John Wilson.

REPORT

on

Wetlands of International and

National Importance

in the

REPUBLIC of IRELAND

November 1974

INTRODUCTION

Authors of earlier lists of important wetlands in Ireland e.g. Cabot and Ruttledge (1966) and O Gorman (1971), had to rely largely on their own subjective assessment of the relevant merits of different areas. However, in preparing the report for 1974, it has been possible to operate not only on objective criteria laid down by the IWRB and IUCN but also on the results of an extensive survey undertaken over the past two years as a co-operative effort by the Forest and Wildlife Service of the the Dept. of Lands and the Irish Wildbird Conservancy - of wildfowl and wader numbers in Irish wetlands.

For purposes of the attached report for 1974, wildfowl data have been extracted from an unpublished report by the Irish Wildbird Conservancy; information on plant ecology has been compiled from a field survey carried out by the Forest and Wildlife Service (Research Branch) and also from data supplied by An Foras Forbartha (The National Institute for Physical Planning and Construction) and from material extracted from various other sources.

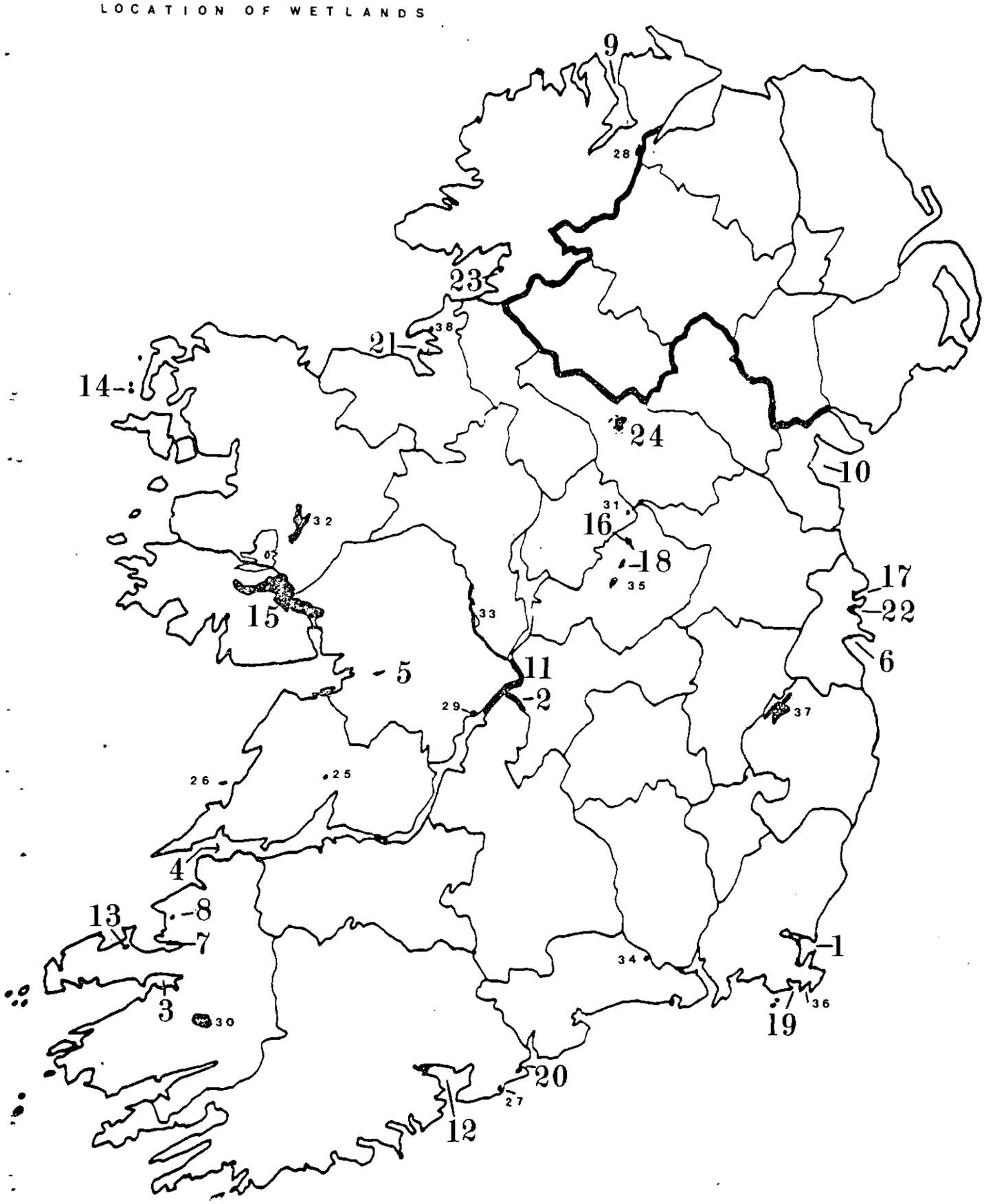
This report is in two parts.

Part 1 relates to wetlands which are regarded as of International importance;

Part II lists those which are considered to be of national significance.

IRELAND

LOCATION OF WETLANDS



Department of Lands

Forest and Wildlife Service

INDEX TO MAP

Large case numbers = Wetlands:International Importance

Small case numbers = Wetlands : National Importance

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1. Wexford Harbour and Slobs, Co. Wexford.
2. Little Brosna, Co's Offaly, Tipperary and Galway.
3. Castlemaine Harbour, Co. Kerry.
4. Shannon Estuary, Co's Clare, Limerick and Kerry.
5. Rahasane Turlough, Co. Galway
6. North Bull, Co. Dublin.
7. Tralee Bay, Co. Kerry.
8. Akeragh Lough, Co. Kerry.
9. Lough Swilly, Co. Donegal.
10. Dundalk Bay, Co. Louth.
11. River Shannon-Portumna to Shannonbridge, Co's Galway, Offaly and Tipperary.
12. Cork Harbour, Co. Cork.
13. Lough Gill, Co. Kerry.
14. Inish Kea Islands, Co. Mayo.
15. Lough Corrib, Co. Galway.
16. Lough Derravaragh, Co. Westmeath.
17. Rogerstown Estuary, Co. Dublin.
18. Lough Owel, Co. Westmeath.
19. Tacumshin Lake, Co. Wexford.
20. Ballymacoda, Co. Cork.
21. Sligo Bay, Co. Sligo.
22. Malahide Estuary, Co. Dublin.
23. Birra Lough, Co. Donegal.
24. Lough Oughter, Co. Cavan.

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25. Ballyallia Lake, Co. Clare.
26. Mutton Island, Co. Clare.
27. Ballycotton, Co. Cork.
28. River Foyle, Co. Donegal.
29. Portumna, Co. Galway.
30. Lough Leane, Co. Kerry.
31. Lough Kinale, Co. Longford.
32. Lough Carra, Co. Mayo.
33. River Suck, Co. Roscommon.
34. Coolfinn on the River Suir, Co. Waterford.
35. Lough Ennell, Co. Westmeath.
36. Lady's Island Lake, Co. Wexford.
37. Poulaphuca Reservoir, Co's Wicklow and Kildare.
38. Lissadell and Drumcliff Bay, Co. Sligo.

PART I

WETLANDS OF INTERNATIONAL IMPORTANCE

WETLANDS OF INTERNATIONAL IMPORTANCE FOR WATERFOWL IN THE REPUBLIC OF IRELAND,

SUMMARY LIST

This list is arranged in alphabetical order by county and then by wetland.

N.B. Wetlands of National Importance listed at Page 68

STATE Irish Republic of Ireland PROVINCE Ulster

NAME OF WETLAND AREA Lough Oughter

CRITERIA FOR INCLUSION IN THE DIRECTORY
2,4,6-8

GEOGRAPHICAL LOCATION
7°28'W54°00'N 7 km Cavan Town, Co. Cavan.
Lough Oughter and adjacent lakes from Milltown in the north to Ricehill in the south.

AREA
1012 ha

ALTITUDE (metres above mean sea level)
50m

DEPTH
Not known

WETLAND TYPE
Type 18 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
Annual non-shooting order under the Game Preservation Act 1930

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT PRACTICES NEEDED
Not known

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

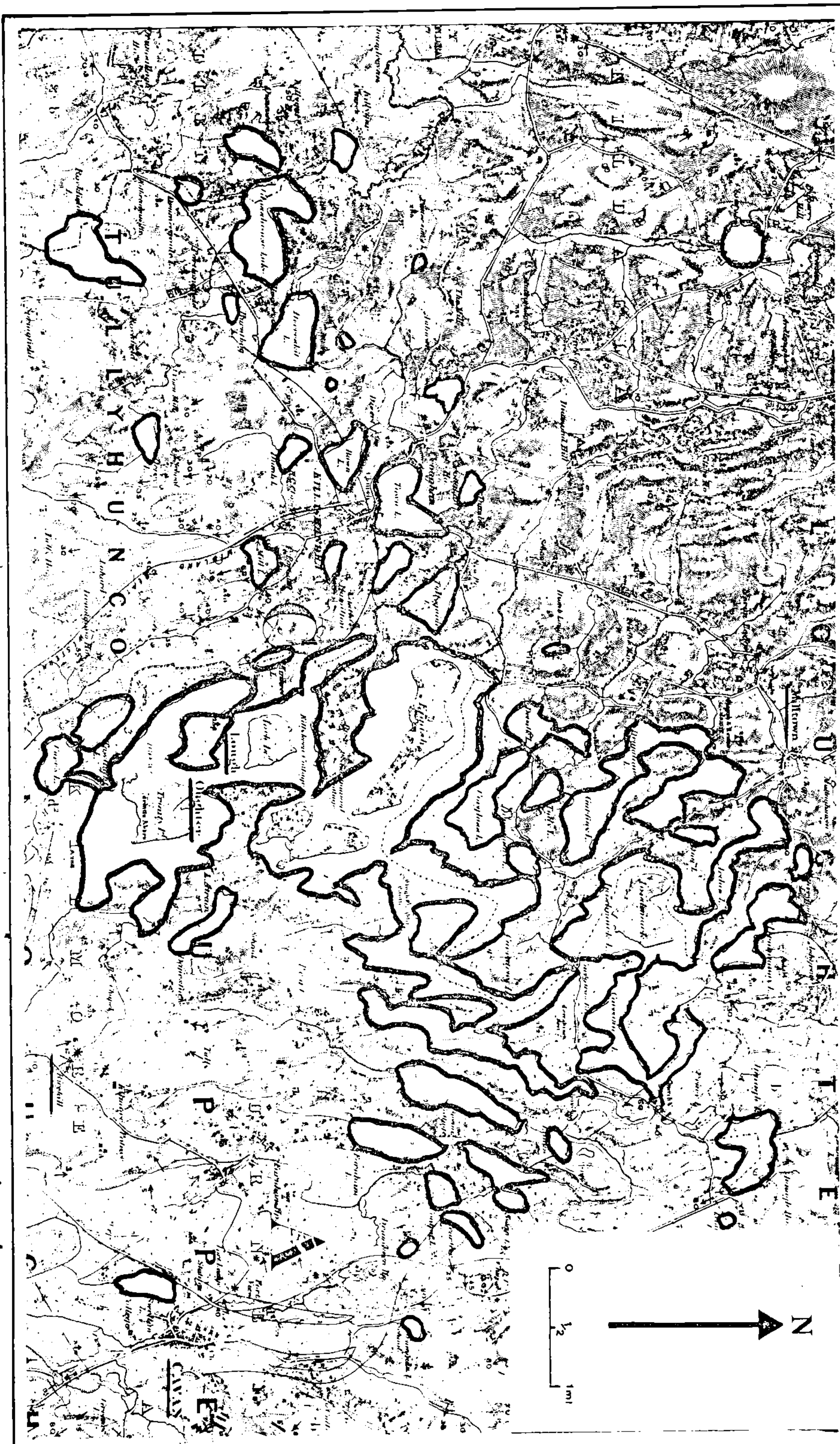
MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

Ecology
L. Oughter is in the upper part of the River Erne drainage system and consists of a maze of islands and peninsulas formed by the submergence of drumlins. The southern part is well wooded and the seclusion of the area provides ideal habitats for birds. The main plant communities are Phragmites beds and Alnus scrub. Very little is known about the ecology of the area.

Counts of wildfowl were made in December 1971.
Wildfowl species occurring in numbers of international significance;

Species	Max
Whooper Swan (Cygnus cygnus)	563



STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Shannon Estuary

CRITERIA FOR INCLUSION IN THE DIRECTORY
2-4,6-8

GEOGRAPHICAL LOCATION
8°37'W 52°40'N to 9°42' W 52°34' N. West coast of Ireland between counties Clare, Limerick &Kerry, from Limerick City to Loop Head/ Kerry Head.

AREA
34,000 ha

ALTITUDE (metres above mean sea level)
At and below mean sea level.

DEPTH
Up to 15m deep

WETLAND TYPE
Type 8 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Unmanaged, except for pastures on periphery.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
The area is scheduled for major industrial development. 3 oil refineries and an alumina extraction plant are planned.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
The Shannon Estuary stretches a distance of approximately 80km. It varies from less than one to over 15 km wide and possesses numerous shallow inlets. It is flanked by reed swamps, sltmarsh, wet meadow and pasture. The reed swamps consist of beds of common bullrush (Schoenoplectus lacustris), glaucous bullrush (Schoenoplectus tabernaemontani), triangular clubrush (Schoenoplectus triquetrus) and the common reed (Phragmites communis). Grass wrack (Zostera sp.) occurs on the extensive mudflats. There are also large areas of seaweeds growing on the more rocky stretches near the mouth of the estuary.

The most important areas for wildfowl are Poulnasherry Bay, Clonderlaw Bay, the Fergus Estuary and the upper Shannon Estuary from Rineanna Point to Cratloe in Co. Clare, Ballylongford Bay and Tarbert in Co. Kerry, and the upper Shannon Estuary from Foynes Island to Limerick City in Co. Limerick.

A ground count of wildfowl was carried out in January 1973 and aerial counts from October 1973 to February 1974 of the entire estuary. Counts were also made in the Fergus estuary in Nov. 1972 and March 1973.

