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The National  
Institute  
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Planning and  
Construction  
Research



CONSERVATION & AMENITY  
ADVISORY SERVICE

A preliminary report on areas of  
Scientific Interest in Co. Roscommon.

*Copied @ Bray*

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This report is based on material from the files of An Pólaíocht (Conservation & Amenity Section), from the published literature and from several periods of field work in Spring 1974. It is a provisional document which will be revised as more information accumulates.

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The maps which follow are used with the permission of the Government (Licence No. 121/74).

Preface

This report concerns country planning. That such a subject requires attention may need a word of explanation. At first sight Ireland does indeed appear to have a large proportion of natural unspoiled countryside. The reality is, however, that the land is subjected to a high intensity of agricultural use which we have come to regard as normal. It is interesting by way of comparison to note that in Britain a much greater percentage of the land surface is covered by woodland, both deciduous and coniferous, than in Ireland. Within this there are much larger areas that are ungrazed. In addition the rural population is lower and the wilderness areas, without roads, considerably larger.

The Irish landscape is therefore more 'tamed' in character and the main difference between the countries is that Ireland has a low population density and consequently a lack of industrial development in rural areas. This situation has been turned to great advantage by our tourist industry. It must be preserved while, at the same time, living standards are raised by rational development on the urban and rural scene. Good planning is essential in this development and it is the purpose of this report to single out the most valuable natural areas around which development can be guided by the planning authorities. In this way the parts of the countryside that are taken over by development are those of least value in scientific or amenity terms. Hard decisions will have to be taken occasionally and for this reason only those sites where there are strong grounds for conservation are included in the following pages. The sites cover only a tiny proportion of the county (1.2%), so in the great majority of cases development can proceed without damage to the natural heritage, provided certain obvious precautions are taken with regard to waste disposal.

The report attempts to identify a representative range of natural and semi-natural habitats in the county and also to list sites of special significance, usually containing a rare species or a rare natural phenomenon. In approach the report is primarily botanical and secondarily ornithological. No excuse is offered for this apparent bias as there is good reason for it. A biological site is of interest for its diversity, i.e. number of species, or for the density of a special group or species. Since all animal life depends on plants, in the extreme case being 'tied to' a single plant species (as two or three invertebrates are to each Irish plant), diversity in the plant cover reflects the diversity and interest in all other forms of life. Rare plant species are often an indication that diversity is high unless they are peculiarly specialised to a very rare habitat - the outcrop of a particular rock for example.

Work on invertebrate animals (insects, snails, spiders etc.) is difficult and much more time consuming than that on plants. Consequently the state of knowledge about this part of the Irish fauna is incomplete and in many parts of the country practically non-existent. Repeated visits are necessary to measure either diversity or density and therefore many local concentrations of interesting species remain unfound or impossible to place properly in importance - nobody knows if they are unusual or not. The only groups of animals which one can evaluate conveniently are the birds and partially, the fish and mammals, and

therefore they are the other main plank on which this survey depends. In addition, their economic value justifies a certain amount of attention.

Conservation of particular areas may be necessary for reasons of visual amenity, education or scientific research. The natural vegetation gives a place a definite atmosphere with which its recreational value is intimately tied up. Scenic diversity is often the key quality of the environment that attracts people to an area or that makes them find relaxation there: the contrast between cultivation and wilderness, between water and land or between trees and grass.

The educational value of field studies is well known and they are a stimulus to learning that many disciplines in the life sciences are now taking advantage of. Natural communities provide some of the clearest examples of the ecological principles that operate through all growing and harvesting methods. In addition there is the challenge of identifying and studying numerous and very different species. Field work attracts all children at some stage and the knowledge obtained enables everyone to better appreciate being in rural surroundings. Such constructive recreation should be encouraged by all possible means.

To scientific research the natural community is invaluable. Not only does it harbour little known organisms that will in time be useful for soil conditioning, pest control, or even for growing in their own right as crops, but it is also needed as a control area. Without it, it would be impossible to judge the effects of, or to improve man's attempts at land management. The main advantage of the wild community is that it is self-sustaining and does no environmental damage. Attributes that are far different from our present agricultural methods.

Conservation must be viewed against this background if it is to be given the real importance in a competitive and changing world. The responsibility for conservation in Ireland lies largely with the County Councils in the working of the planning office in conjunction with a strong and national development strategy.

The present report aims to assist in the preparation and implementation of the County Development Plan and additionally to suggest appropriate management methods from which sites would benefit. Development of a certain type can in fact improve the value of some natural areas whether through fencing against grazing animals, removing 'weed' species or altering water flows.

## Vulnerability of Various Habitats

Areas of scientific interest can be gradually or quickly destroyed. Their value may be slowly eroded by overgrazing, by introducing foreign species, or by a gradual build-up of pollutants. Alternatively, they may be more dramatically destroyed by drainage, tree felling, or quarrying. All these influences could operate in Co. Roscommon and, as will be seen from the text, some are already in action.

Woodlands are most generally at risk from clearance for building or replanting. When a deciduous wood is replaced by a coniferous one, the community is altered beyond all recognition. The belts and lines of deciduous trees that may remain can in no way maintain an intact community and contribute only an amenity function. Even quite small blocks, however, can preserve a good deal of scientific interest.

Grazing a woodland modifies first the ground flora and later, as it increases in intensity, destroys the tree seedlings and saplings themselves. Any gaps in the canopy that then develop cannot be filled and the woodland gradually disappears as the old trees die out.

The aquatic sites for which Roscommon is pre-eminent could be largely destroyed by further drainage. The turloughs would be affected by even a small change in the height of the winter water table and while the larger lakes might redevelop their interesting communities at a lower level after drainage, there is no chance that the turloughs or smaller lakes, such as Cranberry or Corkip Loughs could do the same.

As is well known, the pollution of waterbodies changes their character and the dependant fish life to begin with and, if it is continued, has bad effects on water quality. Aquatic communities are much more vulnerable than terrestrial ones since they require less nutrients, and have no absorbing power like a soil. Also the incoming matter cannot be localised. For these reasons, development upstream of important areas must be carefully watched and alternative sites, drainage routes, or sewage treatment processes considered when such an area is involved.

The last influence to be mentioned is that of public pressure on land which deserves a place only for its destructive aspects of plant or animal collecting and overuse of fragile systems, especially coastal sand dunes. Opening up areas with a rare noticeable plant may damage that species slightly but in general enough individuals escape attention so that it persists from year to year. In future, fragile ecosystems such as marshes or unforested eskers may suffer the excessive use that some sand dunes already receive but no problems of this sort exist in the county today.

## INTRODUCTION

### The Scientific Heritage of Co. Roscommon

County Roscommon is a low-lying region, half its surface area being below 200 ft. O.D. and almost all the remainder below 400 ft. Consequently wetland habitats prevail and the maze of rivers, lakes and turloughs, controlled in general by the height of the Shannon river, form one of the most distinctive features of the County. In view of the large numbers of wildfowl that visit and feed on such expanses of water, the summertime pursuits of fishing and recreation that they can absorb and the interesting and educationally valuable plant communities that they hold, they should be seen in planning terms as a resource, rather than as a nuisance to the farming industry. Winter flooding has a fertilizing effect on grassland in limestone regions and the soils have come into equilibrium with it (see Fig. 1). Drainage can disrupt these natural systems and is seldom the long term economic benefit that its proponents make out.

Three types of waterbody occur, the meandering rivers such as the Shannon south of Athlone and the River Suck, permanent lakes that rise in winter such as Annaghmore L. and Lough Glinn and "turloughs", e.g. L. Croan, Briarfield turlough etc, a largely temporary type. The latter are rare features outside Ireland and therefore they have considerable scientific importance. There are four major areas in the County where flood waters provide excellent wildfowl feeding i.e. the Shannon south of Athlone; L. Funshinagh - Mount Talbot; turloughs and lakes east of Castleplunkett; and L. Gara - Lough Glinn. Within these areas the most favoured sites have been listed. Some of them are already protected by No-shooting Orders but they may require other action. Thus it is recommended that Lough Funshinagh is covered by a Conservation Order since it has a most valuable wildfowl breeding population. Though they do not support very large numbers of birds several other lakes are valuable amenities especially for education, in view of their proximity to roads, centres of population or because they are associated with other sorts of interest, e.g. archaeological remains. In these cases a Special Amenity Area Order is suggested as the best way of securing the conservation objective. A related wetland ecosystem is the raised bog, best developed in the Suck valley (Fig. 1). This is by contrast a very oligotrophic and unproductive community, of ecological interest mainly for this reason.

Almost all the bedrock of the County is limestone (see Fig. 2) and though it is largely drift-covered this too contains limestone particles. The terrestrial communities are consequently dominated by calcicole plants. The eskers near Athlone e.g. Castlesampson and Knocknagool are fine examples of this feature and are among the few that are still intact in the county. Being close to main roads and therefore accessible they are important amenities and in addition have considerable scenic value. They should remain unexploited for sand and gravel, where this peculiarly Irish landform can be appreciated and studied. It is suggested

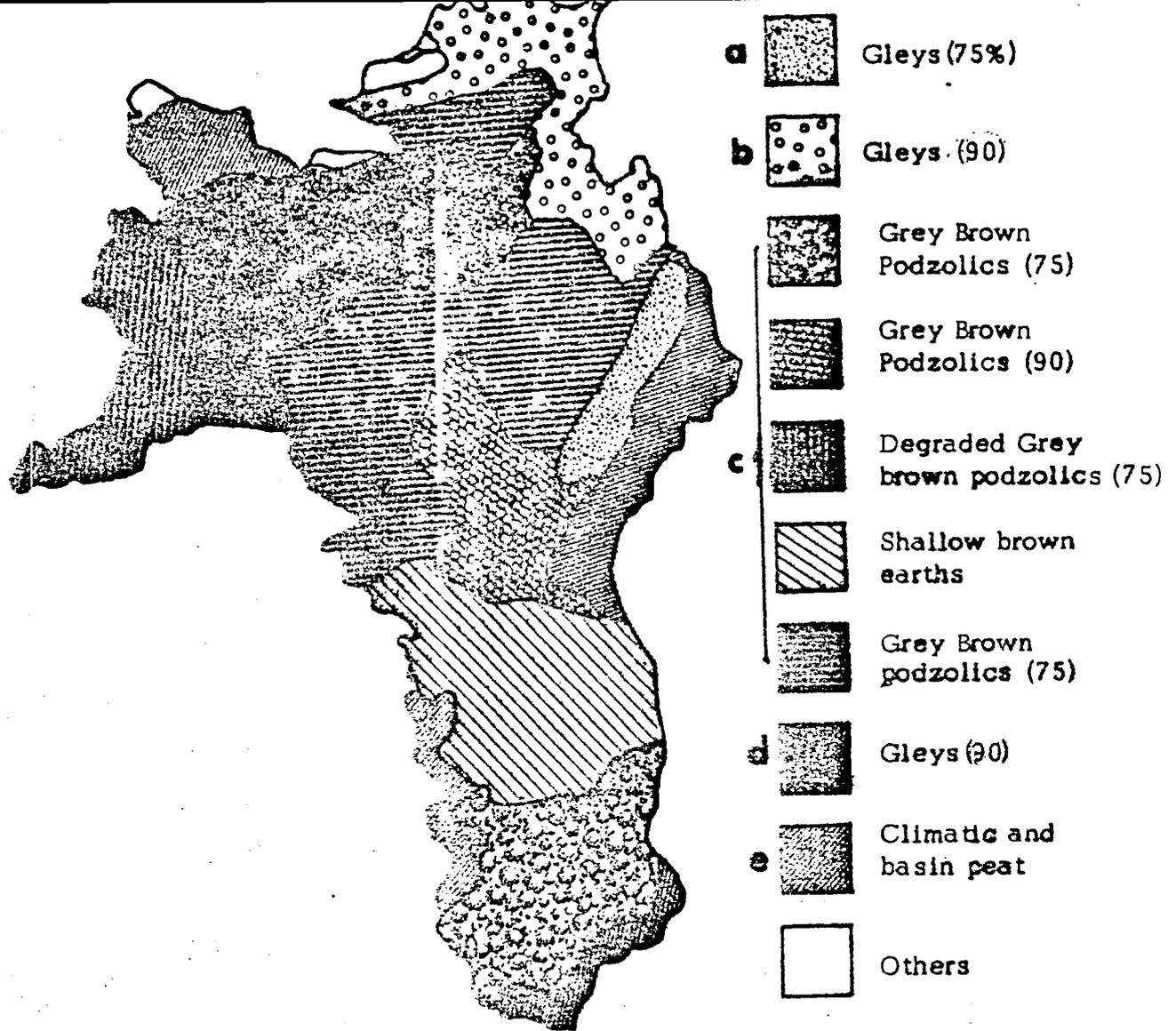


Fig. 1 Soils of Co. Roscommon (from the General Soil Map of Ireland. Foras Taluntais, 1969).

The soil types denoted in the Key may be grouped as:

- a. Those of rolling lowlands.
- b. Drumlin (wet mineral and organic soils).
- c. Flat to undulating lowlands (mostly dry mineral soils).
- d. Flat to undulating lowlands (mostly wet mineral soils).
- e. Organic soils.

that Special Amenity Area Orders would reinforce and justify normal planning controls in these cases.

Where woodland occurs, which is usually on the shores of the larger lakes, its climax vegetation consists of durmast oak, Quercus robur being dominant over a shrub layer of hazel, holly etc. Such large trees have often been selectively felled however, introducing ash in their places. The margins of such woods are therefore ash-hazel. St. John's Wood is the most important wood containing the whole range of species and woodland types. Because of its large size it would be very suitable to retain as a national park with an emphasis on recreation. It could absorb the necessary development provided this was planned sympathetically with the environment. At this stage it is vital to prevent widespread felling and replanting of the area and for this reason a Tree Preservation Order should be invoked.

The woods at Drumharlow Lough and a small stand at Lough Key are of similar importance but are too small for development. Drumman's Is. is currently preserved but Hughestown Wood is vulnerable and should be protected.

Because of the monotonous nature of the bedrock there are apparently few features of geological interest. Where other rocks occur they are in a typical succession, as anticlines rising up through the limestone and exposing older rocks in their centres. There is an interesting Tertiary site at Lecarrow however. Here a hollow in the limestone was filled by siliceous clays similar to those which contain lignite elsewhere. Some plant fragments and pollen have been recovered, belonging to species long since extinct, but the site has not been given the critical investigation that it deserves. It is important that there should be a specialist analysis if excavation is recommenced.

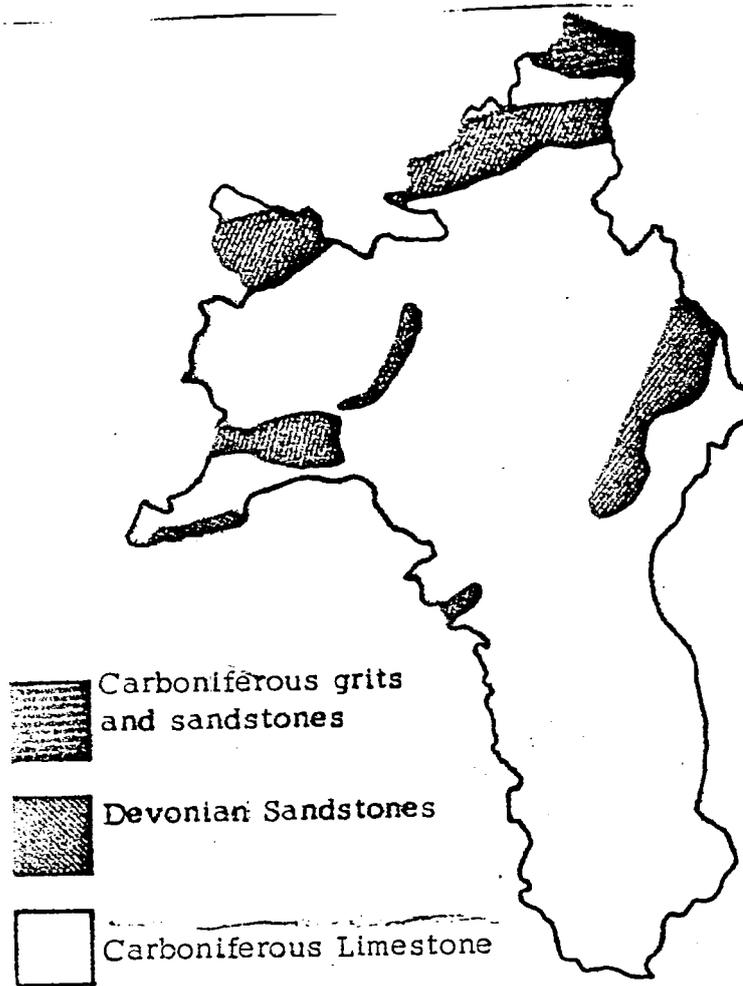


Fig. 2 Solid Geology of Co. Roscommon.

## RATING OF AREAS OF SCIENTIFIC IMPORTANCE

This is a measure of the relative importance of areas of scientific importance.

The importance of each area is indicated in terms of the following categories:-

### International Importance

1. Only area of its type in Europe.
2. One of a few such localities in Europe.
3. One of a natural series in Europe.
4. Recognised international importance.
5. Specialised educational importance.

### National Importance

1. Only area of its type in Ireland.
2. One of a few such localities in Ireland.
3. One of a natural series in Ireland.
4. Recognised national importance.
5. General or specialised educational importance.

### Regional Importance

1. Only area of its type in province.
2. One of a few localities in Ireland.
3. One a natural series in region.
4. Fine example of its kind.
5. General or specialised educational importance.

### Local Importance

1. Only area of its type in county.
2. One of a few localities in province.
3. Fine example of its kind.
4. General educational importance.

## PRIORITY OF AREAS OF SCIENTIFIC INTEREST

This is a measure of the relative urgency necessary for protection of the areas of scientific importance.

Each site is given a priority rating of A, B or C.

The rating of any area is based on a combination of the following criteria:-

- a) the importance of the area
- b) the vulnerability of the area
- c) the nature and imminence of any threats to the area.

The sites are listed in order of priority within each category of importance.

Section E A list of sites of scientific interest in Co. Roscommon

Name of area	Page No.	Grid Reference	Rating	Priority	Interest
Lecarrow claypits	14	M. 985,562	National	C	Geological, botanical. Fossil plants probably occur in this Tertiary deposit.
Lough Funshlnagh	17	M. 93,51	National	B	Ornithological, ecological. Wildfowl breeding and wintering area.
St. John's Wood	20	M. 99,56	National	B	Ecological, botanical, ornithological. Large oak/hazel wood with rich community development.
Shannon R. (Athlone - Shannonbridge)	23	M. 02,32	National	B	Ornithological, botanical. Important wintering wildfowl area, particularly in flood.
Drumman's Island (L. Key)	25	G. 83,04	National	C	Ecological, botanical. Oakwood on drained drumlin soil.
Castlesampson Esker	28	M. 94,40	Regional	A	Ecological, botanical. Dry, calcareous esker with unusual plant species.
Knocknanool Esker	31	M. 95,43	Regional	A	Ecological, botanical. Extensive esker of slightly unusual type.
Hughestown Wood	34	G. 90,01	Regional	B	Ecological, botanical. Oak woodland without introduced species.
Bally Bay, Lough Ree	37	N. 00,47	Regional	B	Botanical, ornithological, ecological. Fine marsh communities and wooded islands provide many points of interest.
Yew Point, Lough Ree	40	N. 01,48	Regional	B	Botanical, ecological. Lakeshore scrub and woods with many rare species.
Turloughs, near Briarfield House	42	M. 81,76	Regional	B	Ornithological. Excellent feeding areas for wintering wildfowl.

Annaghmore L. area	44	M. 90,83	Regional	B	Ornithological, ecological, botanical. Good marsh community with uncommon features. Wildfowl present in good numbers.
R. Suck callows, Mt. Talbot - Ballyforan	47	M. 82,50	Regional	B	Ornithological. High numbers of wildfowl in winter, including geese.
Lough Croan	49	M. 88,50	Regional	C	Ornithological, botanical. Interesting turlough with marsh communities in permanent pools. Wildfowl and waders in winter.
Marshes near Drum Bridge (Lough Key)	52	G. 82,03	Regional	C	Botanical, ecological. Marshes with good Shannon flora, some rare species.
Shannon R. margins, north of Athlone	55	N. 02,43	Regional	C	Botanical, ecological. Very fine combination of rare plant species.
Lough Gara	58	M. 70,95	Regional	C	Ornithological, botanical. Wintering wildfowl lake, mostly in Co. Sligo. Lakeshore plant communities of interest, also, nesting bird colonies.
Corkip Lough	61	M. 92,43	Local	A	Botanical, ornithological. Rare species of plant occur with important breeding bird colonies.
Cornaveagh Esker (near Shannonbridge)	64	M. 94,27	Local	A	Ecological. Esker with thin oak woodland, originally planted but assuming natural characteristics.
Castleplunket and Mullygollan turloughs	67	M. 780,775 M. 800,795	Local Local	B B	Ornithological. Wildfowl wintering area, especially for swans.
Ardakilin Lough	70	M. 87,77	Local	B	Botanical, ecological. Species rich marginal wetlands.

Name of area	Page No.	Grid Reference	Rating	Priority	Interest
Lough Glinn	73	M. 63,86	Local	B	Ornithological. Permanent lake, especially important to wildfowl in dry periods in winter
Shad Lough	76	M. 82,74	Local	B	Ornithological. Wildfowl wintering habitat.
Cranberry Lough	78	M. 91,33	Local	B	Ecological, botanical. Acid/alkaline lake with communities of interest. Some rare species.
Wood at Tawnytaskin (Lough Key)	81	G. 82,05	Local	B	Ecological, botanical. Woodland at early successional stage, spreading into surrounding fields.
Knockaduff Wood	84	G. 886,043	Local	B/C	Ecological. Hazel woodland with good species content.
Kilglass Lough	87	M. 98,88	Local	C	Zoological, ornithological. Interesting invertebrate communities and birdlife.
Hog's Island (L. Key)	89	G. 82,04	Local	C	Ecological, ornithological. Young woodland developing without outside influences.
Marsh west of Ballydangan	90	M. 92,31	Local	C	Botanical. Unusual plant species occurs.
Ferrinch I. and mouth of R. Hind, Lough Ree	92	M. 97,66 M. 96,60	Local	C	Ornithological, Nesting and feeding areas respectively, the latter with good wader numbers in autumn and spring.
Corbally Wetland	95	M. 848,802	Local	C	Ornithological. Small wintering area for duck and waders.
Fin Lough	97	G. 86,04	Local	C	Ecological. Large marshes. dominated by one species.
<u>Provisionally Included</u> Bogs and fens in the River Suck Valley.	100	M. 84,42	Local	C	Ecological. Acid/Alkaline habitats, representative fauna and flora.

## SECTION F

### DETAILED REPORTS ONEACH AREA

These are written under the following sub-headings:

Name of Area  
Acreage  
Grid Reference  
Scientific Interest  
Rating  
Priority  
Description of Area  
Evaluation  
Vulnerability  
Recommendations

In the descriptions the abundance of species may be indicated by the following symbols:

a = abundant  
c = common  
f = frequent  
o = occasional  
r = rare  
l = locally (as a prefix)

Botanical names follow those in the Census Catalogue of the Flora of Ireland (1972) Stationery Office, Dublin while the english names in general are those in English Names of Wild Flowers (1974) Butterworths, London.

SECTION F

Detailed site descriptions

Name of Area: LEACARROW CLAY PITS  
Acreage: 1.4 acres  
Grid reference: M. 985, 562  
Scientific interest: Geological ~~and botanical~~ *Not botanical*  
Rating: National, possibly international  
Priority: C

Description of the area: The site which is a small field is outlined on the accompanying 6" map. It is on the shore of Lough Ree and various pits, including one large excavation, remain in the field after an earlier search for pottery clay for which the area is locally famous. The boundaries or depth of the china clay deposit are not known and although a number of small pits were dug more recently to ascertain its limits, the results of this exploration are not available.

Evaluation: While this site has been known for many years to have a clay deposit of proven economic worth the scientific value of the material is not known with certainty and the inclusion of the clay pit here is tentative. The site is listed however because it is similar to china clay deposits in other parts of Ireland which are of scientific interest.

Deposits of china clay consist of an insoluble residue of limestone and are unfossiliferous. Occasionally however the clay is intermixed with lignite (soft coal) which contains pollen grains of Tertiary age (ca. 2 million years old). A number of similar deposits have been examined in other parts of Ireland. These assemblages of pollen in Ireland are notable for three characteristics:

- (1) They are of species which occur throughout the Tertiary period, but nowadays are extinct or confined to other parts of the world.
- (2) Species new to science are commonplace.
- (3) Some species of very early Tertiary times are occasionally included.

The presence of lignite in the Leacarrow clay pits remains to be confirmed.

