. obscurum. *N M s*. Rather rare; we saw only a few plants at Killeany and at Inishmaan village. We refer here Hart's records of *E. tetragonum*, which does not occur in Ireland.

MYRIOPHYLLUM SPICATUM. **N**. Turloughmore. Hart saw it here and tentatively identified it is *M. alterniflorum*; Nowers and Wells failed to find it; Praeger did, but was unable to refer it to a species. We saw good flowering material in 1966, 1972 and 1976.

Hippuris vulgaris. *N* **M S**. In fair quantity in several places on Inishmore, and by the lakes on the smaller islands.

Cornus sanguinea. *N m S*. Frequent in one restricted part of Inisheer; occasional to the west and southwest of Kilronan. Apparently diminishing, as it is also in the Burren.

Hedera helix. *N M S*. Abundant, especially on inland cliffs.

Hydrocotyle vulgaris. *N M S*. In many of the marshes.

Sanicula europaea. *N M s*. In lanes, and in crevices of the pavement.

Eryngium maritimum. *N M*. Locally frequent on dunes, but absent from wide areas.

Anthriscus sylvestris. *N M S*. Abundant throughout; far commoner than is usual in the west of Ireland. It seems to have increased since Hart's time.

*Smyrnium olusatrum. *N M S*. Rather rare on Inishmaan; abundant elsewhere.

Conopodium majus. *N*. Rare; seen only at Onaght and Turloughmore. First recorded by Nowers and Wells.

Pimpinella major. *N*. Very frequent on roadsides and at the base of inland cliffs. Very local in Ireland, but usually plentiful where it occurs.

*AEGOPODIUM PODAGRARIA. **M**. A garden weed on Inishmaan; and sparingly naturalized on roadsides. Recorded for Inishmore in the *Atlas*, but by no other recorder; I suspect an error for the preceding species.

Crithmum maritimum. *N M S*. Occasional to frequent on shingle and maritime rocks, and locally in great abundance on pavement within reach of the spray.

OENANTHE CROCATA. **M**. I include this in the list with some doubt. Goodwillie saw in 1974 a small plant at the back of a boulder beach, and sent a single pinnule as a voucher. Although the species is normally calcifuge, and the habitat is a most unlikely one, it was impossible to match the fragment to any other species. Confirmation is, however, desirable.

*Aethusa cynapium. *n* **M S**. Rare; perhaps little more than casual.

*Conium maculatum. *n M s*. Still plentiful near the landing-place on Inishmaan, but it seems to have disappeared elsewhere.

Apium nodiflorum. *N M s*. Plentiful in many of the marshes.

A. inundatum. *N* **M**. Abundant at Turloughmore; also at Oorgowla and by the lake on Inishmaan.

Angelica sylvestris. *N m*. Frequent on pavement near Gortnagapple and Dun Aengus; here it is only 20 cm high, with very dark green, shining, succulent leaves. More normal plants occur rarely in pastures and marshes.

Heracleum sphondylium. *N M* **S**. Abundant on Inishmore, frequent on Inishmaan, rare on Inisheer.

*Pastinaca sativa. *N* **S**. Small colonies at two or three places on each island.

Torilis nodosa. *N M s*. Frequent on Inishmaan; on Inishmore only on roadsides near Onaght.

T. japonica. *N M s*. Occasional to frequent.

Daucus carota. *N M S.* Abundant.

Calluna vulgaris. *N M S.* Widespread on the pavement, but nowhere abundant; extensive patches of limestone heath, such as are found in the Burren, are not developed on Aran.

Erica cinerea. *N M* **S**. Usually with *Calluna,* but rarer.

Lysimachia nemorum. *N.* Pavement, roadsides and scrub; unexpectedly rare. Noted by Wright and Colgan, but not by Hart or Praeger.

Glaux maritima. *N M S.* Plentiful in coastal habitats, including the pavement above Blind Sound.

Anagallis arvensis. *N M S.* Very abundant, especially on Inisheer. Besides the usual scarlet, plants with dusty pink flowers are common.

A. tenella. *N M S.* Occasional in marshes, and sometimes, as near Kilronan, on relatively dry pavement.

Primula vulgaris. *N M S.* Abundant.

‡P. VERIS. **N M S**. Apparently increasing, and therefore under suspicion of being introduced. Not seen by Wright, Hart, Nowers and Wells or Praeger, and reported from Inishmore by Colgan only on hearsay evidence. According to Robinson it is now frequent in meadows on Inishmore, and is hybridizing with P. *vulgaris;* on the smaller islands it is still rare.

Samolus valerandi. *N M S.* Frequent in wet places.

Armeria maritima. *N M S.* Abundant in salt-marshes, on boulder beaches and on cliff-tops. Many plants, especially on the cliff tops, are densely grey-pubescent.

Limonium transwallianum. *N*. Here and there along the cliffs on the southwest side of Inishmore, abundantly in a few places, but with wide gaps in between. This is the *Statice occidentalis* of earlier authors. It is identical with the plant of the Burren coast opposite, but it has been said to differ slightly from those from the type-area in Pembrokeshire. The fact is that the species-concept is difficult to apply to these disjunct populations of the *L. binervosum* complex.

†Fraxinus excelsior. *N M*. Reported by Hart as ‘rare and possibly introduced’. Most of the trees on Inishmore are planted, but a few may well have been self-sown, and one undoubtedly self-sown ‘tree’ about 20 cm high was seen spread out over the pavement on Inishmaan, as is commonly seen in the Burren.

Centaurium erythraea. *N M S.* Occasional, and locally frequent.

Blackstonia perfoliata. **N** *M S.* Occasional in the east half of Inishmore; rare on Inishmaan; reported as abundant on Inisheer by Nowers and Wells, but we found it only occasional. Its abundance seems to vary a good deal from year to year.

Gentiana verna. *N M S.* Although seen by almost all recorders, information on localities and frequency is scanty, chiefly because the plant is easily overlooked when not in flower. Our impression is that, although widespread, it is not nearly as common as in the Burren.

Gentianella campestris. *N M.* Occasional on heathy ground. Not visible in early summer, and therefore possibly overlooked on Inisheer.

Menyanthes trifoliata. *N.* All early records refer to Turloughmore, where there is a good-sized patch; it is also at Pollnagapple. The fact that Colgan and Nowers and Wells searched Turloughmore in vain for this conspicuous and unmistakable plant (Nowers and Wells say 'it was certainly not there'), although it was seen by Hart in 1869 and by Praeger in 1895, shows that we have much to learn about the behaviour of plants, or of botanists, or both.

VINCA MAJOR. **N**. A large clump was seen under a cliff at Gortnagapple in 1976, at some distance from a house and with a better claim to be considered naturalized than it usually has in Ireland. Seen by the *Atlas* recorder in 1956.

Sherardia arvensis. *N M S.* Frequent on roadsides.

Asperula cynanchica. *N M S.* Frequent on pavement and sand-dunes. All plants (as probably throughout Ireland) seem to be referable to the taxon distinguished in *Flora Europaea* as *A. occidentalis* Rouy, but I am not convinced that this is specifically or even subspecifically distinct.

Galium boreale. *N M S.* Rather rare; sometimes very tall on roadside verges and with something of the habit of G. mollugo.

G. verum. *N M S.* Abundant.

G. sterneri. *N M S.* Widespread, but usually occurring in small quantity.

G. palustre. *N* **M S**. Fairly frequent in marshes.

‡G. aparine. *N M S.* Very frequent, despite the scarcity of hedges.

Rubia peregrina. *N M S.* Very frequent in crevices in the pavement, and also growing through stone walls.

Convolvulus arvensis. *N* **S**. Abundant at Gortnagapple (where it spreads from a laneside verge over the pavement) and west of Kilmurvy; west of the landing-place at Inisheer.

‡Calystegia sepium. *N M.* Very frequent. All plants seen were white-flowered, which suggests that is probably an alien; the pink-flowered subsp. *roseata* Brummitt is the predominant native form in the coastal districts of western Ireland.

C. soldanella. *N M S.* Locally abundant on dunes.

†Cuscuta epithymum. *N* **M**. Frequent on the dunes at Killeany and Portmurvy; north of the landing-place on Inishmaan. The habitat is as native-looking as any in Ireland, but it was first recorded by Nowers and Wells, and its absence from the lists of Hart and Wright (who certainly visited the Killeany dunes) suggests that it may have been introduced between 1870 and 1890.

Lithospermum officinale. *N*. On waste ground near Onaght and Killeany; also under a cliff at Turloughmore. A rare plant in Ireland, but very persistent where it occurs.

‡Symphytum officinale. *N.* Frequent on roadsides near Kilronan. Some plants tend in the direction of *S.* x *uplandicum.*

MYOSOTIS LAXA. **N M S**. Frequent in wet places. Hart probably intended this when he listed *M. palustris.*

M. arvensis. *N M S.* Roadsides; very frequent;.

Callitriche stagnalis. *N* **M S**. Occasional.

Teucrium scorodonia. *N M S.* Very frequent on pavement and in lanes.

Ajuga reptans. *N.* Rare. Hart saw it south of Kilronan; the only recent sighting is by me at Oorgowla in 1972.

A. pyramidalis. *N* **M**. Recorded by D. Moore and Colgan from Inishmore (near Kilronan and west of Onaght); Robinson reports it as widespread, though always in small quantity, in the central part of the northern half of the island. Discovered on Inishmaan by White (1971) and now known from

three stations there. The only other known stations in Ireland are in the Burren and western Connemara - all near sea-level, despite the general boreal-montane pattern of its distribution.

Mentha arvensis. *N S.* In a wet copse behind Kilmurvy.

M. aquatica. *N M S.* Occasional.

*M. LONGIFOLIA. **N**. Near houses at Onaght and Gortnagapple.

*M. SUAVEOLENS (*M. rotundifolia*). **N**. In a field at Gortnagapple and on waste ground near Kilronan; well naturalized.

Thymus praecox (*T. drucei*). *N M S.* Abundant everywhere.

*Calamintha sylvatica (*C. ascendens*). *N.* A few isolated plants on roadsides, mostly west of Kilmurvy. First noted by Ogilby in 1845, 'in such profusion as if a crop had been sown'. Although it grows today, with the appearance of a native, near Oughterard and Cong, it has disappeared from the Burren, and its general decline in the west is best explained by supposing that it is native only in southeast Ireland.

*NEPETA CATARIA. **M**. Recorded by White in 1971 as occasional in fields near the village, but neither of us could find it in 1976. Perhaps only casual.