Wildfowl and Wader Species occurring in numbers of international significance:

Species		Max	
Teal	(Anas crecca)	4,600	
Wigeon	(Anas penelope)	9,900	
Shel duck	(Tadorna tadorna)	1,300	Winter
Dunlin	(Calidris alpina)	30,000	
Black-tailed Godwit (Limosa limosa)		16,400	Spring
Waders		49,000	

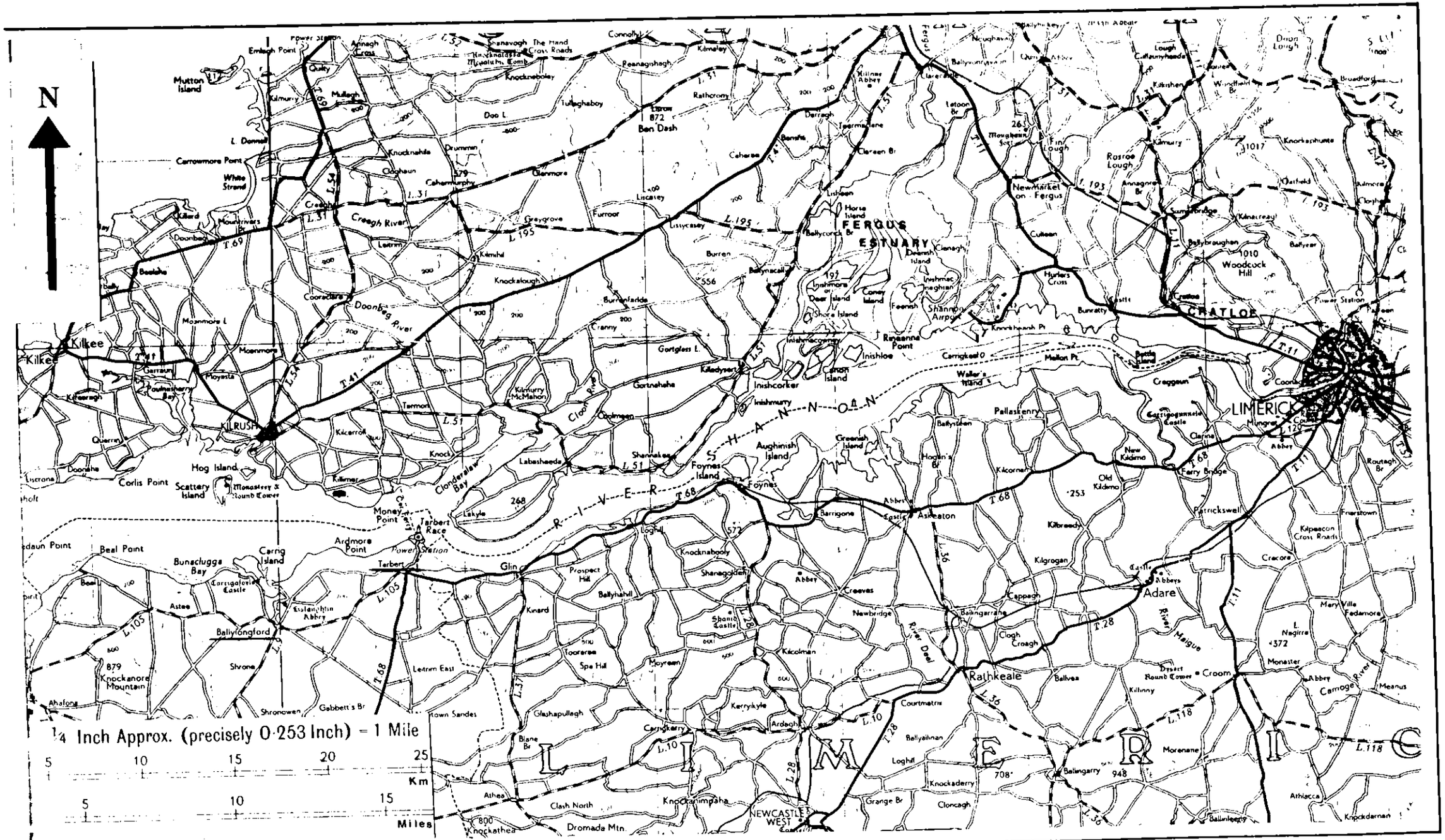
The maximum numbers of teal and wigeon, recorded in December 1973, represent almost 2% of the N.W. European flyway populations of these species. The area is also the finest wader haunt in the Republic holding almost 30% of the Irish population of dunlin in midwinter.

Species occurring in numbers of national significance:

		Max
Pintail	(Anas acuta)	250
Grey Lag Goose	(Anser anser)	100

The greatest consentration of pintail occur in Clonderlaw Bay and the grey lag geese winter on Aughinish Island.

16 species of wildfowl have been recorded on a single count.


N
FERGUS ESTUARY
SHANNON
RIVER
LIMERICK
CRATLOE
KILRUSH
KILKEE
NEWCASTLE WEST
CLARE
LIMERICK
Mutton Island
Carrowmore Point
White Strand
Creegh River
Doonbeg River
Moanmore L.
Moanmore
Poulnasherry Bay
Corlis Point
Hog Island
Scattery Island
Monastery & Round Tower
Money Point
Tarbert Power Station
Tarbert Race
Beal Point
Bunaclugga Bay
Carrig Island
Ardmore Point
Carrigafoyle Castle
Ballylongford
Knockanore Mountain
Shronowen
Gabbett's Br
Town Sandes
Lower Sandes
Ahafona
Glin
Abbey
Foynes
Foynes Island
Aughinish Island
Greenish Island
Inishcorker
Inishmurry
Inishloe
Labasheeda
Clondaraw Bay
Kilmurry McMahon
Kilkerrin
Knock
Termon
Moyarta
Garrarus
Doonaha
Lisrone
Quarry
Kilkee
Doonbeg
Mouthrivers Br
Killard
Beachs
Knocknashia
Oldghaun
Drumman
Cahermurphy
Glenmore
Leitrim
Kilmihil
Knockalough
Coorsdara
Creegh
Greygrove
Liscasey
Furroor
Burren
Burrenfarde
Cranny
Gortglass L.
Gortnahaha
Cloon River
Cloonmoon
Kilmurry
Kilkeedy
Ballynacally
Ballycorick Br
Horse Island
Deerish Island
Clenagh
Inishmore or Deer Island
Shore Island
Carey Island
Inishmacnaghtan
Feenish
Shannon Airport
Ryeanna Point
Carrigkeel
Mellon Pt.
Waller's Island
Creggaun
Pallaskenry
Ballyneen
Hoglin's Br.
Kilcornan
Old Kildimo
New Kildimo
Carrigogunnell Castle
Clarina
Abbey
Kerry Bridge
Patrickswell
Kilbreedy
Barrigone
Castle
Askeaton
Loghill
Knocknaboley
Shanagolden
Prospect Hill
Ballyhahill
Kinard
Toorerse
Spa Hill
Moyreen
Kilcolman
Newbridge
Creeves
Kilgrogan
Cappagh
Ballingarrane
Clogh
Croagh
Rathkeale
Ballyea
Courtmatrix
Kerrykyle
Ardagh
Carrigkerry
Glashapullagh
Blane Br.
Shanid Castle
Kilcolman
Adare
Abbeys
Croom
Desert Round Tower
Kilmurry
Monaster
Abbey
Camoge River
Meanus
Mary Ville Fedamore
L. Nagirra
Crecora
Kilpeacon Cross Roads
Friarstown
Routeagh Br.
Morenane
Ballingarry
Knockaderry
Grange Br.
Cloncagh
Ballinleeky
Athlacca
Knockdarnan
Athea
Clash North
Knockanimpaha
Dromada Mtn.
Knockathea
Lisnagh
Ballyvanan
Loghill
Ballyhahan
Ballyvonnavaun
Ballyvonnavaun Abbey
Quin Abbey
Lough Cullaunyheada
Dromoland
Drumcliffe Lough
Bruodford
Fallarshen
Windyhill Br.
Knockanshunna
Rosroe Lough
Annaghmore Br.
Newmarket on Fergus
Clonloghan
Sumerhill Bridge
Kilmacreagh
Ballybraughen
Woodcock Hill
Ballyear
Hurlers Cross
Bunratty
Castle
Knockpatrick Pt.
Shannon Airport
Flower Station
Coonagh
Mungret
Abbey
Routeagh Br.
Ballyvonnavaun
Ballyvonnavaun Abbey
Quin Abbey
Lough Cullaunyheada
Dromoland
Drumcliffe Lough
Bruodford
Fallarshen
Windyhill Br.
Knockanshunna
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Newmarket on Fergus
Clonloghan
Sumerhill Bridge
Kilmacreagh
Ballybraughen
Woodcock Hill
Ballyear
Hurlers Cross
Bunratty
Castle
Knockpatrick Pt.
Shannon Airport
Flower Station
Coonagh
Mungret
Abbey
Routeagh Br.
Power Station
Embagh Point
Annagh Cross
Quilty
Mullagh
Kilmurry
Shanavogh
The Hand Cross Roads
Knockaneboley
Connolly
Kilmaley
Peanaghagh
Tullaghaboy
Doo L.
Ben Dash
1872
Rathcrony
Darragh
Teermaclane
Cahersee
Clareen Br.
Killone Abbey
Letoon Br.
Lisheen
Barnahs
Mountshannon
Finn Lough
Lisheen
Cullaun
Deerish Island
Clenagh
Inishmacnaghtan
Feenish
Shannon Airport
Ryeanna Point
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Shanagolden
Prospect Hill
Ballyhahill
Kinard
Toorerse
Spa Hill
Moyreen
Kilcolman
Newbridge
Creeves
Kilgrogan
Cappagh
Ballingarrane
Clogh
Croagh
Rathkeale
Ballyea
Courtmatrix
Kerrykyle
Ardagh
Carrigkerry
Glashapullagh
Blane Br.
Shanid Castle
Kilcolman
Adare
Abbeys
Croom
Desert Round Tower
Kilmurry
Monaster
Abbey
Camoge River
Meanus
Mary Ville Fedamore
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Clonloghan
Sumerhill Bridge
Kilmacreagh
Ballybraughen
Woodcock Hill
Ballyear
Hurlers Cross
Bunratty
Castle
Knockpatrick Pt.
Shannon Airport
Flower Station
Coonagh
Mungret
Abbey
Routeagh Br.
¼ Inch Approx. (precisely 0·253 Inch) = 1 Mile
5 10 15 20 25 Km
5 10 15 Miles

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Ballymacoda

CRITERIA FOR INCLUSION IN THE DIRECTORY
2,3,4,8

GEOGRAPHICAL LOCATION
7°54' W51°54'N 8km South of Youghal, Co. Cork. The mudflats from Clonpriest eastwards.

AREA
602 ha

ALTITUDE (metres above mean sea level)
Sea level

DEPTH
Subject to tidal flooding

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Not known

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None obvious

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

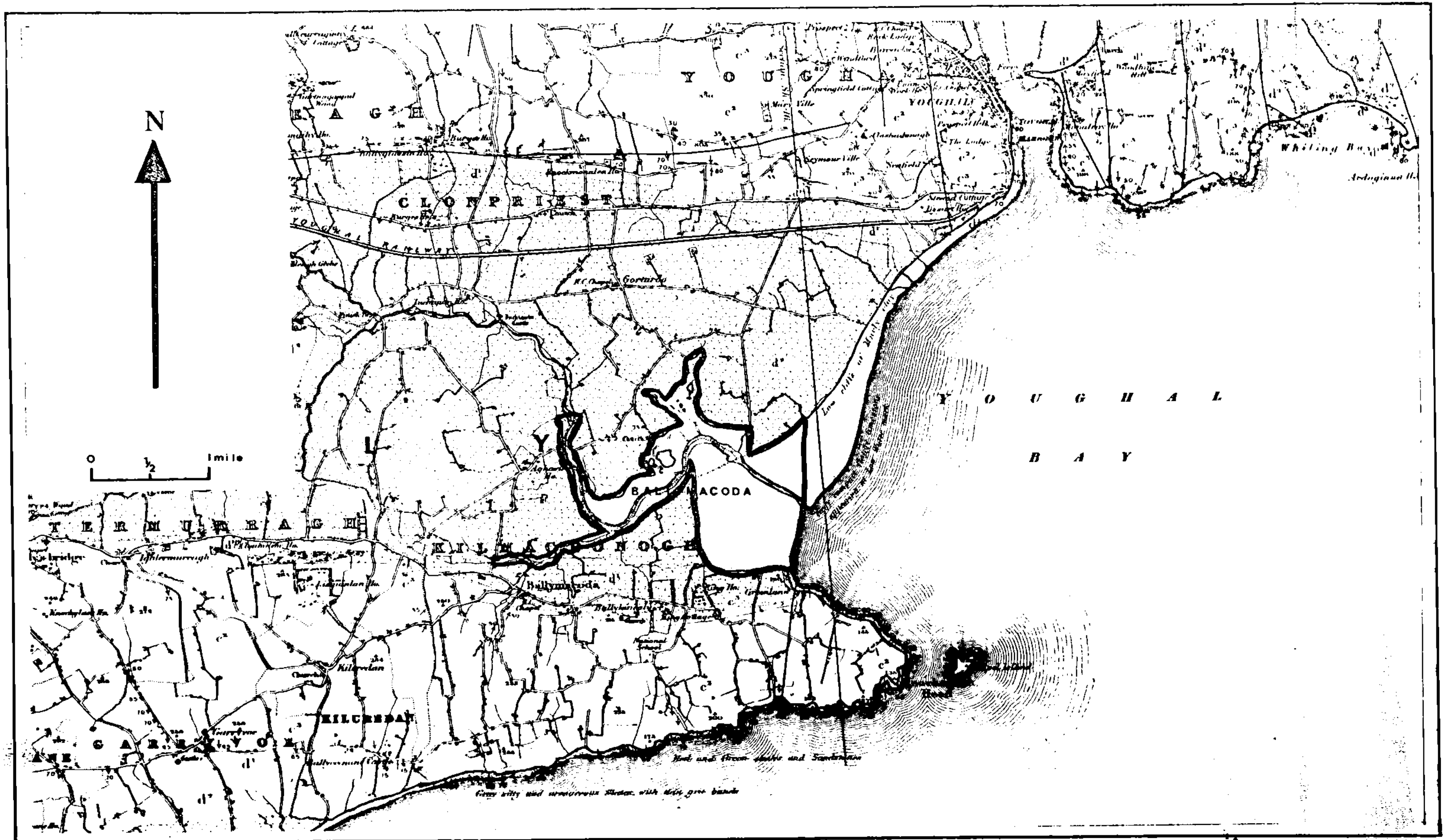
ECOLOGY
The area consists of the estuary of the River Womanagh. This is an extensive expanse of marshy fields, saltmarsh and mudflats. No information is currently available on the vegetation of the area.

Wildfowl counts were carried out in September 1970, January, March, October and November 1971, March 1972 and monthly during the winters of 1972/73 and 1973/74.

Wildfowl and Wader species occurring in numbers of international significance;

Species		Max
Golden Plover	(Pluvialis apricaria)	12,000
Lapwing	(Vanellus vanellus)	8,000
Curlew	(Numenius arquata)	2,000
Black-tailed Godwit	(Limosa limosa)	1,000
Dunlin	(Calidris calidris)	1,000

Up to 22,000 waders have been counted at Ballymacoda.


N
0 ½ 1mile
YOUGHAL BAY
BALLYMACODA
CLONPRIEST
KILMACDONOGH
KILCREDAN
TERMURRAGH
YOUGHAL
YOUGHAL RAILWAY
Ballymacoda
Kilcredan
Gortaroo
Whiting Bay

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Cork Harbour

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,3,4,6-8 are applicable

GEOGRAPHICAL LOCATION
8°17' W 51°50'N The whole harbour from Cork city (Tivoli) to East Ferry and Whitegate in the S.E.

AREA
5950 ha

ALTITUDE (metres above mean sea level)
Zero

DEPTH
The average depth of the harbour is less than 10 metres. Depths of over 20 metres are found in the Shipping Channels

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
There is no sewage treatment plant for Cork City. All sewage is discharged untreated into the river Lee or directly into the harbour. A treatment plant for human and industrial effluent is badly needed. Industrial development is occurring at various points round the harbour at present and effort is being made to convert Little Island (upstream of much of the bird feeding grounds) into an industrial estate, including chemical plant.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
The harbour is being eutrophicated resulting in algal blooms on the foreshore. This decreases the amount of invertebrate food available for the waders.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Cork harbour consists of two large shallow lakes, known as Cobh Harbour and Lough Mahon, on limestone which are separated from each other and from the sea by ridges of Old Red Sandstone running in an east-west direction. The connections between the sea and the two lakes are via narrow, deep channels cut through the sandstone.

The areas important for wildfowl in the harbour are the mudflats at Tivoli, the Douglas estuary, Lough Beg, Whitegate, and the channel from Fota Island east to East Ferry.

Most of the areas involved are mudflats. Some of these are covered by a very luxuriant growth of algae, mainly Enteromorpha spp. This has been shown elsewhere in Ireland to lead to a decrease in numbers and diversity of invertebrates which normally occupy this type of habitat. There is also a small amount of salt marsh vegetation including some Spartina townsendii.