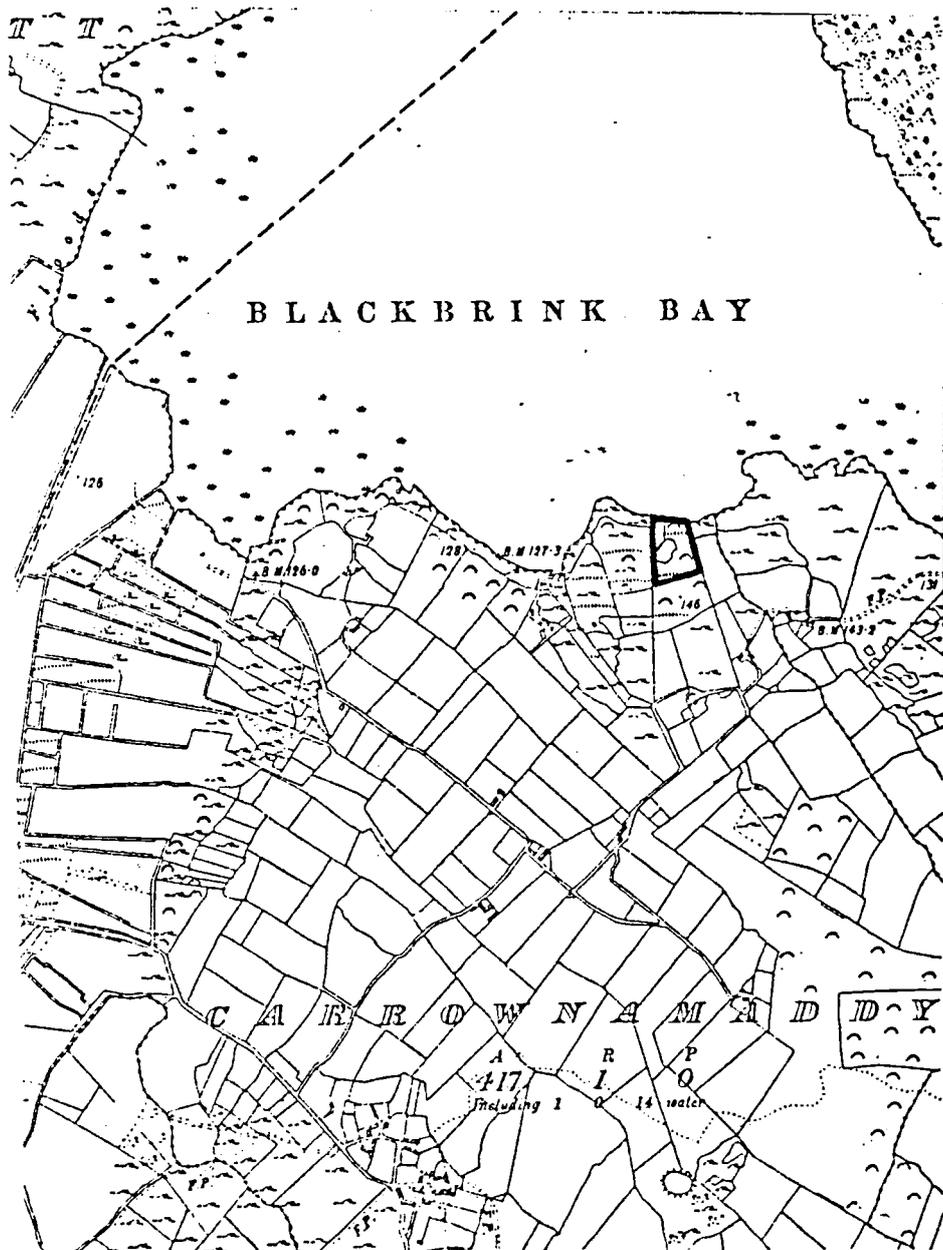
Publication: Watts, W.A. Early Tertiary deposits in Ireland Nature 193:600-601.

Threats to the area: The only threat is the obliteration of the site by building development but this is unlikely because of its low-lying character. Excavation of the clay could also damage the fossil record if it was done without adequate sampling of each layer.

Recommendations: No development, whether excavation or infill, should be allowed on this site until it can be accompanied by specialist sampling

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mil.



of the strata. Permission should be made conditional on the presence of a qualified person.

An Foras Forbartha should be notified of impending development of the site so that a scientific survey can be arranged.

Name of Area: LOUGH FUNSHINAGH

Acreage: c. 600 acres

Grid Reference: M 93 51

Scientific Interest: Ornithological, ecological

Rating: National

Priority: B

Description of Area: Lough Funshinagh is a turlough but it lies in a deeper basin than most others and so never dries out completely. The open water is dominated by Scirpus lacustris (lake clubrush) which occurs in enormous banks. Phragmites australis (common reed) is more localised as are other reedswamp plants such as Carex elata, C. rostrata and C. lasiocarpa (sedges). In some of the marginal pools that retain water in the summer, Menyanthes trifoliata (bog bean), Sparganium ramosum (bur-reed) Apium nodiflorum (fool's watercress) and Equisetum limosum (water horse-tail) occur with Chara spp (water stonewort) and Fontinalis anti-pyretica (a water moss).

The shallower parts of the lake and the shores that are temporarily flooded in winter have the typical turlough flora of terrestrial plants that assume peculiar growth forms because of their sporadic submergence. A Juncus species, probably J. acutiflorus (rush) is most common with Carex panicea and C. nigra (sedges) next in abundance. Ranunculus flammula (water spearwort), Mentha aquatica (water mint), Senecio aquatica (water ragwort), Galium palustre (marsh bedstraw), Veronica scutellata (marsh speedwell), Myosotis caespitosa (forget-me-not) and Apium inundatum (lesser marshwort) are found also, with the mosses Drepanocladus spp and Acrocladium. Outside this zone wet grassland species such as Agrostis stolonifera (bent grass), Carex disticha, C. hirta (sedges), Hydrocotyle vulgaris (marsh pennywort) and Potentilla anserina (silverweed), Dactylorhiza incarnata (early marsh orchid) Lythrum salicaria (purple loosestrife) and Thalictrum flavum (meadow-rue) occur.

The chief importance of the lake is as a wildfowl area both in winter and in summer. The maximum winter wildfowl figures obtained over the four years 1967-1971 are:-

Mallard	450
Teal	144
Wigeon	193
Shoveler	7
Tufted duck	164
Pochard	72
Wild swans	130
Coot	97
Moorhen	50



The area is also visited by sizeable flocks of waders, plover, lap-wing, snipe etc. and by pintail duck and white-fronted geese (up to 200).

The breeding species include most Irish aquatic birds; grebes, duck and black-headed gulls making use of the extensive reedbeds.

Evaluation: Lough Funshinagh is unique in its breeding bird populations and important also for its wintering wildfowl. Ecologically it has a diverse vegetation and being an atypical turlough has considerable importance for study.

Vulnerability and Recommendations: Since the lake is protected under Section 6 of the Game Preservation Act (1930) there is no danger of overshooting in winter. However, it is possible that the nesting species could be disturbed or destroyed by egg-collectors and for this reason they should be covered by a Conservation Order under Section 46, Local Government (Planning and Development) Act, 1963.

Development in the vicinity of the lake should be only of the most limited kind. Road widening and parking facilities should be avoided especially as they would encourage visitors in summer and lead to disturbance.

Agricultural changes such as fertilisation of the surrounding grasslands or the introduction of intensive livestock units would be most damaging were they to lead to eutrophication of the lake. They should be subject to all the controls the County Council can introduce. In this context the bodies that finance agricultural grants should be informed of the scientific importance of Lough Funshinagh.

Drainage in this part of the county has adversely affected the breeding of aquatic birds in the past and any further lowering of the regional water table may eliminate the present breeding population. Proposed drainage schemes should therefore be carefully investigated and modified if necessary.

Name of Area: ST. JOHN'S WOOD  
Acreage: 330 acres  
Grid Reference: M 99 56  
Scientific Interest: Ecological, botanical, ornithological  
Rating: National importance  
Priority: B

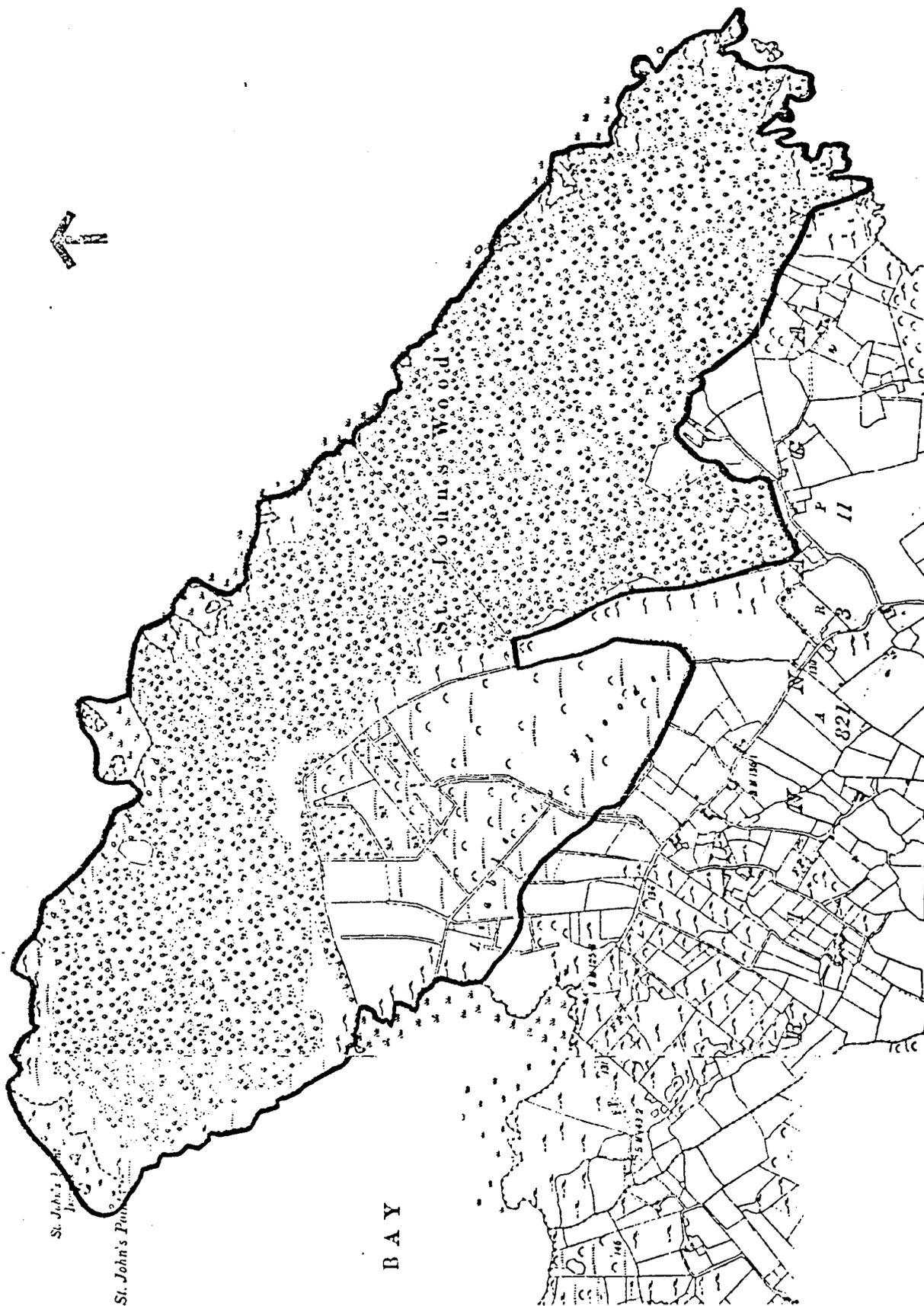
Description of Area: St. John's Wood covers an extensive area on the shores of Lough Ree. Its central and lakeside parts are relatively old with large trees of oak (*Quercus robur*) and ash, while marginally, hazel becomes the dominant species. This is in fact spreading outwards into adjoining fields. In the south part at least, the oak is mostly in the form of standard trees spaced out from each other and showing the marks of human management. Ash is often clumped in slight depressions of the ground.

The tree species and ground flora are typical of a wood on limestone. Also the persistence of a tree cover in part of the area for a long time has resulted in the presence of a number of rare woodland plants. The following list attempts to give some impression of the community structure which is diverse:-

Crataegus monogyna	hawthorn	c
Betula pubescens	birch	c
Sorbus hibernica	whitebeam	1.f
Ilex aquifolium	holly	c
Salix cinerea	willow	f
S. caprea	goat willow	f
Euonymus europaeus	spindle tree	f
Rhamnus catharticus	purging buckthorn	f
Frangula alnus	alder buckthorn	o
Taxus baccata	yew	o
Oxalis acetosella	wood sorrel	a
Sanicula europaea	wood sanicle	a
Carex sylvatica	wood sedge	c
Brachypodium sylvaticum	wood false brome	f
Fragaria vesca	wild strawberry	f
Potentilla sterilis	barren strawberry	f
Polystichum setiferum	shield fern	f
Dryopteris filix-mas	male fern	f
D. dilatata	buckler fern	f
Lysimachia nemorum	yellow pimpernet	f
Glechoma hederacea	ground ivy	o
Anemone nemorosa	wood anemone	o
Allium ursinum	wild garlic	o
Galium odoratum	wood ruff	o
Hypericum androsaemum	tutsan	o
Lathraea squamaria	toothwort	r
Neottia nidus-avis	bird's nest orchid	r
Thamnium alopecurum	moss	c
Thuidium tamariscinum	moss	c
	moss	f

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



The lakeshore species are also of interest and Aquilegia vulgaris (columbine), Rubus saxatilis (stone bramble) and Geum rivale (water avens) occur at the woodland edge with Campanula rotundifolia (harebell) Pteridium aquilinum (bracken) and several rose species. Teucrium scordium (water germander) is abundant further out.

In this large woodland area bird and mammal populations are large. The birds include the garden warbler, found mainly in the Shannon catchment, and many large species with substantial territorial requirements. Most of the mammal species that could occur do so and the area is fortunately without deer at the moment. These would upset the woodland ecology if at all frequent.

As in many places little is known about the invertebrates present but alkaline woods usually provide good collecting grounds and their being beside water also contributes to the diversity of life in them.

Evaluation: St. John's Wood is without doubt the finest wood in the county and possibly in the whole midlands. Its large size and richness of species make it most valuable ecologically and for study. Being largely untouched at present has added considerably to its importance.

It contains many rare plant species and for some species represents their only site in Roscommon. The wood has been studied recently and contains excellent educational potential. It is also large enough to accept many visitors for educational or recreational purposes.

Vulnerability: The threats to any woodland amount to its destruction, either quickly through felling and reforestation, or slowly by underplanting or overgrazing. In this case some of the oak has been subject to periodic felling and some marginal areas have been overgrazed by cattle resulting in the elimination of the next generation of trees.

Recommendations: Despite the fact that much of St. John's Wood is still intact and in good condition it has no security for the future. For a site of such value on private land this is undesirable and it is felt that some protection should be given it by the Council. This could take the form of a Tree Preservation Order on the grounds of amenity (scientific, educational and recreational) under Section 45, Local Government (Planning and Development) Act, 1963.

The area is of sufficient size to allow for recreational developments at one site. These could take the form of camping facilities, nature trails etc. and consideration should be given to making the whole area a national or forest park at some time in the future.

Name of Area: SHANNON RIVER (ATHLONE - SHANNONBRIDGE)  
Acreage: undetermined; extends to margins of high winter floods  
Grid reference: M 02, 32  
Scientific interest: Ornithological, botanical  
Rating: National  
Priority: B

Description and Evaluation: This slow meandering river is bordered almost continuously by reedbeds for the Roscommon part of its course. Several plant species are involved, the main ones being Phragmites australis (common reed), Scirpus lacustris (common club-rush), Glyceria maxima (reed grass) and in places Carex elata (a sedge), Sagittaria fluviale (water horsetail), Nuphar lutea (yellow waterlily), Alisma plantago-aquatica (water plantain) and Elodea canadensis (Canadian waterweed) are constant members of the river flora while the low-lying fields contain Juncus articulatus and J. effusus (rushes), Iris pseudacorus (yellow flag), Lycopus europaeus (gipsywort), Lysimachia nemorum (yellow loosestrife) and much Carex nigra (black sedge).

Certain plant species occurring in the drains and wetter areas are of interest but it is mainly for its wintering wildfowl populations that this area is included. Every year the river rises above its banks and floods extensive areas with a sheet of water that is most attractive to wild swans and duck. They are attracted both by the feeding available and the security of large waterbodies. A count of this part of the river in 1969 gave the following figures:

Bewick's swan	365
Whooper swan	535
Mute swan	77
Wigeon	758
Teal	518
Tufted duck	164
Pintail	15
Pochard	17
Mallard	2

This population which is shared with Counties Westmeath and Offaly is the most important regular site for wild swans, wigeon and teal.

Occasionally some of the turloughs may have concentrations of duck of this magnitude but not for long periods.

The area is frequently shot over during the season.

Vulnerability and Recommendations: Drainage is the most important threat in the long term to the future of this area. Deepening of the channel would be detrimental to the feeding area available while lowering the winter level of the river would restrict flooding and be most damaging to the bird population. As well as this, the nutritive effect of silt deposited by the river on the surrounding fields would be lost.

The area is currently a valuable shoot but there is some danger that wildfowling pressure may increase beyond the level that the birds can tolerate for adequate feeding and rest. For this reason the advisability of creating a no-shooting area for a certain distance along the river should be reviewed periodically with the gun clubs and the Department of Lands.

It is recommended that the Council should oppose any plans for the arterial drainage of the Shannon in view of the scientific and amenity value of the river in its present form. The agricultural and economic advantages of drainage also remain to be proved.

Name of Area: DRUMMAN'S ISLAND, L. KEY  
Acreage: 46 acres  
Grid Reference: G 838047  
Scientific Interest: Ecological, Botanical  
Rating: National  
Priority: C

Description of Area: Drumman's Island is a drumlin on the south shore of Lough Key. It is densely wooded but such semi-natural woodland as there once was has been modified considerably by additional planting. Nevertheless, in places it retains natural characteristics which are extremely valuable ecologically. The commonest tree species is ash (Fraxinus excelsior) which is regenerating freely. In the clearings there is in fact a thicket of grazed ash saplings.

The canopy trees are oak (Quercus robur) and ash. The oak is large and in places adjacent trees are touching. There has been felling in the past with the result that rather poor spindly trees are most frequent. Around the margins there is much planted sycamore mixed in with it while firs (Abies spp) have also been planted on the North-west side, and seed themselves on the woodland floor. The shrub species are hazel, holly, hawthorn (Crataegus monogyna) and laurel (Prunus laurocerasus).

The commoner ground flora and epiphytes (plants growing on trunks etc.) are listed:-

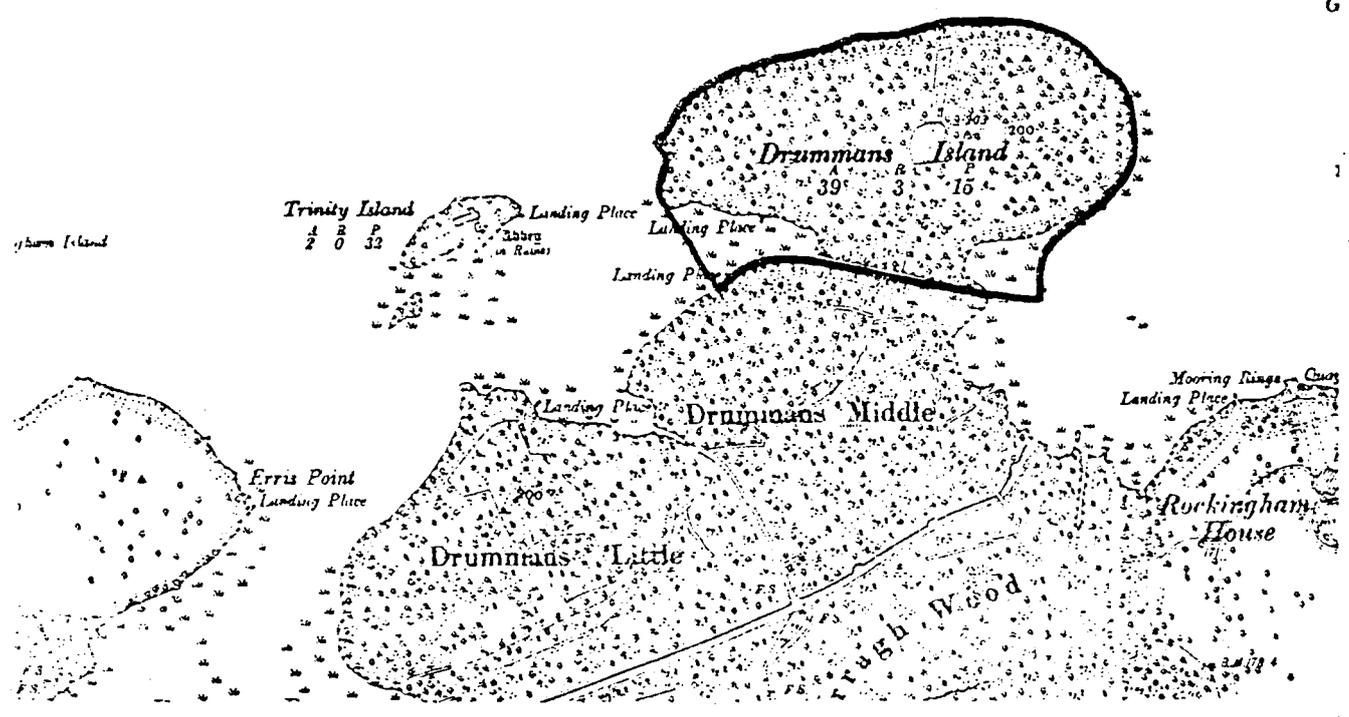
Anemone nemorosa	wood anemone	a
Scilla non-scripta	bluebells	a
Oxalis acetosella	wood sorrel	a
Circaea lutetiana	enchanters nightshade	l.a
Dryopteris filix-mas	male fern	c
D. dilatata	buckler fern	c
Viola riviniana	dog violet	c
Primula vulgaris	primrose	c
Hedera helix	ivy	l.a
Ajuga reptans	bugle	c
Dryopteris borrieri	male fern	f
Athyrium filix-femina	lady fern	f
Arum maculatum	cuckoo-pint	f
Silene dioica	red campion	o
Veronica montana	wood speedwall	o
Ribes nigra	black currant (from planted bushes)	o
Eurhynchium striatum	a moss	a

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



*ch Island*  
 6 7  
 0 13  
 Drummers Abby  
 (in Ruins)



Thamnium alopecurum	a moss	a
Thuidium tamariscinum	a moss	a
Dicranum scoparium	a moss	a
Rhytidiadelphus loreus	a moss	c
Isothecium myosuroides	a moss	c
Neckera complanata	a moss	f
Cirriphyllum piliferum	a moss	f
Lobaria pulmonaria	a lichen (lungwort)	f
Peltigera polydactyla	a lichen	o
Sticta spp	lichens	o

Several other rare species have been recorded from the estate but cannot definitely be ascribed to this site. The ground vegetation covers about 25% of the surface, elsewhere are fallen leaves, tree branches etc. The soil is fairly dry and freely drained while there is no build up of humus.

Associated with the trees is a varied bird fauna including several less common species.

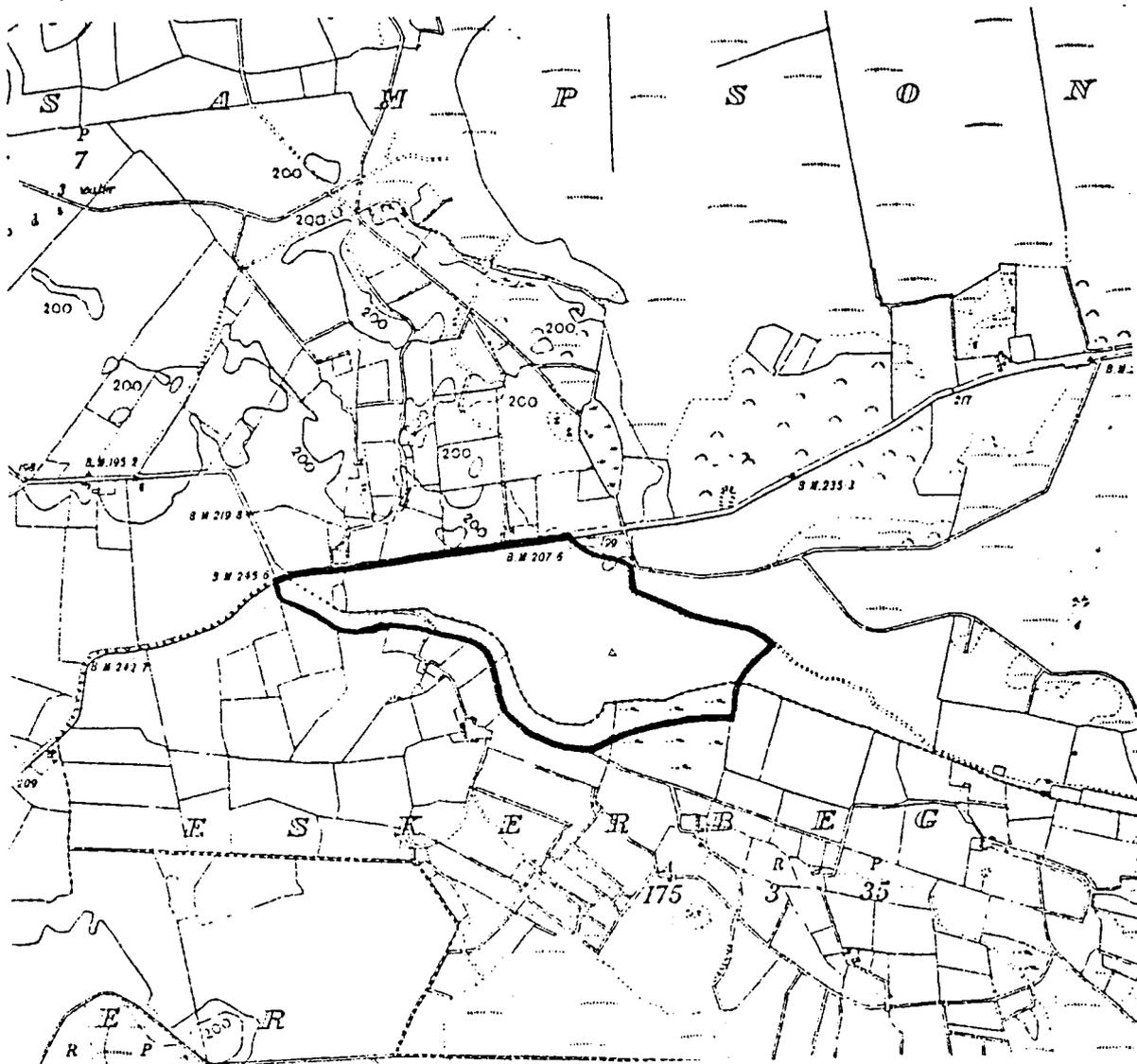
Evaluation: Despite its drawbacks this wood is of great value as it is one of the only oakwoods on good soil in the whole country. Usually such freely drained soils are cleared and put to agricultural use as has happened elsewhere around Lough Key. In this instance an oakwood probably originally planted, has developed fine natural characteristics such as abundance of epiphytic lichens and mosses. Most of these species are the oceanic types best developed in western Ireland.