Glechoma hederacea. *N* **S**. Very rare; only one small patch on each island was seen.

Stachys palustris. *N M S.* Occasional.

S. sylvatica. *N* **M** *s.* Occasional in lanes and scrub. The hybrid with *S. palustris* (*S.* x *ambigua*) was seen by Goodwillie on Inishmaan and on Inishmore by Robinson.

‡LAMIUM HYBRIDUM. **M**. A garden weed in the village, along with the following.

†L. purpureum. *N M S.* Locally frequent on cultivated ground.

*Galeopsis tetrahit. *N m s.* Very rare now; only a few plants were seen on two stations on Inishmore.

Prunella vulgaris. *N M S.* Frequent in damp places, but much less common on roadsides than in the rest of Ireland.

Solanum dulcamara. *N M*. Very abundant on boulder-beaches on both islands; occasional also on roadsides. The dwarf shingle-beach form predominates.

Verbascum thapsus. *N*. Frequent.

Scrophularia nodosa. *N M* **S**. Frequent on Inisheer; rather rare elsewhere.

S. AURICULATA. **N**. Two large plants on waste ground south of Kilronan. First recorded in the *Atlas*.

*CYMBALARIA MURALIS. **N M S**. Locally abundant on pavement on the smaller islands, and looking completely native; not seen on walls until 1978, when it appeared on a wall near Kilronan harbour (Robinson). It is curious that this alien should have established itself so well on pavement here, but not in the Burren.

Veronica anagallis-aquatica. *N*. Frequent in the marshes. Hart recorded it from all three islands, but *V. catenata* had not by then been distinguished, and, as only the latter has been seen recently on Inishmaan, his record for that island is best transferred to *V. catenata*. The record for Inisheer (where neither has been seen recently) must remain ambiguous.

V. CATENATA. **N M**. Occasional at Turloughmore and Oorgowla; frequent by the lake on Inishmaan. See also preceding entry.

V. beccabunga. *N M S.* Occasional.

V. officinalis. *N M S.* Occasional on pavement.

V. chamaedrys. *N M S.* Abundant, especially at the base of walls.

V. serpyllifolia. *N M S.* Occasional in grassland.

V. arvensis. *N M S.* Occasional on roadsides.

V. hederifolia. *N M S.* Frequent at the base of walls.

*V. persica. *N* **M S**. Very frequent on disturbed ground. The first record is by Praeger; it must have been introduced shortly before his visit in 1895.

V. agrestis. *N m s.* Much rarer than formerly (as elsewhere in Ireland), but seen by Robinson on Inishmore in 1974-5.

*HEBE SPECIOSA. **N**. Three good bushes are established on the wall of the old castle at Killeany. It is possible that they may be *V.* x *franciscana;* unfortunately, they are inaccessible.

EUPHRASIA MICRANTHA. **N**. Rare. In small quantities on heathy patches on the pavement west of Kilronan and near Oatquarter.

E. TETRAQUETRA. **N**. Robinson has sent me some reasonably typical plants from Portmurvy; but from several other places on Inishmore I have seen plants which key out as *E. tetraquetra,* but have lax inflorescences and the general habit of *E. nemorosa. I* do not know what to make of them.

E. NEMOROSA. **N M S**. Fairly frequent on the pavement.

E. CONFUSA. **N M S**. Fairly frequent on the pavement.

E. ARCTICA, subsp. BOREALIS (*E. brevipila*). **M**. A small patch on dry grassland near the lake. The rarity of this, which, in most parts of Ireland (including the Burren), is by far the commonest species, is very remarkable.

E. ANGLICA. **N**. A few plants in a pasture west of Portcowrugh.

E. salisburgensis. *N* **M S**. Widespread on the pavement. Oliver saw it on Inishmore in 1851 and correctly suspected its identity, but his specimens were determined by Babington as *E. gracilis.* It is curious that Praeger did not list it in his 1895 paper, as in *The Botanist in Ireland* he mentions it among the striking members of the Aran flora.

Odontites verna. *N M S.* Very frequent, though rather local.

Rhinanthus minor. *N M S.* Very frequent.

Melampyrum pratense. *N*. Reported by Nowers and Wells from Dun Oghil; Robinson saw a few plants not far from there in 1975. Evidently very rare.

*OROBANCHE MINOR. **N M S**. Widespread in grassland and on roadsides, and locally very abundant; in several places on Inishmore and Inisheer small fields can be seen, each containing several hundred plants. It is very constant in appearance, with a violet corolla streaked with cream. The first record is in the *Atlas.* It was probably introduced into Aran in the early years of this century; in 1900 it was still rare in Ireland, though spreading rapidly from the southeast. There is an old record for Aran by Mackay (1805), but Hart is probably right in discounting this as an error for *O. hederae.*

O. hederae. *N M* **S**. Very abundant on Inisheer; occasional to frequent on Inishmore; rather rare on Inishmaan.

PINGUICULA VULGARIS. **N M**. In small hollows of the pavement near Oatquarter, and north of the village on Inishmaan (White 1971).

†Plantago major. *N M S.* Very frequent.

P. lanceolata. *N M S.* Abundant.

P. maritima. *N M S.* Abundant on pavement, as well as by the sea.

P. coronopus. *N M S.* Abundant, and extending some little distance inland.

Littorella uniflora. *N*. In the pool on the pavement above Blind Sound, and at Pollnagapple. We were unable to confirm Hart's record for Turloughmore.

Lonicera periclymenum. *N M S.* Very abundant, both on the pavement and in walls.

Viburnum opulus. *N*. In lanes near Kilronan and in scrub near Oatquarter. Hart gives two other stations, but it is evidently rare.

‡Sambucus nigra. *N M S.* Frequent as a planted tree, but a few trees were seen on each island which were self-sown, on or under cliffs or in the lee of walls.

*S. ebulus. *N.* Abundant in and around Onaght.

†Valerianella locusta. *N* **M S**. Hart described it as 'very rare', but it is now rather frequent at the base of walls.

Valeriana officinalis. *N M S.* Mainly on roadsides; frequent on the smaller islands, rarer on Inishmore.

Succisa pratensis. *N M S.* Frequent.

Campanula rotundifolia. *N M S.* Locally frequent.

Eupatorium cannabinum. *N M S.* Very frequent, mainly in crevices of the pavement, where it is very dwarf. 'Droll little specimens, a couple of inches high, are constantly arresting the attention' (Hart). Similar plants occur on the mainland opposite, at Poulsallagh.

Solidago virgaurea. *N* **M**. Occasional on the pavement.

Bellis perennis. *N M S.* Abundant, and especially so on the stabilized dunes and sandy fields near Killeany. Here the rabbit-tracks are colonized almost exclusively by daisies, and in early summer are visible as white streaks at a distance of half a mile.

Aster tripolium. *N.* Abundant at the Portcowragh lagoon; also on cliffs and pavement above Blind Sound and southwest of Kilronan. Many plants have white ligules instead of the usual lilac.

Antennaria dioica. *N M S.* Frequent on pavement.

Pulicaria dysenterica. *N M S.* Occasional on cliff-tops and pavement and in wet places.

Achillea millefolium. *N M S.* Pastures and roadsides; widespread, but nowhere abundant.

*CHAMOMILLA SUAVEOLENS (*Matricaria matricarioides*). **N M S**. First recorded in the Atlas. Still much rarer than in most parts of Ireland.

Matricaria maritima (*Tripleurospermum maritimum* subsp. *maritimum*). *N M S.* Very frequent on rocky or stony shores.

*M. PERFORATA (*T. maritimum* subsp. *inodorum*). **S**. A few plants in cultivated ground (1976).

Leucanthemum vulgare. *N M S.* Very abundant.

‡Artemisia vulgaris. *N* **S**. Occasional in and around the villages.

Tussilago farfara. *N* **M S**. Rare, but apparently increasing.

Senecio jacobaea. *N M S.* Abundant. Var. *flosculosus* (without ray-florets) predominates, but the typical plant is occasionally seen, as well as intermediates.

S. aquaticus. *N M S.* In a few of the marshes.

S. vulgaris. *N M S.* Frequent.

Arctium nemorosum. *N M S.* Very frequent.

Carduus tenuiflorus. *N* **M S**. Local, but fairly frequent, especially on Inisheer. Not seen by Hart, but recorded by Wright and Praeger.

‡C. ACANTHOIDES. *N*. I saw several plants in cultivated ground near Onaght in 1972, but not subsequently. Perhaps only casual.

Cirsium vulgare. *N M S.* Very frequent.

C. arvense. *N M S.* Very frequent.

Centaurea scabiosa. *N M S.* Locally frequent.

C. nigra. *N M S.* Very frequent.

Carlina vulgaris. *N M S.* Very frequent.

Hypochaeris radicata. *N M S.* Abundant.

Leontodon autumnalis. *N M S.* Frequent.

L. HISPIDUS. **N M**. Occasional on stabilized dunes at Portmurvy; rare in pastures in the southern part of Inishmaan. First recorded in the Atlas.

L. TARAXACOIDES. *N* **M S**. Occasional on dunes and dry grassland. First recorded by Praeger, but not likely to have been introduced.

Sonchus asper. *N M S.* Very frequent.

‡S. oleraceus. *N M S.* Very frequent.

S. arvensis. *N M S.* Frequent on roadsides and boulder-beaches.

Hieracium anglicum. *n* **M**. On pavement below the village on Inishmaan. Earlier records are from granite erratics southeast of Killeany (Hart) and north of Oatquarter (Colgan); recent search here

has been unsuccessful. It would seem strange for a species which grows freely on limestone in the Burren to pick out these erratics as its habitat.

H. pilosella (*Pilosella officinarum*). *N M S.* Very frequent.

Lapsana communis. *N M S.* Occasional on roadsides.

Taraxacum spp. The genus is abundant on all three islands, but there is very little information as to the identity, distribution or abundance of the microspecies, or even of the major groups, because no recent visits have been early enough in the season to permit the collection of identifiable material. Our only information on microspecies derives from the results of a visit to Inishmore by Degelius in 1933, who collected fruits, which were cultivated in Sweden and the resulting plants named by Haglund (1935). 5 species were named; the first two belong to Sect. *Erythrosperma,* the last two two to Sect. *Vulgaria;* The third is transitional from Sect. *Vulgaria* to Sect. *Spectabilia.*

T. glauciniforme. Rocks at Kilronan.

T. degelii. Sandy beach at Portmurvy.

T. hibernicum. Roadside at Kilronan. Endemic to western Ireland, but perhaps only a variety of the widespread *T. adamii*.