Wildfowl counts were carried out on:

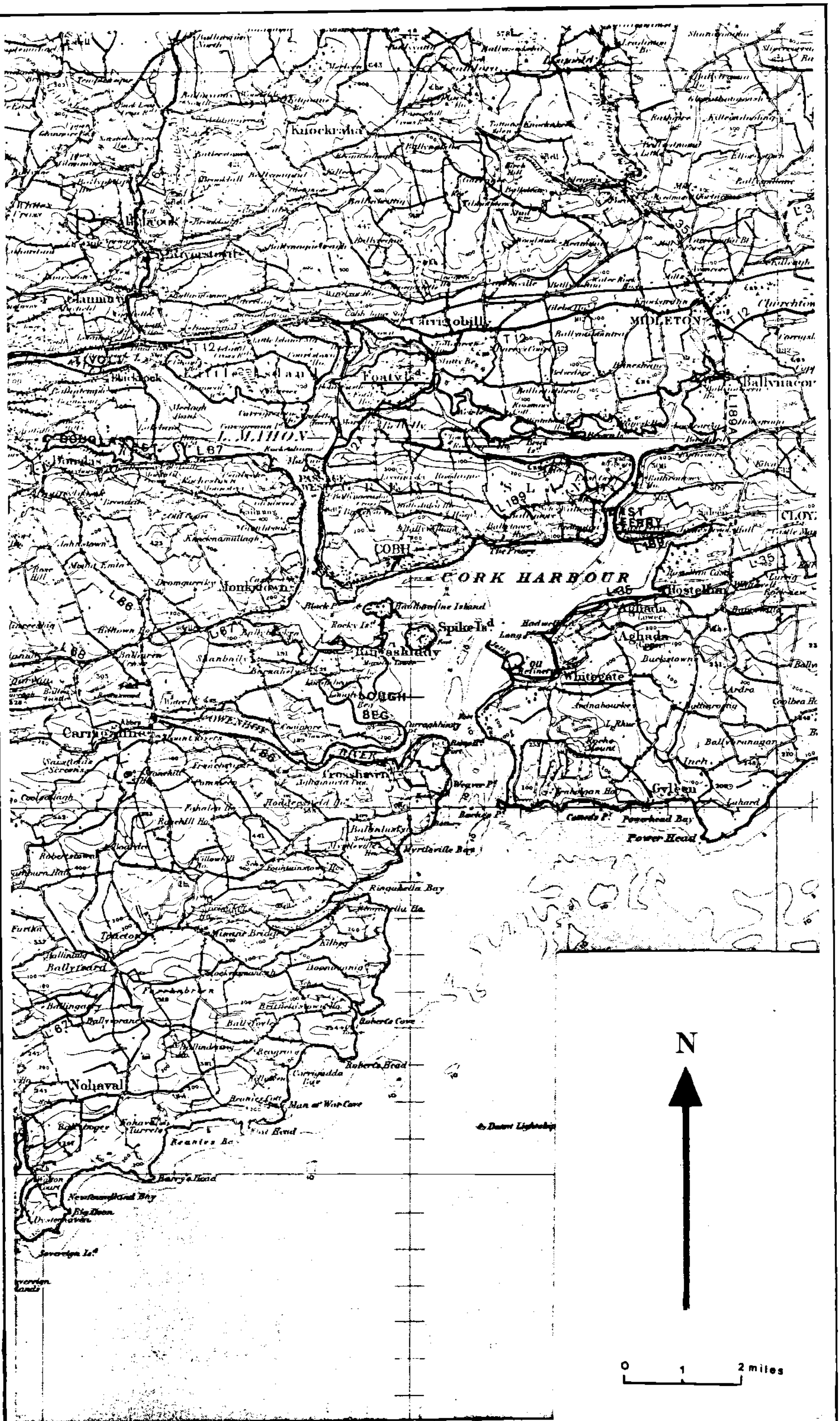
(a) the complete area in March 1968

(b) the north channel between East Ferry and Cork city in January 1969, January, October and December, 1971

(c) Tivoli, Douglas and Rossleague occasionally.

Wildfowl and wader species occurring in numbers of international significance:

Shellduck, (Tadorna tadorna.)Waders.
Over 1,200 Shelduck occur in January, but numbers increase annually in March. In March 1968 2,415 were counted in the entire harbour. Between 20,000 and 25,000 waders have been counted in mid-winter.



Knockraha
Carrigtohill
MIDLETON
Churchtown
Ballynacor
Foaty Is.
Little Island
L. MAHON
Dundas
Knocknamullagh
COBH
CORK HARBOUR
Haulbowline Island
Spike Isd
Rocky Isd
Monkstown
Ringaskiddy
LOUGH BEG
Carrigaline
OWENBOY RIVER
Crosshaven
Whitegate
Aghada
Rostellan
Gyleen
Power Head
Powerhead Bay
Myrtleville Bay
Ringabella Bay
Tracton
Minane Bridge
Ballyfeard
Roberts Cove
Roberts Head
Nohaval
Man of War Cove
Reanies Bay
Barry's Head
Newfoundland Bay
Oysterhaven
Sovereign Isd
T12
L67
L66
L68
L35
L189
L189A
N
0
1
2 miles

STATE Republic of Ireland PROVINCE Ulster

NAME OF WETLAND AREA Birralough

CRITERIA FOR INCLUSION IN THE DIRECTORY
2,3,4,8.

GEOGRAPHICAL LOCATION
8°01'W 54°34'N 8km N. Ballyshannon, Co. Donegal.

AREA
365 ha

ALTITUDE (metres above mean sea level)
4m

DEPTH
Not known

WETLAND TYPE
Type 18 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private Multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Not known

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

MAJOR SCIENTIFIC RESEARCH
None

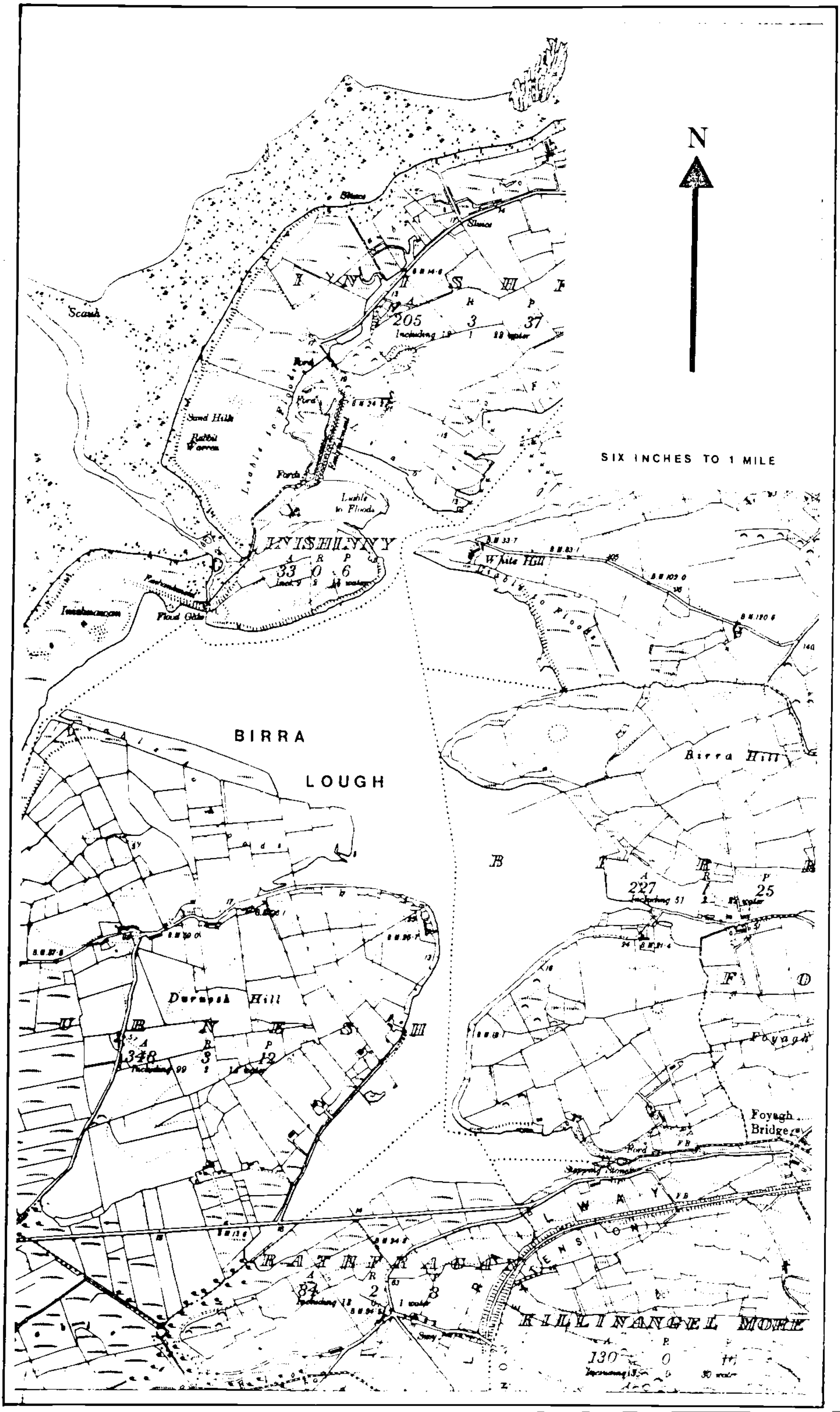
PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Birra Lough is a shallow freshwater lake separated from the sea by sand dunes. It has extensive marginal reedbeds and is surrounded by marshy fields.

Wildfowl counts were carried out in January 1967 and 1968, January, February and November 1970, January 1971, February October and November 1972, February 1973 and 1974.

Wildfowl species occurring in numbers of international significance:

Species	Max
Whooper Swan (Cygnus cygnus)	200 +


N
SIX INCHES TO 1 MILE
BIRRA
LOUGH
Sand Hills
Rabbit Warren
Scaush
Sluice
Ford
Liable to Floods
INISHINNY
205 3 37
33 0 6
Flood Gate
White Hill
Birra Hill
227 1 25
Durnesh Hill
348 3 12
Foyagh Bridge
KILLINANGEL MORE
130 0

STATE Republic of Ireland PROVINCE Ulster

NAME OF WETLAND AREA Lough Swilly

CRITERIA FOR INCLUSION IN THE DIRECTORY

GEOGRAPHICAL LOCATION
7°32' W.55°07'N. 12km West of Derry City (Northern Ireland)

AREA
17,400 ha

ALTITUDE (metres above mean sea level)
Zero

DEPTH
The average depth is about 10m, the maximum is more than 20m.

WETLAND TYPE
Type 8:17,100 ha; Type 25:300 ha.

LEGAL PROTECTION STATUS OF WETLAND AREA
Blanket Nook is protected by an annual non-shooting Order under the Game Preservation Act (1930)

OWNERSHIP
State:17,000 ha; Private multiple:300 ha. The 300 ha in private hands are in Inch Lough and Blanket Nook.

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
There is grazing on the saltmarsh and on the marshy fields associated with the two lagoons. Water levels in the two lagoons are controlled by sluice gates.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
There is heavy shooting pressure in some areas such as Inch Lough. Blanket Nook is being eutrophicated by fertilizer run-off from the surrounding agricultural land.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY

Lough Swilly is a sea lough into which flows the River Swilly. It is approximately 50 km long from north to south and 4 km broad at its mid-point. It possesses extensive inter-tidal mudflats and shingle banks particularly at its southern end. The most important areas for wildfowl are the Leannan and Swilly estuaries and the man-made lagoons known as Blanket Nook and Inch Lough.

Blanket nook is a small brackish inlet which has been cut off by the building of a dyke across its entrance to Lough Swilly. It has a moderately developed aquatic flora. The inlet is bordered by wet fields and saltmarsh. The main vegetation types are;

(1) Ruppion maritimae
(2) Charatalia
(3) Juncetum gerardi
(4) Agrostis stolonifera dominated grassland.

Inch lough was formed by blocking off the two ends of a channel between Inch Island and the mainland by dykes. The resulting lake is slightly brackish. The water is clear with a very well developed aquatic vegetation. There are also large marginal reedbeds backed by fields which are flooded during the winter. The main vegetation types are:

(1) Charatalia
(2) Potamogeton pectinatus - Ruppia association
(3) Scirpetum maritimi
(4) Scirpeto - Phragmitetum
(5) Alnion glutinosae
(6) Agrostis stolonifera dominated grassland.

The assessment of the area's importance for wildfowl is based on counts in January 1969 of the whole area, plus counts at Inch Lake and Blanket Nook in November, January and February 1970/71; monthly counts from November to February at Inch Lough and Blanket Nook in 1971/72 and 1972/73; monthly counts at Leannan and Swilly Estuaries in 1972/73 and 1973/74 and an almost complete count of wildfowl and waders in December 1973.

Wildfowl species occurring in numbers of international significance:

Species	Max
Whooper Swan (Cygnus cygnus)	550 Blanket Nook 700 Inch Lough

Numbers are highest in November and the birds appear to fly regularly between Blanket Nook and Inch lough.

Species occurring in numbers of national significance:

Species	Max
Greylag Goose (Anser anser)	250

These birds commute between Lough Swilly and the River Foyle at Carrigans.

12 Species of duck, 3 species of goose and three species of swan occur annually each winter and all can be seen most days in winter.

DUNAFF HEAD
FANAD HEAD
N
0 1 2 mls
Rinmore Point
Rinboy Point
Ballyhiernan Bay
Kinny L.
Dargan Hill
Portsalon
Ballymastocker Bay
Dunree Head
Lenan Head
Saldanha Head
LOUGH SWILLY
Broad Water
MULROY BAY
BUNCRANA
Mill R.
Carrick Hill
Rathmullan
Fahan
Inch
INCH LAKE
Farland Point
LENNAN ESTUARY
Whale Head
RATHMELTON
BLANKET NOOK
Bogay Hill
Newtown Cunningham
Manorcunningham
Dooish Mountain
Carrigans
L 77
T 72
T 74
T 59
L 80A

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Malahide

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,3,4,8 are applicable

GEOGRAPHICAL LOCATION
6°12'W 53°45'N 14km N. Dublin City. The whole estuary, but especially the area east of the railway.

AREA
606 ha

ALTITUDE (Metres above mean sea level)
Zero

DEPTH
Subject to tidal flooding.

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Spartina is spreading rapidly. Some effort should be made to eliminate it as it is encroaching on the feeding grounds.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Spread of Spartina townsendi

MAJOR SCIENTIFIC RESEARCH
Phytosociological research in progress

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Malahide estuary is surrounded by rich agricultural land, and is more or less cut off from the sea, except for a narrow channel, by an extensive and well developed sand-dune system. There are varied deposits of mud, sand and shingle. The head of the estuary is fringed by fields of permanent grassland in which Plantago maritima, Aster triolium and Scirpus maritimus grow in depressions. Ruppia spp. have been recorded on the mudflats. Only small areas of salt marsh occur, but there are extensive stands of Spartina in the N.E. part.