Vulnerability: Being in State ownership this site is probably secure from felling, as it is an objective to keep it as deciduous woodland. However there are forces at present operating which would remove much of its value. These are the spread of alien species, especially sycamore and laurel, and the grazing by fallow deer of the ground flora of the wood. This effectively kills off the next generation of trees so gaps in the canopy are not filled.

Recommendations: The Forest and Wildlife Service should be encouraged to play a more active part in the management of this woodland. In particular the alien species should be removed as soon as possible and the deer population lowered to a less damaging level. Most people enjoy the sight of a deer so a remnant number should remain for recreational reasons.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Vulnerability and Recommendations: This esker is adjacent to large gravel extraction plants and if not already owned by them will probably be sought after. Being intact however such development should require planning permission and it is recommended that this be refused. The area is not large compared to the present workings and it is exceptional in its topography and location. For this reason it should be reserved for educational, amenity and scientific uses, there being so few eskers of this quality remaining in Ireland today.

Since it is close to Athlone and to the main Galway road, the esker could prove to be a valuable amenity if more widely known. To achieve this publicity and to safeguard its future more effectively, it is recommended that the site be made an Area of Special Amenity under Section 42, Local Government (Planning and Development) Act, 1963.

Name of Area: KNOCKNANOOOL. ESKER  
Acreage: 68 acres.  
Grid Reference: M 95 43  
Scientific Interest: Ecological, botanical  
Rating: Regional  
Priority: A

Description and Evaluation of Area: This esker is of typical sinuous shape covered by grassland with gorse scrub in places. It is however more acidic in nature than most others and on the northern limb supports a community with considerable quantities of heather (Calluna vulgaris) in it. Here the other species include:-

Carex pilulifera	pill sedge
C. pulicaris	flea sedge
Dicranum scoparium	a moss
Galium saxatile	heath bedstraw
Potentilla erecta	tormentil
Polygala vulgaris	milkwort
Sieglingia decumbens	heath grass
Primula veris	cowslip
Antennaria dioica	pearly everlasting
Thymus drucei	thyme
Festuca ovina	sheep's fescue
Helictotrichon pubescens	hairy oat
Anthoxanthum odoratum	sweet vernal grass
Briza media	quaking grass

Elsewhere the last half of the above list are widespread but some more general esker species enter the community, e.g.

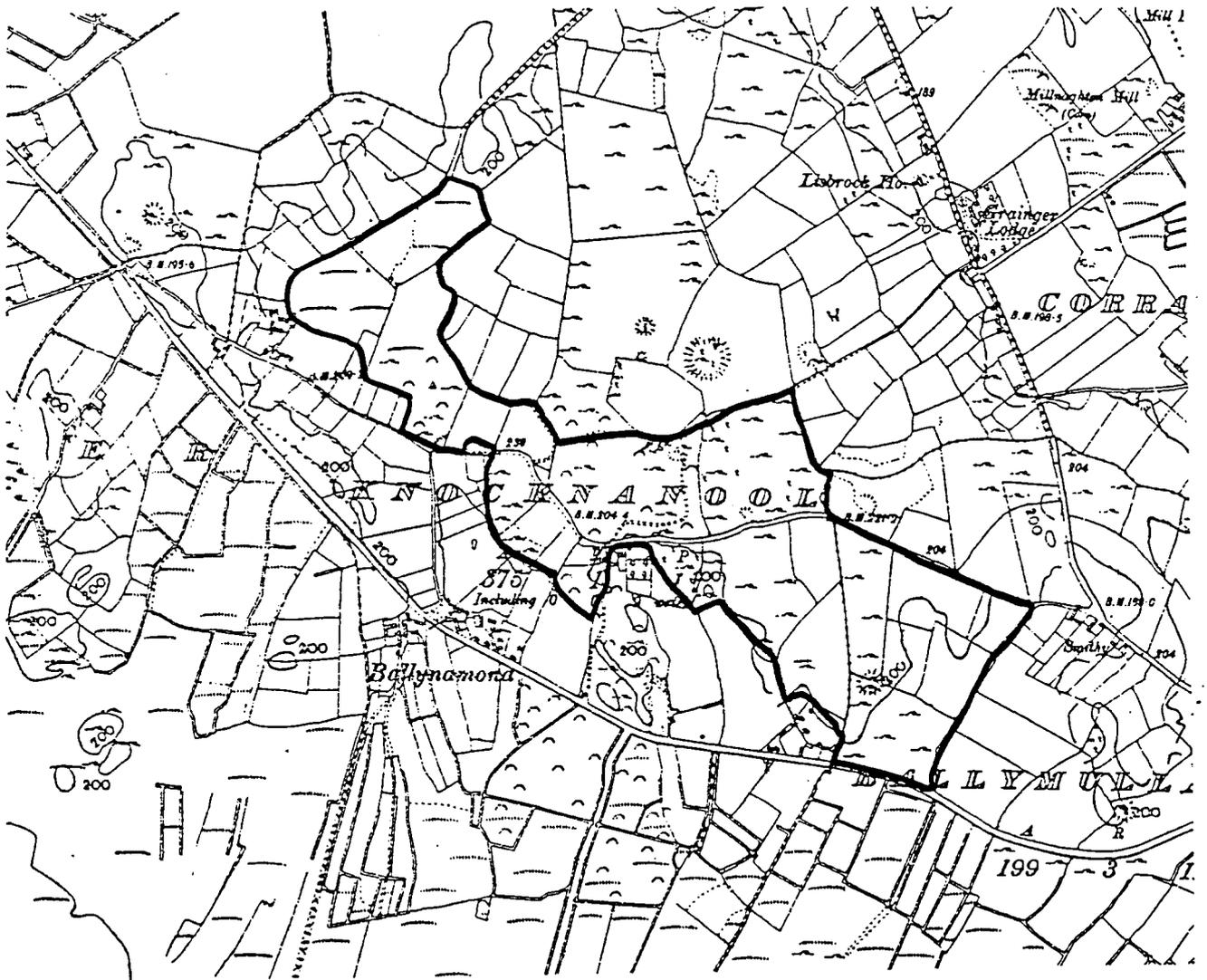
Carlina vulgaris	carline thistle	
Carex flacca	a sedge	
C. caryophyllea	a sedge	
Leucanthemum vulgare	dog daisy	c
Linum catharticum	purging flax	c
Daucus carota	wild carrot	f
Galium verum	lady's bedstraw	f
Achillea millefolia	yarrow	f
Dactylorhiza fuchsii	spotted orchid	f
Platanthera bifolia	butterfly orchid	o
Anthyllis vulneraria	kidney vetch	l.f
Pimpinella saxifraga	burnet saxifrage	o
Blackstonia perfoliata	yellow-wort	r

These plants support a wide variety of insect species especially those attracted to nectar. Hoverflies and butterflies (especially the blues) were noted in good numbers.

As has been mentioned the site is rather unusual for an esker and therefore of ecological interest. It is in a good state of preservation

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



and could be used for educational purposes. A rare plant has been recorded from the vicinity of Brideswell in this habitat but was not seen on the present survey.

Vulnerability and Recommendations: The esker is not currently used to supply gravel and therefore such development could be prevented by Part 1V of the Local Government (Planning and Development) Act, 1963.

It is recommended that this forms one of two 'esker reserves' in the county, both situated close to main roads (see p.28). Since gravel extraction is occurring from practically all the Roscommon eskers it is felt that an objective for preservation of these two should be included in the Development Plan and that they be designated as Areas of Special Amenity, under the Local Government (Planning and Development) Act, 1963 as soon as possible, on the grounds of their scenic and scientific amenity. No further development should be permitted within the site.

Name of Area: HUGHESTOWN WOOD  
Acreage: 29 acres  
Grid reference: G ~~900 014~~ 900 014  
Scientific interest: Ecological, botanical  
Rating: Regional  
Priority: B

Description of area: Hughestown Wood covers the eastern end of a drumlin over-looking Drumharlow Lough and is, in essence, a Quercus robur (oak) wood on a wet, clayey substrate. The trees are quite well grown (40 - 50') and though scattered with other species on the margins, they occur in an almost closed stand centrally. Ash is common at the sapling and seedling stages but only very few adult trees occur. There are also some very large birches (Betula pubescens) which form part of the canopy and a few Ulmus glabra (wych elm) of all sizes. Alnus glutinosa (alder) is frequent in the flatter, central, part of the wood.

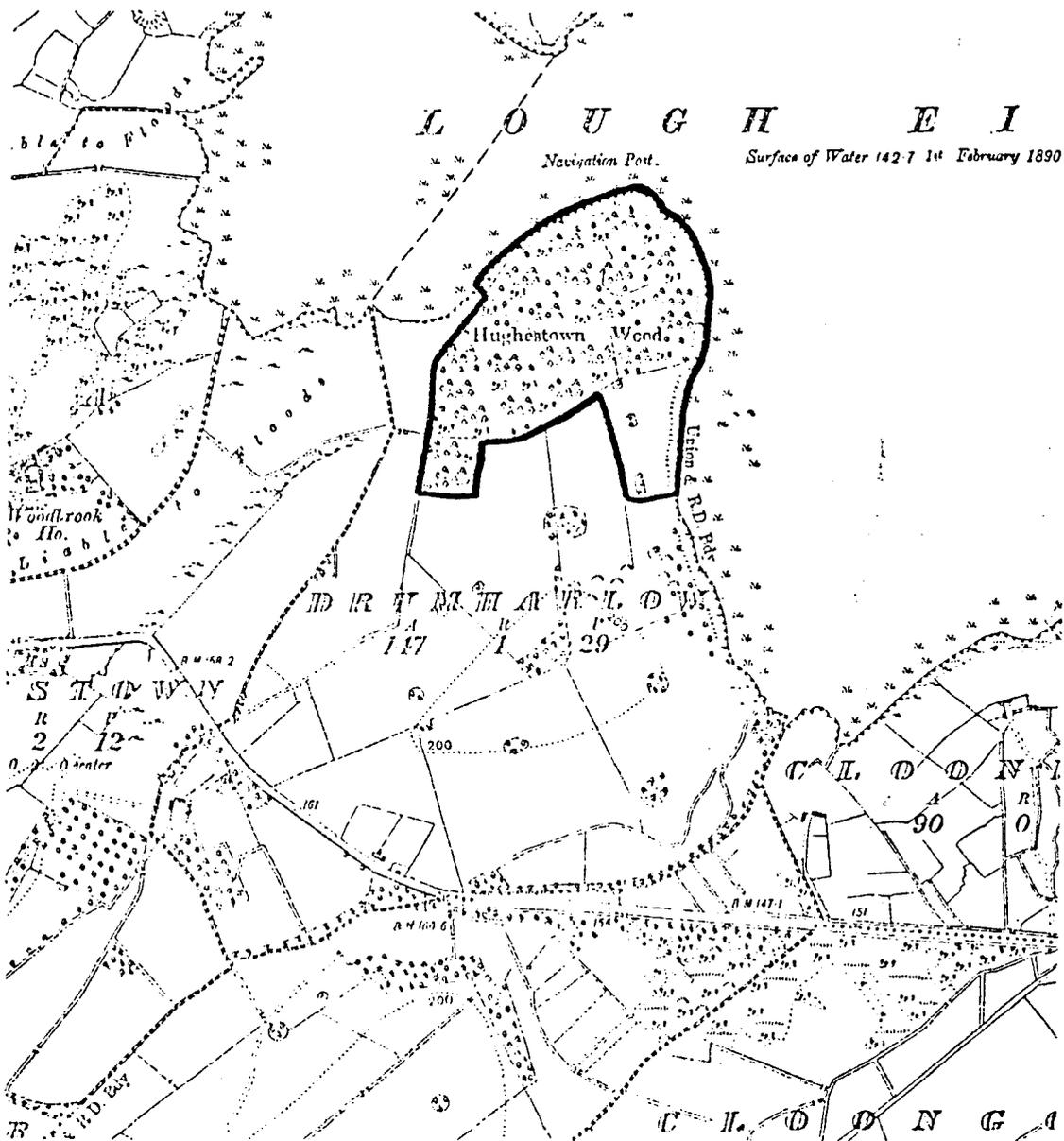
The shrub layer includes much hazel (Corylus avellana) which becomes the major tree species on the southern edge of the wood, some holly and small quantities of other species such as Viburnum opulus (guelder rose), Prunus padus (bird cherry) and crab apple (Malus sylvestris). In addition Rubus fruticosus (bramble) is common and Lonicera periclymenum (honeysuckle) occasional.

The clayey soil is poorly drained and wet in winter but there is no accumulation of organic matter, which suggests that it is fairly dry during the growth period. A small watercourse surrounded by Juncus effusus (soft rush), Cardamine flexuosa (wood bittercress) and Chrysosplenium oppositifolium (golden saxifrage) is found in one place but generally the ground flora is as follows:-

Carex strigosa	wood sedge	l.a.
Chrysosplenium oppositifolium	golden saxifrage	c
Oxalis acetosella	wood sorrel	f
Carex sylvatica	wood sedge	f
Ajuga reptans	bugle	f
Filipendula ulmaria	meadow sweet	f
Veronica chamaedrys	germander speedwell	f
Dryopteris filix-mas	male fern	f
Geum rivale	water avens	l.f.
Primula vulgaris	primrose	f
Ranunculus repens	creeping buttercup	o
Carex remota	distant sedge	o
Deschampsia caespitosa	tufted hair-grass	o
Dryopteris dilatata	buckler fern	o
Geranium robertianum	herb robert	o
Vicia sepium	bush vetch	o
Stellaria holostea	stitchwort	f
Veronica montana	wood speedwell	r
Ranunculus auricomus	goldilocks	r

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Thuidium tamariscinum	moss
Fissidens taxifolius	moss
Rhytidiadelphus triquetrus	moss
Chiloscyphus polyanthus	liverwort
Plagiochila asplenoides	liverwort

The lichen genera include Sticta, Parmelia, Usnea, Ramalina etc.; those normally associated with oak woodland especially in moist situations.

Evaluation: Stands of Quercus robur are rare in the country as a whole and this one would seem to be the best in County Roscommon. It is on a wet clay soil and in this way differs from Drumman's Island (Lough Key). It also differs in having a much better community structure without introduced species, except for one or two beech. Though it may have a planted origin sufficient time has elapsed for the development of natural characteristics.

Grazing is of fairly low intensity but only ash, as has been noted, is regenerating in the present conditions.

Vulnerability: In common with many woods there is some timber of value here, so the larger trees might be felled. This could happen swiftly and it would reduce the area's value considerably.

Other potential threats are underplanting with coniferous species and the spread of beech from the existing marginal trees.

Recommendations: Hughestown wood should be protected by a Tree Preservation Order under the Local Government (Planning and Development) Act, 1963. This should be done before any actual threat materialises. Beech might be excluded from protection or felled before the order became operative.

Name of Area: BALLY BAY, LOUGH REE

Acreage: 440 acres

Grid reference: N 00, 47

Scientific interest: Botanical, ornithological, ecological

Rating: Regional

Priority: B

Description of Area

Bally Bay is the most sheltered bay on the Roscommon shore of Lough Ree and in many ways resembles the Inner loughs on the Westmeath side. It has several wooded islands, some so small that they have been little utilised for grazing, and extensive reedbeds. These are formed by Phragmites australis (common reed), Scirpus lacustris (lake rush), Cladium mariscus (saw sedge), Carex elata and C. lasiocarpa (sedges). Amongst these species and on slightly higher ground, the following occur:-

Potentilla palustris	marsh cinquefoil.	c
Menyanthes trifoliata	bog bean	f
Caltha palustris	marsh marigold	f
Carex rostrata	bottle sedge	l.a.
C. demissa	sedge	c
C. lepidocarpa	sedge	f
C. nigra	sedge	c
C. vesicaria	sedge	o
C. disticha	sedge	f
Cicuta virosa	water hemlock	o
Lysimachia vulgaris	yellow loosestrife	o
Lycopus europaeus	gipsywort	o
Eleocharis palustris	spike rush	l.f.
Festuca arundinacea	reed fescue	l.f.
Carex pseudo-cyperus	a sedge	r
Galium uliginosum	fen bedstraw	r

Bally Bay is an important wildfowl area and the breeding species which nest in the quieter reedbeds and islands, include mallard and tufted duck as well as coot, moorhen and grebes. In winter it is one of the better parts of Lough Ree, frequented by these species and others such as teal, pochard and wigeon. The marginal areas provide feeding for substantial numbers of waders in spring and autumn including species uncommon inland such as godwits and whimbrel, while lapwing, curlew, snipe and redshank nest there.

The invertebrate fauna contains many of the organisms especially associated with the Shannon catchment but has not yet been studied systematically.

Evaluation

This is the richest part of the Lough Ree shore in Co. Roscommon and has an outstanding diversity in its marsh flora. It is also important for its nesting and wintering wildfowl.

Vulnerability

In view of the low-lying nature of the shore, there is little likelihood of building development. However, marginal drainage may have an adverse effect on the marsh communities especially if connected to a lowering of the lake level.

Disturbance to nesting wildfowl on the islands (see also p.92) is a major threat, and overshooting in winter is also possible.

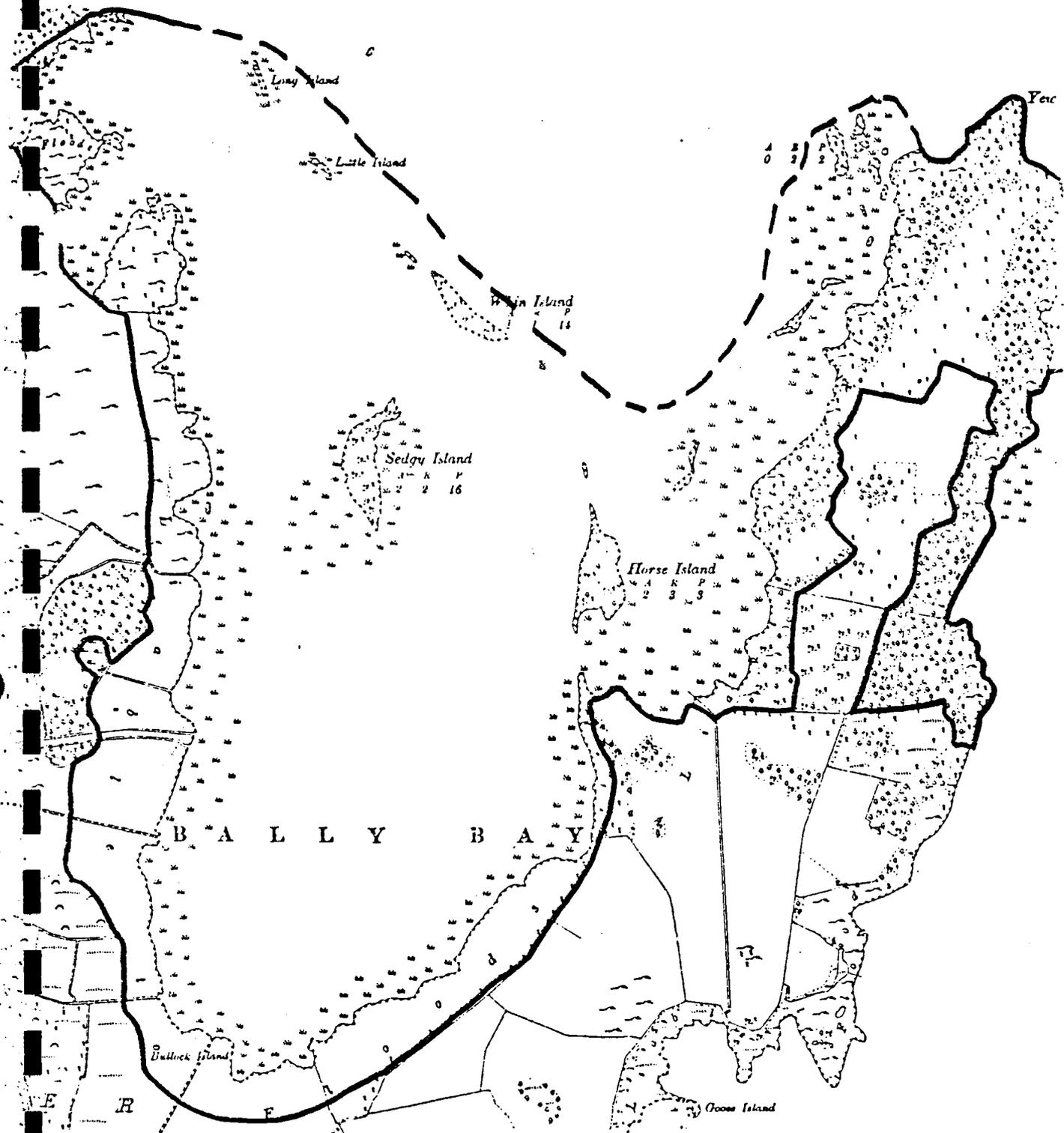
Recommendations

Education of boat users should be undertaken in collaboration with the marinas, showing the damage that can be done to nesting birds during May and June by landing on islands in the lake.

Winter shooting pressure should be kept under review and steps taken, in conjunction with the Department of Lands, if overshooting becomes common. Since Coosan and Killinure Loughs in Westmeath are currently protected it may not be necessary to close other parts of Lough Ree to wildfowlers.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Name of Area: YEW POINT, LOUGH REE  
Acreage: 76 acres  
Grid reference: N 01, 48  
Scientific interest: Botanical, ecological  
Rating: Regional  
Priority: B

Description of Area: Yew Point is a low peninsula formed apparently of limestone drift. Close to the lake, stones and boulders have been separated out from the drift, and with leaf litter they form the basis of the soil. In sheltered locations some peat is being deposited (Schoenus). Hazel and ash woodland covers the margins of the point with birch (Betula pubescens) commonly at the south end and somewhat rarer elsewhere. Such woodland as there is has arisen naturally in the last sixty years, probably from pre-existing scrub. In it are found a few oaks (Quercus robur) and crab apples (Malus sylvestris) with willows (Salix cinerea) and buckthorn (Rhamnus catharticus) at the edges. The ground flora is especially rich with a full range of woodland plants e.g.:

Pteridium aquilinum	bracken
Rubus fruticosus	bramble
Sanicula europæus	wood sanicle
Conopodium majus	pignut
Brachypodium sylvaticum	wood false-brome.
Scilla non-scripta	bluebell
Anemone nemorosa	wood anemone
Glechoma hederacea	ground ivy
Oxalis acetosella	wood sorrel
Lysimachia nemorum	yellow pimpernel
Ajuga reptans	bugle
Orchis mascula	early purple orchid
Melica uniflora	wood melick grass
Galium odoratum	woodruff
Silene dioica	red campion
* Melampyrum sylvaticum	cow-wheat
Solidago virgaurea	golden rod
* Cephalanthera longifolia	white helleborine
Hieracium umbellatum	hawkweed

At the edges of this stand species such as Rosa arvensis (field rose), R. pimpinellifolia (burnet rose), Rubus saxatilis (stone bramble), Campanula rotundifolia (harebell), and Thalictrum spp (meadow rue) are found while below this lakeshore plants such as Mentha aquatica (water mint), Briza media (quaking grass), Potentilla anserina (silverweed), Teucrium scordium (water germander) and Lythrum salicaria (purple loosestrife) come in.

\* Mapped on Page 39

The islands in Bally Bay were not visited on this occasion. Their woodlands, however, seem to be very well developed and in the absence of recent grazing are likely to be most interesting. They support breeding duck and a variety of small birds, especially being noted for the garden warbler.

Evaluation: This example of dry limestone woodland surrounded by the renowned lake shore flora of Lough Ree makes a unit of great ecological and educational interest. Two rare species occur finding here their only Roscommon stations.

There is a right-of-way along the east side of the peninsula.

Vulnerability and Recommendations: Clearance of parts of the woodland for building development represents the chief threat to the area. Many cottages and houses are found to the south and there may be pressure to develop behind a thin screen of trees further up Yew Point. This would effectively remove the scientific value of the area concerned and it is recommended that no development is permitted within the outlined area.

Overgrazing is not presently a problem but the situation should be kept under review.