T. cyanolepis. Roadside at Kilronan.

T. cordatum. Roadside at Kilronan.

*CREPIS VESICARIA subsp. TARAXACIFOLIA. **N M S**. Very frequent on roadsides. The first record is in the *Atlas,* but it easy to overlook in August, so might have been missed by Praeger and Hart. On the other hand, it is an alien in Ireland, and has probably spread relatively recently to the west, where it is generally rare, though it occurs in the coastal regions of the Burren.

C. capillaris. *N M S.* Abundant on Inisheer; frequent elsewhere.

MONOCOTYLEDONS

Baldellia ranunculoides (*Echinodorus ranunculoides*). *N* **M**. Frequent at Turloughmore, Pollnagapple and Oorgowla; abundant by the lake on Inishmaan.

Triglochin palustris. *N M* **S**. Occasional in marshes.

T. maritima. *N M.* Frequent near the sea; also in great abundance at Turloughmore and by the lake on Inishmaan.

Potamogeton natans. *N* **M**. Plentiful at Turloughmore and in several other marshes; by the lake and at a nearby spring on Inishmaan. The lack of open fresh water means that all plants are semi-terrestrial and very stunted, and can therefore easily be mistaken for *P. polygonifolius;* they were indeed so named by Praeger, and, for some of the plants from Turloughmore, I was similarly deceived until Dandy put me right. The possible occurrence of *P. polygonifolius is* not to be excluded, despite the uniformly calcareous conditions, but there is as yet no positive evidence for its occurrence.

P. pectinatus. *S.* Abundant in the brackish lake.

Zostera marina. N. There are a few beds at Portcowrugh and Kilronan exposed at low spring tides. A few leaves have been seen on a beach on Inishmaan, but they could have come from Inishmore.

Zannichellia palustris. N. In a small pond near Kilronan. Recorded by Nowers and Wells, and recently confirmed by Robinson.

†Allium babingtonii (*A. ampeloprasum,* var. *babingtonii*). *N M S.* Frequent throughout; mainly by walls or on roadsides, but in some places on grassland or pavement far from houses. It is seldom, if ever, used nowadays in cookery or medicine, and if it is, as some maintain, a cultivar of the leek, it is curious that neither in Ireland nor in southwest England is it ever seen in cultivation. I am inclined to regard it as native and deserving of specific status.

A. VINEALE. **M**. First recorded by White (1971), and later seen also by Goodwillie, but it is present only in small quantity.

A. ursinum. *N* **M**. Very frequent on Inishmore; at one cliff-base on Inishmaan. First noted by Nowers and Wells; it had withered before the visit of Wright or Hart.

Iris pseudacorus. *N M* **S**. Rather rare. Hart saw it only on Inishmaan, but Praeger gives it for Inishmore.

*TRITONIA CROCOSMIFLORA (*Crocosmia crocosmiflora*). **N M S**. Rather sparingly but quite definitely naturalized on all three islands. It does not spread on limestone nearly as freely as on acid soils.

Juncus gerardii. *N* **M S**. Abundant around many of the brackish lagoons. First noticed by Nowers and Wells; its absence from Hart's list is inexplicable.

J. bufonius. *N S.* Frequent in most of the marshes.

J. INFLEXUS. **M**. In fair abundance in one damp hollow northwest of the village.

J. effusus. *N* **M**. In small quantity. The first satisfactory record for Inishmore is by Praeger; Hart has a record, but an error in the typography leaves it doubtful which island is intended.

J. CONGLOMERATUS. **N**. In a damp hollow below Gortnagapple, with *J. effusus.*

J. subnodulosus. *N.* Close to the last two species at Gortnagapple; also a small patch at Bungowla. Overlooked by Praeger in compiling his 1895 list, but published later (Praeger 1899).

JUNCUS ARTICULATUS. **N M S**. Frequent in marshes on all three islands. The absence of earlier records is very baffling; it would seem possible, however, that records of *J. acutiflorus* should be referred here. Although Praeger does not mention either species, there is a specimen of his from Inishmore in **DBN**, labelled *J. acutiflorus,* but, in my opinion, definitely *J. articulatus.* This confusion is hard to understand, as the two species were distinguished in Floras, even in Hart's day.

Luzula campestris *N* **M S**. Fairly frequent on pavement and in dunes.

Cynosurus cristatus. *N M S.* Abundant.

†Briza media. *N* **M S**. Abundant in places on Inishmore, but absent from large areas; widespread on Inishmaan, but in small quantity; seen only in one wet hollow on Inisheer. The earliest record is by Praeger, who saw it only in one place (east of Portmurvy); this, together with the silence of earlier visitors, suggests that it could be a recent introduction to Aran, despite its abundance in the Burren. It is not an easy plant to overlook.

Dactylis glomerata. *N M S.* Abundant.

‡Poa annua. *N M S.* Abundant on roadsides and occasional on pavement.

P. pratensis (*sensu lato*). *N M S.* Very frequent. All specimens examined critically appeared to belong to *P. subcaerulea,* which is by far the commonest segregate in western Ireland. No definite search, however, was made for *P. pratensis, sensu stricto.*

Poa trivialis. *N* **M S**. Abundant. The paucity of earlier records can be partly explained by the fact that this species becomes rather inconspicuous in late summer.

Festuca arundinacea. **N M**. Near the upper limit of flooding around the turloughs on Inishmore, often forming a distinct zone; occasional by the lake on Inishmaan. I refer here Praeger's *F. elatior* from Oorgorla.

F. rubra. *N M S.* Very abundant.

F. ovina. *N M S.* Frequent.

Danthonia decumbens (*Sieglingia decumbens*). *N* **M S**. Occasional to frequent.

Sesleria albicans (S. *caerulea*). *N M S.* Very abundant throughout.

Glyceria fluitans. *N* **M**. Occasional. Hart lists it also for Inisheer, but it seems best to transfer this record to *G. declinata,* which was not distinguished in his day.

G. DECLINATA. **N M S**. Occasional near lakes and on small, wet patches on the pavement.

Puccinellia maritima. *N m*. In several places on the north and east coasts of Inishmore.

Desmazeria rigida (*Catapodium rigidum*). *N* **M S**. Occasional, mainly on roadsides.

D. marina (*Catapodium marinum*). *N M S.* Frequent to abundant in all types of coastal habitat.

Lolium perenne. *N M S.* Abundant

*L. MULTIFLORUM. **N M S**. Seen in a few fields, and evidently persisting after sowing, but perhaps not for very long. The hybrid with *L. perenne* was seen, but is scarcely naturalized.

‡BROMUS STERILIS. **N M S**. Roadsides, waste ground and thatched roofs; occasional. Apparently a relatively recent introduction.

B. hordeaceus. *N M S.* Frequent on roadsides.

Brachypodium sylvaticum. *N M S.* Frequent in crevices in the pavement, and at the base of inland cliffs.

Elymus repens (*Agropyron repens*). *N* **M S**. Rather rare; seen only in grassland and in walls, not in cultivated ground.

E. farctus subsp. boreali-atlanticus (*Agropyron junceiforme*). *N* **M S**. Abundant on the major dune-systems.

Arrhenatherum elatius. *N M S.* Very abundant, not only on roadsides, but often as a dominant in meadows.

Avenula pubescens (*Helictotrichon pubescens*). *N* **M S**. Frequent.

Holcus lanatus. *N M S.* Abundant.

Koeleria macrantha (K. *cristata*). *N* **M S**. Very frequent.

Agrostis capillaris (A. *tenuis*). *N M S.* Locally frequent.

A. stolonifera. *N* ***M*** *S.* Marshes, dunes and meadows; abundant in places, but local.

Calamagrostis epigejos. *N* **M**. Occasional on pavement on Inishmaan to the southeast of the village; in several places on the northeast side of Inishmore. Perhaps more frequent than these records indicate; it does not flower very freely, and non-flowering plants can easily be passed over as *Molinia.* A very rare plant in Ireland.

Aira praecox. *N M s.* Rather rare.

A. caryophyllea. *N M s.* Rather rare.

Ammophila arenaria. *N M S.* Abundant on Killeany dunes; local elsewhere. It has recently been planted on Inishmaan to stabilize the ground around the air-strip; its original population here has been largely, but not completely destroyed. In the dune-systems of the west of Ireland this species, though common and widespread, is not universal.

Phragmites australis (*P. communis*). *N* **M** *S.* Abundant by the lagoon at Portcowrugh, and by the large lakes on the two smaller islands.

Molinia caerulea. *N M.* Mainly on pavement; rather local.

Anthoxanthum odoratum. *N M S.* Widespread but rather local.

‡ALOPECURUS PRATENSIS. **N M**. Very local, and probably a relic of seeding.

A. geniculatus. *N.* Abundant at Oorgowla, where I saw it even on the top of a wall; also at Portcowrugh.

*Phleum pratense. *N* **M S**. Rare, and probably not persisting for long after sowing.

P. arenarium. *N.* In small quantity at the east end of the Killeany dunes.

Arum maculatum. *N M S.* Very frequent.

Typha latifolia. **N** *M* **S**. Abundant at Oorgowla, and by the lakes on the smaller islands; also a few small colonies elsewhere. The only early record is by Nowers and Wells, who saw it ‘on a solitary small pool on the rock’ on Inishmaan. Whether it was on the islands at all in Hart’s day must be a matter for conjecture; he can hardly have missed it on the smaller islands, but he does not seem to have made any records at Oorgowla on Inishmore (though Wright did). On the whole the evidence suggests that it is a recent immigrant, but probably by natural means.

Scirpus maritimus. *N S.* Abundant at Portcowrugh and north of Kilronan; by the lake on Inisheer.

S. lacustris. *N* **M** *S.* Fairly frequent. Mostly referable to subsp. *tabernaemontani* (*S. tabernaemontani*), but some populations, especially on Inishmaan, diverge somewhat towards subsp. *lacustris.*

S. setaceus. **N M** *s.* Rare.

S. cernuus. *N.* Kilmurvy and Portcowrugh.

Eleocharis palustris. *N* **M S**. Locally abundant.

E. UNIGLUMIS. **N M**. Occasional in brackish habitats.

ERIOPHORUM ANGUSTIFOLIUM. **N S**. Fairsized colonies were seen at Oorgowla and below Gortnagapple, quite flourishing despite the calcareous environment. It occurs here and there in the Burren in similar conditions. The first record is for the southern part of Inisheer (J. J. Moore 1969).