The main vegetation types are:-

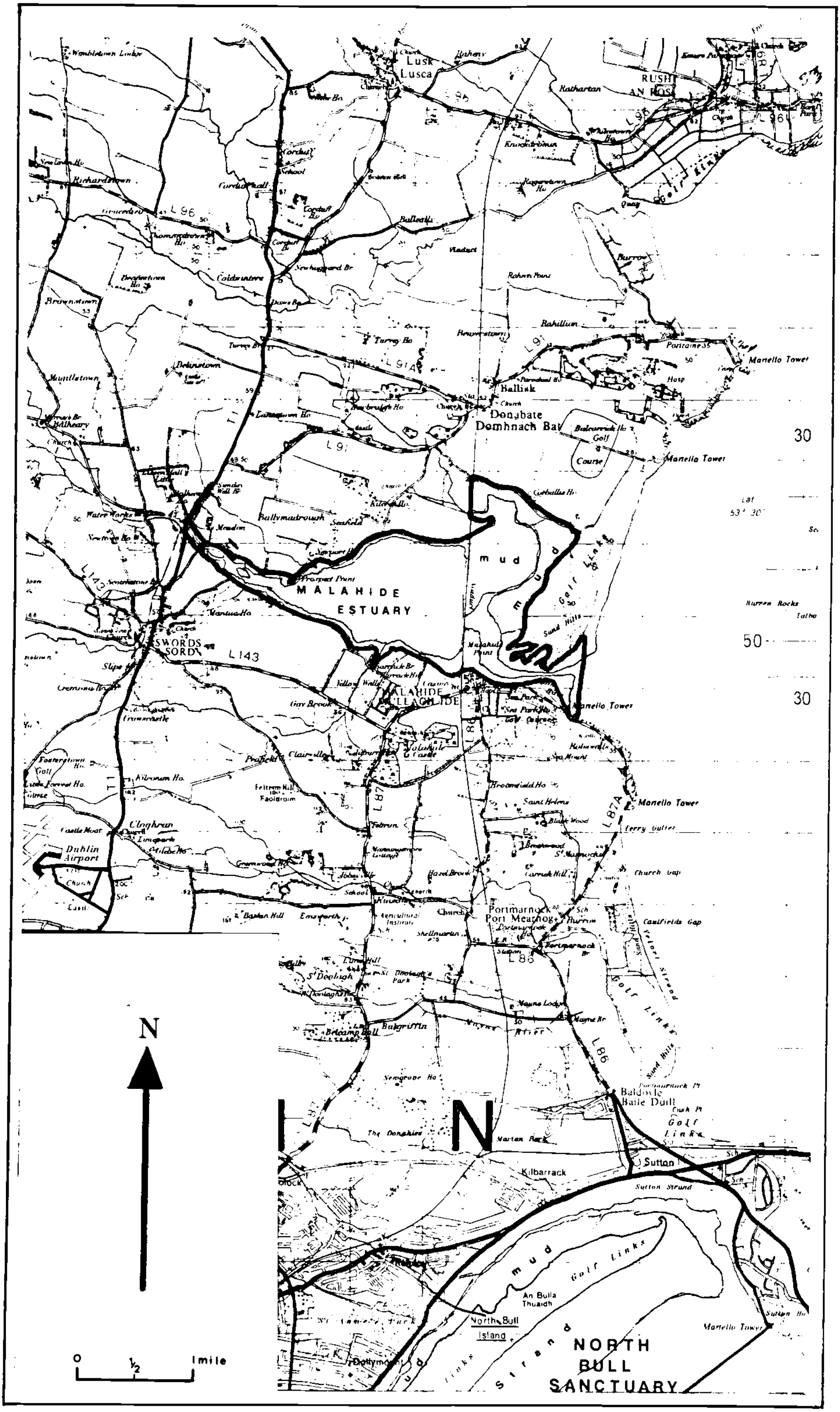
1. Spartinetum townsendii
2. Thero-Salicornetum
3. Puccinellietum
4. Halimionetum

Wildfowl counts were taken in the winters 1969/'70 - '73/'74.

Wildfowl species occurring in numbers of international significance:

Species	Max
Brent geese (Branta bernicla hrota)	400

There is considerable movement of the birds, between North Bull island (to the S.) and Rogerstown Estuary (to the N.)


Lusk
Lusca
RUSH
AN ROS
L 96
Richardstown
Balleally
Viaduct
Coldwinters
Brownstown
Rahillum
Portraine
Martello Tower
L 91A
Ballisk
Donabate
Domhnach Bat
Golf
Course
Martello Tower
30
Lat
53° 30'
Ballymadrough
Seafield
mud
mud
Golf Links
Prospect Point
MALAHIDE
ESTUARY
SWORDS
SORDS
L 143
Sand Hills
Malahide Point
50
30
MALAHIDE
MULLACH IDE
Martello Tower
Malahide Castle
L 87
L 87A
Martello Tower
Cloghran
Dublin Airport
Portmarnock
Port Mearnog
Sch
L 86
Golf Links
Sand Hills
L 86
Baldoyle
Baile Dúill
Golf Links
Sutton
Kilbarrack
Sutton Strand
mud
Golf Links
An Bulla Thuaidh
North Bull Island
Strand
NORTH
BULL
SANCTUARY
Martello Tower
N
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½
1mile

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA North Bull

CRITERIA FOR INCLUSION IN THE DIRECTORY
2,3,4,6,8

GEOGRAPHICAL LOCATION
6° 12' W 53° 35' N
The mudflats separating North Bull Island, on the N. side of Dublin Bay, from the mainland, and the open water to the south and east from Sutton and Howth to the North Wall.

AREA
607 ha

ALTITUDE (metres above mean sea level)
Within tidal range

DEPTH
Subject to tidal flooding

WETLAND TYPE
Type I Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
Bird Sanctuary under Wild Bird Protection Act (1930)
No shooting order made annually under the Game Preservation Act (1930)

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES &/or FUTURE MANAGEMENT NEEDED

The area is a Bird Sanctuary with a no-shooting order in force. Much of the adjacent dune grassland is managed as golf-course and part of the salt-marsh is used as a Dublin Corporation domestic refuse tip.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

1. Dublin Corporation domestic refuse dump: there is a danger of seepage of toxins and eutrophicating effluent from the dump; any extension to the dump could adversely affect the wildfowl feeding grounds and decrease the viability of the duneland/salt-marsh complex.

2. Suggestions that the dumped refuse might be surfaced and converted into a road would, if put in operation (especially in circumstances where the dump were extended further along the long-axis of the island), seriously jeopardise the future of the wildfowl feeding grounds and the dune system through disturbance and increased damage to vegetation by walkers, or by potential demands for other recreational facilities.

3. Implementation of the "Dublin Bay Plan" proposed by Dublin Port and Docks Board: this would expose the N.Bull island to all the potential problems of any wildlife sanctuary beside which an industrial estate is built, particularly if the proposed oil refinery and attendant petrochemical industry ever came into operation.

4. The introduction of a solid causeway between the island and the mainland recently has caused change in water current movements and patterns of silt deposition there. It is unclear whether a new equilibrium has yet been reached and the possibility of adverse effects upon the bird feeding grounds cannot be ruled out.

MAJOR SCIENTIFIC RESEARCH Studies of: 1. Salt marsh plant communities; 2. Pollution in relation to marine algae and invertebrates; 3. Effects of changes in siltation.

PRINCIPAL REFERENCE MATERIAL 1. Harris C.R. (1974) The evolution of North Bull Island, Dublin Bay. Sci.Proc.R.Dub.Soc., A,5, (14), 237-252.
2. Healy B. (in press) Fauna of the salt-marsh, North Bull Island,Dublin. Proc.R.Ir.Acad. 3. O'Reilly H.& Pantin G. (1957) Some observations on the saltmarsh formation in Co. Dublin. Proc.R.Ir.Acad., 58, 89-127.

ECOLOGY

The North Bull island lies within the boundary of Dublin City. It is a long sand bar built up by natural processes since 1768 as a result of the building of the 'Great South Wall' in the harbour. The area between the island and the mainland is a wide marsh creek, the mud-flats of which support large numbers

of wildfowl and waders at certain times of the year. On an area basis it contains the greatest density of water-birds in Ireland or Great Britain.

The mud-flats are rich in algae (32 species recorded) and Zostera angustifolia, Ruppia maritima and Salicornia spp. occur. The inland-side of the bar is flanked with salt-marsh. A recent paper(Healy, in press) records some 330 species of invertebrate from the salt-marsh.

N. Bull is unusual in that its origin and history of development are well documented (see Harris, 1974). Because of its proximity to Dublin it is an important educational resource for field studies: for this purpose it is the most intensively used wetland in Ireland. The dune system is an important recreational resource.

Changes in the ecology of the area are visible currently, caused by the introduction of a solid causeway between island and mainland, and seepage of eutrophicating effluent from the Corporation dump; the latter has led to an algal bloom.

Plant communities present.

Salicornetum

Puccinellietum

Armerion maritimae: Juncetum gerardii

Spartinetum townsendii

Wildfowl species occurring in numbers of international significance; (based on counts for each winter from 1967/68 - 1973/74;)

Species	Max
Brent Goose (Branta bernicla hrota)	460(1966/67) 1400(1973/74)
Waders	25,000

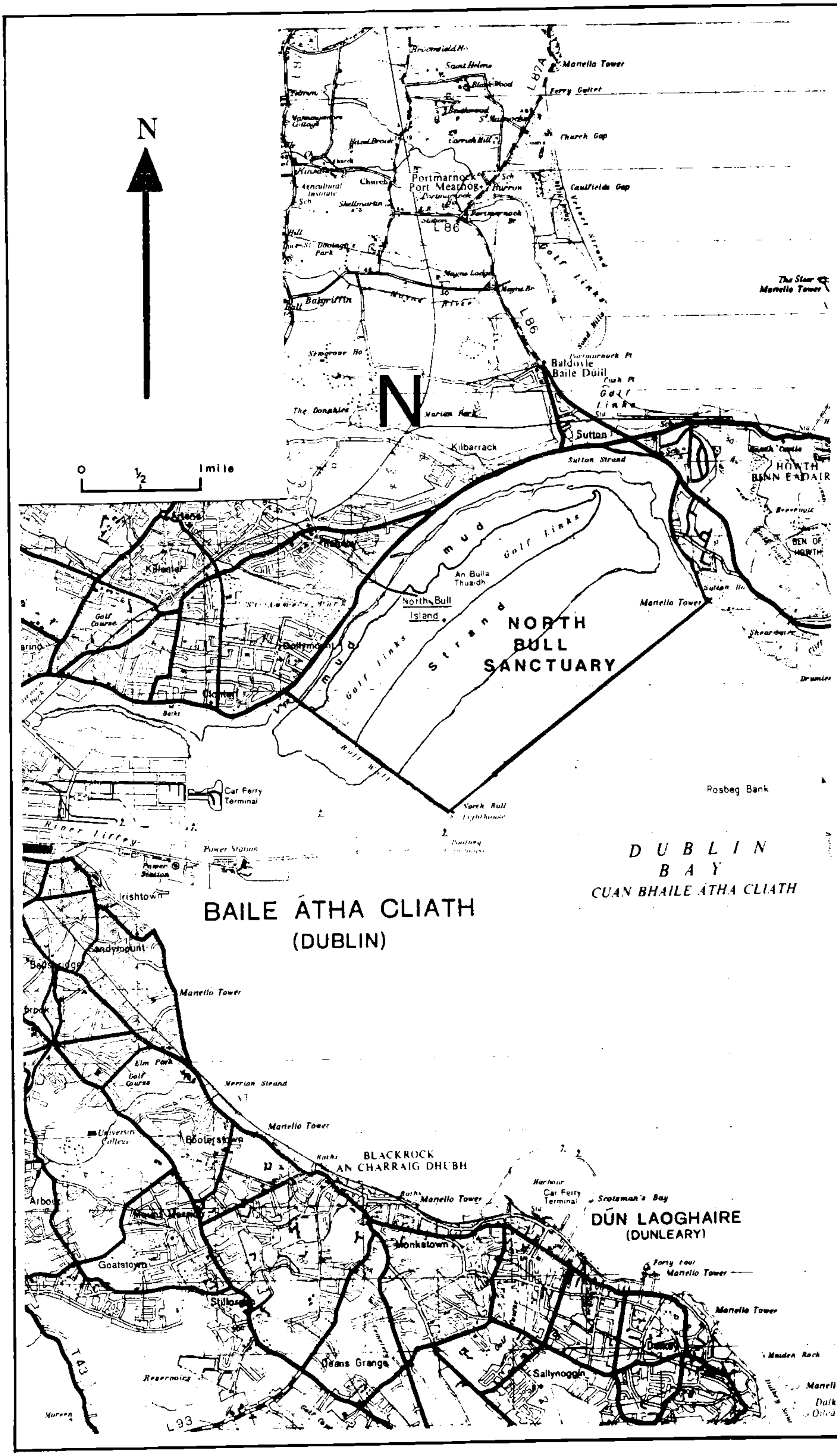
There has been an increase in the numbers of Brent geese over wintering from the low numbers in 1966/67 up to its present level. The North Bull is the third most important wader haunt in Ireland.

Species occurring in numbers of national significance:

Species	Max
Pintail (Anas acuta)	450
Shoveler (Anas clypeata)	350
Shelduck (Tadorna tadorna)	900
Wigeon (Anas penelope)	4,000 November

Numbers of Pintail and Shoveler are increasing in the area.

(Some of the above information from unpublished data by permission of Dr. D.W. Jeffrey, Department of Botany, Trinity College, Dublin).


N
0
½
1 mile
Portmarnock
Port Mearnog
Baldoyle
Baile Dúill
Sutton
Kilbarrack
Sutton Strand
HOWTH
BINN EADAIR
BEN OF HOWTH
Martello Tower
Church Gap
Caulfields Gap
Golf Links
Mayne River
Sand Hills
L 86
L87A
mud
Golf Links
An Bulla Thuaidh
North Bull Island
Strand
NORTH
BULL
SANCTUARY
Bull Wall
North Bull Lighthouse
Rosbeg Bank
Car Ferry Terminal
River Liffey
Power Station
DUBLIN
BAY
CUAN BHAILE ÁTHA CLIATH
BAILE ÁTHA CLIATH
(DUBLIN)
Irishtown
Sandymount
Martello Tower
Elm Park
Golf Course
Merrion Strand
University College
Booterstown
BLACKROCK
AN CHARRAIG DHUBH
Baths
Harbour
Car Ferry Terminal
Scotsman's Bay
DÚN LAOGHAIRE
(DUNLEARY)
Forty Foot
Monkstown
Goatstown
Stillorgan
Deans Grange
Sallynoggin
Dalkey
Maiden Rock
Reservoirs
T43
L 93

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Rogerstown Estuary

CRITERIA FOR INCLUSION IN THE DIRECTORY
2,3,4,8

GEOGRAPHICAL LOCATION
6°12'W53°47'N 16km N of Dublin City. The most important area is that west of the railway.

AREA
368 ha

ALTITUDE (metres above mean sea level)
Sea level

DEPTH
Subject to tidal flooding

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
An annual no shooting order under the Game Preservation Act(1930)

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The salt-marsh grassland at the inner end of the estuary is currently grazed by cattle, sheep and horses. The dune grassland at the seaward end is used as a golf-course. A small amount of shooting is apparently continuing within the estuary.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

1. Dublin County Council domestic refuse dump: occupies an erstwhile salt-marsh area; its expansion may well be proposed; it is releasing debris rendering the shore-line unsightly; seepage may contain toxins.
2. Sewage and other eutrophicating waste entering river up-stream; could potentially alter bottom conditions in the estuary.
3. Spartina townsendii: present and spreading; could further invade feeding grounds of wildfowl.
4. Pleasure craft: boat mooring over areas of inter-tidal mud-flats could be a problem if it increased to any degree.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
The area is an estuary at the mouth of a small river which runs for most of its length through farm-land used primarily for cattle grazing and receiving little industrial effluent. A terminal sand-spit narrows the estuary mouth. The inter-tidal mud-flats appear to be accreting but slowly and have extensive beds of Mytilus edulis and Zostera angustifolia. There is a narrow fringe of salt-marsh grassland round the estuary, broadening in the vicinity of the sand-spit and at the estuary-head. At the inland end an area of wet pasture occurs, containing maritime plant species. Stands of Spartina townsendii are widely distributed and spreading.

Vegetation communities present:

1. Ruppion maritimae
2. Puccinellion maritimae
3. Spartinetum townsendii
4. Wet pasture

The area is mainly of importance for Brent Geese which move between Rogerstown and Malahide estuaries and North Bull Island. Numbers are based on monthly counts during the winter of 1970/71, 1971/72, 1972/73 and 1973/74 up till December.