Name of Area: ~~TURLOUGH NEAR BRIARFIELD~~ ~~WATER~~ TURLOUGH  
Acreage: 456 acres  
Grid Reference: M 81 76  
Scientific Interest: Ornithological / Botanical / Ecological  
Rating: Regional  
Priority: B

Description of Area: These are flat grassy depressions with little permanent water in the summer though they have marshy places colonised by rushes (Juncus articulatus) and various aquatic herbs Myostis (forget-me-not), Cardamine pratensis, (lady's smock), Carex panicea (a sedge) and Polygonum amphibium (water bistort). Before drainage Briarfield turlough had a substantial permanent water pool frequented by various species of aquatic birds - especially important was the rare black-necked grebe which nested for several years. Now however the importance of the area is for wintering wildfowl and a count made in early 1974 gave the following result, though it cannot be more than an indication of the population levels during a mild winter.

Mallard	15
Wigeon	140
Teal	300
Whooper swan	29
Bewick's swan	8
Curlew	250
Lapwing	700
Golden plover	850

Evaluation: This area clearly provides good feeding for the grazing type of wildfowl, and also for quite large numbers of waders. While numbers are subject to great fluctuations depending on the other water areas available and the scarcity of the weather it nevertheless seems to be one of the most valuable areas in the county.

Vulnerability and Recommendations: The main threat would seem to be a further lowering of the water table, which would prevent winter flooding in the turloughs. Drainage therefore should be curtailed in the whole Castleplunket-Tulsk-Fortfield area.

Overshooting may occasionally occur at weekends and it should be kept under review with local gun-clubs and the Dept. of Lands. Steps to lessen the shooting pressure by permit should be taken, if necessary.



Name of Area: ANNAGHMORE LOUGH AND ADJACENT AREA

Acreage: 528 acres

Grid Reference: M 90 83

Scientific Interest: Ornithological, ecological, botanical

Rating: Regional

Priority: B

Description and Evaluation of Area: Annaghmore Lough lies centrally in a network of small lakes, surrounded by rolling drift-covered land. Because of a low gradient drainage is complex with lakes and their connecting rivers merging with one another. There is much flooded land in winter and the lakes rise above their normal level, spreading onto the nearby fields. Both these sites hold important concentrations of wildfowl, those at Caldragh (M 910 845) and Annaghmore being especially large. Some of the smaller lakes are neutral or even acidic in nature but Annaghmore Lough is calcareous and is surrounded by fens. In these a number of interesting plants grow such as :-

Eriophorum latifolium	broad-leaved bog cotton
Epipactis palustris	marsh helleborine
Crepis paludosa	marsh hawksbeard
Ophrys apifera	bee orchid
O. insectifera	fly orchid

They occur amongst Schoenus (black bog-rush), Molinia caerulea (purple moor grass), Briza media (quaking grass), Juncus spp (rushes) etc. They indicate that unusual habitat conditions prevail at Annaghmore, not widely found elsewhere.

The bird life includes nesting grebes, mallard, teal, tufted duck, coot, moorhen, water rail and snipe as well as the typical smaller species. In winter good numbers of wildfowl frequent the area and before the flooding has fully developed are more dependent on Annaghmore Lough than they are later in the year.

A full count is not available but local knowledge indicates that it is the best wildfowl haunt in the area. A figure of 600 duck was mentioned. The flooded land at Caldragh was however counted in winter 1973 with the following results :-

Wigeon, mallard, teal	600
Lapwing, golden plover	c.2,000
Wild swans	15

Vulnerability: As is usually the case for a wetland site, drainage is a possible threat to the value of this area. The present flora at Annaghmore Lough has developed slowly to be in equilibrium with and therefore dependent on, the existing water levels while winter flooding is obviously important to the wildfowl populations.

The threat of drainage is not immediate as the Office of Public Works intends to tackle this area only in the distant future.



Overshooting and disturbance of wildfowl is controlled by a non-shooting order at present.

Recommendations: Land use should remain in its present form and developments close to the area should not be permitted.

Name of Area: RIVER SUCK CALLOWS, MOUNT TALBOT -  
 BALLYFORAN, AND ADJACENT TURLOUGHES

Area: 720 acres

Grid Reference: M. 82,50

Scientific Interest: Ornithological

Rating: Regional

Priority: B

Description and Evaluation: The Flooded margins of the River Suck are a valuable wildfowl feeding area, especially at the junction of this river with the Shiven. The area is shared with Co. Galway and the birds frequent both sides of the river and nearby turloughs, such as Lisduff (M. 80, 549). An indication of the wildfowl populations in the area is given by the following composite count, obtained between 1969-71.

Mallard	8
Teal	120
Wigeon	840
Pintail	30
Shoveler	6
Tufted duck	2
Whooper swan	87
Bewick's swan	20
White fronted goose	90 - 100

It is one of the dwindling number of inland white fronted goose haunts and holds a large population of wild swans when the callows are flooded. The wigeon numbers also are exceptional.

Vulnerability and Recommendations: Overshooting during the season and drainage are the only potential threats to this site. It is recommended that the callows and Lisduff turlough are maintained in their present (seasonally flooded) condition ever if other parts of the Suck system are drained. This should be done by agreement with the Office of Public Works.



Name of Area: LOUGH CROAN TURLOUGH

Acreage: 370 acres

Grid Reference: M 88020 490

Scientific Interest: Ornithological / Botanical / Ecological.

Rating: Regional

Priority: C

Description of Area: Lough Croan is a large flat turlough that retains very little water during the summer months in the form of isolated reed-filled pools.

The wet grassland that surrounds these has a typical plant community including:

Agrostis stolonifera	bent grass	a
Filipendula ulmaria	meadowsweet	a
Mentha aquatica	water mint	c
Dactylorhiza incarnata	early marsh orchid	c
Prunella vulgaris	self-heal	f
Triglochin palustris	marsh arrow-grass	f
Parnassia palustris	grass of Parnassus	o
Galium palustre	marsh bedstraw	o

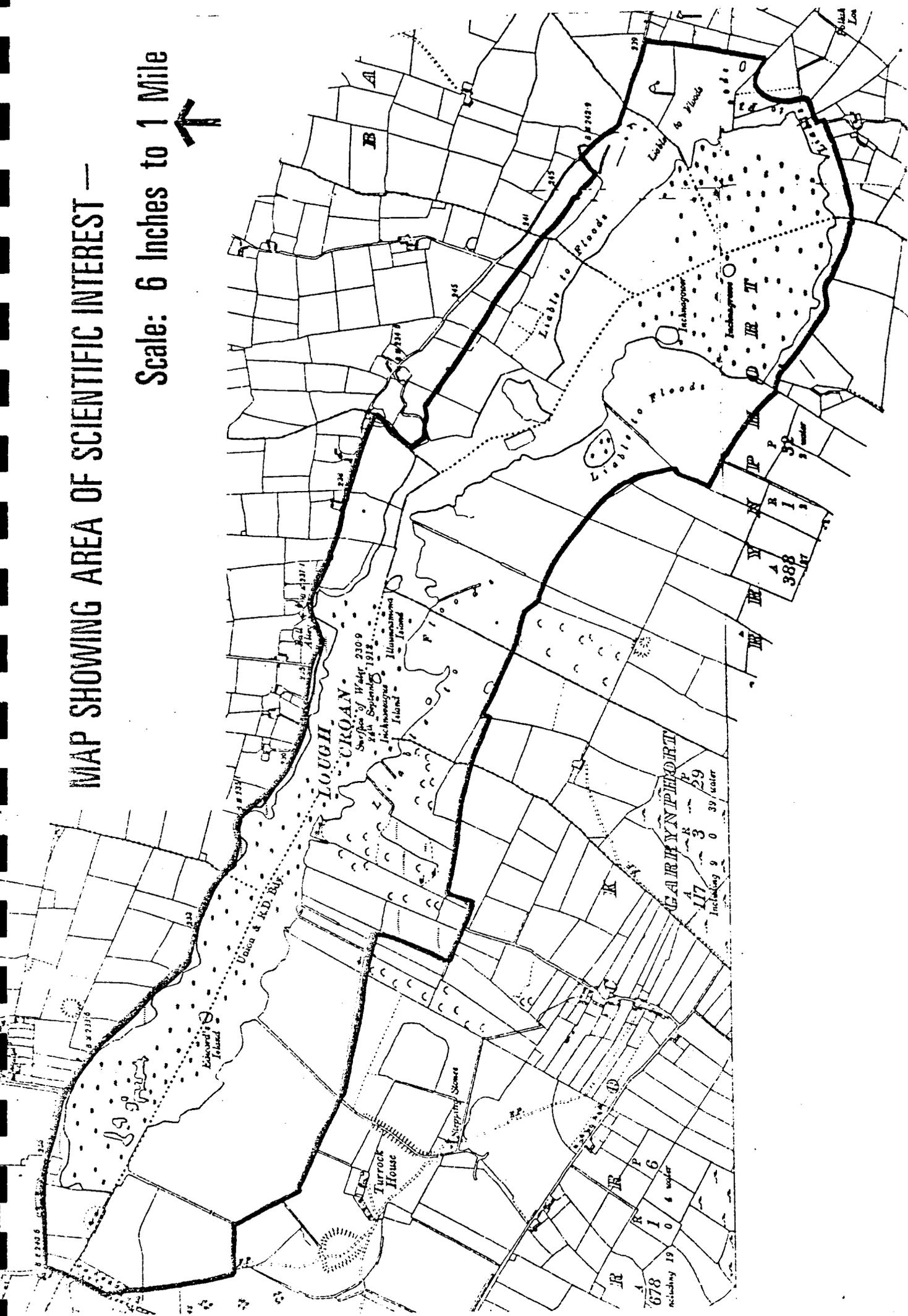
The pools themselves bear scattered willows (Salix aurita) and are largely covered by a floating mat of reedswamp with some open pools. Plant growth is peculiarly lush in these sites - presumably the ground water is mineral rich. In one of those examined the following plants were noted, among others:-

Carex rostrata	a sedge	a
C. elata	a sedge	l.a
C. lasiocarpa	a sedge	l.a
Cicuta virosa	water hemlock	a
Phragmites australis	common reed	f
Equisetum limosum	water horsetail	f
Scirpus lacustris	lake club-rush	f
Menyanthes trifoliata	bogbean	l.f
Veronica beccabunga	brooklime	o
Epilobium parviflorum	willowherb	o

In these pools a few wildfowl breed such as mallard, teal and shoveler but the lake is more important as a wintering area. The following count give some indication of its importance though it is characteristic of a turlough to show wide fluctuations in numbers with water level. This therefore is probably not a maximum count.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 inches to 1 Mile



Lough Croan                      December 1972

Mallard	120
Teal	20
Wigeon	350
Shoveler	3
Tufted duck	70
Wild swan	10
Lapwing	1000
Golden plover	4000
Snipe	c.80

Evaluation: Though clearly not as valuable as the nearby Lough Funshinagh this lake has a more interesting flora. It is of regional importance for its wintering wildfowl, both duck and waders.

Vulnerability and Recommendations: See Lough Funshinagh (p. 19 ) but a Conservation Order is not recommended in this instance.

Name of area: MARSHES NEAR DRUM BRIDGE, L. KEY  
Acreage: 122 acres  
Grid Reference: G. 82, 03  
Scientific interest: Botanical, ecological  
Rating: Regional  
Priority: C

Description of area - This shallow inlet of Lough Key is surrounded by low lying marshy land, in part derived from cutover bog but mostly of mineral soil. It is dissected by numerous drains which confuse the vegetational sequence but in general, Scirpus lacustris (lake rush) and Phragmites australis (common reed) occupy the deeper water and give way marginally to stands of Juncus spp (rushes) with numerous other herb species, characteristically Equisetum palustre (marsh horsetail), Epilobium palustre (marsh willowherb) and Acrocladium cuspidatum (a moss). In slightly higher sites Festuca arundinacea (reed fescue), Filipendula ulmaria (meadow-sweet) and Agrostis stolonifera (creeping bent) achieve importance whereas in the wetter zone, sedge species especially Carex rostrata, and C. lasiocarpa are common.

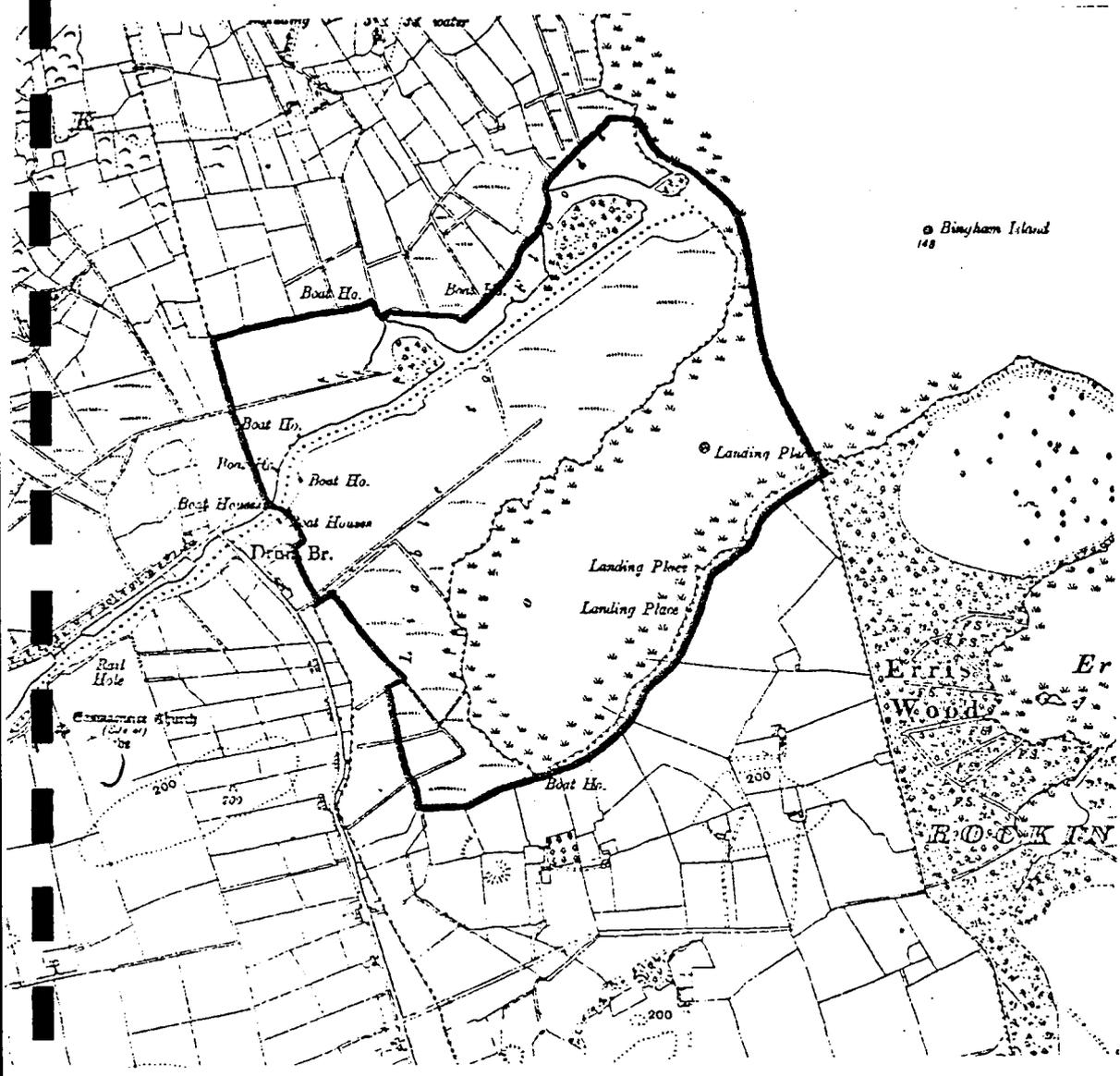
The characteristic plants of the middle species-rich sites include -

Lysimachia nummularia	creeping jenny	c
Mentha aquatica	water mint	c
Galium palustre	marsh bedstraw	c
Ranunculus flammula	lesser spearwort	f
Pedicularis palustris	red rattle	f
Angelica sylvestris	angelica	f
Potentilla palustris	marsh cinquefoil	f
Carex lepidocarpa	a sedge	f
Succisa pratensis	devils bit	f
Drepanocladus spp	a moss	f
Hydrocotyle vulgaris	marsh pennywort	o
Sagina nodosa	pearlwort	o
Galium uliginosum	fen bedstraw	o
Cirsium dissectum	meadow thistle	o

Associated with deeper water are beds of Phragmites, and certain other species such as Rumex hydrolapathum (great water dock), Sparganium ramosum (bur-reed), Ranunculus lingua (greater spearwort) and Equisetum fluviatile (water horsetail) while Thalictrum flavum (meadow-rue) Rorippa amphibia (water radish), Carex acuta, C. acutiformis and C. elata (sedges) have been recorded.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



P.T.O.

Limited colonisation by willows (Salix aurita and S. cinerea) and alder (Alnus glutinosa) is occurring.

Evaluation - This is probably the most valuable of the marshes around Lough Key and it is of great importance. It contains an outstanding diversity of plant species and therefore of insects while much of it is also suitable for nesting birds, such as mallard, coot, grebes and water rail. The aquatic flora characteristic of the Shannon catchment shows good development while there are also other interesting features.

Vulnerability - The marsh water level is directly related to that of Lough Key so apart from physical habitat destruction such as dumping or excessive ditching, the area appears relatively secure.

Recommendations - Land use should remain in its present form in the area.

Name of Area: SHANNON RIVER, MARGINS NORTH OF ATHLONE Roscommon.

Acreage: 92 acres

Grid Reference: N 02 43

Scientific Interest: Botanical, ecological

Rating: Regional

Priority: C

Description of Area: The bank of the river at this point is covered by a linear reedbed of Phragmites australis (common reed), Phalaris arundinacea (reed canary grass), Iris pseudacorus (yellow flag) and Carex elata (tufted sedge). To the north where it opens out into the lake the Carex becomes dominant and there is also some willow colonisation by Salix cinerea and S. pentandra (bay-leaved willow). As the river floods during the winter the surrounding fields show a gradual transition of this community to wet pasture in the course of 100-200 yds. The following list gives an impression of the plant cover:-

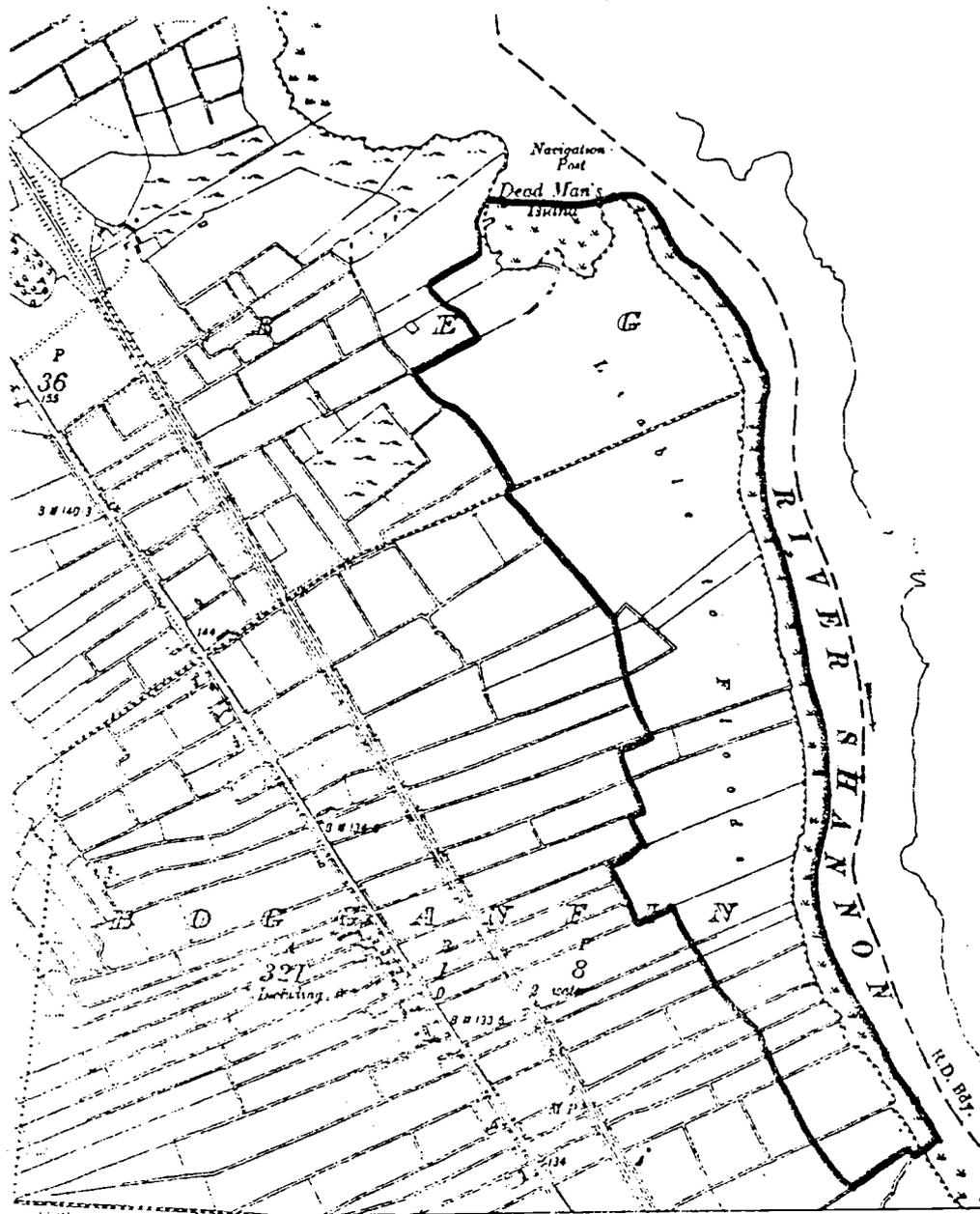
Filipendula ulmaria	meadowsweet	a
Festuca arundinacea	reed fescue	a
Lathyrus palustris	marsh pea	a !!
Mentha aquatica	water mint	a
Angelica sylvestris	angelica	c
Thalictrum flavum	meadow-rue	c
Lythrum salicaria	purple loosestrife	c
Glyceria maxima	reed grass	1.f
Carex disticha	a sedge	f
C. panicea	a sedge	c
C. nigra	a sedge	c
Achillea ptarmica	sneezewort	o
Equisetum palustre	horsetail	f
Valeriana officinalis	marsh valerian	o
Galium palustre	marsh bedstraw	1.f
Potentilla palustris	marsh cinquefoil	o
Carex lasiocarpa	a sedge	o
Vicia cracca	tufted vetch	o
Cirsium dissectum	meadow thistle	r

The wet meadows provide good nesting sites for a variety of birds and redshank, lapwing, snipe, reed bunting and sedge warbler were all breeding. Invertebrate food is in good supply and the species are of some interest in their own right. One of the rarest dragonfly species in the country has been recorded here.

Evaluation: The site is exceptional in the abundance and good condition of a rare marsh plant, Lathyrus palustris\*. It occurs throughout the area varying in height from 1-4 ft. depending on the water table. The species is characteristic of the larger marshes in the Central Plain but has been eliminated from many former sites by drainage. At Athlone it has certainly its largest Roscommon stand and perhaps the largest in the whole country.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Vulnerability and Recommendations: Short of obliteration by the development of a marina or other facility, this site is relatively secure. Water levels are controlled by the Shannon rather than individual field ditches and only the back portion of the meadows are cut for hay.

An increase in the area mown or the use of fertilisers would adversely affect the marsh community and the land owners should be made aware of this. They should be asked to inform the Council of any changes in land use, which under existing legislation cannot be controlled effectively.

No building development should be allowed within the site.

Name of Area: LOUGH GARA  
Acreage: 828 acres  
Grid Reference: M 70, 95  
Scientific Interest: Ornithological, botanical  
Rating: Regional  
Priority: C

Description of Area: The greater part of Lough Gara lies in Co. Sligo but the flat southern shore which is formed by bogland, and parts of the S.E. shore which is based on limestone and drift are in Roscommon. Each of these has features of botanical interest: the former is backed by untouched bogland with its characteristic range of plants while the peaty substrate allows only a very limited range of marginal species in the lake itself. Chief of these is the lake rush, Scirpus lacustris and this forms discreet rounded colonies offshore as well as a strip closer in.

The other sites of interest such as that indicated on the map have developed from former lake-bed, which has been exposed since 1952 when the water level was lowered. There is frequently calcareous seepage in which Schoenus nigricans (black bogrush) and Carex lepidocarpa (a sedge) occur with Parnassia palustris (grass of Parnassus), Selaginella selaginoides (small clubmoss), Drepanocladus sp. (a moss) and Senecio aquaticus (marsh ragwort). The drier sites approximate to limestone grassland with Molinia caerulea (purple moor grass), Festuca ovina (sheep's fescue). Linum catharticum (purging flax) Sieglingia decumbens (heath grass) and Succisa pratensis (devil's bit) common. Pilosella officinarum (mouse-ear hawkweed) occurs on hummocks where Salix repens (creeping willow) and closely grazed Alnus glutinosa (alder) are also found.

The lake is better known for its wildfowl numbers but counts, quite naturally, do not separate the Sligo from the Roscommon portions. Species seen in November 1973 included whooper swan, teal, wigeon and mallard and several counts are available for the whole lake.