Schoenus nigricans. *N* **M**. Locally frequent on the pavement.

Carex distans. *N* **M S**. Frequent near the sea, and on the pavement above Blind Sound.

C. HOSTIANA. **N M**. Local.

C. DEMISSA. **N M**. Apparently rare, as one might expect from the calcareous terrain. The plants have unusually small utricles and are easily confused with *C. serotina*, but two specimens determined as *C. demissa* by A. O. Chater are in **TCD**.

C. serotina. *N* **M S**. Very frequent in marshes ,and in hollows in the pavement. Many of the plants are typical; some are unusually tall, but this is frequent in the west of Ireland.

C. extensa. *N* **M**. On cliff-tops on both islands, and by a lagoon north of Kilronan.

C. panicea. *N M* **S**. Not common.

C. flacca. *N M S.* Very abundant and luxuriant on the pavement.

C. caryophyllea. *N* **M S**. Rather rare, or perhaps overlooked in late summer. The only old record is by Colgan for Inishmore.

C. nigra. *N* **M S**. Occasional in the larger marshes. First recorded by Nowers and Wells.

C. otrubae. *N M S.* Frequent in wet places.

C. arenaria. *N* **M S**. Abundant in the main dune-systems. First recorded by Nowers and Wells.

C. pulicaris. *N* **M** *S.* Occasional in solution-hollows in the pavement. The only early records are by Nowers and Wells for Inishmore and Colgan for Inisheer.

Listera ovata. *N* **M S**. Occasional to frequent on pavement.

Spiranthes spiralis. *N M s.* Occasional on pavement, dunes and grassland. The absence of recent confirmation for Inisheer may indicate merely that it has not been visited late in the season during this century.

Gymnadenia conopsea. *N M* **S**. Rather rare.

Coeloglossum viride. *N m.* Near the centre of Inishmore and near Killeany; rare.

PLATANTHERA BIFOLIA. **N M**. Locally frequent. First recorded in the *Atlas.*

NEOTINEA MACULATA (*N. intacta*). **N M S**. Recorded by J. J. Moore *et al.* from Inishmore in 1966 and Inisheer in 1969, and by White from Inishmaan in 1971; the records comprise five distinct stations. Granted that the plant is easily overlooked, especially in August, it is difficult to resist the conclusion that it is extending its range. Colgan's visit to Aran was primarily to look for it, and he failed to find it.

Ophrys apifera. *N* **M**. Occasional on Inishmore, mainly in the eastern half; near the centre of Inishmaan.

Orchis mascula. *N M* **S**. Locally frequent on pavement, but not as common as in the Burren.

DACTYLORHIZA FUCHSII. **N M S**. Occasional. The albino form, sometimes named D. okellyi, but surely deserving no more than varietal status, was seen on Inisheer.

D. maculata. *N* **M**. At least as frequent on Inishmore as is *D. fuchsii*.

D. INCARNATA. **N**. A few plants at Turloughmore (Webb 1972).

D. MAJALIS **N M S**. Occasional. Most of the plants are referable to subsp. *occidentalis* (*D. kerryensis*), but some diverge somewhat in the direction of subsp. *purpurella* (*D. purpurella*). The record by Nowers and Wells for *Orchis latifolia* may belong here, but unfortunately the name is ambiguous.

Anacamptis pyramidalis. *N* **M S**. Abundant on Inisheer and on the east half of Inishmore; occasional elsewhere.

Earlier records, not recently confirmed

In these lists no symbols are given for certain or possible introduction, though in the case of lists (a) and (b) it may be presumed that nearly all are native, whereas in the case of lists (c) and (d) all are presumed to have been introduced. In list (e) the question does not arise, as I do not consider that the plants ever occurred in Aran.

The letters N M and S are used, as before, to indicate the three islands. The authorities for the records are indicated by the following code:-

1. Mackay
2. Ball
3. Andrews
4. Ogilby
5. Oliver
6. Balfour
7. D. Moore
8. Wright
9. Hart
10. Nowers and Wells
11. Praeger
12. Atlas recorders

(a) Possibly awaiting rediscovery; species for which there is no compelling reason for assuming an error in the record or subsequent extinction

Equisetum variegatum. *N* (*11*). Turloughmore; backed by a specimen in **DBN**.

Botrychium lunaria. *N* (*10*). Portcowrugh. An easy species to miss.

Atriplex littoralis. *N* (*9*). Killeany. A species which tends to come and go. Although very rare in the west of Ireland, it was seen recently in the Burren, but could not be refound at the same place.

Sagina subulata *N* (*8*). An error is possible, but the plant is not a conspicuous one.

Myosotis discolor. *N* (*9*). Kilmurvy. Perhaps only casual.

Lycopus europaeus. *N* (*6, 9*). Between Killeany and Kilmurvy.

Pedicularis palustris *N* (*8, 11*). 'In several places' (Praeger).

Knautia arvensis. *N* (*11, 12*). Near Kilronan and Kilmurvy. Searched for by us in vain.

Achillea ptarmica. *M* (*9*) *S* (*9*). All recent visits to the smaller islands have been before its flowering season, so it could have been overlooked.

Parapholis strigosa. *N* (*1*). *I* take this to be the species intended by Mackay's record of *Rotboellia incurvata.* He does not give a locality. An inconspicuous plant which could be there still; it was unrecorded for Connemara until very recently, although it grows there in fair quantity in at least three stations.

Trisetum flavescens. *N* (*10*). Seen also by Goodwillie in an arrangement of dried flowers on Inishmaan.

Deschampsia caespitosa. *N* (*9*). Difficult to overlook, but difficult also to exterminate.

(b) Native species probably extinct.

Glaucium flavum. *M* (*9*). Seen by Hart in only one place; it has declined considerably in western Ireland since his day. The second station indicated in the *Atlas* arises from an editorial error.

Matthiola sinuata *N* (*1, 2*). Discovered on Straw Island before 1805 and confirmed there in 1835. Searched for in 1854 and 1976 without success. O'Kelly claimed to have found its leaves there in 1894 (Colgan and Scully 1898), but even if this was true (and O'Kelly is not the most reliable of witnesses), it seems almost certain that the plant is now extinct in Aran, as probably elsewhere in Ireland.

Filago vulgaris (*F. germanica*). *S* (*9*). Searched for in 1976 without success. This species is now very rare in Ireland except in the southeast.

Lemna minor. *N* (*8, 9*) *M* (*9*). The marshes have been well enough searched recently for it to be unlikely that this has been overlooked. It seems probable that a century ago there was more open fresh water than there is today; it is now overgrown by reedswamp.

(c) Calcifuge species believed to have been introduced with turf and to have persisted as long-term casuals, but which have disappeared since its import ceased.

Blechnum spicant. *N* (*4, 9*). Described by Ogilby as 'not scarce'; recorded by Hart without comment. I have never seen it on limestone except where a considerable depth of peat has developed.

Dryopteris dilatata. *M* (*9*). Hart saw only a single plant.

Rumex acetosella. *N* (*8, 9*).

Polygonum hydropiper. *N* (*9*) *M* (*9*) *S* (*9*). Although it is found occasionally in the Burren turloughs, the complete disappearance of such a formerly widespread plant is best explained by supposing that it was introduced.

Ranunculus hederaceus. *N* (*9*) *M* (*9*) *S* (*9*). One of the more mysterious discrepancies between Hart's list and the situation today.

Ulex gallii. *N* (*6, 11*). Recorded by Balfour as *U. nanus.* 'In two places near the centre of the island' (Praeger). I know of no occurrence of this species on limestone.

Hypericum humifusum. *N* (*8*) *S* (*9*). There are also some unpublished modern reports. As the species is rather rare in southern Connemara import with turf is perhaps not very likely; the records may be based on prostrate forms of *H. pulchrum,* which are common enough.

Stachys arvensis. *N* (*9*) *S* (*9*).

Pedicularis sylvatica. *N* (*8, 9*) *M* (*9*) *S* (*9*). Very rare on limestone unless there is some depth of peat. Had it been native in Aran I see no reason for such a dramatic decline.

Filaginella uliginosa (*Gnaphalium uliginosum*). *N* (*9*).

Chrysanthemum segetum. *N* (*9*). Very rare, even in Hart's day.

Luzula multiflora. *N* (*11*).

Vulpia bromoides. *N* (*10*). Not rigidly calcifuge, but distinctly rare on limestone, and sought without success by our parties.

Agrostis canina. *N* (*9*). Just possible as a companion of *Calluna* in small peaty pockets on the limestone, but more probably a transient introduction or else an error for an awned variant of *A. capillaris.*

(d) Weeds, ruderals and garden escapes with limited powers of persistence, all probably introduced at one time or other.

Papaver lecoquii. *N* (*9*) *S* (*9*).

Barbarea vulgaris. *S* (*9*). Reported from one station only (near the lighthouse) and probably a casual.

Brassica nigra. *N* (*9*). Probably never more than casual.

Reseda luteola. *N* (*8,9*) *S* (*9*). Probably cultivated as a dye-plant. Although it is calcicole it is absent from the Burren, as it prefers sands and gravels to rocky outcrops. There are good reasons for thinking that it not native anywhere in northwestern Europe.

R. lutea. *N* (*9, 11*). Gone from most of its Irish stations.

Trifolium arvense. S (9). There is also a specimen in **DBN** collected by Miss Salkeld on Inishmore in 1953, but I do not rate the species as more than casual in western Ireland.

T. medium. *N* (*10*). More frequently cultivated ninety years ago than it is today.

Erodium moschatum. *N* (*9*). [6]

[6] I forgot that I had myself collected a specimen of *Erodium moschatum* on Inisheer in 1976 and lodged it in **TCD**. It is not, therefore, extinct. [Ir. Nat. J. 20:451].

Apium graveolens. *N* (*8, 9*). Near Kilronan. Native at the head of Galway Bay, but Hart considered it a garden escape on Aran.

Anthriscus caucalis. *N* (*9*). There is only one record for western Ireland since *1930.*

Origanum vulgare. *N* (*10*). Near Onaght. In spite of its abundance in parts of the Burren, this single sighting suggests that on Aran it was a transient escape from cultivation.

Marrubium vulgare *N* (*11*) *S* (*8, 9*) Never very firmly established in Ireland, and now virtually extinct.

Veronica polita. *N* (*11*). Now very rare in Ireland, having been largely ousted by *V. persica.*

Tanacetum vulgare. *M* (*9*). Probably never very thoroughly naturalized.