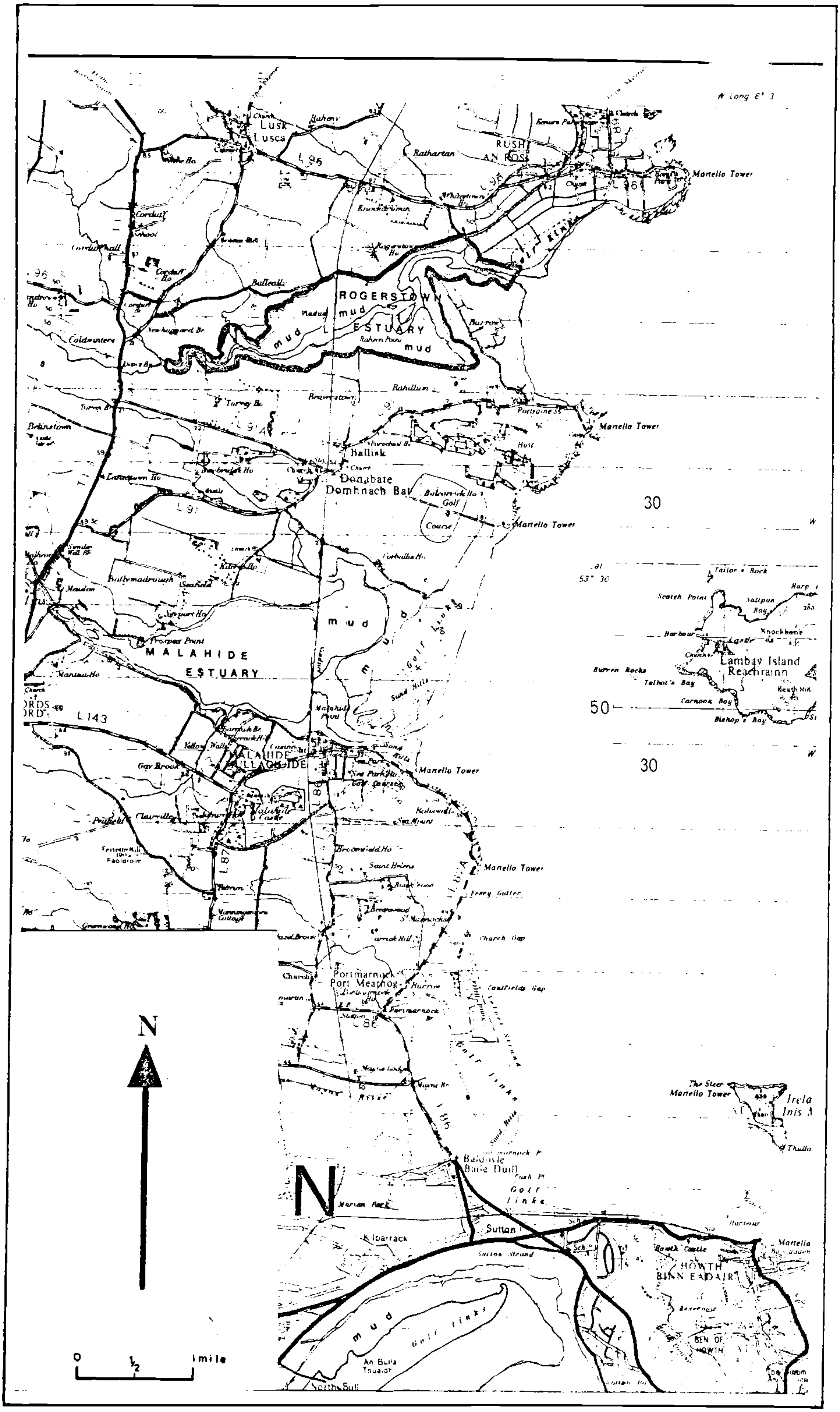
Wildfowl species occurring in numbers of international significance:

Species	Max
Brent goose (Branta bernicla hrota)	475

The Geese arrive at Rogerstown in December and are regularly present until March or April.

Species occurring in numbers of national significance

Species	Max
Pintail (Anas acuta)	250



Lusk
Lusca
RUSH
AN ROS
Martello Tower
ROGERSTOWN
ESTUARY
mud
Ballisk
Donabate
Domhnach Bat
Golf Course
30
Lambay Island
Reachrainn
50
MALAHIDE
ESTUARY
Golf Links
Malahide Point
Portmarnock
Port Mearnog
Golf Links
Baldoyle
Baile Dubh
Sutton
Kilbarrack
Sutton Strand
HOWTH
BINN EADAIR
BEN OF HOWTH
N
0
1/2
1mile

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Lough Corrib

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,4,7 are applicable

GEOGRAPHICAL LOCATION
9°15' W53°25'N 4 km N. of Galway City

AREA
18,240 ha

ALTITUDE (metres above mean sea level)
10 m

DEPTH
Not Known

WETLAND TYPE
Type 18

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES &/or FUTURE MANAGEMENT NEEDS

The extensive Schoenus fen at the lower end of this lake is managed for Schoenus production, to supply the needs of a local thatching industry dependent upon this plant.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

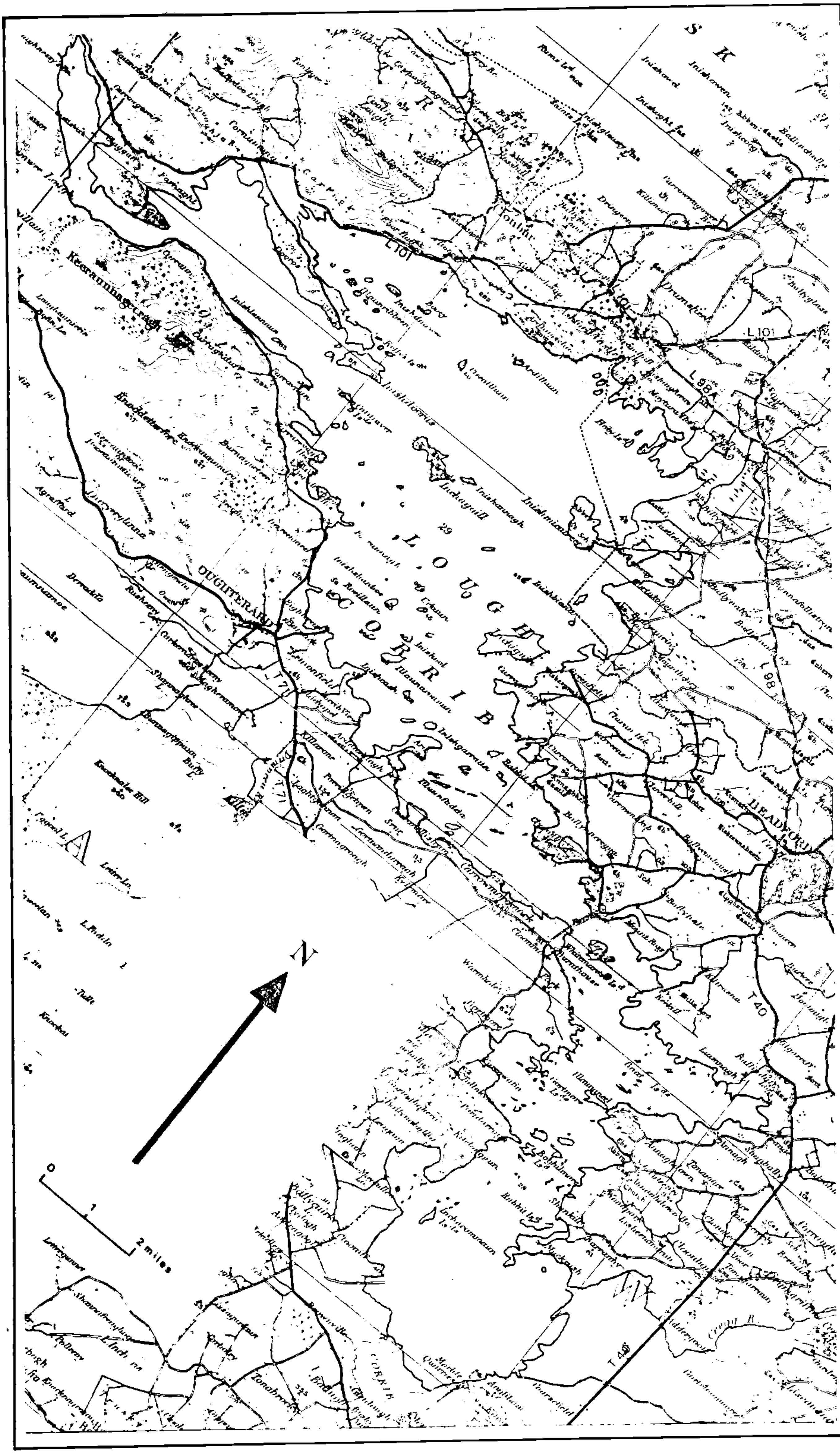
ECOLOGY

L. Corrib is a large fresh-water lake on carboniferous limestone, giving way at its N. West corner to silurian schist and gneiss. In consequence, much of the longh is edged with limestone pavement or thin fen-peat overlying the limestone, replaced by peaty gleys on the silurian rocks. At the lower end of the lake is an extensive area of fen. This has occasional small stands of Salix/Alnus carr, but over much of its area these shrubs are "weeded out" by local thatchers who maintain the fen as a sonrce of Schoenus nigricans, for nse in thatching. Wet ditches at the lough edge abound with Utricularia, while shallow waters in the limestone pavement areas contain an abundance of Chara spp. Other plant species in the fringing marshes are Juncus subnodulosus, Cladium mariscns and Typha latifolia. Little information is available about the fauna and flora of the lough itself. The land round the lake is predominantly cattle pasture on the limestone, but the East shore has increasing numbers of summer chalets.

Wildfowl Species occurring in numbers of international significance:
(based on aerial counts through the winters of 1972/73, and 1973/74)

Species	Max
Pochard (Aythya ferina)	22,000 October '74

L. Corrib is the main arrival point of this species in autumn. The numbers decline dnring the winter.



LOUGH CORRIB
OUGHTERARD
HEADFORD
L101
L98A
L98
T71
T40
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1
2 miles

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Rahasane

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 1-4, 6-8 applicable.

GEOGRAPHICAL LOCATION
8°47' W 53° 13' N. Dunkellin River Valley 3 km S.S.W. of Craughwell, 20 km E.S.E. Galway.

AREA
257 ha

ALTITUDE (metres above mean sea level)
20m

DEPTH
The area is seasonally flooded

WETLAND TYPE
Type 23

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The area is commonage grazed by cattle, horses, sheep and goats during the summer. There is no control exercised over water levels. To maintain the area in its current condition the grazing pressure must be retained and any drainage plans for the Dunkellin River catchment carefully scrutinised to ensure continuance of the annual ground-water level fluctuations.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

There are plans to drain the area: elimination of the turlough would eliminate the wildfowl habitat and the last remaining turlough of any size in Ireland, together with its unique invertebrate communities.

MAJOR SCIENTIFIC RESEARCH
An extensive ecological survey involving personell from the Brathay Field Centre, An Foras Forbartha, the Dept. of Lands and the Natural History Museum (London) is underway.

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Rahasane turlough is the last remaining large-scale example in Ireland of a Karst Lake. It is a seasonal water-body flooded during the winter months by ground-water which bubbles up through swallow-holes in its limestone floor when the ground-water level rises in the autumn (and occasionally at other times), augmented by river-water from the Dunkellin River which over-flows its banks. In this way a two-mile long, half-mile wide lake can appear literally overnight in the turlough. Drainage is also effected via both swallow-holes and river. Unlike its immediate environs, the floor of the turlough is coated to a variable depth (in places some metres deep, but total depth unknown) with a fine-grained base-rich alluvial silt, incorporating strata of water-snail shells. Five distinct plant communities occur within the area of the turlough, their distribution relating to the length of time that different parts of the turlough remain flooded each year:

1. Dunkellin River channel; dominated by *Potamogeton* spp. and *Alisma plantago- aquatica*.

2. Permanent standing water; *Chara* spp. This forms an almost pure community.

3. Semi-permanent standing water; dominated by *Glyceria* spp. and *Apium inundatum*

4. Frequently flooded; a species-poor Agrostis stolonifera/Galium palustre/Potentilla anserina sward, grazed to 2-3cms. by sheep, cattle, horses, goats and rabbits.

5. Occasionally flooded areas; Carex spp., Festuca rubra, Lolium perenne and Bellis perennis dominate this species - rich community.

Communities 1 and 2 cover 15-20% of the turlough area, 3 occupies another 15-20%, 4 thevast majority of the remaining area.

The limestone pavement surrounding the turlough bears patches of dense scrub, principally Corylus, Crataegus and Prunus spinosa. The latter provides the habitat for Ireland's most local indigenous butterfly species, the brown hairstreak (Thecla betulae): Rahasane is one of its three known Irish stations. The turlough is also the only known locality in the British Isles for the one species of fresh-water fairy-shrimp (Tanymastix) in Ireland, as discovered this year by Dr.R.Young.

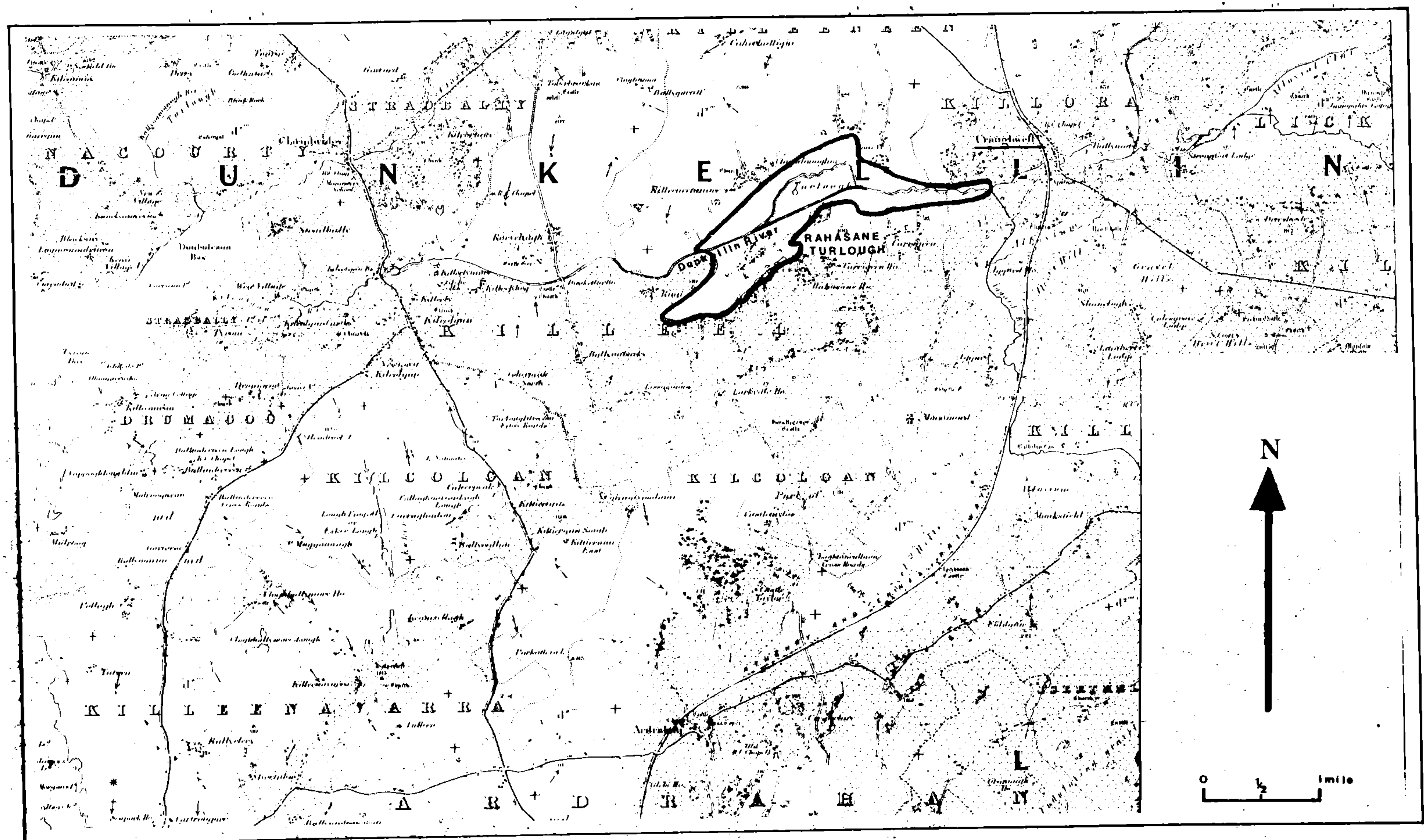
Wildfowl counts were taken monthly from November 1969 to February 1970, January and November 1971, January and February 1972 and monthly through the winters of 1972/73 and 1973/74.