	<u>1965</u>	<u>1967</u> (aerial survey)
Mallard	80	) 450
Teal		)
Pochard	350	)
Tufted duck	1500 (maximum)	)
Mute swan	12	) 172
Bewick's swan		)
Whitefronted goose	120	160

Evaluation: Lough Gara is regionally important for its wintering wildfowl and the sections of shore outlined on the map are of local interest for



their plant communities.

Vulnerability and Recommendations: The lake is now covered by a no-shooting order under the Game Preservation Act, 1930 and this presumably has eliminated much of the disturbance to the wintering wildfowl.

The lake also has substantial nesting populations of gulls, terns and waders so lakeside development which might cause disturbance should be prohibited.

Improved access is not likely to be damaging but it should avoid the areas of shore specified.

Name of Area: CORKIP LOUGH  
Acreage: 186 acres  
Grid Reference: M' 930435  
Scientific Interest: Botanical, ornithological  
Rating: Local  
Priority: A

Description of area: Corkip Lough is another lake of turbough type. It retains a small open water area through the summer although this is now smaller than in the past - due to drainage. It is fringed by reed growth, especially the species Carex rostrata, C. elata (sedges) and Scirpus lacustris (lake clubrush) with Ranunculus lingua (greater spearwort), Alisma plantago-aquatica (water plantain) and Hippuris vulgaris (marestail) scattered through these. Potamogeton natans (a pondweed) and Chara sp (stonewort) are characteristic of open water while in places Menyanthes trifoliata (bogbean) and Potentilla palustris (marsh cinquefoil) occur.

Around this lake a grassland vegetation stretches outwards for a considerable area and being inundated for part of the year it shows a characteristic calcereous deposit on the plant leaves. Carex nigra and C. panicea (sedges) are probably the most important species here with others, such as :-

Hydrocotyle vulgaris	marsh pennywort	c
Eleocharis palustris	spike rush	l.c.
E. quinqueflora	spike rush	o
Myosotis caespitosa	forget-me-not	f
Potentilla anserina	silverweed	c
Polygonum amphibium	amphibious	
	persicaria	f
Parnassia palustris	grass of Parnassus	o
Teucrium scordium	water germander	o
Carex serotina	a sedge	o

In the wetter parts of this plant cover a sizeable population of wading birds exists. Redshank, lapwing and snipe nest, while in winter large numbers of plover, curlew and lapwing are found. No wildfowl counts are available so it is not known if many are present at this time.

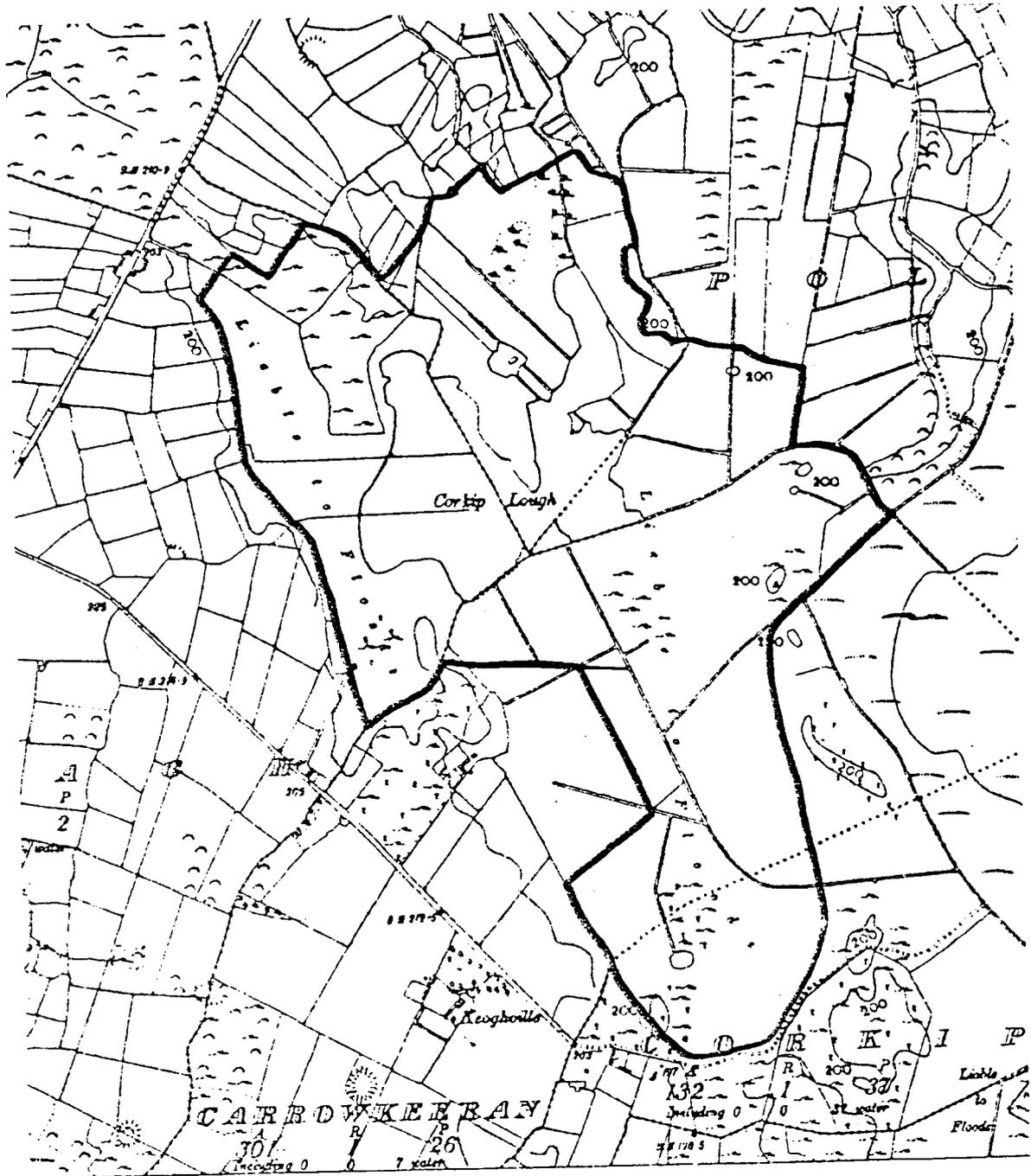
The expected smaller birds such as sedge warbler, reed bunting etc. were also recorded nesting.

Evaluation: Corkip Lough is important botanically as the only outlying station is Roscommon for a Shannonside plant, Teucrium scordium (water germander). This is one of the more interesting members of the Irish flora (see Appendix 1) and has only been previously recorded away from the banks of the Shannon in Counties Clare and Tipperary.

The nesting colonies of both the lapwing and redshank are exceptionally large at this site, probably through lack of disturbance.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



5

Vulnerability and Recommendations: Drainage is the major threat to the scientific value of this site as it would adversely affect both plant and animal elements. It should be prevented by consultations with the major agencies involved and with the local landowner. It would also be advisable to restrain fertilization of the grassland N.W. of the lake were this practice to develop on such land.

Name of Area: CORNAVEAGH ESKER, NEAR SHANNONBRIDGE  
Acreage: 30 acres  
Grid Reference: M 947277  
Scientific Interest: Ecological  
Rating: Local  
Priority: A

Description of Area: This is a small wooded part of the esker complex in the south of the county. The tree cover is mostly Corylus avellana (hazel) but substantial quantities of Crataegus monogyna (hawthorn) Quercus petraea (oak) and Betula pubescens (birch) also occur. Sorbus aucuparia (rowan) Ilex aquifolium (holly) and Malus sylvestris (crab apple) are rare. The herb flora is rich and has an acidic tendency on the north side where most of the oak is. It includes the following species:-

Oxalis acetosella	wood sorrel
Primula vulgaris	primrose
Scilla non-scripta	bluebell
Anemone nemorosa	wood anemone
Viola riviniana	dog violet
Circaea lutetiana	enchanter's nightshade
Epilobium montanum	willowherb
Hypericum androsaemum	tutsan
Brachypodium sylvaticum	wood false-brome
Lathyrus montanus	heath pea
Orchis mascula	early purple orchid
Pteridium aquilinum	bracken
Ajuga reptans	bugle
Vaccinium myrtillus	frochan
Blechnum spicant	hard fern
Dryopteris filix-mas	male fern

Small blue

INJ 18 197

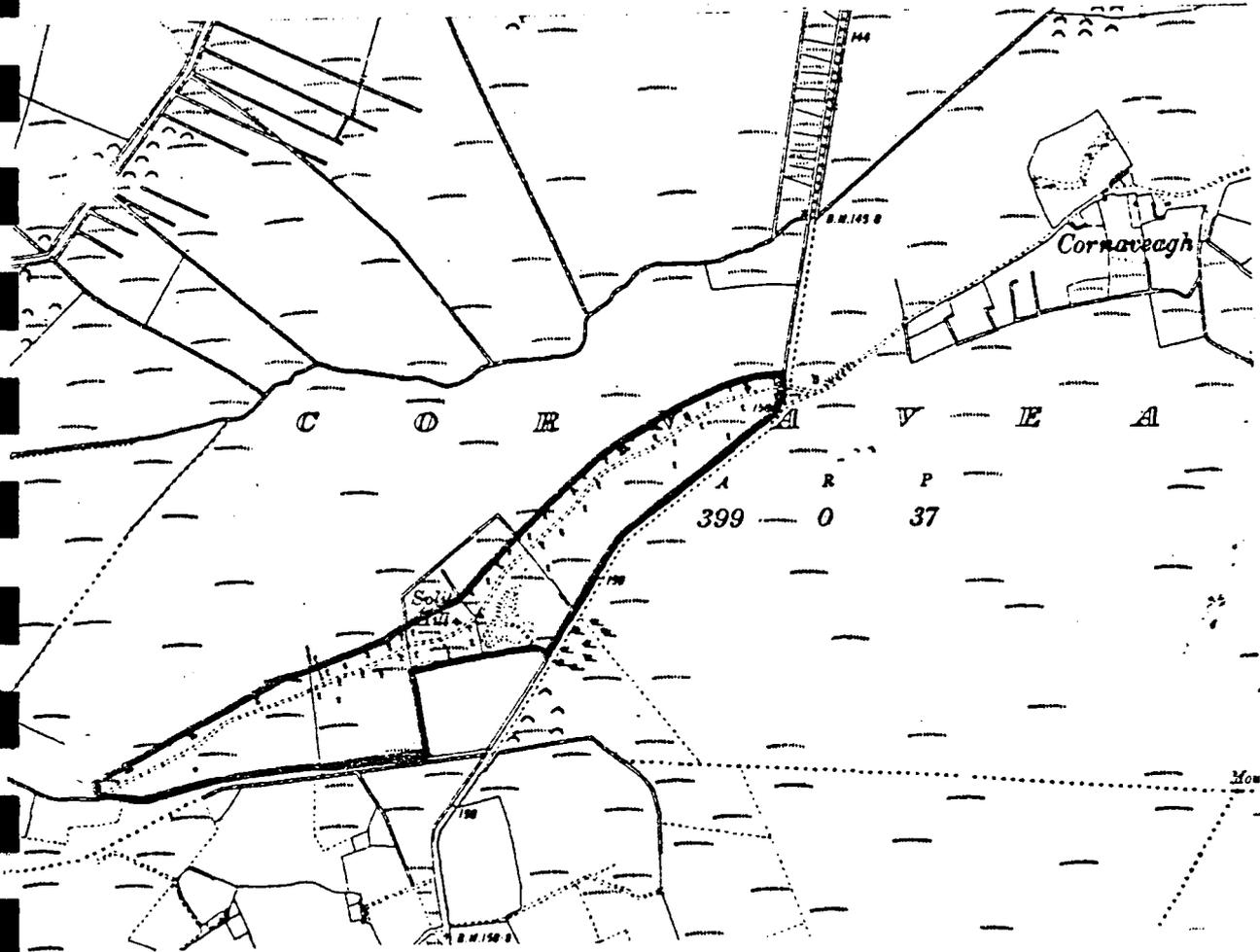
The south side of the esker is more open and a disused quarry at one point adds to the botanical interest. Species that were noted were: Fragaria vesca (wild strawberry), Rosa pimpinellifolia (burnet rose), Hypericum pulchrum (St. John's wort), Anthyllis vulneraria (kidney vetch), Antennaria dioica (pearly everlasting), Polygala vulgaris (milkwort) and Listera ovata (twayblade).

The area appeared to be an important local reservoir of nesting birds and many passerine species were seen.

Evaluation: Eskers have usually remained deforested since they provide some grazing for animals. It is only occasionally that a woodland cover has been allowed to regenerate. In this case it has elements, especially the oak, that resemble the initial forest cover as shown by pollen types at the base of the raised bogs. It has certain ecological importance for this reason and as well as this is an attractive amenity.

MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Vulnerability and Recommendations: Felling of some of the larger oaks is currently being carried out and though the species is regenerating slowly it may destroy much of the interest in the site by opening up the shaded woodland conditions.

A Tree Preservation Order under Section 45, Local Government (Planning and Development) Act, 1963 should be made to prevent any recurrence of this.

Planning permission for the extraction of gravel from this area should be refused.

Name of Area: CASTLEPLUNKET AND MULLYGOLLAN  
TURLOUGHS

Acreage: 303 and 168 acres

Grid References: M.780,775 and M.800,795

Scientific Interest: Ornithological

Rating: Regional and local importance

Priority: B

### Description of the Areas

Both sites are large, lowlying areas and the Mullygollan area is marked as a turlough. The countryside is flat and treeless in the vicinity of both and limestone outcrops are frequent. The grassland occasionally gives way to wet patches dominated by Juncus species. When the areas were visited (22nd and 23rd January, 1974) the water levels were high and it is possible that both wetlands dry out completely every summer.

Some dry land is included with the areas of scientific interest on the accompanying map to act as a buffer zone, protecting wildfowl against disturbance.

### Evaluation

On the two occasions in which these areas were visited wildfowl and swans were seen on the Castleplunket wetland. Approximately 600 duck and 15 swans were estimated to be present. The majority of the duck were wigeon, with some tufted duck and shoveler.

### Threats to the Areas

Being lowlying ground, dumping is possible. Building too close to the sites of importance would be a source of disturbance. Otherwise no threat is foreseen except from a lowering of the regional water table.

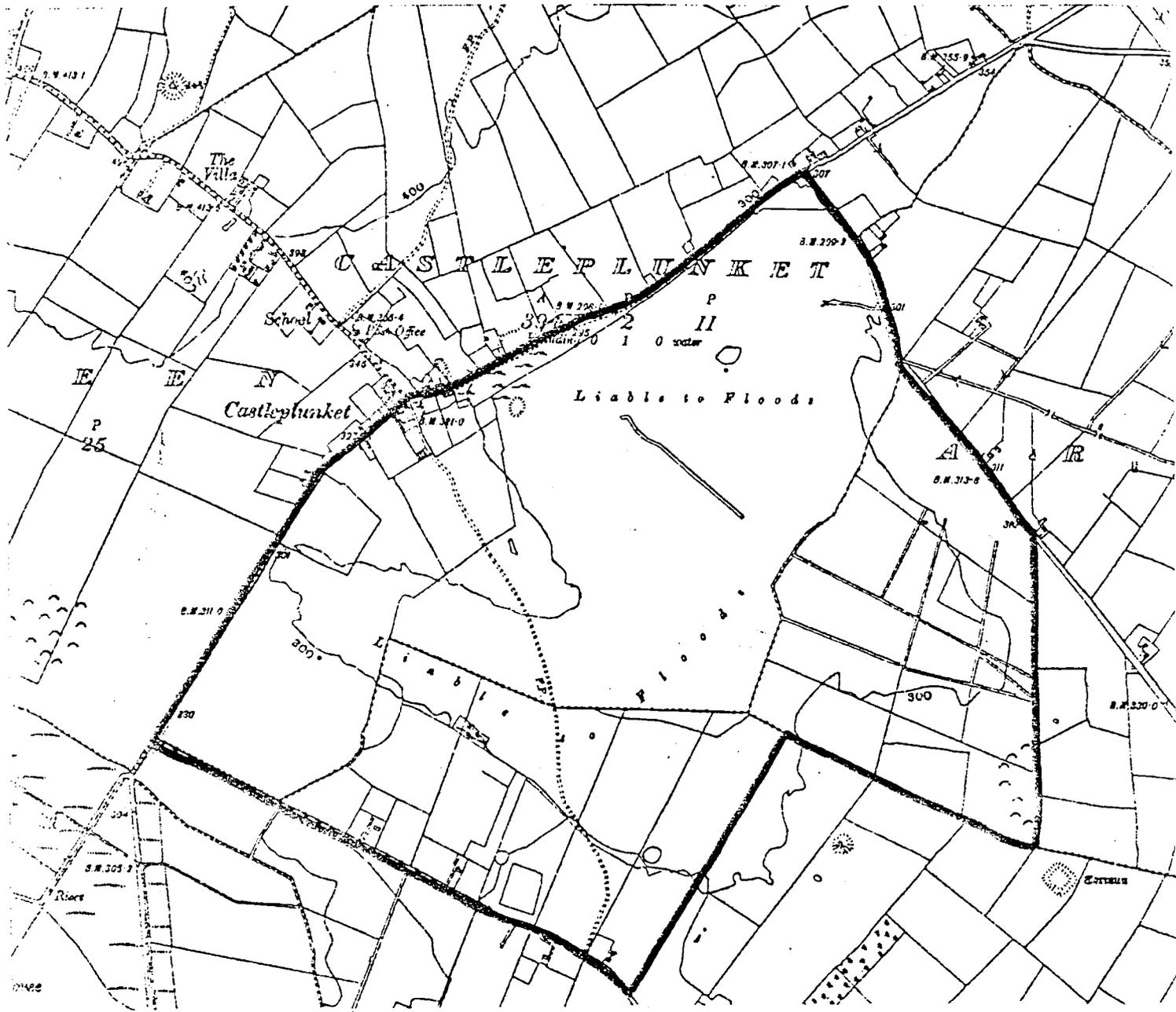
### Recommendations

A more detailed count should be taken of both wetlands, to assess their importance more comprehensively. It may emerge in time that protection of the Mullygollan wetland is not necessary but its inclusion at this stage is advisable. Being close to the other wetland it might function as an "overflow" for excess numbers of wildfowl or an alternative feeding area during disturbance. Drainage schemes in the vicinity should be undertaken only after careful consideration.

For the moment therefore, no building or rubbish disposal should occur within the boundaries shown.

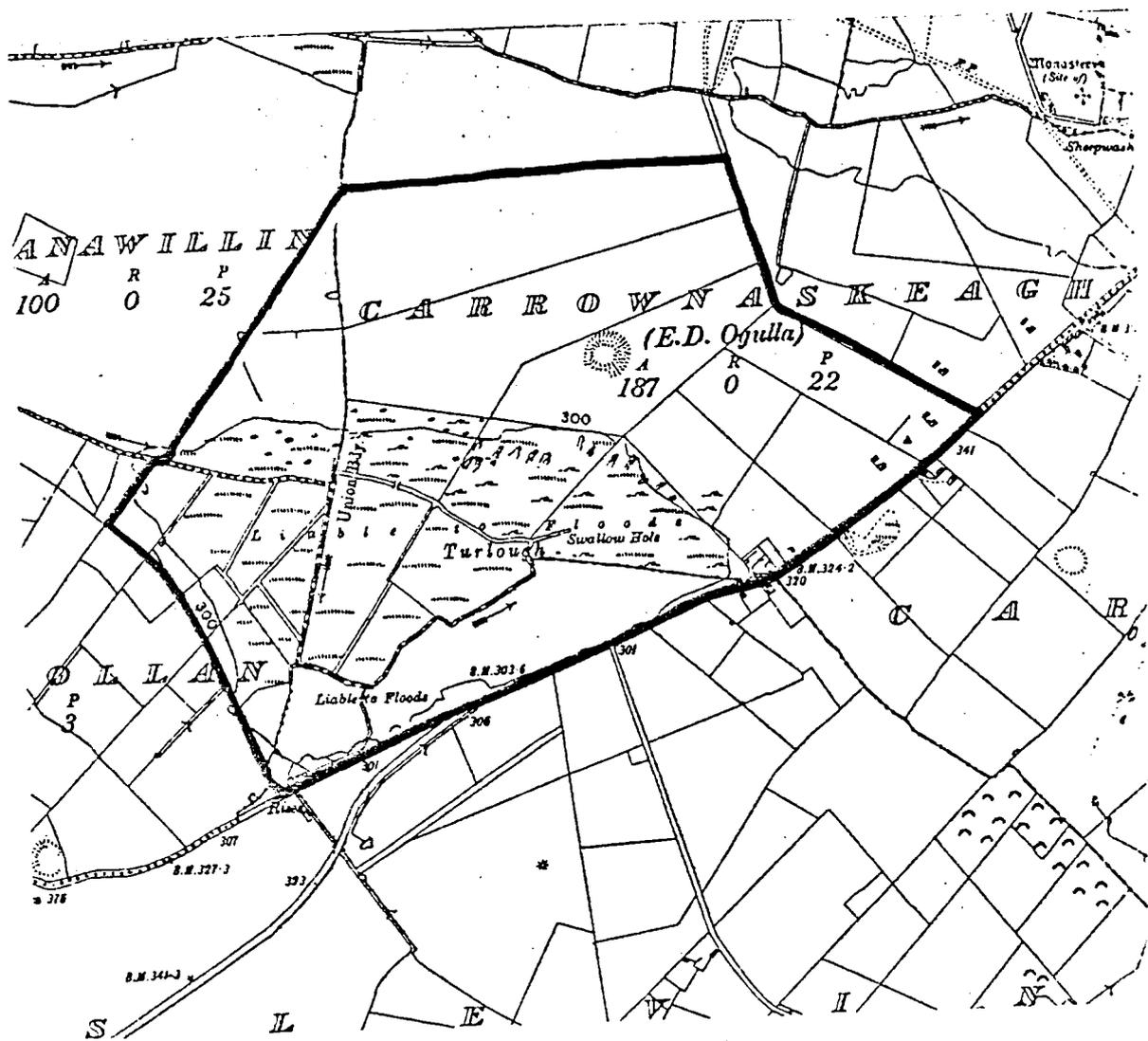
# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Name of area: ARDAKILLIN LOUGH  
Acreage: 190 acres  
Grid reference: M ~~87,77~~ 880 183  
Scientific interest: Botanical, ecological  
Rating: Local  
Priority: B

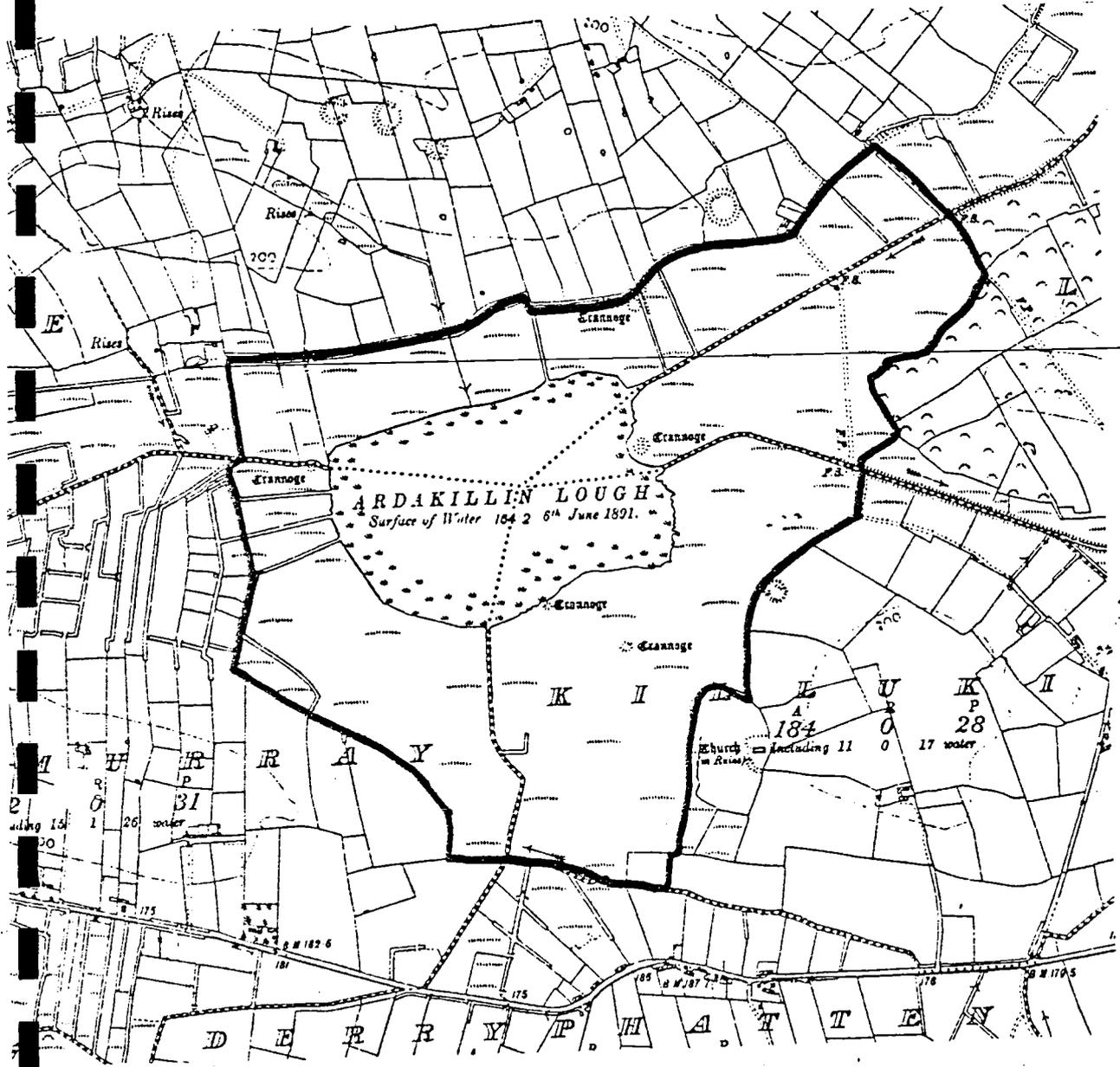
Description of area: This lake is surrounded by fens in which Schoenus nigricans (black bog rush) is probably the most frequent species, followed by Molinia caerulea (purple moor grass). Calcareous seepage is widespread giving rise to a sticky marl deposit but peat development has also occurred and in places distant from the lake has formed workable bogs. Closer in, the peat is occasionally inundated at times of high water. Plant species associated with the Schoenus include:-

<u>Carex lepidocarpa</u>	a sedge	a
<u>C. flacca</u>	a sedge	a
<u>Juncus articulatus</u>	jointed rush	a
<u>Ctenidium molluscum</u>	a moss	a
<u>Succisa pratensis</u>	devil's bit	c
<u>Potentilla erecta</u>	tormentil	c
<u>Prunella vulgaris</u>	self-heal	c
<u>Linum catharticum</u>	purging flax	c
<u>Parnassia palustris</u>	grass of Parnassus	c
<u>Dactylorhiza spp</u>	spotted orchids	f
<u>Equisetum palustre</u>	marsh horsetail	f
<u>Gymnadenia conopsea</u>	fragrant orchid	f
<u>Polygala spp.</u>	milkwort	f
<u>Selaginella selaginoides</u>	clubmoss	f
<u>Pedicularis sylvestris</u>	lousewort	o
<u>Cirsium pratense</u>	meadow thistle	o
<u>Campylium stellatum</u>	a moss	l.f
<u>Pinguicula vulgaris</u>	butterwort	o
<u>Antennaria dioica</u>	pearly everlasting	r

The lakeshore itself is marked by a band of Phragmites australis (common reed) behind which Phalaris arundinacea (reed canary grass) gives way to a more complex community, including Filipendula ulmaria (meadowsweet), Sparganium ramosum (bur reed), Veronica beccabunga (brooklime), Pedicularis palustris (red rattle), Ranunculus sceleratus (celery leaved crowfoot) Carex disticha (a sedge), Hypericum tetrapterum (St. John's wort), Dactylorhiza incarnata (marsh orchid) and two mosses, Acrocladium spp. and Climacium dendroides.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



On the southeast side the fen community is extended up the slope of a limestone drift hill by seepage and Anagallis tenella (bog pimpernel) with Schoenus are the characteristic species.