Artemisia absinthium *N* (*8*). Extinct in most of its Irish stations, except in the southeast.

Carduus nutans. *N* (*4, 9*) *M* (*9*). At one time frequent in the region of Galway Bay, but not seen there for many years past.

Silybum marianum. *N* (*8, 9*). Never much more than casual in western Ireland; this applies also to the following.

Cichorium intybus. *N* (*11*).

Narcissus x medioluteus (*N. biflorus*). *N* (*7*). Although this plant possesses great powers of persistence, and is still to be seen at Ballyvaughan Harbour, it has not been seen on Aran since 1854 and may be presumed extinct.

(e) Records rejected as errors, or at least as requiring confirmation

Equisetum hyemale. *N* (*9*). Recorded with doubt; it was probably *E. variegatum.*

Populus alba. *M* (*9*). Presumably *P.* x *canescens* was intended, but even this can only have occurred as a planted tree.

Alnus glutinosa *N* (*12*).

Quercus robur. *N* (*9*).

Ulmus procera. *N* (*12*). This and the two preceding are (or were) planted near houses but have no claim to be considered naturalized.

Ranunculus lingua *N* (*8*). Almost certainly a large variant of R. *fammula.* [7]

Brassica napus. *N* (*12*). Casual, or an error for *B. rapa.*

Cochlearia anglica. *N* (*12*). There are no suitable habitats.

Saxifraga hypnoides. Several of the earlier authors used this name in a wide sense to denote what we now call *S. rosacea.*

Tuberaria guttata. A dot on Aran was included for this species in the Atlas, but the record was withdrawn in a list of *corrigenda* circulated shortly after publication.

Rhynchosinapis monensis. N (3). One of Andrews's wilder guesses.

Trifolium striatum. *N* (*10*). Near Dun Oghil. Not entirely impossible, but best held in suspense until confirmation is forthcoming.

Lotus uliginosus. *N* (*8*). There are also unpublished recent records, but they are all from ecologically improbable stations, and must be based on large and erect forms of *L. corniculatus.* Not seen by Hart, Colgan, Nowers and Wells, Praeger or myself.

Acer pseudoplatanus. *N* (*12*). Commonly planted, and I have seen occasional seedlings on Inishmore, but only on walls or in gutters where they have no hope of coming to maturity. I cannot regard it as naturalized.

Geranium pratense. *N* (*3*). Presumably, as Hart suggests, *G. sanguineum* was intended.

G. purpureum. *N* (*5*). A small-flowered form of *G. robertianum.*

Erodium maritimum. *N* (*10*). Unknown in western Ireland. I suspect a dwarfed plant *of E. cicutarium.*

[7] By an oversight *Ranunculus flammula* was omitted. It grows in the larger marshes of all three islands. [Ir. Nat. J. 20:451].

Viola palustris. *N* (*9*). Although it is strongly calcifuge I prefer to include this species here rather in list (c), because I have seen on Inishmore specimens of *V. riviniana* with very large, suborbicular leaves, which I might have called *V. palustris* had not the habitat been so improbable, and had I not eventually found a small and partly withered flowering stem. There is evidence that Hart made the same mistake elsewhere.

Helianthemum nummularium. *N* (*1*). Obviously an error for *H. canum.*

Lythrum portula (*Peplis portula*). A dot is given for Aran in the Atlas, but no authority for it can be traced.

Epilobium tetragonum. *N* (*9*) *M* (*9*) *S*(*9*). *E. obscurum* was intended.

Myriophyllum alterniflorum. *N* (*9*). Recorded with some doubt; the plant is *M. spicatum.*

Pimpinella saxifraga. *N* (*12*). *A* species which might well occur on Aran, but as the list which records it omits the common *P. magna* an error seems likely.

Ligusticum scoticum. *N* (*6*). Recorded with some doubt.

Galium mollugo. There is a specimen in **DBN** supposedly collected by O'Kelly in 1894. If correct, it was probably a casual introduced with grass-seed.

Myosotis palustris. *N* (*9*) *M* (*9*) *S*(*9*). Hart used the name in a wide sense; *M. laxa* (*M. caespitosa*) was intended.

Callitriche verna. *M* (*10*). Although this name is now regarded as a synonym for *C. platycarpa*, it has been used in many senses, and it is probable that the authors intended *C. stagnalis.*

Clinopodium vulgare. *N* (*12*). *A* rare casual in Ireland; clearly an error for *Calamintha sylvatica.*

Digitalis purpurea. *N* (*12*). Very rare on limestone; such a conspicuous plant can hardly have escaped the notice of all other observers.

Veronica montana. I cannot trace the authority for the dot on Inishmore in the *Atlas,* but I cannot believe that the plant ever grew there. In the Burren it is found only in woodland or dense scrub such as does not occur on Aran.

Carlina racemosa. *N* (*3*). A Mediterranean species, not even casual in Ireland.

Potamogeton polygonifolius. *N* (*10, 11*). See under *P. natans* in list 1. The error is very excusable, and I think that all records should be put under *P. natans.*

Zostera angustifolia. Given for *Atlas* by an editorial error.

Allium carinatum *N* (*3*). An error for *A. babingtonii.*

Hyacinthoides non-scriptus (*Endymion non-scriptus*). *N* (*12*). Quite possible, but confirmation is needed.

Juncus acutiflorus. *N* (*9*) *M* (*9*) *S*(*9*). The records of this species are most mysterious. Hart noted it from every island. Praeger does not mention it, but he labelled with this name a specimen from Inishmore, collected in 1895 and now in **DBN**, which I interpret as *J. articulatus.* No nineteenth-century visitor mentioned *J. articulatus,* though it is common in all the marshes, and the two species were clearly differentiated in the Floras of the day. There is, however, in **DBN** a genuine specimen of *J. acutiflorus,* not referred to in any publication, supposedly collected in Aran by O'Kelly in 1895. Despite the recent confirmation of records which I had previously suspected for other species of this genus, the strong calcifuge tendency of *J. acutiflorus,* together with the lack of any confirmation, makes me believe that the specimen is mislabelled, either by accident or design.

J. tenuis. This case is rather similar to the last. The published record (in Colgan and Scully 1898; repeated in Praeger 1901) is based on a specimen in **DBN** labelled in the writing of H. C. Levinge as collected by O'Kelly in a salt-marsh on Inishmore in 1894. Praeger (1901) adds an exclamation mark, but this probably means only that he had seen the herbarium sheet; the fact that he does not mention the species in his 1895 list makes it most improbable that he should have seen it in the field. He had, however, met and talked with O'Kelly only a few days before he went to Aran, and it seems odd that O'Kelly should not have mentioned this rather sensational find of the previous year.

A salt-marsh is a most unlikely habitat for *J. tenuis; I* believe that what O'Kelly saw was *J. gerardii* (*of* which the first record had been published only 2 years earlier), and that specimens were confused in the labelling. It is a particularly unfortunate error, as the supposed occurrence of the species in a natural habitat has been widely used as an argument in favour of its native status in Ireland.

Elymus caninus (*Agropyron caninum*). *N* (*10*). Extremely rare in western Ireland; I suspect an awned variant of *E. repens.*

Holcus mollis. *N* (*10*). English botanists find it difficult to appreciate how rare this species is in western Ireland; on limestone it is virtually unknown. I have investigated several such records; the plant always turns out to be *H. lanatus.*

Cladium mariscus. Given for Aran in the Atlas, but no record can be traced.

Carex flava. *N* (*11*) *S* (*9*). This is probably to be interpreted as *C. lepidocarpa,* which might have been expected, but in view of the critical nature of the group the record cannot be accepted in the absence of specimens. [8]

C. pseudocyperus. See next entry.

Epipactis atrorubens. This species and the preceding are shown in the *Atlas* as recorded for Aran on the strength of specimens in **DBN** collected by J. A. Audley in 1895. The fact that there is no confirmation for either of these interesting and fairly conspicuous species makes me believe that Audley, who was presumably a member of the Joint Field Clubs' excursion which met at Galway immediately before Praeger's visit to Inishmore, collected these not on Inishmore (which was visited by the party on 15 July) but on other excursions made by the party. The *Carex is* mentioned as having been seen near Galway on the previous day, and the *Epipactis* as having been seen in the Burren on 13 July (Praeger, 1895).

Sedum dasyphyllum should, perhaps, be added as a sort of appendix to this final list, since its presence in Aran has been referred to incidentally in Webb (1977). The story is a curious one. When *S. anglicum* was rediscovered on Inisheer by White in 1976, as reported above, he took me to see it next day. I looked and marveled, and brought back a specimen for cultivation, as did also White. When I got back to Trinity College I was astonished, when I examined my plant more closely, to find that it had some glandular hairs on the inflorescence and no spur to the leaves, and was, in fact, not *S. anglicum* but *S. dasyphyllum,* not in the form usually seen naturalized in the British Isles, but one that I had seen previously in Spain, with larger, less glaucous leaves. This appeared to remove the ecological anomaly, but when I informed Mr White of this he produced his plant, which was typical *S. anglicum! I* returned to Inisheer next year, but three quarters of an hour's search, in which I must have examined fifty plants of *S. anglicum,* produced no *S. dasyphyllum.* Clearly the species cannot be included in the Aran flora on this evidence, but the mystery is worth mentioning in the hope that some future visitor to Inisheer may resolve it.

Expected species never recorded

I may appropriately conclude with a list of species which the terrain and the geographical position of the islands would lead one to expect to be present, but which have not been convincingly reported by any visitor. I exclude any species which requires well-developed shelter or open fresh water; otherwise my list is made up of those which are at least fairly frequent in the Burren but do not appear to grow in Aran. The most striking is, of course, *Dryas octopetala*; considering that the islands have generally what may be termed a Burren flora the absence of this, its most conspicuous member, is very remarkable and very hard to explain, for it must have been widespread in the Burren in late-glacial times when the main repopulation of the islands was taking place.

Cystopteris fragilis

Polystichum aculeatum [9]

[8] There are two undoubted specimens of *Carex lepidocarpa* in **DBN**, collected on Inishmore by Praeger in 1895 and labelled *C. flava*. His paper (Praeger, R. L. 1895, Ir. Nat. 4: 251) says that they were found near Oghil. Whether the species survives there today I do not know. [Ir. Nat. J. 20:451].

Stellaria graminea [10]
Parnassia palustris
Dryas octopetala
Geum rivale
Lathyrus montanus
Hypericum maculatum
Pimpinella saxifraga
Gentianella amarella.
Orobanche alba [11]
Cirsium palustre
Mycelis muralis [12]
Alisma plantago-aquatica
Juncus maritimus
Phalaris arundinacea
Carex lepidocarpa [13]
C. hirta
Epipactis atrorubens
Platanthera chlorantha.