Wildfowl species occurring in numbers of international importance:

Species	Max
Whooper Swan (Cygnus cygnus)	200
Bewick Swan (Cygnus bewickii)	200
Wigeon (Anas penelope)	5,000

The numbers of birds fluctuate considerably with the low numbers usually coinciding with a high water table. Species occurring in numbers of national significance.

Species	Max
Shoveler (Anas clypeata)	300


DUNKELLIN
RAHASANE TURLOUGH
Dunkellin River
KILLOLA
STRADBALLY
KILLEELY
KILCOLGAN
DRUMACOO
KILLEENAVARRA
ARDRAHAN
N
0 ½ 1 mile

STATE Republic of Ireland PROVINCE Munster/Connaught

NAME OF WETLAND AREA River Shannon

CRITERIA FOR INCLUSION IN THE DIRECTORY
1-8 applicable

GEOGRAPHICAL LOCATION
8°12'W 53°05'N to 8°02'W 53°17'N. Shannon valley between Shannon Bridge and Portumna forming boundary between counties Galway, Offaly and Tipperary.

AREA
4350 ha

ALTITUDE (metres above mean sea level)
38-33m

DEPTH
Subject to seasonal flooding

WETLAND TYPE
Type 12 Natuaral

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private Multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Land used for meadow and pasture. Restriction of shooting necessary as the area is currently heavily shot over.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Drainage of this area has been suggested. This would greatly decrease or eliminate the area of wet meadow used by birds for feeding.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
The Shannon from Shannonbridge to Portumna is a broad slow flowing river traversing the Central Plain of Ireland. It is surrounded by extensive bogs and poorly drained agricultural land. The flood plain of the Shannon is mainly meadow and pasture land flooded frequently in the winter. Even in the summer some areas have standing water. The vegetation of these flooded areas attracts large numbers of wildfowl. The margins of the river are densely fringed with reeds, backed by sedge swamps in some places. Behind these occur rushy pastures or meadow with Filipendula/Festuca grassland on the higher less frequently flooded areas. The main plant communities present are:

(1) Phragmition communis:- Glycerietum macimae-Scirpeto - Phragmitetum
(2) Magnocaricion: Caricetum inflato-versicariae.
(3) Glycerieto-Sparganion; Heliosciadium-Veronica beccabunga
(4) Calthion palustris: Senecioni - Juncetum acutiflori.
(5) Filipendula/Festuca Grassland.

Wildfowl counts were carried out from the ground in January 1969 and from the air monthly in the winters of 1972/'73 and 1973/'74.

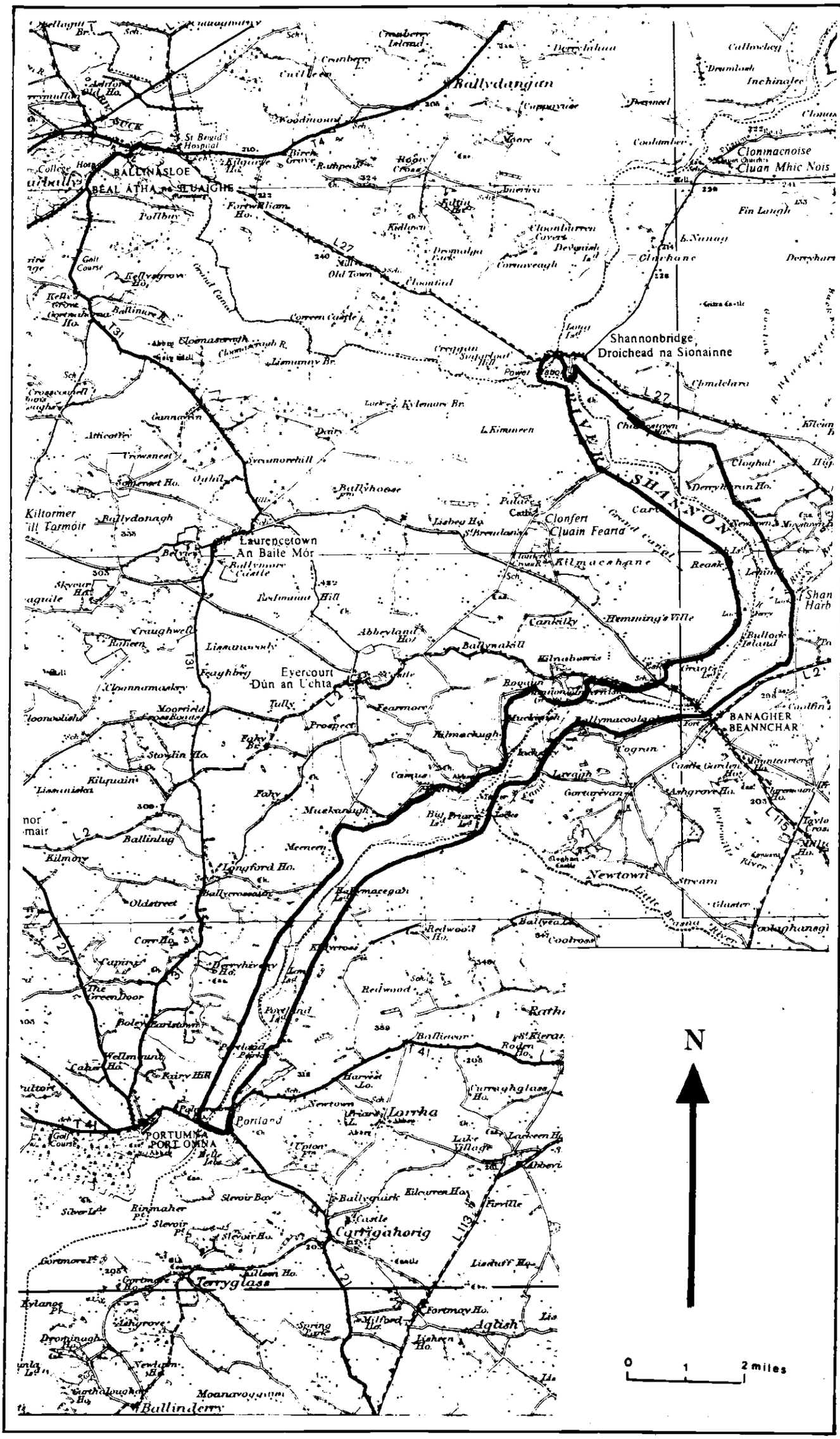
Wildfowl species occurring in numbers of International significance:

Species	Max
Whooper Swan (Cygnus cygnus)) Bewick Swan (Cygnus bewickii))	430

The two species of swan could not be distinquished from the air.

Species occurring in numbers of national importance:-

Species	Max
Wigeon (Anas penelope)	3,000


Ballydangan
BALLINASLOE
BEAL ÁTHA na SLUAIGHE
Cloninacnoise
Cluan Mhic Nois
Shannonbridge
Droichead na Sionainne
RIVER SHANNON
Clonfert
Cluain Fearta
Laurencetown
An Baile Mór
Kiltormer
Eyercourt
Dún an Uchta
BANAGHER
BEANNCHAR
Newtown
Portland
PORTUMNA
PORT OMNA
Lorha
Currigahorig
Terryglass
Ballinderry
N
0
1
2 miles

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Akeragh Lough

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 1,2,3,4,6,8 are applicable

GEOGRAPHICAL LOCATION
9°50' W52°22' N.16 km N.W. Tralee, 0.5 km S. Ballyheige.

AREA
231.0 ha

ALTITUDE (metres above mean sea level) 3m

DEPTH
The area is seasonally flooded. The average depth in the summer is 20-30cm.

WETLAND TYPE
Type 7

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private Multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The northern part of the Lough together with surrounding fields is fenced off. The fields round the southern end are grazed. There are shooting hides situated on islands in the lake.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

Sewage flows into the northern end of the lake. This has killed off all the aquatic vegetation there and led to eutrophication of the rest of the lake. Increased sewage input would further damage the area. There are proposals for tourist development around the shores of the lake.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
This is a brackish lagoon formed behind a line of high dunes. It is bordered on the east side especially by extensive wet meadows. During the summer the lough consists of two ponds connected by ditches. The northern pond receives sewage from a nearby town and possesses no visible aquatic flora. The southern pond is very rich in aquatic vegetation. The main vegetation types are as follows:

(1) Juncetuni gerardii
(2) Scirpetum maritimae
(3) Magnocaricion: Iris pseudacorus - Carex vulpina
(4) Ruppion maritimae
(5) Potometalia

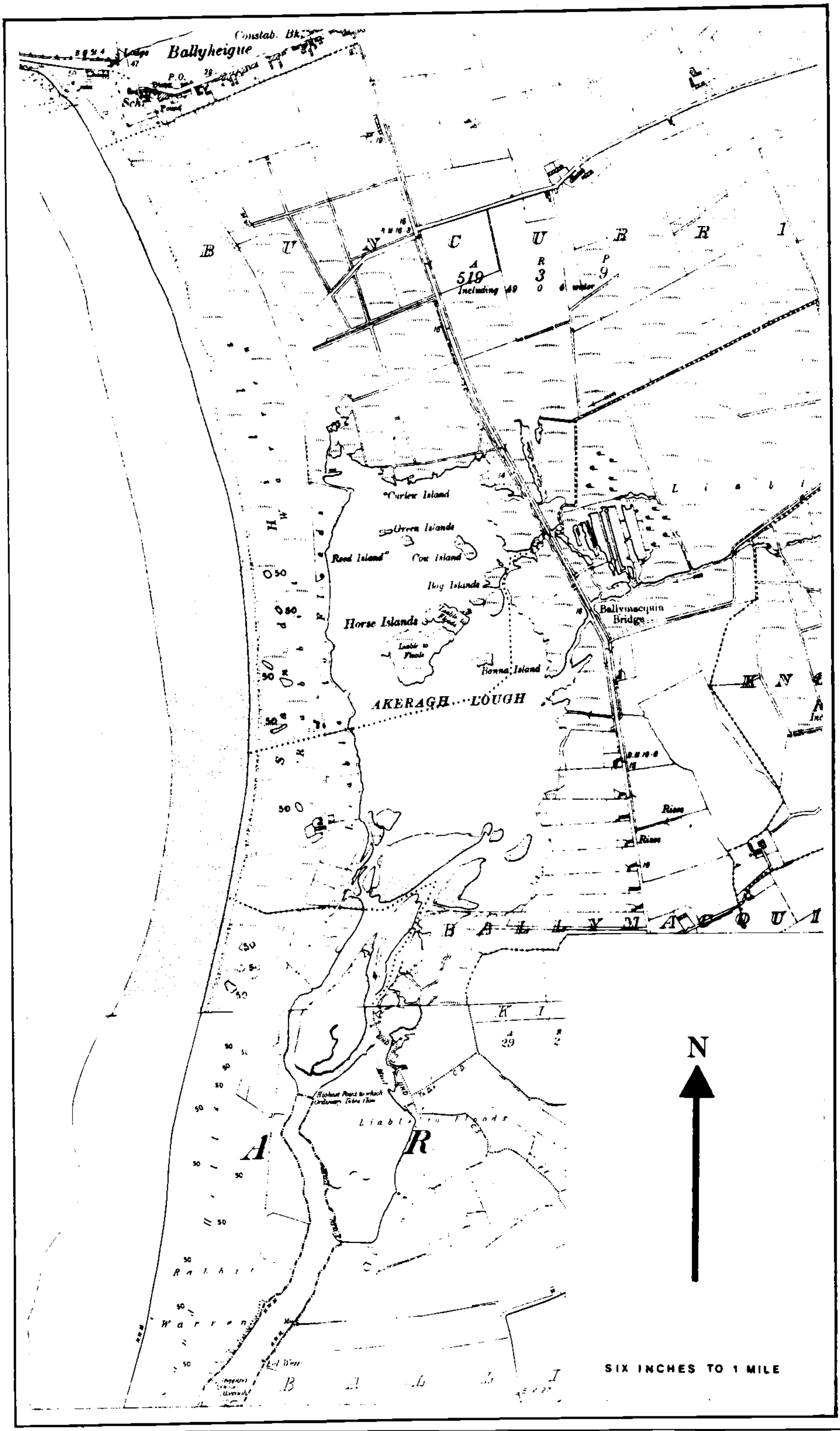
Counts of wildfowl were carried out in September 1967, January and November 1969, February and November 1970, January 1971 and monthly through the winter of 1973/74.

Wildfowl species occurring in numbers of international significance:

Species	Max
Teal (Anas crecca)	3,500
Gadwall (Anas strepera)	150

The numbers of duck fluctuate with the varying waterlevels.

The lough has an international reputation for the number of unusual species of duck and waders (particularly vagrants from North America) which have been recorded there.


Ballyheigue
Constab. Bk.
P.O.
Curlew Island
Green Islands
Reed Island
Cow Island
Bog Islands
Horse Islands
Liable to Floods
Bonna Island
AKERAGH LOUGH
Ballymacquin Bridge
Rises
Highest Point to which Ordinary Tides Flow
Liable to Floods
N
SIX INCHES TO 1 MILE

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Castlemaine Harbour

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2-4, 6-8, are applicable.

GEOGRAPHICAL LOCATION
9°55' W 52° 07'N. 16 km S.W. of Tralee, Co. Kerry. From Castlemaine west to, and including, Inch Point and Rossbehy Creek.

AREA
9,874 ha

ALTITUDE (metres above mean sea level)
Zero

DEPTH
Subject to tidal flooding.

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Cattle grazing on saltmarsh. Shooting should be restricted.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
There is heavy shooting pressure.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Castlemaine harbour is the estuary of the River Maine at the head of Dingle bay. A series of interlocking sand spits has developed and areas of salt marsh have formed behind these. There are also extensive mudflats, and poorly drained agricultural land around the margin, especially at the eastern end.

Extensive areas of Zostera species occur at least in the North West corner (near Inch) and within the harbour a typical range of salt-marsh communities occurs. In the eastern part there are reed beds along the edge of channels. Spartina occurs locally.

Vegetation communities present:

1. Zosterion
2. Armerion maritimae
3. Puccinellietum maritimae
4. Salicornetum
5. Spartnetum townsendii

Wildfowl counts were carried out in November, 1969, February 1970 and monthly through the winters of 1972/73 and 1973/74.