The lake is moderately rich in bird life for its size and acts as a refuge when the regional water table is low and the turloughs are dry. Even in the flooded conditions of December 1973, 65 teal and 50 tufted duck were seen together with sizeable flocks of lapwing and curlew.

Mammals were more in evidence than usual on the lakeshore and several hares and foxes were seen.

Evaluation: The whole area outlined is thought to contain the most interesting fen and marsh communities in the Strokestown area. In addition it is of considerable extent and fairly far from the road and other disturbance.

Vulnerability: Drainage of the Scramoge river system would damage the present area significantly as it partly depends on a high seasonal water table. Burning of the vegetation is also an adverse influence since it changes its structure, and causes the unpalatable Molinia to increase.

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Recommendations: The diversity of the community and its full development gives this site an unusual educational importance in the Strokestown and Tulsk areas. Added to this it has an abundance of crannogs and other archaeological remains. It is felt that the most suitable form of protection and publicity would be to make it an Area of Special Amenity under Section 42, Local Government (Planning and Development) Act, 1963. Access could probably be improved to the east and northeast corner although such developments should be discussed with An Foras Forbartha before going ahead.

Name of Acreage: LOUGH GLINN  
Acreage: 370 acres  
Grid Reference: M.635,865  
Scientific Interest: Ornithological  
Rating: Local Importance  
Priority: B

Description of the Area

Lough Glinn, which is shown on the accompanying map, is a small permanent waterbody, in a fairly steep-sided basin. The greater part of the land surrounding the lake is pasture and the proportion which is flooded is relatively small. An island on the lake is covered in scrub and there are also trees along the lake-shore; oak and birch are the most common species. Along the lake margins and at places close to mud water there are large reed beds made up of Phragmites australis (common reed) and Schoenoplectus lacustris (lake rush).

Evaluation

When the site was visited on 24th January the following birds were counted: -

Tufted duck	350
Mallard	55
Other duck	20
Swans ) Mute	40
) Whooper	8
Coot	35
Comorants	10
Hérons	8

For an area of quite small size therefore quite substantial numbers of wildfowl and water birds are present. The island and trees at the eastern end of the site are likely to provide a suitable area for a heronry as well as a potential nesting area for other birds of prey. These trees and those on the island are important roosting places.

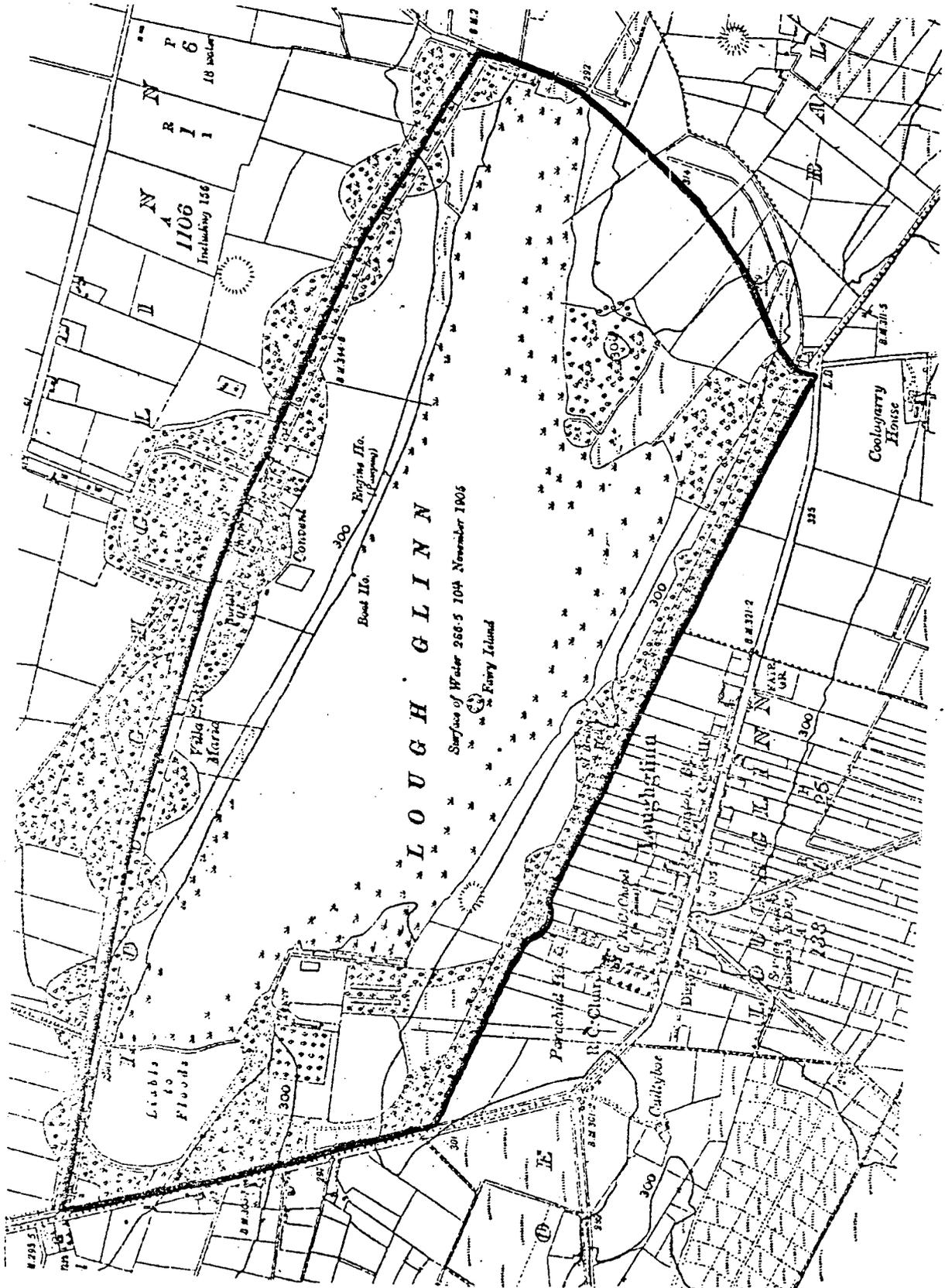
At the present time there is no indication that the lake is "preserved" for shooting purposes.

Threats to the Area

Currently none is obvious although disturbance by shooting is more than likely. Felling of timber, particularly at the eastern end would deprive the area of much of its value.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Recommendations: Lough Glinn should remain basically as it is at and present. To this end and in view of its undoubted scenic attraction and amenity value to the town, it should be made an Area of Special Amenity, under the Local Government (Planning and Development) Act, 1963. Building development should not be permitted.

Any future development should leave the tree stands intact and also avoid the southeast corner of the lake. It may be expedient to cover the trees with a Tree Preservation Order.

Name of Area: SHAD LOUGH  
Acreage: 102 acres  
Grid Reference: M 82,74  
Scientific Interest: Ornithological / Botanical.  
Rating: Local  
Priority: B

Description of Area : A shallow lake whose area is extended considerably by flooding in wet weather, Shad Lough shows some of the features associated with turloughs, such as high productivity and attractiveness to wildfowl. The shore is marked by a Phragmites (common reed) band with some Scirpus lacustris (lake rush) and behind this a Juncus articulatus (jointed rush) community takes over with such species as Senecio aquaticus (marsh ragwort), Carex flacca (a sedge), Nasturtium officinale (water cress), Parnassia palustris (grass of Parnassus), Epilobium palustre (marsh willowherb), Iris pseudacorus (yellow flag) and Eriophorum angustifolium (bog cotton). Molinia caerulea (purple moor grass) and Succisa pratensis (devil's bit) also form an important part.

The birds present in December 1973 included:-

Teal	200
Wigeon	45
Mallard	22
Whooper swan	4
Curlew	150
Lapwing	60
Snipe	120 estimate from sample count.

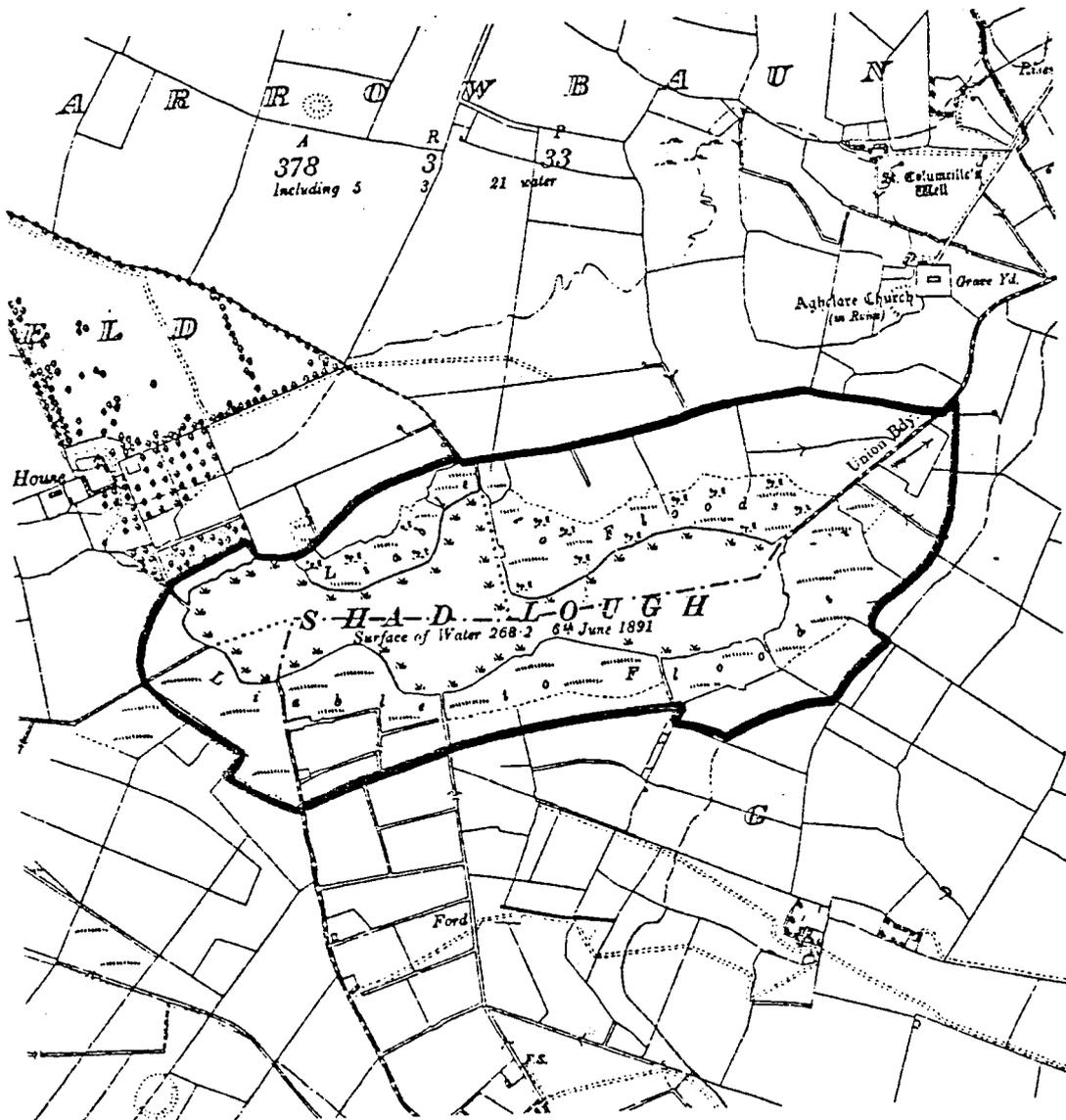
Evaluation: The lake is seen to be of some importance for wintering birds, especially teal and snipe and in hard weather is likely to hold far greater numbers. It is relatively undisturbed.

Vulnerability and Recommendations: Shad Lake is in a natural hollow so that lowering its water level would not affect very much agricultural land. For this reason there can be no justification for local drainage and this part of the catchment should be exempted from a regional scheme.

Disturbance from shooting is thought to be currently at a low level compatible with the bird populations. This should be checked from time to time.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Name of Area: CRANBERRY LOUGH  
Acreage: 26 acres  
Grid Reference: M. 91, 33  
Scientific Interest: Ecological, botanical  
Rating: Local  
Priority: C

Description of Area: Cranberry Lough is surrounded by raised bog. It receives alkaline drainage water from the west so is fairly eutrophic. The open water is surrounded by marginal reedbeds and behind this a floating mat of vegetation occurs, now separating the original lake into two parts.

*doesn't make sense!*

Typha latifolia (bulrush), Cladium mariscus (saw sedge), Carex rostrata and C. diandra (sedges) figure prominently in the reedbed community with Carex lepidocarpa (a sedge) on bare peat. In open water Nuphar lutea (yellow water lily), and Lemna minor (duckweed) occur.

The vegetation of the 'scraw' is based on a mat of Menyanthes trifoliata (bogbean) and Potentilla palustris (marsh cinquefoil) as is so often the case. It is unusual in the abundance of Lychnis flos-cuculi (ragged robin) and also of Marchantia polymorpha (a liverwort) which occurs with such species as:

Angelica sylvestris	wild angelica	c
Caltha palustris	marsh marigold	f
Acrocladium cuspidatum	a moss	f
Galium palustre	marsh bedstraw	f
Hydrocotyle vulgaris	marsh pennywort	f
Pedicularis palustris	red rattle	o
Sagina nodosa	knotted pearlwort	o
Epilobium parviflorum	hoary willowherb	o

Where more acidic conditions allow the Sphagnum mosses to grow the result is a different community, viz:

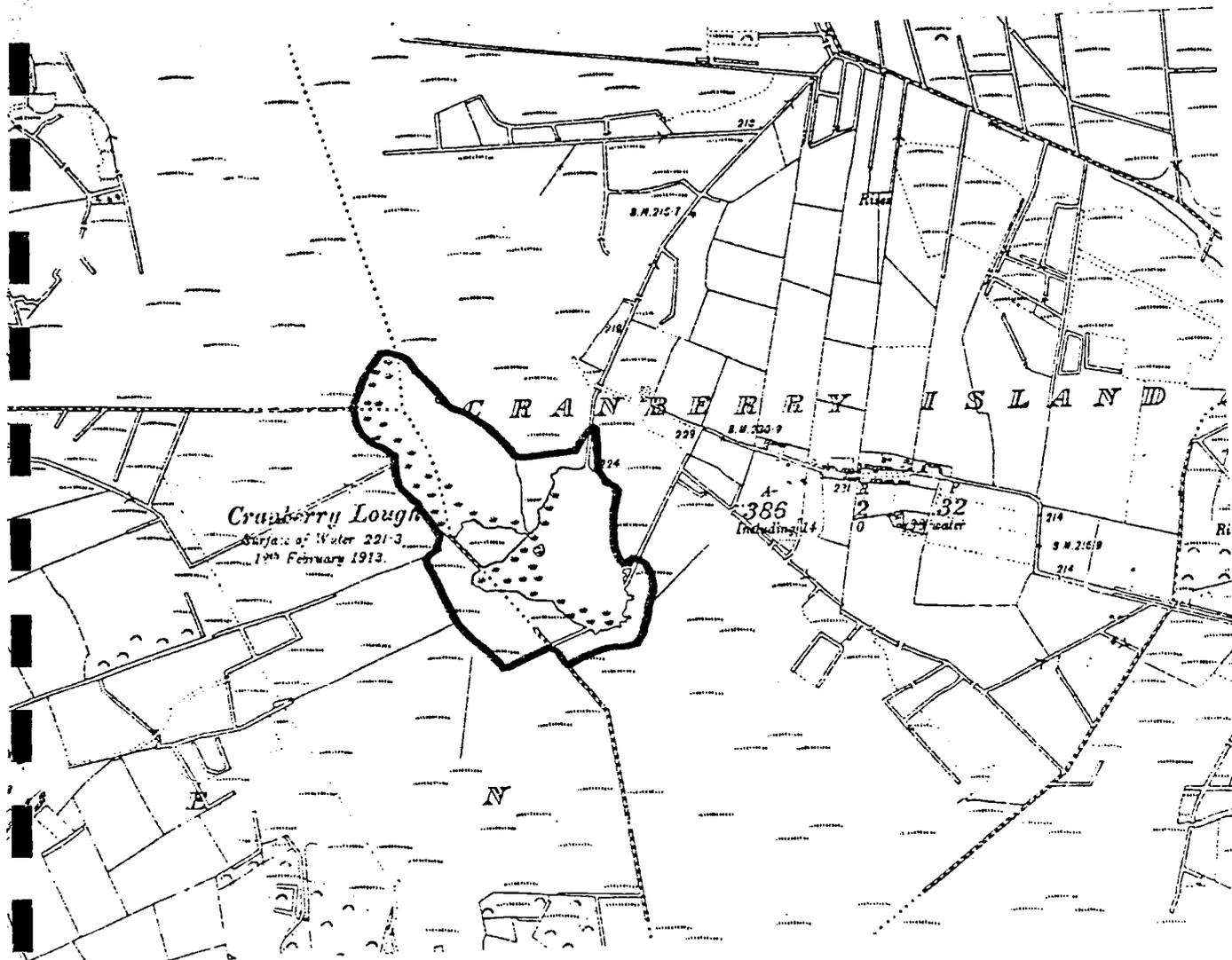
Aulacomnium palustre	a moss	f
Myrica gale	bog myrtle	o
Vaccinium oxycoccus	cranberry	l.f.
Eriophorum angustifolium	bog cotton	f
Drosera rotundifolia	sundew	f
Carex limosa	a sedge	r
C. dioica	a sedge	r

A group of scot's pine (Pinus sylvestris) occur between the lakes and they are spreading to a small extent.

Nesting bird species include the sedge warbler, reed bunting, snipe, curlew, little grebe and moorhen. The site has not been visited in winter but conditions appear suitable for whooper swan and teal as well as an increased population of snipe.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Evaluation: Rather unusual habitat conditions prevail at this site caused by the acid/alkaline transition. For this reason it has ecological interest in addition to certain rare species of plant. For one it provides the only known site in the county.

Vulnerability: Drainage is the chief threat to this area and recent ditch clearance has been done. However there seems to have been little effect on the lake level.

Recommendations: Since the outlined area is unsuitable for agriculture without massive (and uneconomic) earthworks it is recommended that future drainage be suspended by using a Conservation Order for the site, under the Local Government (Planning and Development) Act, 1963.

Name of Area: WOOD, AT TAWNYTASKIN  
Acreage: 13 acres  
Grid Reference: G. 82, 05  
Scientific Interest: Ecological, botanical  
Rating: Local  
Priority: B

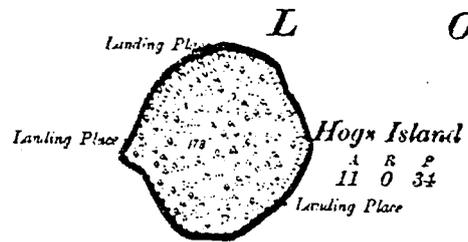
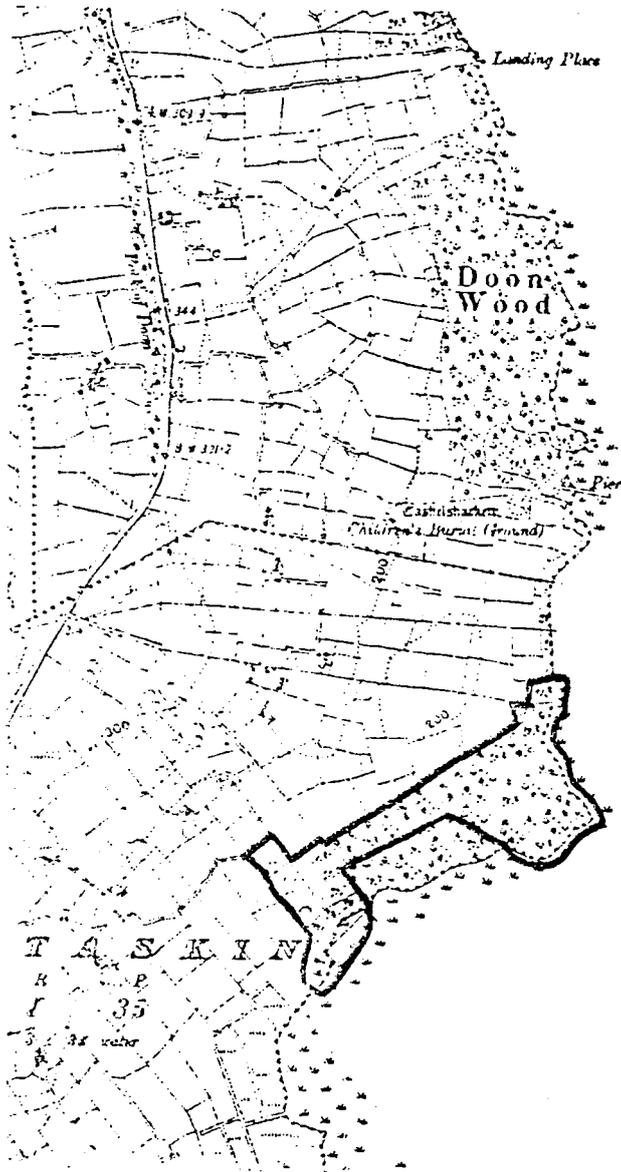
Description of Area: A variety of tree types form stands in different parts of the wood since it is still at an early stage of succession. A nucleus of scattered oaks, both Quercus robur and Quercus petraea occurs, around and between which the woodland is developing. The northern end has a cover of tall birch (Betula pubescens), about 35 - 40 ft. high and closely spaced. A few ash trees (Fraxinus excelsior) and some willows (Salix cinerea) make up the species complement with individual beech trees (Fagus sylvatica) planted usually on wall lines. Hazel (Corylus avellana) is common in the understory with some spindle tree (Euonymus europaeus). The ground flora is relatively poor, especially under birch where Rubus fruticosus (bramble), Holcus lanatus (Yorkshire fog) and Deschampsia caespitosa (tufted hair grass) are the commonest species.

Towards the lake shore the community has little birch and could be called Corylus/Fraxinus (hazel/ash). The ground flora is richer with characteristic species of clayey soils, such as:-

Carex sylvatica	wood sedge
Geranium robertianum	herb robert
Geum urbanum	wood avens
Ajuga reptans	bugle
Lysimachia nemorum	yellow pimpernel
Sanicula europaeus	wood sanicle
Viola riviniana	violet
Hypericum androsaemum	St. John's wort
Dryopteris pseudomas	male fern
Atrichum undulatum	moss
Mnium undulatum	"
Thuidium tamariscinum	"
Rhytidiadelphus loreus	"

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Water patches on the drift soil as well as on the sometimes inundated shore alder (Alnus glutinosa) is the main tree species with such plants as Iris pseudacorus (yellow flag), Carex remota (distant sedge), Phragmites aquatica (water mint), Ranunculus repens (creeping buttercup), Scirpus palustris (marsh bedstraw) and sometimes Festuca gigantea (tall fescue), and Stachys sylvatica (hedge woundwort). Rosa sherardii (rose) occurs on the lake shore in rocky places and Myrica gale (myrtle) in marshy conditions.