Acknowledgments

It will be clear from my narrative that the results here presented are the result of a cooperative enterprise in which many people besides myself were involved. I am most grateful to Professor Moore and several of his colleagues and students for making available to me the results of their explorations, and permitting me to censor a few of them without complaint. I am particularly indebted to Mr J. White, not only for the lists he provided from his 1971 visits to Inishmaan, but for undertaking the entire organization of the 1976 trips to all three islands and for his assistance in the field-work there. Indeed, I would have preferred to have published this paper under our joint names were it not for the fact that the sifting of the literature, the acceptance or rejection of old (and some recent) records and the decisions as to the status and probable recent history of many species required so many personal judgments that it would have been impossible for any pair of authors to have reached agreement. It must be understood, therefore, that whereas the paper-work is mine alone, in the field-work I was only one of a team.

I am also indebted, as always in any floristic investigation relating to Ireland, to Miss Scannell for facilitating in every way my consultation of the National Herbarium at Glasnevin, and for drawing my attention to certain records and specimens which I had overlooked. Finally, I am much indebted to Mr Tim Robinson, not only for the help and advice given on our visit to Inishmore in September, 1976, but for sending me numerous specimens, confirmation of old records, and a few novelties since that date.

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[9] *Polystichum aculeatum* has been reported to me from Inishmore by Henry Noltie of Dundee, one of the authors of the recent Flora of Angus. He found it there last May (1981). [Ir. Nat. J. 20:451].

[10] I overlooked the fact that I had seen *Stellaria graminea* on Inishmore in 1976, and I have also received from Mr Tim Robinson a specimen from north of Oatquarter. He sent me also a specimen of *Silene alba* (though I understand that we must now call it *S. pratensis*!) from a field near Killeany.-It may be assumed that the latter is a recent introduction. [Ir. Nat. J. 20:451].

[11] Robinson reports *Orobanche alba* as seen between Oatquarter and Pollnagapple. Some caution is needed here, as it is not always easy to distinguish from *O. minor*, which is common on Inishmore. Since, however, he reported it as growing on *Thymus* the determination is likely to be correct. [Ir. Nat. J. 20:451].

[12] Noltie reports *Mycelis muralis* from Inishmore. Presumably a recent arrival from the Burren. [Ir. Nat. J. 20:451].

[13] There are two undoubted specimens of *Carex lepidocarpa* in DBN, collected on Inishmore by Praeger in 1895 and labelled *C. flava*. His paper (Praeger, R. L. 1895, Ir. Nat. 4: 251) says that they were found near Oghil. Whether the species survives there today I do not know. [Ir. Nat. J. 20:451].

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CONSOLIDATED FLORA list (This paper; Webb's 1982 corrections; Tim Robinson's [INJ Vol 21, (1984) 346"Plant Records from West Galway"; and 'Flora of Connemara and the Burren - Records from 1984' Scannell and Jebb 2000, Glasra 4: 7–45). Nomenclature (with synonyms) follows Stace (2010).

Format: **?**-awaiting rediscovery; **[**error or extinct**]**; **{**casuals, ruderals, escapes, introductions etc.**}**.

EQUISETACEAE
- Equisetum arvense (N M)
- Equisetum fluviatile (N)
- Equisetum hyemale [error N]
- Equisetum x litorale (N)
- Equisetum palustre (N)
- Equisetum variegatum ?N

OPHIOGLOSSACEAE
- Botrychium lunaria ?N
- Ophioglossum vulgatum (N M)

ADIANTACEAE
- Adiantum capillus-veneris (N M S)

POLYPODIACEAE
- Polypodium cambricum (*Polypodium australe*) (N M S)
- Polypodium interjectum (M)

HYPOLEPIDACEAE
- Pteridium aquilinum (N M S)

ASPLENIACEAE
- Asplenium adiantum-nigrum (N M s)
- Asplenium ceterach (*Ceterach officinarum*) (N M S)
- Asplenium marinum (N M S)
- Asplenium ruta-muraria (N M S)
- Asplenium scolopendrium (*Phyllitis scolopendrium*) (N M S)
- Asplenium trichomanes (N M S)

ATHYRIACEAE
- Athyrium filix-femina (N)

DRYOPTERIDACEAE
- Dryopteris borreri (*Dryopteris pseudomas, Dryopteris affinis subsp. borreri*) (N)
- Dryopteris dilatata {M}
- Dryopteris filix-mas (N M S)
- Polystichum setiferum (N M)
- Polystichum aculeatum (N)

BLECHNACEAE
- Blechnum spicant {N}

CUPRESSACEAE
- Juniperus communis (N M s)

RANUNCULACEAE
- Aquilegia vulgaris (N M)
- Ficaria verna (*Ranunculus ficaria*) (N M S)
- Ranunculus acris (N M S)
- Ranunculus baudotii (N m S)
- Ranunculus bulbosus (N M S)
- Ranunculus flammula (N M S)
- Ranunculus hederaceus {N M S}
- Ranunculus lingua [error N]
- Ranunculus parviflorus (N M S)
- Ranunculus repens (N M S)
- Ranunculus trichophyllus (N)
- Thalictrum minus (N)

PAPAVERACEAE
- Glaucium flavum (M - north coast of Inishmáin, 1983, S of small quay at NW point of island)
- Papaver dubium s.lat. (*Papaver dubium*) (N M S)
- Papaver lecoqii {N S}
- Papaver rhoeas (M)

FUMARIACEAE
- Fumaria capreolata subsp. babingtonii (*Fumaria capreolata*) (N M S)
- Fumaria muralis (*Fumaria muralis s.l.*) (N M S)
- Fumaria officinalis (N m s)

ULMACEAE
- Ulmus procera [error N]

CANNABACEAE
- Humulus lupulus (N)

URTICACEAE
- Parietaria judaica (*Parietaria diffusa*) (N M S)
- Urtica dioica (N M S)
- Urtica urens (N M S)

FAGACEAE
- Quercus robur [error N]

BETULACEAE
- Alnus glutinosa [error N]

CORYLACEAE
- Corylus avellana (N M s)

CHENOPODIACEAE
- Atriplex laciniata (N M S)
- Atriplex littoralis ?N
- Atriplex patula (N M S)
- Atriplex prostrata (*Atriplex hastata s.l.*) (N M S)
- Beta vulgaris subsp. maritima (*Beta vulgaris subsp. maritima*) (N M S)
- Chenopodium album (N m S)
- Chenopodium rubrum (N)
- Salicornia europaea (N)
- Salsola kali (N M)
- Suaeda maritima (N M s)

CARYOPHYLLACEAE
- Arenaria serpyllifolia (N M S)
- Cerastium arvense (N M S)
- Cerastium diffusum (N M S)
- Cerastium fontanum (N M S)
- Cerastium glomeratum (N M S)
- Honckenya peploides (*Honkenya peploides*) (N M)
- Minuartia verna (N M s)
- Sagina apetala (N m S)
- Sagina maritima (N M S)
- Sagina nodosa (N M S)
- Sagina procumbens (N M S)
- Sagina subulata ?N
- Silene flos-cuculi (*Lychnis flos-cuculi*) (N)
- Silene vulgaris (N M S)
- Silene latifolia (*S. alba, S. pratensis*) {N}
- Spergularia marina (N)
- Spergularia media (N M S)
- Spergularia rupicola (N)
- Stellaria alsine (*Stellaria uliginosa*) (M S)
- Stellaria graminea (N)
- Stellaria media (N M S)

POLYGONACEAE
- Fallopia convolvulus (N M S)
- Persicaria amphibia (*Polygonum amphibium*) (N M)
- Persicaria hydropiper (*Polygonum hydropiper*) {N M S}
- Persicaria maculosa (*Polygonum persicaria*) (N M s)

- Persicaria minor (*Polygonum minus*) (N)
- Polygonum arenastrum (N S)
- Polygonum aviculare (N M S)
- Polygonum oxyspermum subsp. raii (*Polygonum oxyspermum subsp. raii*) (N M S)
- Rumex acetosa (N M S)
- Rumex acetosella {N}
- Rumex conglomeratus (N M S)
- Rumex crispus (N M S)
- Rumex obtusifolius (N M S)
- Rumex sanguineus (N M)

PLUMBAGINACEAE
- Armeria maritima (N M S)
- Limonium recurvum subsp. pseudotranswallianum (*Limonium transwallianum*) (N)

HYPERICACEAE
- Hypericum androsaemum (N M S)
- Hypericum humifusum {N S}
- Hypericum perforatum (S)
- Hypericum pulchrum (N M S)
- Hypericum tetrapterum (N M S)

MALVACEAE
- Malva arborea (*Lavatera arborea*) (N M s)
- Malva neglecta (N M S)
- Malva sylvestris (N M S)

CISTACEAE
- Helianthemum nummularium [error N]
- Helianthemum oelandicum subsp. piloselloides (*Helianthemum canum*) (N)
- Tuberaria guttata [error Aran]

VIOLACEAE
- Viola arvensis (N S)
- Viola canina (M)
- Viola hirta (N M)
- Viola palustris [error N]
- Viola riviniana (N M S)
- Viola tricolor agg. (*Viola tricolor*) (N M s)

SALICACEAE
- Populus alba [error M]
- Salix aurita (T.Robinson N)
- Salix caprea (S)
- Salix cinerea subsp. oleifolia (*Salix atrocinerea*) (N T.Robinson, M S)
- Salix repens (N M)
- Salix viminalis (N M)

BRASSICACEAE
- Alliaria petiolata (N M)
- Arabidopsis thaliana (N M S)
- Arabis hirsuta (N M S)
- Armoracia rusticana (N)
- Barbarea intermedia (N M)
- Barbarea vulgaris {S}
- Brassica napus [error N]
- Brassica nigra {N}
- Brassica rapa (N M S)
- Cakile maritima (N M S)
- Capsella bursa-pastoris (N M S)
- Cardamine flexuosa (N M S)
- Cardamine hirsuta (N M S)
- Cardamine pratensis (N M S)
- Cochlearia anglica [error N]
- Cochlearia danica (N m)
- Cochlearia officinalis (N M S)
- Cochlearia officinalis subsp. scotica (*Cochlearia scotica*) (N)
- Coincya monensis subsp. cheiranthos (*Rhynchosinapis monensis*) [error N]
- Crambe maritima (N M)
- Erophila verna (N M S)
- Hesperis matronalis (N)
- Lepidium coronopus (*Coronopus squamatus*) (N M S)
- Lepidium didymum (*Coronopus didymus*) (N M S)
- Matthiola sinuata [extinct N]
- Nasturtium microphyllum (*Rorippa microphylla*) (N)
- Nasturtium officinale (*Rorippa nasturtium-aquaticum*) (N M S)
- Raphanus raphanistrum subsp. raphanistrum (*Raphanus raphanistrum*) (N M S)
- Rorippa islandica (N)
- Rorippa palustris (N m)
- Sinapis alba (N)
- Sinapis arvensis (N M S)
- Sisymbrium officinale (N M S)
- Thlaspi arvense (N m)