Wildfowl species occurring in numbers of international significance:

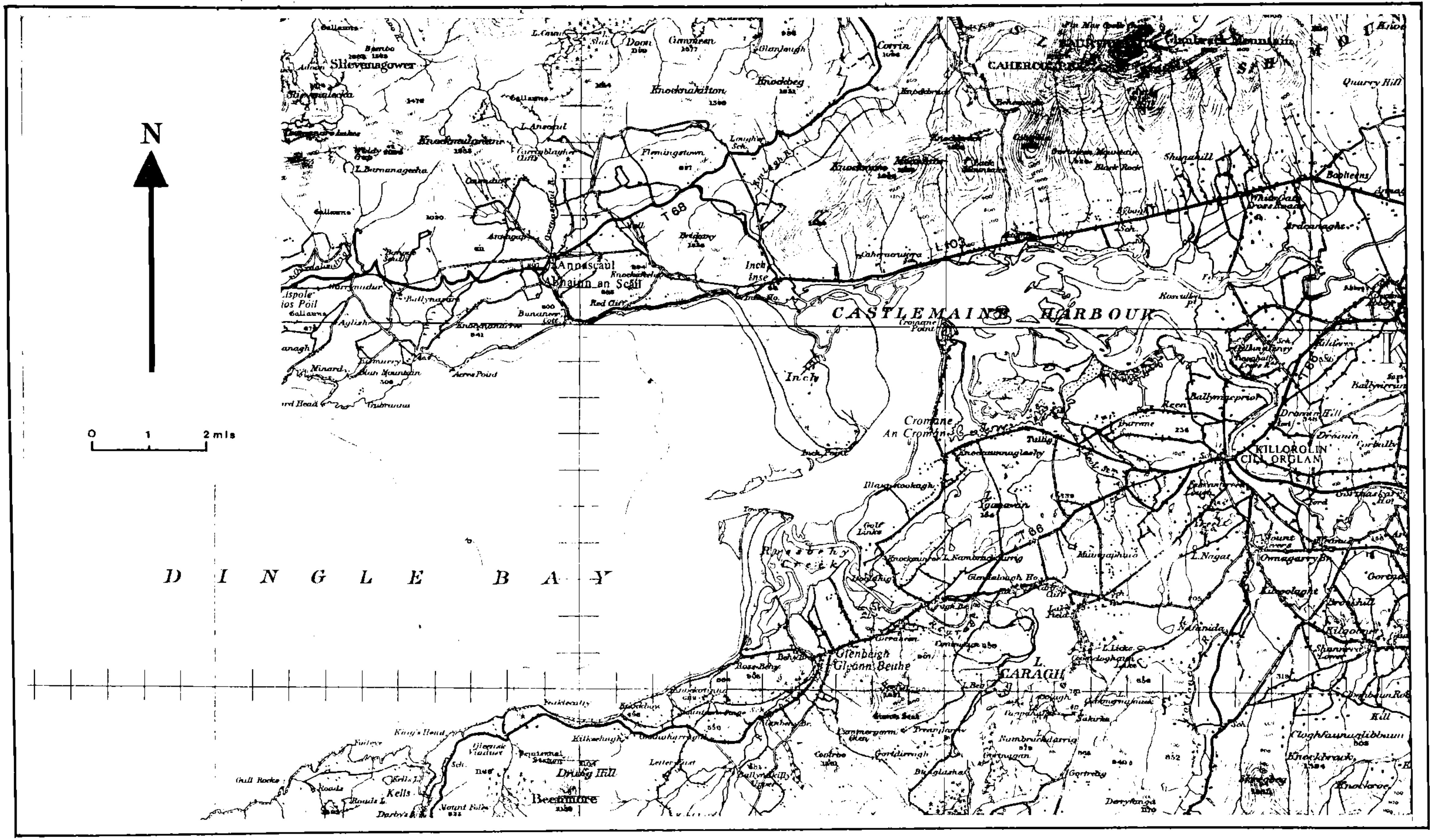
Species	Max
Wigeon (Anas penelope)	6,800
Pintail (Anas acuta)	2,500
Shoveler (Anas clypeata)	1,500
Brent Goose (Branta bernicla hrota)	4,000

Wigeon numbers peak in October and decline steadily throughout the winter. Pintail and shoveler populations fluctuate considerably throughout the winter. The numbers of each of the three species of duck is slightly in excess of 1% of their estimated N.W. European flyway populations. The numbers of brent geese are highest in the Autumn. Birds move freely

to and from Tralee Bay but a total of Species occurring in numbers of national significance.

Species	Max
Teal (Anas crecca)	2,300

Winter 1973/73


N
0 1 2 mls
DINGLE BAY
CASTLEMAINE HARBOUR
Annascaul
Abhainn an Scáil
Inch
Inse
Cromane
An Cromán
KILLORGLIN
CILL ORGLAN
Glenbeigh
Gleann Beithe
L. CARAGH
Slievenagower
Knocknakilton
Knockbeg
Flemingstown
Caherconree
Drung Hill
Beenmore
Kells
T 68
L 103
T 66

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Lough Gill

CRITERIA FOR INCLUSION IN THE DIRECTORY
1-4,8.

GEOGRAPHICAL LOCATION
10°3'W 52°14'N 23km W. of Tralee Co. Kerry 1 km W of Castlegregory.

AREA
1807 ha

ALTITUDE (metres above mean sea level)
4m

DEPTH
The lake has an average depth of 30-40 cms and a maximum of 1m. in summer.

WETLAND TYPE
Type 7

LEGAL PROTECTION STATUS OF WETLAND AREA

None

OWNERSHIP
Private, multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
There are small amounts of tillage, some pasture and meadow on the seasonally flooded fields round the lake. The water level is controlled by sluice gates which prevent the influx of salt water.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
The lake is particularly vulnerable to overshooting as there is easy access to all the shoreline. Since the lake is very shallow any input of sewage effluent would be very damaging. The dune system between lake and sea is actively eroding by wave action, placing the lake in jeopardy.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
L. Gill is a shallow lake with an aquatic vegetation predominantly of Chara spp.. It backs onto a coastal dune system and is underlain by Old Red Sandstone which gives rise to thin peaty, podzolic soils used for rough pastureage along its inland shores. Phragmites beds of varying extent fringe the entire lake, giving way on the seaward shore to dune grassland developed on blown sand. The flattish land between reed-bed and dune-system proper has been fenced into a line of fields, some of which have been fertilised and re-seeded to provide improved pasture. Beyond this is a 300-400 yd. wide strip of fixed-dune grassland; a jumble of dune crests rising to 30-40 ft., with a complete grass-sward incorporating large areas of senescent Ammophila and grazed by livestock (cattle and horses). The dune grassland ends abruptly in a 20ft. sand-cliff which is evidently eroding rapidly under wave action. The outlet from the lake to the sea is a Scirpus-fringed stream which has the appearance of being man-made and is indubitably deliberately maintained. Flow down this dyke is controlled by sluice gates. L.Gill and its adjacent dunes support an apparently flourishing colony of the natterjack toad(Bufo calamita). This is the only toad species occurring in Ireland, restricted now to three or four localities.

ECOLOGY

Lough Gill is a shallow lake bounded by marsh to the south-west and by arable land to the north and south. The outlet is via a tortuous channel to the sea at the eastern end. The shore is fringed with reedbeds which become less dense from west to east. There is abundant aquatic vegetation largely consisting of Chara spp.

The main lake-side vegetation types are as follows:

(a) Scirpeto-Phragmititum - forming the major marginal reedbeds in the south-east portion of the lake.

(b) Scirpetum maritimi - forming the major reedbeds at the eastern end of the lake.

(c) Rushy grassland immediately behind the reedbeds.

(d) Chara communities.

(e) Ruppion maritimae

(f) Litorelletalia

(g) Potametum filiformis

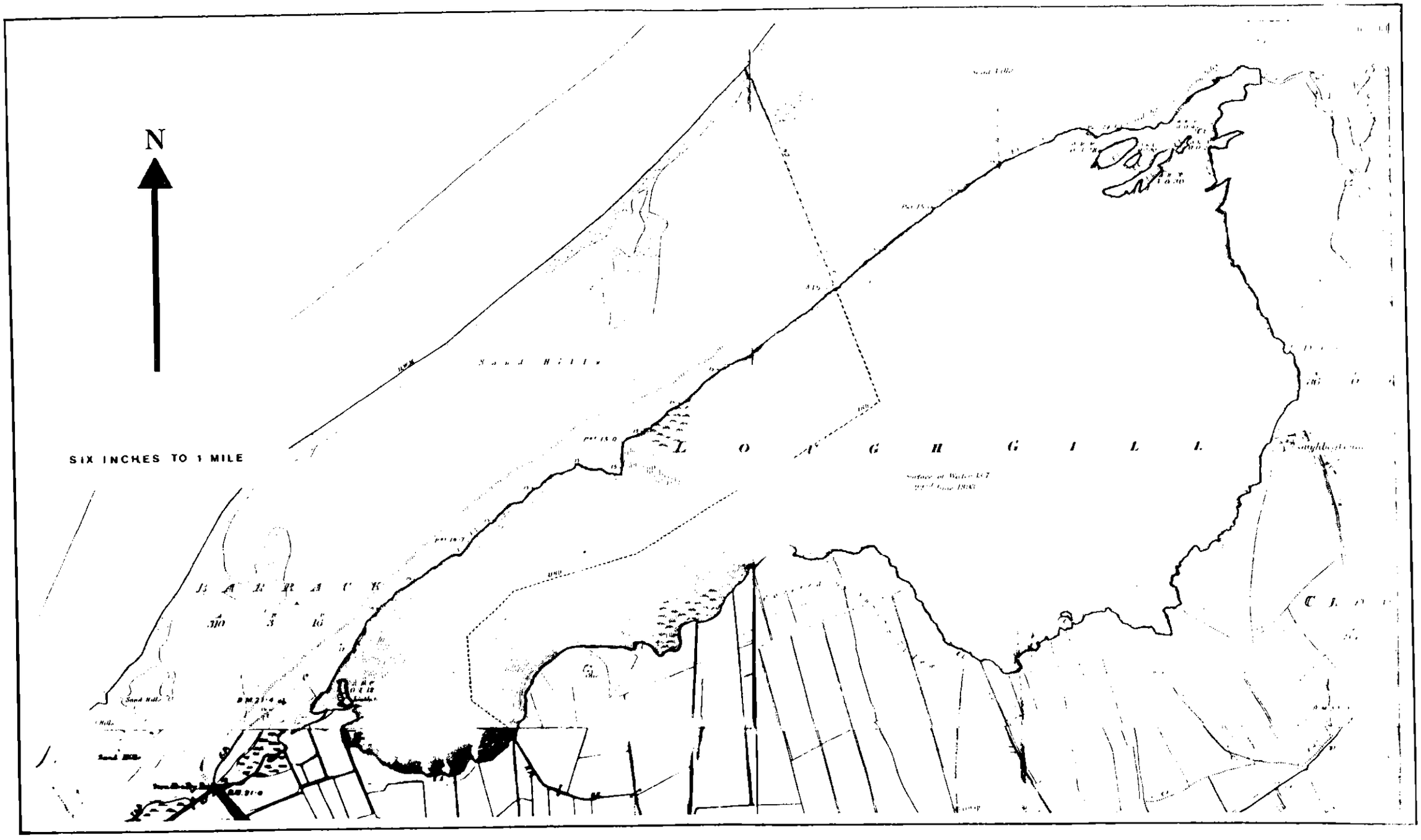
(h) Potametum perfoliatus

Wildfowl counts were carried out in January and September 1967, January 1969, November 1970, January 1971 and monthly through the winter of 1972/73.

Wildfowl species occurring in numbers of international significance:

Gadwall	(Anas strepera)	200

14 wildfowl species were recorded on one occasion and 12 or more on several occasions.


N
SIX INCHES TO 1 MILE
SAND HILLS
LOUGHGILL
BARRACK

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Tralee Bay and Barrow Harbour

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,3,4,8 are applicable.

GEOGRAPHICAL LOCATION
9°48'W 52°16' N 3 km W Tralee, Co. Kerry. From Blennerville in the east to Derrymore Island and Fenit in the west and including Barrow Harbour and Carrahane strand in the north.

AREA
3,290 ha

ALTITUDE (metres above mean sea level)
Zero

DEPTH
Subject to tidal flooding

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Restriction on shooting is necessary.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
There is heavy shooting pressure in the area.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
The Tralee Bay and Barrow Harbour area lies on the north side of the Dingle peninsula and is complementary to Castlemaine Harbour on the south side. The most important area is the eastern end of the bay where saltmarshes and mud flats occur behind a pebble spit on the southern shore, and Barrow Harbour and Carrahane strand which have developed behind a sand bar. Zostera sp. occurs on the mudflats and Ruppia spiralis occurs in Barrow Harbour. Large areas are covered in Juncus maritimus.

Vegetation communities present:

1. Zosterion
2. Armerion maritimae
3. Spartinetum townsendii
4. Fresh water communities with Potamogeton pectinatus occur in some of the depressions on Derrymore Island.

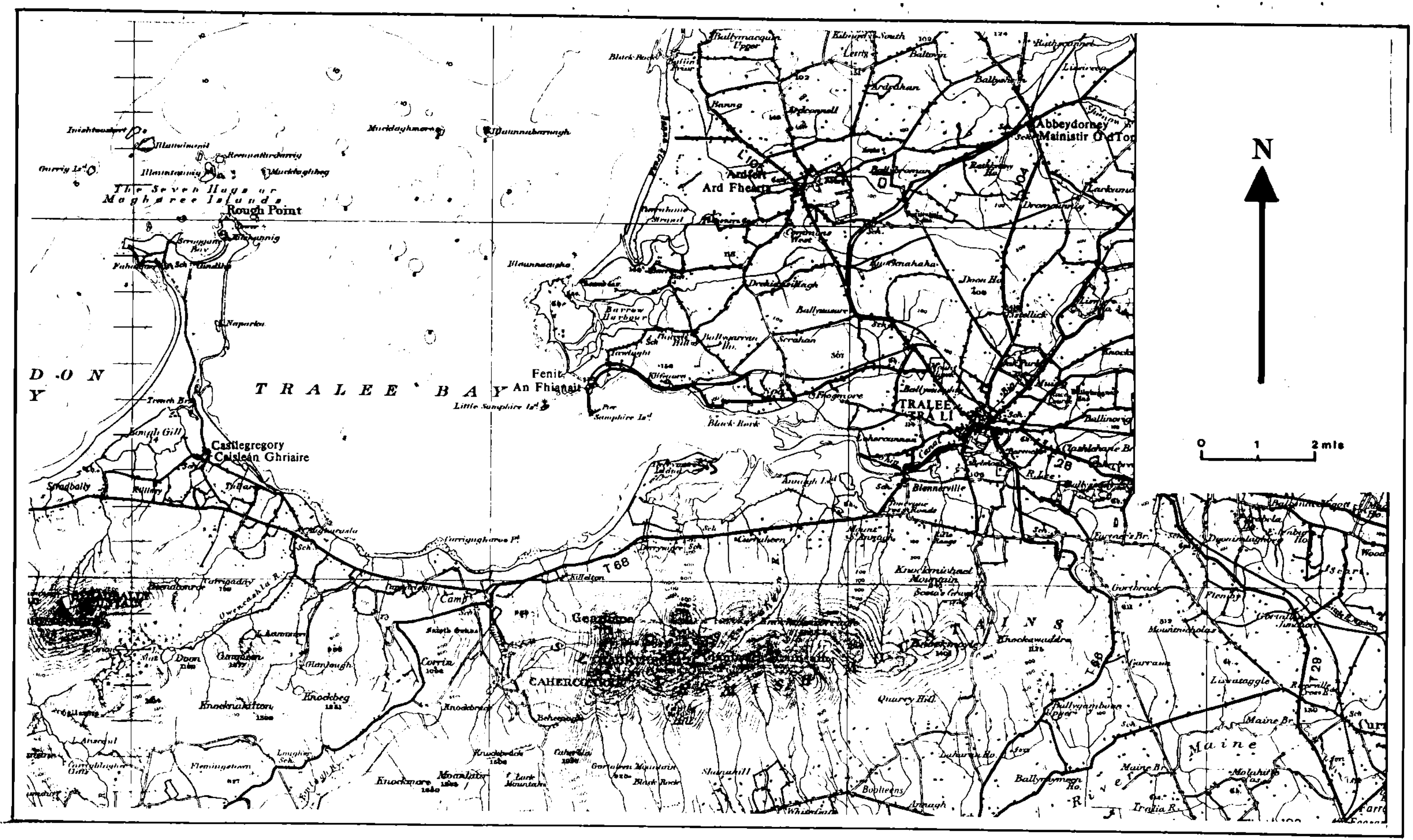
Wildfowl counts were carried out in September 1967, January and November 1969, February and November 1970, January and February 1971 and monthly through the winter of 1973/74.