Regeneration of such tree species as hazel, holly, ash and alder is not marked but is probably adequate at this level of grazing.

**Conclusion:** This wood is of limited value but it has features of educational interest and has very good access. Originally a semi-natural oakwood, it has some characteristic features and in the absence of further felling would assume greater importance.

**Restoration:** A sizeable fraction of the area has been felled and planted with conifers (larch) and attempts may be made to enlarge this. Other uses for firewood or to increase the grazing area might also occur.

Without it, an increase in the grazing pressure would have damaging consequences.

**Recommendations:** General planning control should be sufficient to safeguard this area from most developments and it is not of sufficient value to require the immediate further protection that is possible under the 1963 Local Government (Planning & Development) Act. At the same time its complete replacement by coniferous trees should be opposed possibly by the issue of a Tree Preservation Order.

Name of area: KNOCKADUFF WOOD  
Acreage: 10 acres  
Grid reference: G886,043  
Scientific interest: Ecological  
Rating: Local  
Priority: B/C

Description of area.

This wood is partly on a south-facing slope overlooking the Boyle River and partly on the flood plain of the river itself. It is a hazel/ash wood with fast-growing ash trees of 20-40 feet overtopping a dense hazel canopy. The fringes are formed of dense thickets of Prunus spinosa (black-thorn) with scattered Euonymus europaeus (spindle tree) while a few Salix cinerea (willow) occur internally. The ground flora is characteristic of this type of woodland, e.g.:-

Hedera helix	ivy	a
Oxalis acetosella	wood sorrel	a
Ajuga reptans	bugle	c
Primula vulgaris	primrose	c
Geum urbanum	wood avens	c
Carex sylvatica	wood sedge	f
Dryopteris dilatata	broad buckler fern	f
D. filix-mas	male fern	f
D. pseudomas	male fern	o
Potentilla sterilis	barren strawberry	f
Fragaria vesca	wild strawberry	o
Galium odoratum	woodruff	o
Scilla non-scripta	bluebell	l.f.
Atrichum undulatum	moss	f
Eurhynchium striatum	moss	f
Thamnium alopecurum	moss	f



Rosa arvensis (field rose), R. canina (dog rose) and Rubus fruticosus (bramble) are the common shrubs.

On the flat alluvial land the hazel trees are older and more widely spaced and a few very large spindle trees occur. The ground flora contains Chrysosplenium oppositifolium (golden saxifrage) and Circaea lutetiana (enchanter's nightshade) more frequently while Festuca gigantea (giant fescue) grows in one place. This woodland grades into swampy land near to the river with Molinia caerulea (purple moor grass), Deschampsia caespitosa (tufted hair grass), Festuca arundinacea (reed fescue) and Lythrum salicaria (purple loosestrife)

The wood contains a good variety of passerine birds in winter but it has limited nesting sites. Badgers also occur.

#### Evaluation.

This wood is a good example of a frequent woodland type - the ash/hazel community which occurs on thin limestone soils, or on well-drained calcareous drift. Its extension onto the riverside alluvial land makes it more interesting than most and also one fairly uncommon plant species is found.

#### Vulnerability.

Clearance of parts or all of this wood is the only likely threat to it. This might be done in agricultural development.

#### Recommendations.

In view of the relative security of this wood, general planning control should be a sufficient form of protection for it, at least until more important sites have been adequately conserved.

Name of Area: KILGLASS AND GRANGE LOUGHS  
Acreage: 1660 acres  
Grid Reference: M 98, 88  
Scientific Interest: Zoological, ornithological  
Rating: Local  
Priority: C

#### Description and Evaluation of Area

These lakes are the lowest parts of the two main tributaries to the Shannon in Roscommon, the Scramog and Owenur Rivers. In consequence, they are the collecting point for animal life from the two entire catchments. Passive organisms are carried slowly down while active ones, such as fish, make their own way as their increasing size demands deeper, more extensive waters.

The invertebrate life is of some interest in that an unusual bug, Corixa fallenoidea (water boatman) which is peculiar to central and western Ireland, occurs in exceptional abundance. It may indicate that other invertebrates of restricted range occur in the area: certainly there is a leech species of interest, though in this case it seems to have been introduced.

Bird life is moderately rich on these lakes. They support wintering wildfowl, especially swans and diving duck, and have a varied group of nesting birds, including a rare species.

Isolated stretches of shoreline are known to be botanically rich though there is much dull grassland as well. At this stage they cannot be accurately mapped.

#### Vulnerability and Recommendations.

Water pollution is the only obvious threat in this area and adequate (tertiary) treatment facilities should be obligatory for any large agricultural industry locating in the area.



Name of Area: HOG'S ISLAND LOUGH KEY \*

Acreage: 12 acres

Grid Reference: G ~~82184~~ 830 057

Scientific Interest: Ecological, ornithological

Rating: Local

Priority: C

Description of Area: This woodland somewhat resembles that on Drumman's Island (see p. 25) but mainly in its associated flora rather than its trees. In this case ash is the main species and the woodland is obviously secondary, growing over the traces of old lazy-beds. Since ash is not shade tolerant this wood must be regarded only as a transitional stage in the succession to oak woodland. The sycamore is again present with holly while hawthorn (Crataegus monogyna) and beech (Fagus sylvatica) are rare.

In order of abundance the chief members of the ground flora would be:

Hedera helix	ivy	a
Anthriscus sylvestris	cow parsley	a
Scilla non-scripta	bluebell	a
Heracleum sphondylium	hogweed	a
Rubus fruticosus	bramble	c
Ranunculus ficaria	celandine	c
Dryopteris filix-mas	male fern	c
Galium aparine	goosegrass	c
Geum urbanum	wood avens	f
Chrysosplenium oppositifolium	golden saxifrage	f
Arum maculatum	cuckoo pint	f
Veronica montana	wood speedwell	f

Stellaria holostea (stichwort), Conopodium majus (pignut), Sanicula europaea (wood sanicle), Geranium robertianum (herb robert) and Silene dioica (red campion) are less common than the above species.

The island being totally wooded provides a good nesting area for wild-fowl and in addition several species of warbler and other songbirds nest.

Evaluation: This is a site of local interest, most valuable for its present lack of disturbance. In particular there are no grazing animals present so the succession of open ground to closed stable forest can be studied without this inhibitory factor.

Vulnerability and Recommendations: The site is not threatened by any development at the moment and none should be allowed in future.

\* Map on Page 82.

Name of Area: MARSH WEST OF BALLYDANGAN  
Acerage: 24 Acres  
Grid Reference: M 925320  
Scientific Interest: Botanical  
Rating: Local  
Priority: C

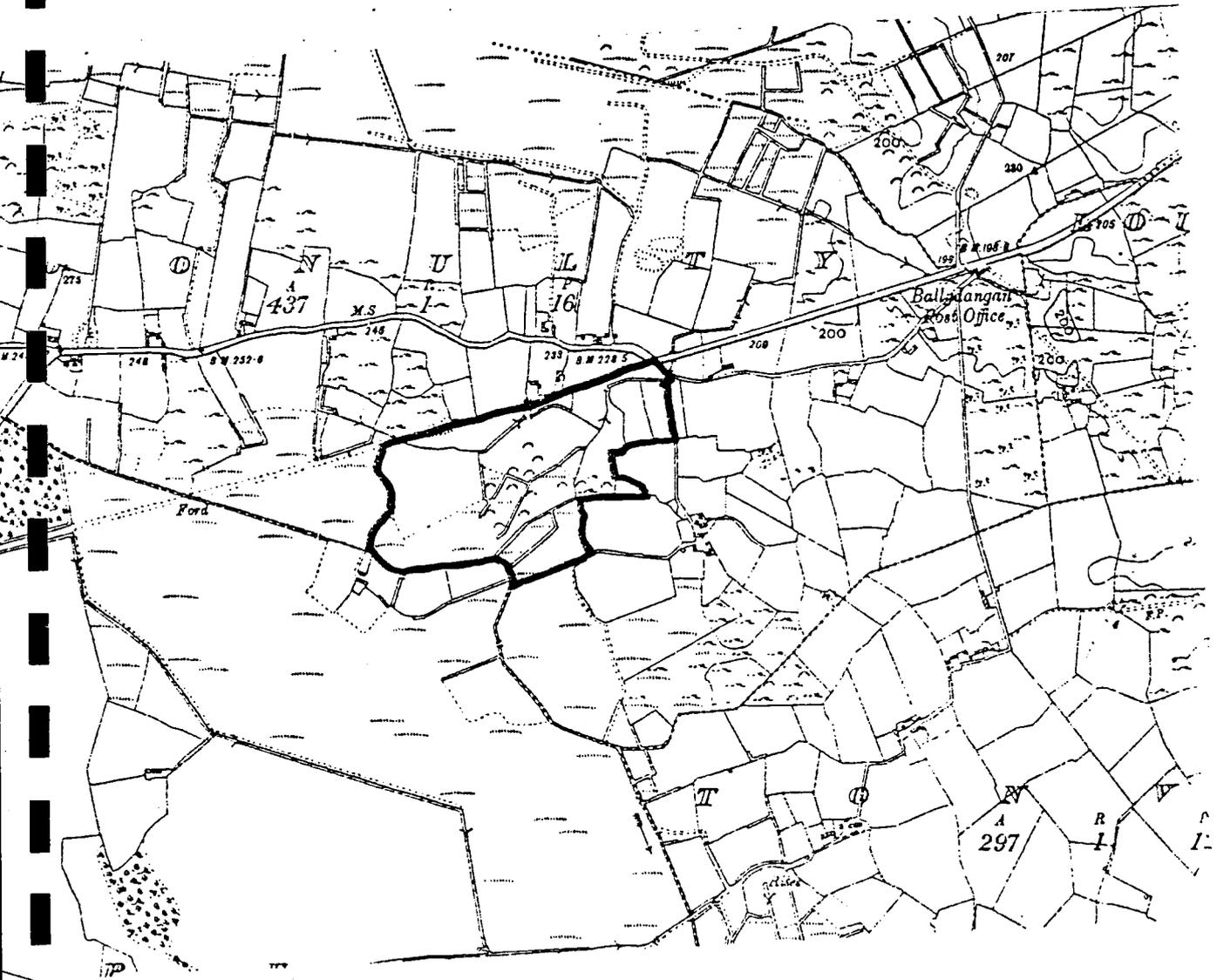
Description and Evaluation of Area: This marsh occurs at the edge of a partially cutover raised bog where alkaline water collects in pools, probably derived from the marl layer below the peat. Menyanthes trifoliata (bog bean), Carex rostrata and C. diandra (sedges) and Eriophorum angustifolium (bog cotton) cover much of the open water with scattered Hippuris vulgaris (mare's tail) and Lemna minor (duckweed). Fen vegetation occurs around these pools with Schoenus nigricans (black bog rush) common and also Scorpidium scorpioides (a moss), Pinguicula vulgaris (butterwort), Dactylorhiza fuchsii and D. traunsteineri (orchids). It is this latter species that is the interesting plant as it is not as yet known from any other site in the county.

Vulnerability and Recommendations: The site being so small could be obliterated by roadside development and damaged by dumping. These should therefore be prevented.

The land is not agricultural and thus it is unlikely to suffer from developments in this sector.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Name of Area: FERRINCH ISLAND AND MOUTH OF RIVER HIND, L.REE  
Acreage: 262 and 174 acres  
Grid Reference: M 97 66 and M 96 60  
Scientific Interest: Ornithological  
Rating: Local  
Priority: C

Description and Evaluation: These two sites are important for having concentrations of wildfowl at certain times of year. The Ferrinch Islands support nesting species such as tufted duck and mallard and being wooded provide an ideal habitat for the garden warbler, while the mouth of the R. Hind is more important as a wintering area. Flocks of teal, wigeon and pochard as well as of the above species have been noted here as the feeding is good. In addition little disturbance occurs and large numbers of waders such as godwit, plover, whimbrel, curlew and redshank use the area, especially on the autumn migration.

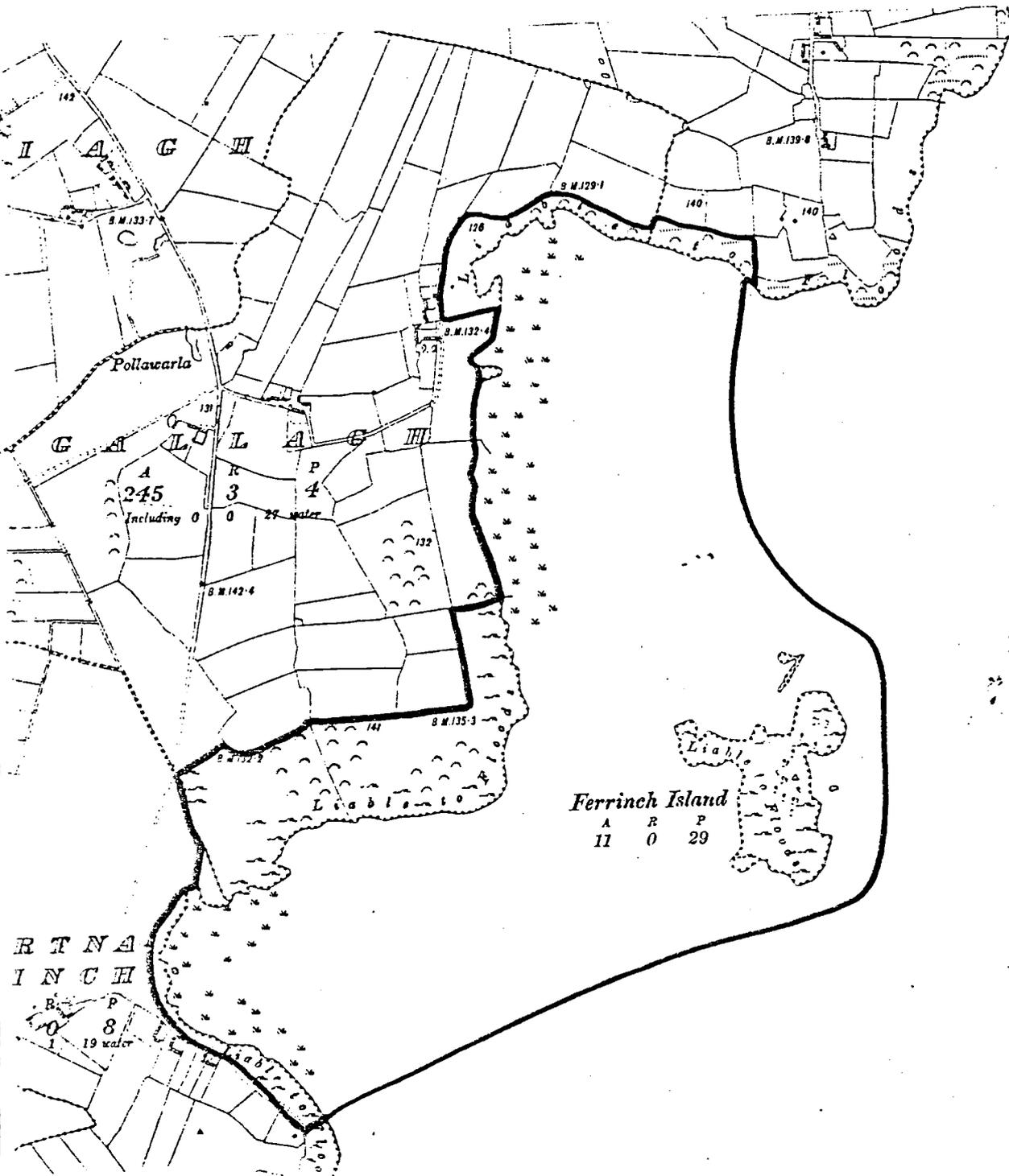
Numbers of birds are small by comparison with such areas as Lough Funshinagh but they are exceptional in the context of the whole of Lough Ree.

Vulnerability and Recommendations: Disturbance is the chief threat to the value of these areas. Therefore no development should be allowed on the Ferrinch Is. nor near the north side of Portrunny Bay. Lack of roads here means that at present there is little likelihood of this.

Education of boat users to prevent them landing off the islands in May and June should be done through local marinas.

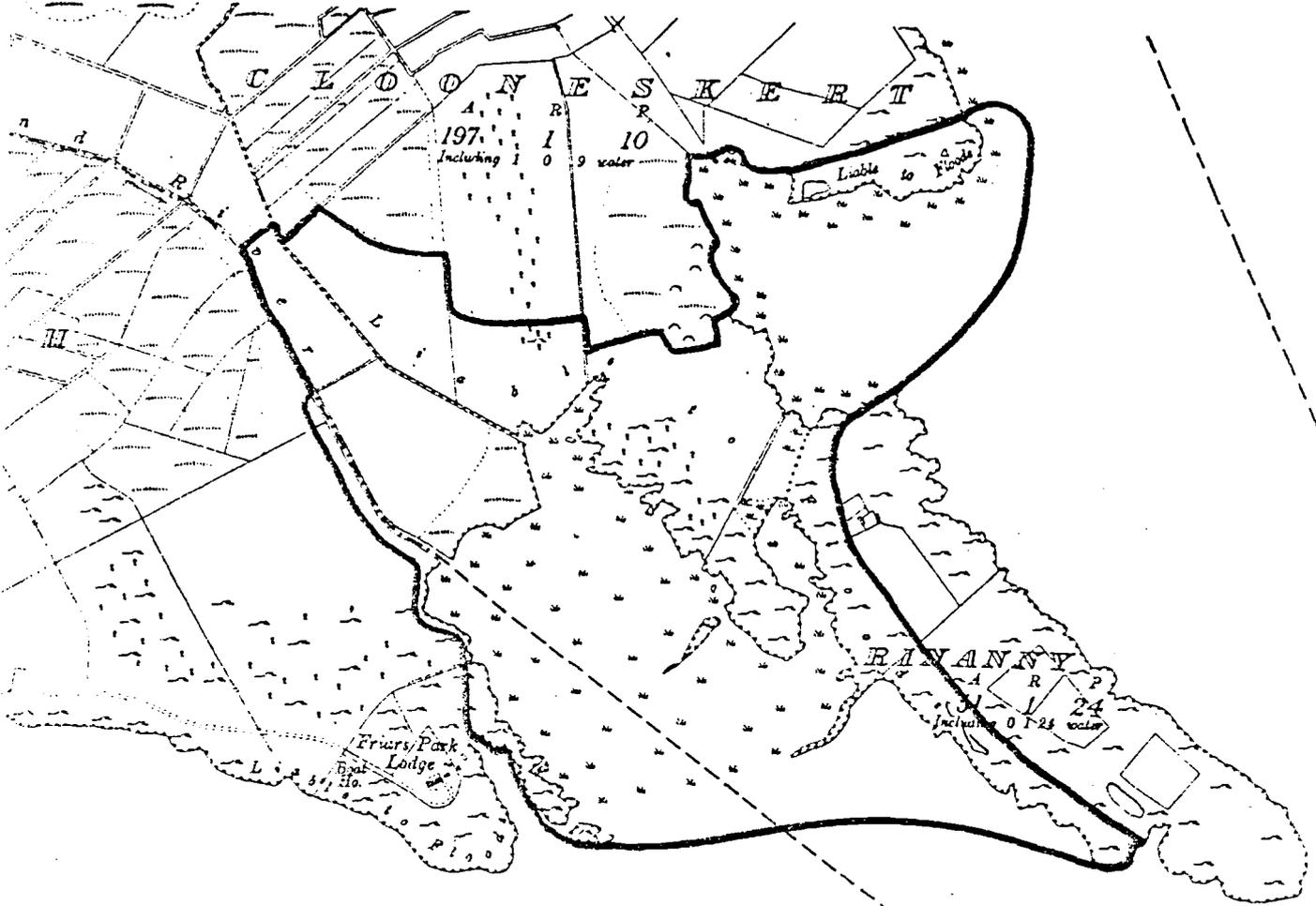
# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



P O R T R U N N Y B A Y

<u>Name of area</u>	CORBALLY <del>WETLAND</del> TURLOUGH
<u>Acreage</u>	24 acres
<u>Grid Reference</u>	M. 848, 802
<u>Scientific interest</u>	Ornithological
<u>Rating</u>	Local importance
<u>Priority</u>	C

#### Description of Area

The site of scientific interest is indicated on the accompanying map. Some fields converge in a small shallow basin which contains water for a long period each year. The water body is situated in a limestone region and production of the wetland is consequently profuse, obvious components of the vegetation in summer being large clumps of Iris pseudacorus (yellow flag) and sheets of the alga Oedogonium. There are several small patches of land in the waterbody and these provide roosting and nesting places for bird species which occur on and around the area.

#### Evaluation

Corbally Wetland is used by wildfowl in winter when approximately 200 duck were counted on one occasion. Swans are also present during winter months together with large numbers of lapwing and coot.

In Spring 1974 the area was visited and small numbers of little grebe, coot, lapwing and mallard were seen to be nesting in the area.

#### Threats to the Area

The survival of the wetland is not in danger but the site is frequently shot over.

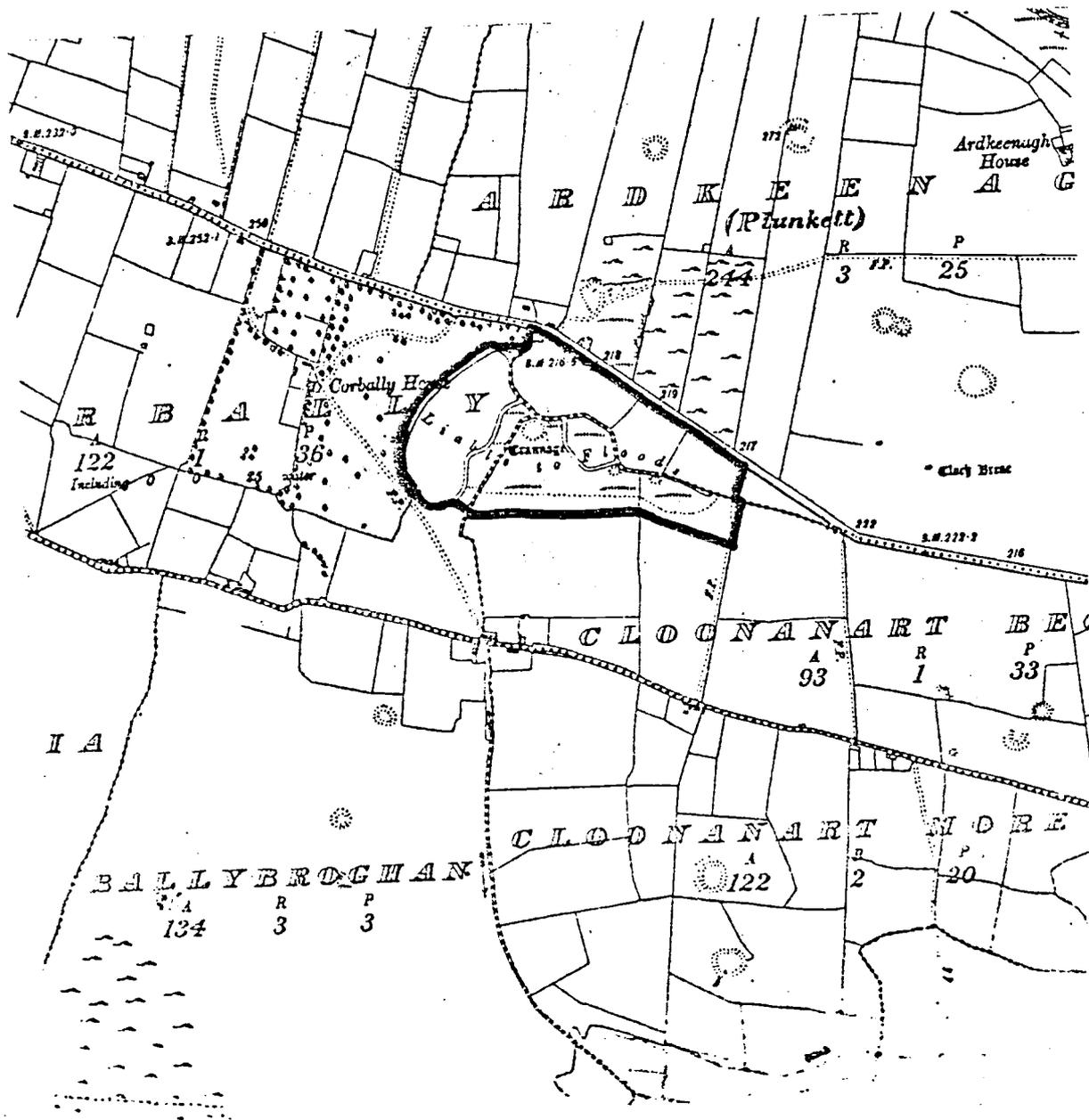
#### Recommendations

It is most desirable that this wetland should be managed as a nature reserve. Buildings or any other source of disturbance in its vicinity should not be permitted.