RESEDACEAE
- Reseda lutea {N}
- Reseda luteola {N S}

ERICACEAE
- Calluna vulgaris (N M S)
- Erica cinerea (N M S)

PRIMULACEAE
- Anagallis arvensis (N M S)
- Anagallis tenella (N M S)
- Glaux maritima (N M S)
- Lysimachia nemorum (N)
- Primula veris (N M S)
- Primula vulgaris (N M S)
- Samolus valerandi (N M S)

CRASSULACEAE
- Sedum acre (N M S)
- Sedum album (N)
- Sedum anglicum (n m S)
- Sedum dasyphyllum [error S]
- Sedum rosea (*Rhodiola rosea*) (N)
- Umbilicus rupestris (N)

SAXIFRAGACEAE
- Chrysosplenium oppositifolium (N)
- Saxifraga hypnoides [error Aran]
- Saxifraga rosacea (N M S)
- Saxifraga tridactylites (N M S)

ROSACEAE
- Agrimonia eupatoria (N M S)
- Alchemilla filicaulis subsp. vestita (N M s)
- Aphanes arvensis (N M S)
- Crataegus monogyna (N M S)
- Filipendula ulmaria (N M S)
- Fragaria × ananassa (*Fragaria* x *ananassa*) (N)
- Fragaria vesca (N M S)
- Geum urbanum (N M S)
- Malus pumila (*Malus domestica*) (M)
- Malus sylvestris (T. Robinson N)
- Potentilla anglica (N)
- Potentilla anserina (N M S)
- Potentilla erecta (N M S)
- Potentilla reptans (N M)
- Potentilla sterilis (N M)
- Poterium sanguisorba (*Sanguisorba minor*) (N M S)
- Prunus spinosa (N M S)
- Rosa canina (N M S)
- Rosa spinosissima (*Rosa pimpinellifolia*) (N M S)
- Rubus caesius (N M s)
- Rubus fruticosus agg. (*Rubus fruticosus*) (N M S)
- Rubus saxatilis (N M s)

FABACEAE
- Anthyllis vulneraria (N M S)
- Astragalus danicus (N M)
- Lathyrus pratensis (N M S)
- Lotus corniculatus (N M S)
- Lotus corniculatus var. crassifolius (M S - Sandy ground between airstrip & National school, Inissheer, CB, 12/06/1987 (DBN). NE end of airstrip, Inishmaan, CB, 11/06/1987 (DBN))
- Lotus pedunculatus (*Lotus uliginosus*) [error N]
- Medicago lupulina (N M S)
- Medicago sativa subsp. sativa (*Medicago sativa*) (N M S)
- Trifolium arvense {S}
- Trifolium campestre (N M S)
- Trifolium dubium (N M S)
- Trifolium medium {N}
- Trifolium pratense (N M S)
- Trifolium repens (N M S)
- Trifolium striatum [error N]
- Ulex europaeus (N)
- Ulex gallii {N}
- Vicia cracca (N M S)
- Vicia sativa subsp. nigra (*Vicia sativa subsp. nigra*) (N M S)
- Vicia sepium (N M S)

HALORAGACEAE
- Myriophyllum alterniflorum [error N]
- Myriophyllum spicatum (N)

LYTHRACEAE
- Lythrum portula [error Aran]
- Lythrum salicaria (N M S)

ONAGRACEAE
- Circaea lutetiana (N M S)
- Epilobium hirsutum (N M s)
- Epilobium montanum (N M S)
- Epilobium obscurum (N M s)
- Epilobium parviflorum (N M S)
- Epilobium tetragonum [error N M S]
- Fuchsia magellanica (N M)

CORNACEAE
- Cornus sanguinea (N m S)

CELASTRACEAE
- Euonymus europaeus (N M S)

AQUIFOLIACEAE
- Ilex aquifolium (N M S)

EUPHORBIACEAE
- Euphorbia helioscopia (N M S)
- Euphorbia paralias (N M S)
- Euphorbia peplus (N M S)
- Euphorbia portlandica (N M S)

RHAMNACEAE
- Rhamnus cathartica (*Rhamnus catharticus*) (N M)

LINACEAE
- Linum catharticum (N M S)

POLYGALACEAE
- Polygala vulgaris (N M S)

ACERACEAE
- Acer pseudoplatanus [error N]

OXALIDACEAE
- Oxalis acetosella (N)

GERANIACEAE
- Erodium cicutarium (N M S)
- Erodium maritimum [error N]
- Erodium moschatum {N} (S)
- Geranium columbinum (N)
- Geranium dissectum (N M S)
- Geranium lucidum (N M S)
- Geranium molle (N M S)
- Geranium pratense [error N]
- Geranium purpureum [error N]
- Geranium pyrenaicum (N M S)
- Geranium robertianum (N M S)
- Geranium sanguineum (N M S)

BALSAMINACEAE
- Impatiens glandulifera (N)

ARALIACEAE
- Hedera helix (N M S)

APIACEAE
- Aegopodium podagraria (M)
- Aethusa cynapium (n M S)
- Angelica sylvestris (N m)
- Anthriscus caucalis {N}
- Anthriscus sylvestris (N M S)
- Apium graveolens {N}
- Apium inundatum (N M)
- Apium nodiflorum (N M s)
- Conium maculatum (n M s)
- Conopodium majus (N)
- Crithmum maritimum (N M S)
- Daucus carota (N M S)
- Eryngium maritimum (N M)
- Heracleum sphondylium (N M S)
- Hydrocotyle vulgaris (N M S)
- Ligusticum scoticum [error N]
- Oenanthe crocata (M)
- Pastinaca sativa (N S)
- Pimpinella major (N)
- Pimpinella saxifraga [error N]
- Sanicula europaea (N M s)
- Smyrnium olusatrum (N M S)
- Torilis japonica (N M s)
- Torilis nodosa (N M s)

GENTIANACEAE
- Blackstonia perfoliata (N M S)
- Centaurium erythraea (N M S)
- Gentiana verna (N M S)
- Gentianella campestris (N M)

APOCYNACEAE
- Vinca major (N)

SOLANACEAE
- Solanum dulcamara (N M)

CONVOLVULACEAE
- Calystegia sepium (N M)
- Calystegia soldanella (N M S)
- Convolvulus arvensis (N S)
- Cuscuta epithymum (N M)

MENYANTHACEAE
- Menyanthes trifoliata (N)

BORAGINACEAE
- Lithospermum officinale (N)
- Myosotis arvensis (N M S)
- Myosotis discolor ?N
- Myosotis laxa (N M S)
- Myosotis scorpioides (*Myosotis palustris*) [error N M S]
- Symphytum officinale (N)

LAMIACEAE
- Ajuga pyramidalis (N M)
- Ajuga reptans (N)
- Clinopodium ascendens (*Calamintha sylvatica*) (N)
- Clinopodium vulgare [error N]
- Galeopsis tetrahit (N m s)
- Glechoma hederacea (N S)
- Lamium hybridum (M)
- Lamium purpureum (N M S)

- Lycopus europaeus ?N
- Marrubium vulgare {N S}
- Mentha aquatica (N M S)
- Mentha arvensis (N S)
- Mentha spicata (*Mentha longifolia*) (N)
- Mentha suaveolens (N)
- Nepeta cataria (M)
- Origanum vulgare {N}
- Prunella vulgaris (N M S)
- Salvia verbenaca (N - In a sandy field S of air-strip, Inishmore, TR & TGFC (Webb & Scannell, 1984). In a closely grazed field on consolidated sand, between the road and shore sand, about 100 yds NW of graveyard and Church, Inishmore, 06/06/1983, TR; still there 1999, TGFC)
- Stachys arvensis {N S}
- Stachys palustris (N M S)
- Stachys sylvatica (N M S)
- Teucrium scorodonia (N M S)
- Thymus polytrichus (*Thymus praecox*) (N M S)

HIPPURIDACEAE
- Hippuris vulgaris (N M S)

CALLITRICHACEAE
- Callitriche stagnalis (N M S)
- Callitriche stagnalis s.lat. (*Callitriche verna*) [error M]

PLANTAGINACEAE
- Littorella uniflora (N)
- Plantago coronopus (N M S)
- Plantago lanceolata (N M S)
- Plantago major (N M S)
- Plantago maritima (N M S)

OLEACEAE
- Fraxinus excelsior (N M)

SCROPHULARIACEAE
- Cymbalaria muralis (N M S)
- Digitalis purpurea [error N]
- Euphrasia arctica subsp. borealis (M)
- Euphrasia confusa (N M S)
- Euphrasia micrantha (N)
- Euphrasia nemorosa (N M S)
- Euphrasia officinalis subsp. anglica (*Euphrasia anglica*) (N)
- Euphrasia salisburgensis (N M S)
- Euphrasia tetraquetra (N)
- Melampyrum pratense (N)
- Odontites vernus (*Odonites verna*) (N M S)
- Pedicularis palustris ?N
- Pedicularis sylvatica {N M S}
- Rhinanthus minor (N M S)
- Scrophularia auriculata (N)
- Scrophularia nodosa (N M S)
- Verbascum thapsus (N)
- Veronica agrestis (N m s)
- Veronica anagallis-aquatica (N)
- Veronica arvensis (N M S)
- Veronica beccabunga (N M S)
- Veronica catenata (N M)
- Veronica chamaedrys (N M S)
- Veronica hederifolia (N M S)
- Veronica montana [error N]
- Veronica officinalis (N M S)
- Veronica persica (N M S)
- Veronica polita {N}
- Veronica serpyllifolia (N M S)
- Veronica speciosa (*Hebe speciosa*) (N)

OROBANCHACEAE
- Orobanche hederae (N M S)
- Orobanche minor (N M S)
- Orobanche alba (N)