This site is situated close to the Dublin/Mayo main road and a display of illustrated identification charts could usefully be set up, enabling interested persons to identify the waders and wildfowl which occupy the area during the Winter months. Although of small size it would be most suitably protected by a Special Amenity Area Order, under the Local Government (Planning and Development) Act, 1963.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



Name of Area: FIN LOUGH  
Acreage: 70 acres  
Grid Reference: G864040  
Scientific Interest: Ecological  
Rating: Local  
Priority: C

Description of Area

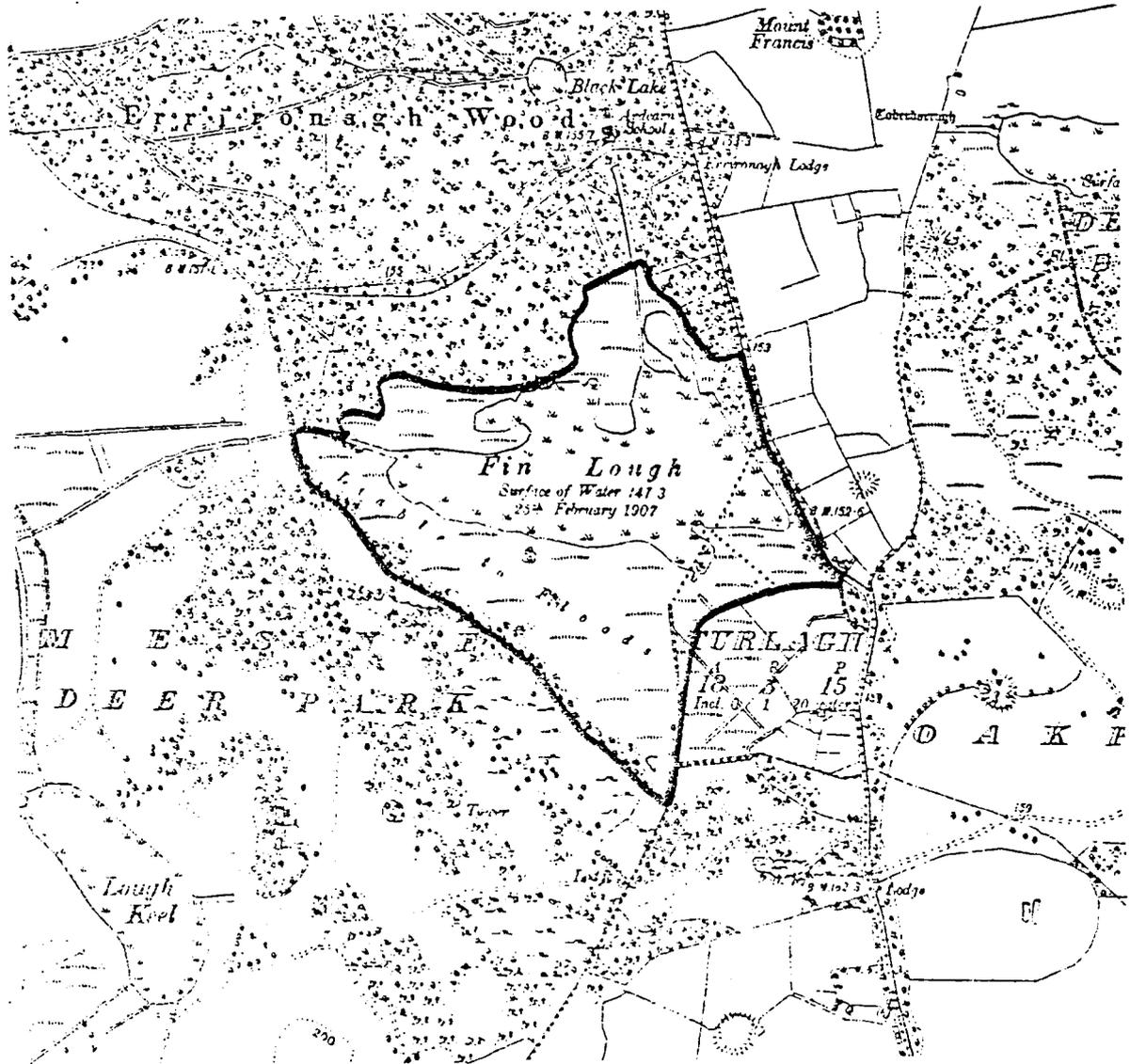
This shallow lough is surrounded by extensive reedbeds and marshes which together make up a much larger area than does the open water. The stands of Phragmites australis (common reed) are characteristically poor in species but behind these Schoenus nigricans (black bog-rush) and various Carex species (sedges) dominate the community which has many associated species. The low profile of the marsh is shown by the large area under Schoenus which is a species with quite a narrow tolerance to water levels. It is associated with such plants as:-

Agrostis stolonifera	creeping bent	a
Carex lepidocarpa	sedges	c
C. flacca	"	c
C. paniculata	"	o
Equisetum palustre	marsh horsetail	f
Hydrocotyle vulgaris	marsh pennywort	c
Drepanocladus Spp.	moss species	c
Campylium stellatum	" "	f
Acrocladium cuspidatum	" "	f
Mentha aquatica	water mint	f
Parnassia palustris	grass of Parnassus	f
Pedicularis palustris	red rattle	o
Ranunculus flammula	lesser spearwort	o
Valeriana officinalis	marsh valerian	o

In wetter places Menyanthes trifoliata (bog-bean), Potentilla palustris (marsh cinquefoil), Lycopus europaeus (gipsywort), Lythrum salicaria (purple loosestrife), Juncus articulatus (jointed rush), Eriophorum angustifolium (bog cotton), Sparganium minimum (least bur-reed), Carex rostrata (bottle sedge) and Caltha palustris (marsh

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



marigold) are some of the more frequent species, while the Schoenus area grades into drier grassland behind. In this the following plants are characteristic:-

Molinia caerulea	purple moor grass	a
Briza media	quaking grass	f
Lotus comiculatus	birdsfoot trefoil	f
Pseudoscleropodium purum	a moss	f
Potentilla anserina	silverweed	f
Lathyrus pratensis	yellow vetchling	f
Prunella vulgaris	self-heal	f
Rhinanthus minor	yellow rattle	o
Linum catharticum	purging flax	o
Dactylorhiza spp.	spotted orchids (ca.3 species)	o-r

Bird species characteristic of the lake in winter are mallard, coot, tufted duck, teal, mute swan, snipe, water rail and reed bunting and most of these probably nest as well, in reduced numbers.

#### Evaluation

This lake has considerable ecological interest which is shown by such a large expanse being under one species (Schoenus) and in addition it contains certain uncommon plants which are rare in the county. The bird life, though not exceptional, is quite rich and the habitat appears very suitable for nesting wildfowl.

#### Vulnerability and Recommendations

Lowering the lake level is an obvious threat to this area as is eutrophication. Since the aquatic life is not the major interest, the former is probably the greater threat. It should be resisted if a regional drainage scheme is begun.

<u>Name of Area</u>	BOGS AND FENS IN RIVER SUCK VALLEY
<u>Acerage</u>	
<u>Grid Reference</u>	M. 845, 425
<u>Scientific Interest</u>	Ecological
<u>Rating</u>	Local importance
<u>Priority</u>	C

Description of the area

The eastern side of the River Suck Valley (shown on the accompanying map) is occupied mainly by raised bogs. Several were visited and examined and these are marked (■) on the accompanying one such O.S. map.

On the higher, drier parts of the raised bogs the vegetation is that of a lichen heath. Calluna vulgaris (ling) and lichens of the genus Cladonia predominated in association with the following:

<u>Vaccinium myrtillus</u>	frochan	c
<u>Polytrichum commune</u>	a moss	a
<u>Potentilla reptans</u>	creeping cinquefoil	c
<u>Carex nigra</u>	a sedge	a
<u>Erica tetralix</u>	heather	c
<u>Rumex acetosella</u>	sheeps sorrel	o
<u>Drosera rotundifolia</u>	sundew	l.c.
<u>Cerastium glomeratum</u>	clustered mouse ear	o
<u>Luzula campestris</u>	field rush	r
<u>Myrica gale</u>	bog myrtle	o
<u>Eriophorum angustifolium</u>	bog cotton	c
<u>E. vaginatum</u>	-	c
<u>Narthecium ossifragum</u>	bog asphodel	o
<u>Andromeda polifolia</u>	bog rosemary	r
<u>Carex punicea</u>	carhation grass	c
<u>Scirpus caespitosus</u>	deer sedge	l.a.
<u>Succisa pratensis</u>	devil's bit scabious	o

Pools and places at which the water table is high are dominated by Sphagnum spp. and the following plant species were also recorded:

<u>Menyanthes trifoliata</u>	bog bean	l.a.
<u>Typha latifolia</u>	common reed	c
<u>Potamogeton sp.</u>	pondweed	e.a.
<u>Utricularia vulgaris</u>	bladderwort	o
<u>Acrocladium sp.</u>	a moss	e.a.

Just south of Thomas Street the basal marl is exposed between some of the higher bogs. The vegetation here is substantially different from that on the higher ground. Although the majority of species which were listed above from the acidic areas are present here in small numbers. The majority of additional individuals, belong to the following species:

on higher ground

<u>Salix sp.</u>	willow	o
<u>Schoenus nigricans</u>	black bog rush	l.a.
<u>Angelica sylvestris</u>	wild angelica	c
<u>Carlina vulgaris</u>	carline thistle	o
<u>Molinia caerulea</u>	purple moor grass	a

in pools and flushes

<u>Pinguicula vulgaris</u>	butterwort	l.c.
<u>Caltha palustris</u>	marsh marigold	l.c.
<u>Phragmites communis</u>	common reed	e.a.
<u>Equisetum fluviatile</u>	horsetail	c
<u>Lythrum salicaria</u>	purple loosestrife	c
<u>Mentha aquatica</u>	water mint	c
<u>Cladium mariscus</u>	saw toothed sedge	l.a.
<u>Chara sp.</u>	stonewort	a

Insects were not numerous when the site was visited but among the larger species emperor and fox moths were seen. The remaining invertebrate fauna included Corixids (water bugs), Coleoptera (beetle's) and Diptera (two-winged flies) in large numbers.

### Evaluation

This small area displays strong **calcicole** influences and is situated in a predominantly acidic area. Together with the boglands around it, the site shows a transition from acid to alkaline conditions which are unusual for a wetland in this region.

### Threats to the area

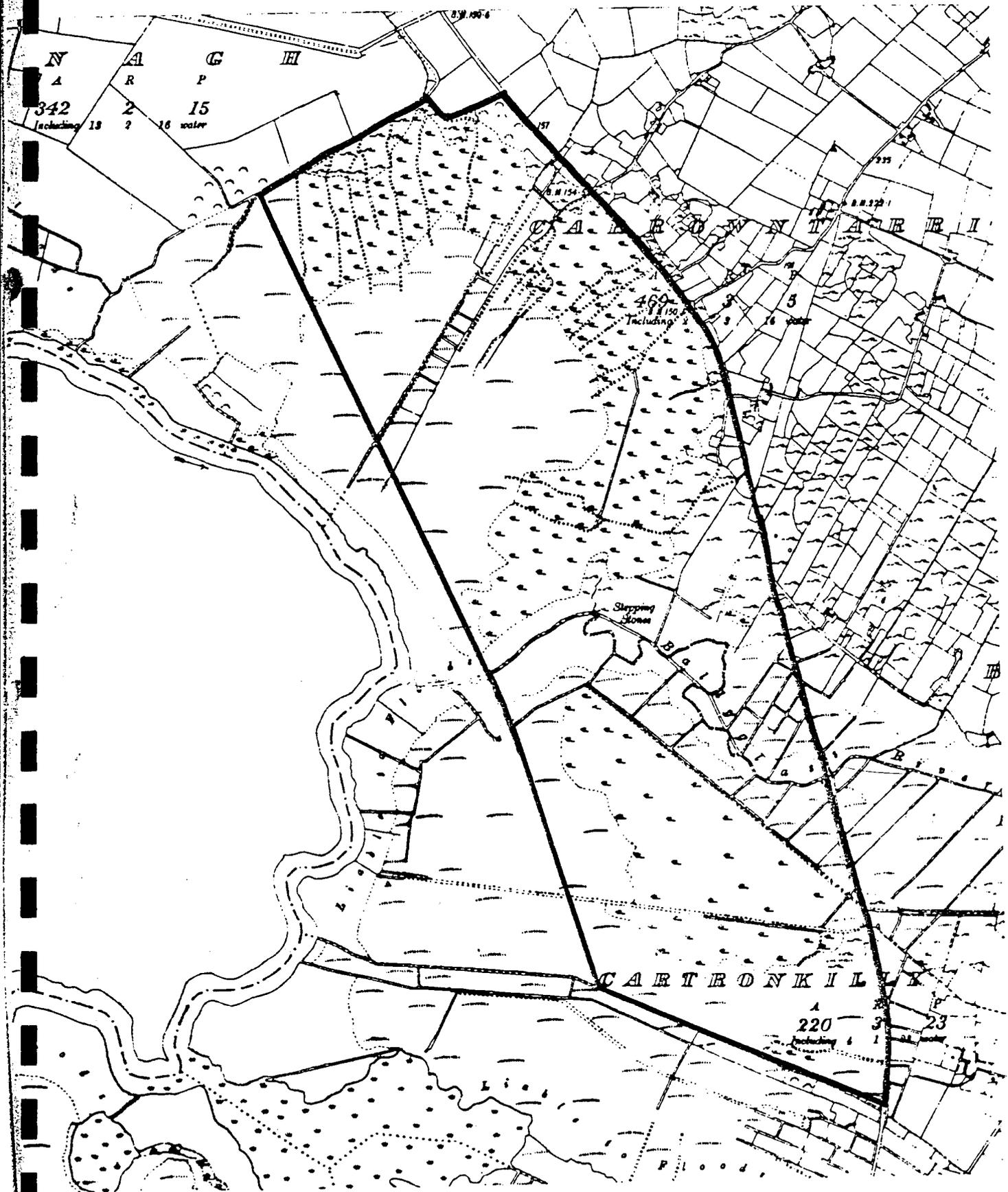
None is obvious at present although garbage dumping cannot be discounted in the future.

### Recommendations

Investigations should be undertaken to discover whether the interest of this wetland might be artificially enhanced. At present the area is not particularly noteworthy although its economic possibilities are also small. For the future the options on this site should be kept open and development on or near it should be carefully controlled, pending further investigation.

# MAP SHOWING AREA OF SCIENTIFIC INTEREST —

Scale: 6 Inches to 1 Mile



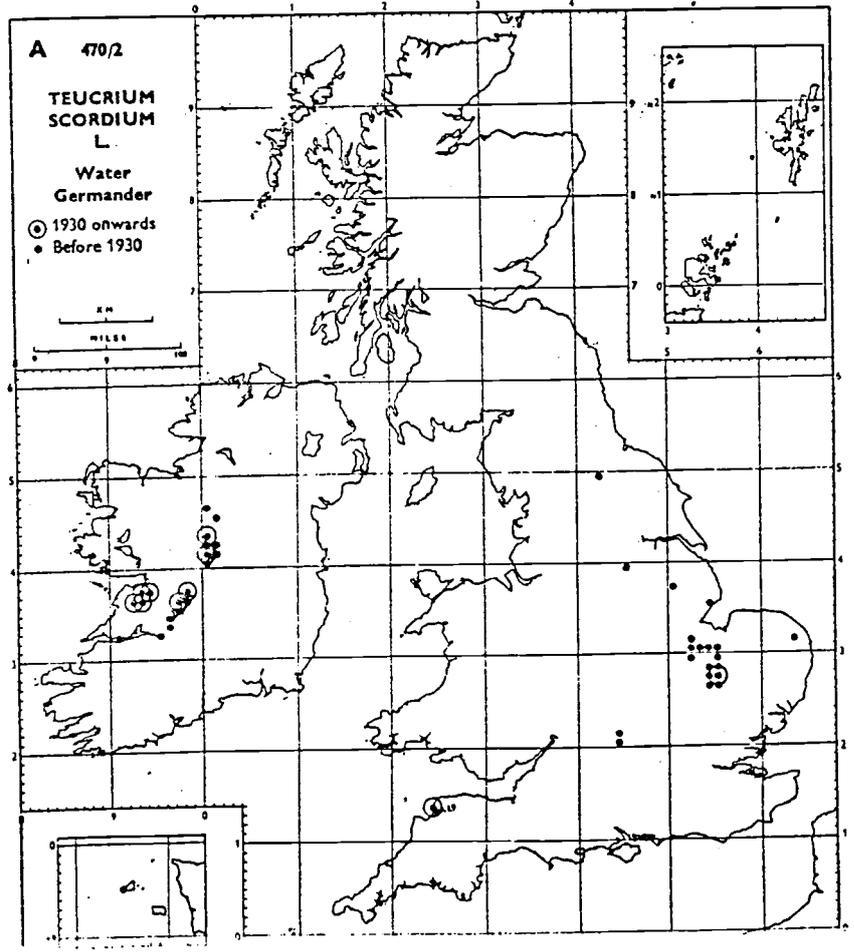
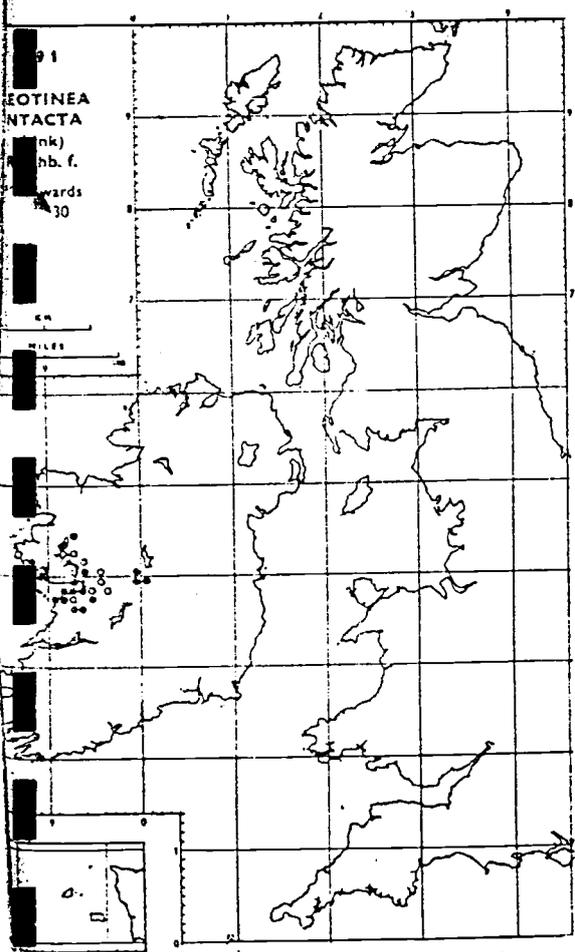
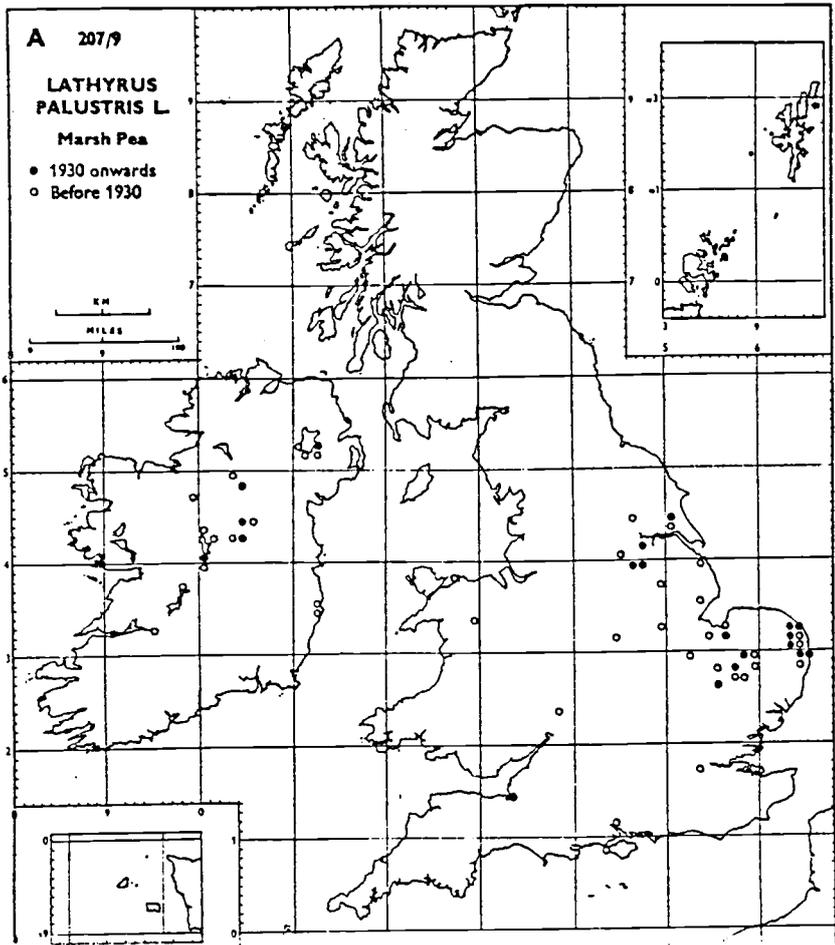
Section G : Summary of Recommendations for the sites described in Section E

	Special Amenity Area Order	Tree Preservation Order	Conservation Order	General Planning Control	Consultation with State & semi-State bodies
Leacarrow claypits					*
Lough Funshinagh			*		*
St. John's Wood		*		*	
Shannon River (Athlone - Shannonbridge)					*
Drumman's Island - Lough Key					*
Castlesampson Esker	*				
Knocknanool Esker.	*				
Corkip Lough		*			
Hughestown Wood		*			
Bally Bay, Lough Ree				*	*
Yew Point, Lough Ree				*	
Turloughs near Briarfield House					*

	Area	Order									
Castleplunket and Mullygollan Turloughs										* and	*
River Suck Callows											*
Lough Croan										* and	*
Marshes near Drum Bridge, Lough Key											*
Shannon River margins, north of Athlone										* and	*
Lough Gara										*	
Annaghmore Lough & adjacent area						*			and	*	
Cornaveagh Esker						*			and	*	
Ardakillin Lough							*				
Lough Glinn							*				*
Shad Lough										*	
Cranberry Lough									*		
Wood at Tawnytaskin						*			or	*	

	Special Amenity Area Order	Tree Preservation Order	Conservation Order	General Planning Control	Consultation with State and Semi-State bodies
Knockaduff Wood				*	
Kilglass and Grange Loughs				*	*
Hog's Island, Lough Key				*	
Marsh West of Ballydangan				*	
Ferrinch Island and mouth of River Hind				*	
Corbally Wetland	*				
Fin Lough					*
Bogs and Fens in River Suck Valley				*	

APPENDIX 1. The Distribution of 3 Plant Species mentioned in the Text



## APPENDIX 2.

### FURTHER SURVEY WORK

This report contains such information as is available on Co. Roscommon. It is not a conclusive document however, and other features of interest will almost certainly be listed in the future, including geological, zoological, and botanical sites. As well as this, ecologically interesting areas may develop under certain types of human influence such as turf cutting, forestry development or agriculture. A few of these have been listed already, usually when man's activity has ceased and the area is reverting to a more natural condition.

As has been said, much of the survey work was concentrated on higher plants which are convenient indicators of environmental conditions. A comprehensive investigation of invertebrates could not be undertaken but representative collections were made from woodlands and wetlands. From one aspect of the scientific study of these organisms (that of the historically native fauna) wetland collections are considered particularly valuable. This is because water "cushions" temperature variations so that the physiology of the animals living in it is not subject to great stress. Accordingly, aquatic invertebrates have probably survived in larger numbers since the ice age in Ireland than terrestrial species. Since Roscommon is known to have several aquatic invertebrates of great interest already, for this reason it may prove to be a rewarding area for study. The organisms include a Hemipteran (water bug) Corixa fallenoidea which was captured in a number of lakes and "turloughs" during this survey. The creature occurs in very large numbers and, in early spring, the majority of specimens collected belonged to this species. Ecological investigation of the status and behaviour of this species would be most rewarding.

Another species on which considerable efforts were expended is the small snail Vertigo genesii. Ireland is one of very few countries which contains

populations of this species and these occur in midland fens, a record coming from Co. Galway, near the Roscommon border. In this survey, samples were collected from 15 stations (7 in the River Suck valley - see Fig. 3), 7 of which were visited twice and 3 of them three times, in an effort to establish the presence of the snail in the county. So far there has been no success, though the habitat appears suitable. Further efforts should continue in this direction.

The absence of high ground in the county precludes the possibility of a high altitude fauna of the kind which occurs in Cos Kerry and Wicklow. An examination of rivers in the vicinity of Arigna revealed the expected low level community while some other rivers contained the water bug Aphelocheirus montadoni indicative of the lowest reaches of large river systems.

Terrestrial insect collections were fairly unremarkable, a "generally distributed" species list being assembled from five fairly intensely investigated areas. It should however, be mentioned that at the time of year at which the survey took place, only the insects of leaf litter were at all numerous.

The presence of oceanic forms of lichen, like Lobaria indicates that suitable habitat conditions may exist for some of the smaller terrestrial insects. Investigations of their occurrence should be undertaken in the future in the Lough Key area. The fauna of the interior oak stands of St. John's wood might also be interesting in this respect.

Finally, Roscommon has some of the best examples of intact raised bogs in the whole midlands and these should necessarily be studied for their natural communities and species, before being exploited by Bord na Mona.



Scale approximately  
of miles to 1 inch.

Appendix 3  
Map showing places  
visited in Co. Roscommon  
in the course of a survey of  
sites of scientific interest.