LENTIBULARIACEAE
- Pinguicula vulgaris (N M)

CAMPANULACEAE
- Campanula rotundifolia (N M S)

RUBIACEAE
- Asperula cynanchica (N M S)
- Galium album (*Galium mollugo*) [error Aran]
- Galium aparine (N M S)
- Galium boreale (N M S)
- Galium palustre (N M S)
- Galium sterneri (N M S)
- Galium verum (N M S)
- Rubia peregrina (N M S)
- Sherardia arvensis (N M S)

CAPRIFOLIACEAE
- Lonicera periclymenum (N M S)
- Sambucus ebulus (N)
- Sambucus nigra (N M S)
- Viburnum opulus (N)

VALERIANACEAE
- Valeriana officinalis (N M S)
- Valerianella locusta (N M S)

DIPSACACEAE
- Knautia arvensis ?N
- Succisa pratensis (N M S)

ASTERACEAE
- Achillea millefolium (N M S)
- Achillea ptarmica ?M ?S
- Antennaria dioica (N M S)
- Arctium nemorosum (N M S)
- Artemisia absinthium {N}
- Artemisia vulgaris (N S)
- Aster tripolium (N)
- Bellis perennis (N M S)
- Carduus crispus subsp. multiflorus (*Carduus acanthoides*) (N)
- Carduus nutans {N M}
- Carduus tenuiflorus (N M S)
- Carlina racemosa [error N]
- Carlina vulgaris (N M S)
- Centaurea cyanus (N - Fearann an Choirce, Inishmore, L 845 102, Curtis et al. (1988))
- Centaurea nigra (N M S)
- Centaurea scabiosa (N M S)
- Cichorium intybus {N}
- Cirsium arvense (N M S)
- Cirsium palustre (S In limestone crevice, small field, Inisheer, 1992, MWJ (1995))
- Cirsium vulgare (N M S)
- Crepis capillaris (N M S)
- Crepis vesicaria subsp. taraxacifolia (N M S)
- Delairea odorata (*Senecio mikanioides*) (M - Inishmaan, S of post office, TGFC, 1999)
- Eupatorium cannabinum (N M S)
- Filago vulgaris [extinct S]
- Glebionis segetum (*Chrysanthemum segetum*) {N}
- Gnaphalium uliginosum (*Filaginella uliginosa*) {N}
- Hieracium anglicum (n M)
- Hypochaeris radicata (*Hypochoeris radicata*) (N M S)
- Lapsana communis (N M S)
- Leontodon hispidus (N M)
- Leontodon saxatilis (*Leontodon taraxacoides*) (N M S)
- Leucanthemum vulgare (N M S)
- Matricaria discoidea (*Chamomilla suaveolens*) (N M S)
- Mycelis muralis (N)

- Pilosella officinarum (*Hieracium pilosella*) (N M S)
- Pulicaria dysenterica (N M S)
- Scorzoneroides autumnalis (*Leontodon autumnalis*) (N M S)
- Senecio aquaticus (N M S)
- Senecio jacobaea (N M S)
- Senecio vulgaris (N M S)
- Silybum marianum {N}
- Solidago virgaurea (N M)
- Sonchus arvensis (N M S)
- Sonchus asper (N M S)
- Sonchus oleraceus (N M S)
- Tanacetum vulgare {M}
- Taraxacum (*Taraxacum spp*)
- Taraxacum britannicum (*Taraxacum hibernicum*)
- Taraxacum cordatum
- Taraxacum cyanolepis
- Taraxacum degelii
- Taraxacum glauciniforme
- Tripleurospermum inodorum (*Matricaria perforata*) (S)
- Tripleurospermum maritimum (*Matricaria maritima*) (N M S)
- Tussilago farfara (N M S)

ALISMATACEAE
- Baldellia ranunculoides (N M)

JUNCAGINACEAE
- Triglochin maritima (N M)
- Triglochin palustris (N M S)

POTAMOGETONACEAE
- Potamogeton coloratus (M - 'small drain by the lake, Inishmaan,' 8/07/1976 DAW [as P. natans] (TCD det. C.D.Preston), first Aran record (DBN & CGE).)
- Potamogeton natans (N M)
- Potamogeton pectinatus (S)
- Potamogeton polygonifolius [error N]

ZANNICHELLIACEAE
- Zannichellia palustris (N)

ZOSTERACEAE
- Zostera marina (N)
- Zostera marina var. stenophylla (*Zostera angustifolia*) [error Aran]

ARACEAE
- Arum maculatum (N M S)

LEMNACEAE
- Lemna minor [extinct N M]

JUNCACEAE
- Juncus acutiflorus [error N M S]
- Juncus articulatus (N M S)
- Juncus bufonius (N S)
- Juncus conglomeratus (N)
- Juncus effusus (N M)
- Juncus gerardii (N M S)
- Juncus inflexus (M)
- Juncus subnodulosus (N)
- Juncus tenuis [error N]
- Luzula campestris (N M S)
- Luzula multiflora {N}

CYPERACEAE
- Bolboschoenus maritimus (*Scirpus maritimus*) (N S)
- Carex arenaria (N M S)
- Carex caryophyllea (N M S)
- Carex demissa (*Carex viridula subsp. oedocarpa*) (N M)
- Carex distans (N M S)
- Carex extensa (N M)
- Carex flacca (N M S)
- Carex hostiana (N M)
- Carex hostiana × viridula = C. × fulva (M - In damp peat hollows of pavement N of school on Inishmaan, with both parents in association with Schoenus, Pinguicula vulgaris, 1984, CB, confirmed by A.O.Chater & R.W.David)
- Carex lepidocarpa ?N
- Carex nigra (N M S)
- Carex oederi (*Carex serotina, Carex viridula subsp. viridula*) (N M S)
- Carex otrubae (N M S)
- Carex panicea (N M S)
- Carex pseudocyperus [error N]
- Carex pulicaris (N M S)
- Carex viridula s.lat. (*Carex flava*) [error N S]
- Cladium mariscus [error Aran]
- Eleocharis palustris (N M S)
- Eleocharis uniglumis (N M)
- Eriophorum angustifolium (N S M - Inishmaan, 11/06/1987, CB (DBN))
- Isolepis cernua (*Scirpus cernuus*) (N)
- Isolepis setacea (*Scirpus setaceus*) (N M s)
- Schoenoplectus lacustris (*Scirpus lacustris, Schoenoplectus lacustris subsp. lacustris*) (N M S)
- Schoenus nigricans (N M)

POACEAE
- Agrostis canina {N}
- Agrostis capillaris (N M S)
- Agrostis stolonifera (N M S)
- Aira caryophyllea (N M s)
- Aira praecox (N M s)
- Alopecurus geniculatus (N)
- Alopecurus pratensis (N M)
- Ammophila arenaria (N M S)
- Anisantha sterilis (*Bromus sterilis*) (N M S)
- Anthoxanthum odoratum (N M S)
- Arrhenatherum elatius (N M S)
- Avena strigosa (M - An Fhearbada, Inishmaan, L 944 044, TGFC, 1999. Port Corrúch Beag, Inishmore, L 845 110, TGFC et al., 1987. An Baile Thíos, L 976 027, TGFC et al., 1987)
- Avenula pubescens (*Helictotrichon pubescens*) (N M S)
- Brachypodium sylvaticum (N M S)
- Briza media (N M S)
- Bromus hordeaceus (N M S)
- Calamagrostis epigejos (N M)
- Catapodium marinum (*Desmazeria marina*) (N M S)
- Catapodium rigidum (*Desmazeria rigida*) (N M S)
- Cynosurus cristatus (N M S)
- Dactylis glomerata (N M S)
- Danthonia decumbens (N M S)
- Deschampsia cespitosa ?N
- Elymus caninus [error N]
- Elytrigia juncea subsp. boreoatlantica (*Elymus farctus subsp. boreali-atlanticus*) (N M S)
- Elytrigia repens (*Elymus repens*) (N M S)
- Festuca ovina (N M S)
- Festuca rubra (N M S)
- Glyceria declinata (N M S)
- Glyceria fluitans (N M)
- Holcus lanatus (N M S)
- Holcus mollis [error N]
- Koeleria macrantha (N M S)
- Lolium multiflorum (N M S)
- Lolium perenne (N M S)
- Lolium temulentum (M N S - On thatched roofs of dwellings on Inishmaan; in fields on Inishmore,

Inishmaan, and Inisheer - where it is a common weed of rye fields, Curtis et al. INJ 22 (1988) 505-512)
- Molinia caerulea (N M)
- Parapholis strigosa ?N
- Phleum arenarium (N)
- Phleum pratense (N M S)
- Phragmites australis (N M S)
- Poa annua (N M S)
- Poa pratensis s.lat. (N M S)
- Poa trivialis (N M S)
- Puccinellia maritima (N m)
- Schedonorus arundinaceus (*Festuca arundinacea*) (N M)
- Sesleria caerulea (*Sesleria albicans*) (N M S)
- Trisetum flavescens (?N M - Dry rocky ground at base of walls, several stations on Inishmaan, usually on rough tracks leading from village to S side of island, 1984, CB)
- Vulpia bromoides {N}

TYPHACEAE
- Typha latifolia (N M S)

LILIACEAE
- Allium babingtonii (N M S)
- Allium carinatum [error N]
- Allium ursinum (N M)
- Allium vineale (M)
- Hyacinthoides non-scripta [error N]

AMARYLLIDACEAE
- Narcissus tazetta × poeticus = N. × medioluteus {N}

IRIDACEAE
- Crocosmia pottsii × aurea = C. × crocosmiiflora (*Tritonia crocosmiiflora*) (N M S)
- Iris pseudacorus (N M S)

ORCHIDACEAE
- Anacamptis pyramidalis (N M S)
- Coeloglossum viride (N m)
- Dactylorhiza fuchsii (N M S)
- Dactylorhiza incarnata agg. (*Dactylorhiza incarnata*) (N)
- Dactylorhiza kerryensis (*Dactylorhiza majalis, Dactylorhiza majalis subsp. occidentalis*) (N M S)
- Dactylorhiza maculata subsp. ericetorum (*Dactylorhiza maculata*) (N M)
- Epipactis atrorubens [error N]
- Gymnadenia conopsea agg. (*Gymnadenia conopsea*) (N M S)
- Neotinea maculata (N M S)
- Neottia ovata (*Listera ovata*) (N M S)
- Ophrys apifera (N M)
- Orchis mascula (N M S)
- Platanthera bifolia (N M)
- Spiranthes spiralis (N M s)