Wildfowl species occurring in numbers of international significance:

	Species	Max
Pintail	Anas acuta	800
Brent Geese	Brang bernicla hrota	2,000

Birds more frequently between this area and Castlemaine Harbour.
Species occurring in numbers of national significance:

Species	Max
Wigeon Anas penelope	3,500


N
0 1 2 mls
TRALEE BAY
Castlegregory
Caisleán Ghriaire
Fenit
An Fhianait
Ardfert
Ard Fhearta
Abbeydorney
TRALEE
Blennerville
Rough Point
Camp
T68
T28

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Dundalk Bay

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,3,4,6,8 are applicable.

GEOGRAPHICAL LOCATION
6°20' W 54°00'N.E of Dundalk town Co. Louth, from Bellurgan Point at the N.W. end of Ballymascanlan Bay, south to Annagassan.

AREA
4717 ha (seaward limit taken as edge of mudflats shown on ½" O.S.)

ALTITUDE (metres above mean sea level)
Zero

DEPTH
Subject to tidal flooding.

WETLAND TYPE
Type 1

LEGAL PROTECTION STATUS OF WETLAND AREA
Ballymascanlon Bay has an annual non-shooting Order (Game Preservation Act 1930) The remainder of the area is unprotected

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT PRACTICES NEEDED
Cattle grazing at present in upper zones of the saltmarsh.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
There is some evidence of pollution probably from Dundalk Town. The growth of Spartina is probably bringing about a reduction in the feeding area of the waders.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
This wetland consists of salt marsh and mudflats extending some 10 miles from Ballymascalon Bay to Annagassan. The salt marsh is dissected by many drainage channels. The area is dominated by enormous expanses of Spartina townsendii which still seems to be expanding. The other communities are to be found only on the upper parts of the salt marsh which is often narrow due to reclamation. Very little Salicornia is present. The main vegetation types are as follows:

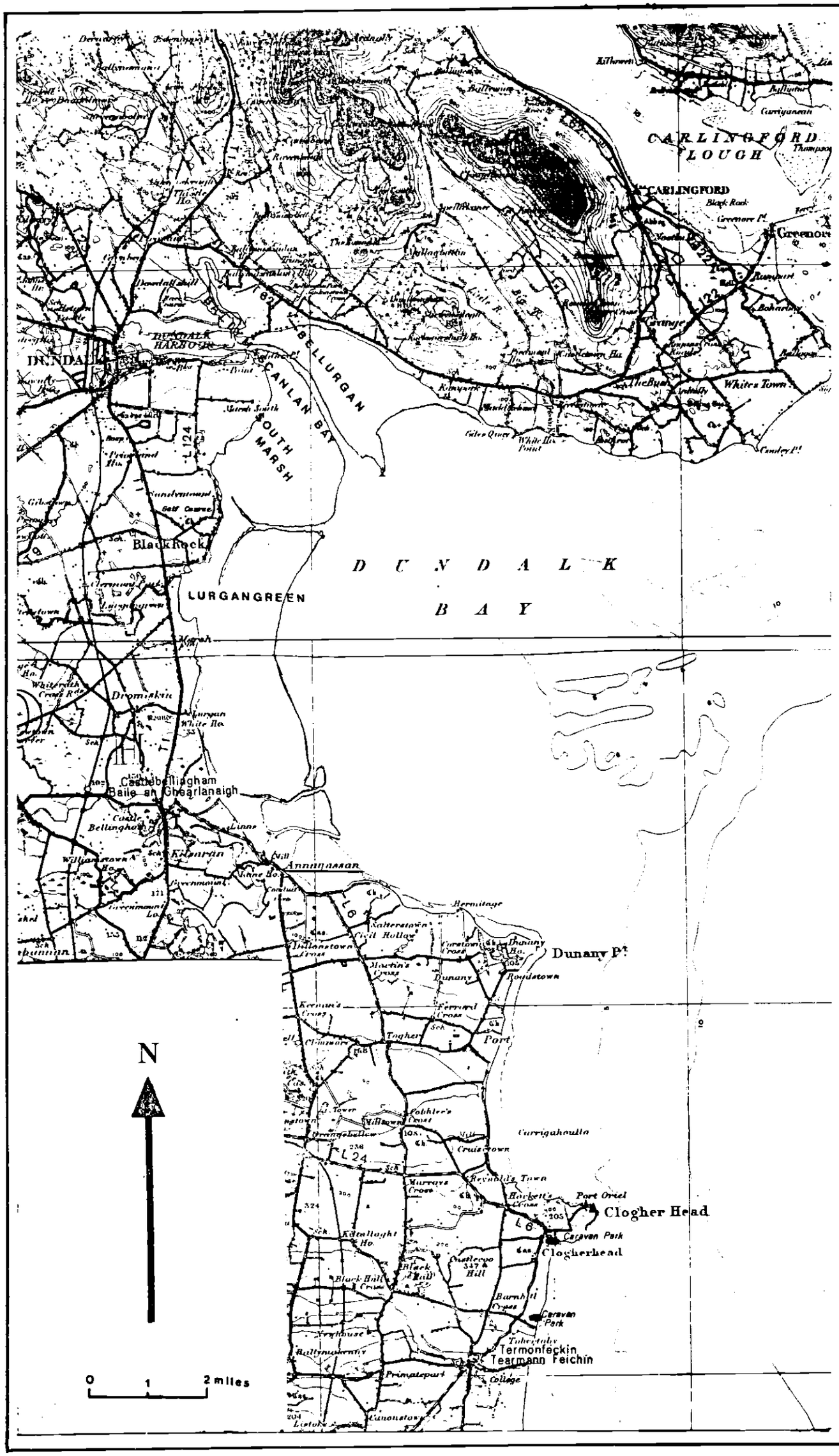
(1) Puccinellietum maritimae
(2) Juncetum gerardi
(3) Salicornetum europaeae
(4) Zosterion
(5) Spartinetum townsendii

Counts of wildfowl were carried out in January, February, July, August and September 1974 over the whole area. Counts were carried out in Ballymascanlan Bay in November, January and February 1970/71 and 1971/72 on South Marsh and Ballymascanlan in March and October 1973 and on Lurgangreen monthly in 1972/73.

Wader species occurring in numbers of international significance:

Golden Plover	(Pluvialis apticaria)	13,000 Autumn
Oystercatcher	(Haematopus ostralegus)	26,000 Autumn
Curlew	(Numenius arquata)	4,500 mid Winter
Bar-tailed Godwit	(Limosa lapponica)	6,000 late A.
Knot	(Calidris canutus)	8,000 mid W.
Dunlin	(Calidris alpina)	15,000 mid W.

Up to 48,000 waders have been counted in the entire area. This rivals the entire Shannon Estuary in the numbers of waders present.


CARLINGFORD LOUGH
CARLINGFORD
Greenore
DUNDALK HARBOUR
DUNDALK
BELLURGAN
SCANLAN BAY
SOUTH MARSH
Blackrock
LURGANGREEN
D U N D A L K
B A Y
Castlebellingham
Baile an Ghearlanaigh
Dunany Pt
Port
Clogher Head
Clogherhead
Termonfeckin
Tearmann Feichin
N
0 1 2 miles

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Inishkea Islands

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,3,4,6,7 and 8 are applicable

GEOGRAPHICAL LOCATION
10°13'W54°07'N.C.5km. off the Mullet Peninsula Co. Mayo and C.17 km S.W. Belmullet.

AREA
328 ha

ALTITUDE (metres above mean sea level)
0-70

WETLAND TYPE

Type 10

LEGAL PROTECTION STATUS OF WETLAND AREA
Annual non-shooting Order under The Game Preservation Act (1930)

OWNERSHIP
Private Multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Cattle and sheep are grazed on the Islands throughout the year.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

None apparent

MAJOR SCIENTIFIC RESEARCH
Studies of Barnacle Geese populations

PRINCIPAL REFERENCE MATERIAL
Cabot D. and West B. "Population Dynamics of Barnacle Geese, Branta leucopsis,in Ireland." Proc R.I. Acad 73, Section B, (24), 415-443.

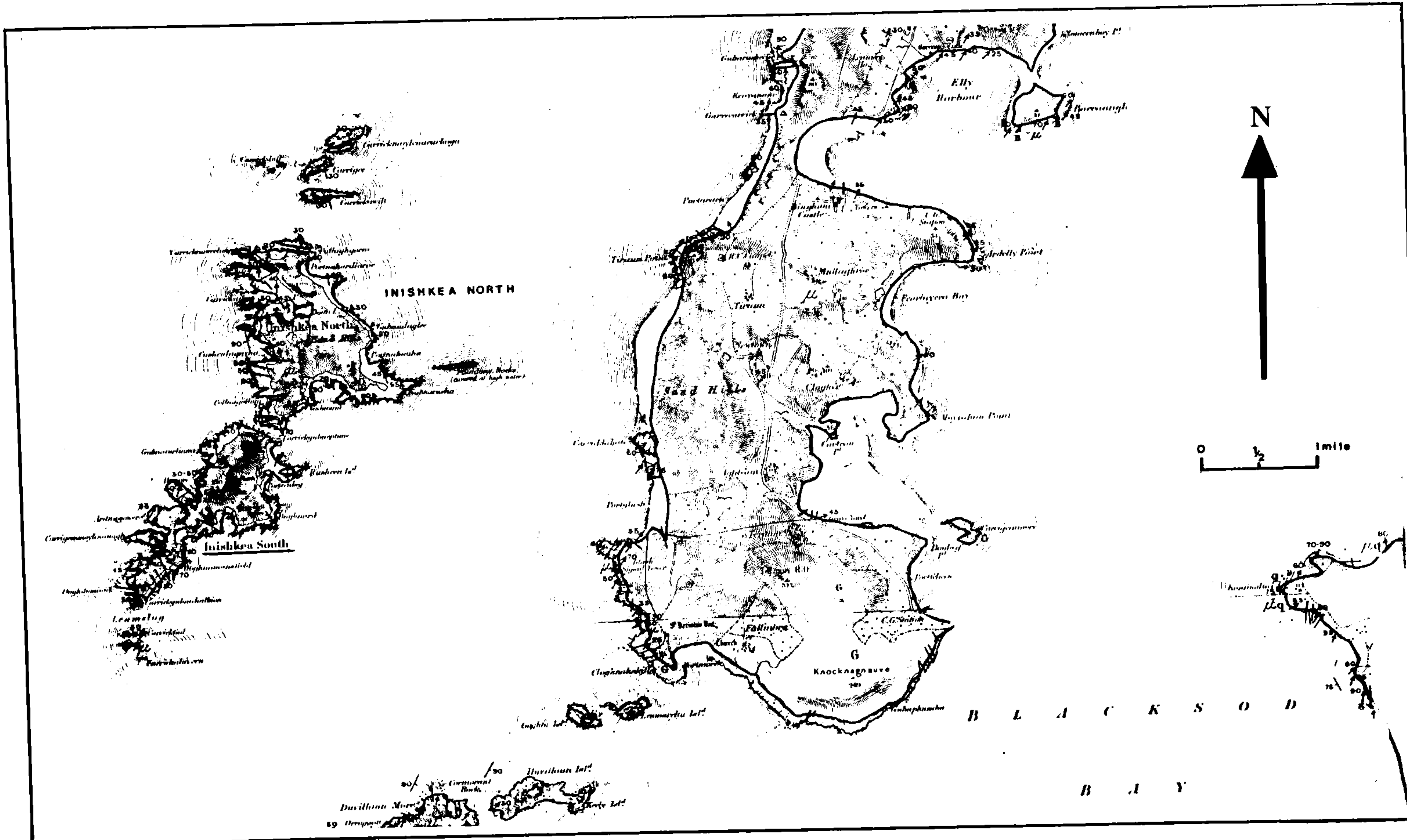
ECOLOGY
Iniskea north and south are two low windswept islands each being about 2½ kilometres long by 1 kilometre wide. They are separated by a channel 30m across. The islands are two reefs of gneiss with a thin covering of sand. The vegetation is restricted to a Festuca rubra - Agrostis stolonifera - Plantago lanceolata sward. Phragmites occurs in Lough Doon on the northern island.

The assessment of this area as being important for wildfowl is based on data from Cabot, D. and West, B. (1973).

Wildfowl species occurring in numbers of International importance:

Species	Max.
Barnacle Geese (Branta leucopsis)	2,900

This represents over 60% of the Irish mid-winter population.



INISHKEA NORTH
Inishkea South
Elly Harbour
Sand Hills
Knocknagnauve
BLACKSOD
BAY
N
0
½
1mile

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Little Brosna

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 1-4,6-8 are applicable

GEOGRAPHICAL LOCATION
8°03'W 53°09' N. Little Brosna River from New Bridge C. 8km N.W. Birr, Co. Offaly, to its confluence with the R.Shannon, including Big Island and Friars Island.

AREA
1400 ha

ALTITUDE (metres above mean sea level)
35m

DEPTH
Seasonally flooded

WETLAND TYPE
Type 12

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The callows are grazed by cattle during the summer. The area is under heavy shooting pressure in the winter. A system of surface drains prevents permanent water-logging of the ground surface. A restriction on the amount of shooting is necessary. To maintain the area as it is now, grazing during summer months would have to continue, together with careful management of the drainage system to prevent either permanent water-logging or drying out. This may well demand some influence over the management of the R.Brosna itself, including section both upstream and down-stream of the callows.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

Drainage of the area has been suggested and plans for this are being drawn up. This would greatly decrease or eliminate entirely the areas of wet meadow which are used by the birds for feeding.

MAJOR SCIENTIFIC RESEARCH
None.

PRINCIPAL REFERENCE MATERIAL
None.

ECOLOGY
The "callows' are meadows on gleyed alluvial soils which are flooded with water from the R. Brosna during the winter. The extent of flooding is variable and uncontrolled, beginning in early autumn but with extensive areas remaining uncovered late into November. Patches of surface water may remain well into the summer. The callows are river-overflow lands rather than turloughs. The meadow vegetation is a close-cropped sward of Carex hirta, C. nigra, Glyceria spp., Poa pratensis and Agrostis stolonifera. On wetter areas Glyceria maxima, Juncus spp. and Hippuris vulgaris dominate. Alisma plantago-aquatica occurs in some of the surface drains.

The past history of this area is not documented, but there are indications that the course of the river has been straightened somewhat. If the river-side embankments and the network of surface ditches running through the callows have been at all effectual, then the area may well have been much wetter in the recent past than it is today. Currently the vegetation varies from a sedge-rich, closely grazed grassland over most of the area through to a rushy grassland with Glyceria maxima, to emergent aquatic vegetation in the ditches. The river has very steep banks with little marginal vegetation.

Wildfowl counts were carried out in November, January and February of 1970/'71 and 1971/'74 and monthly from the air and ground in 1972/'73 and 1973/'72.

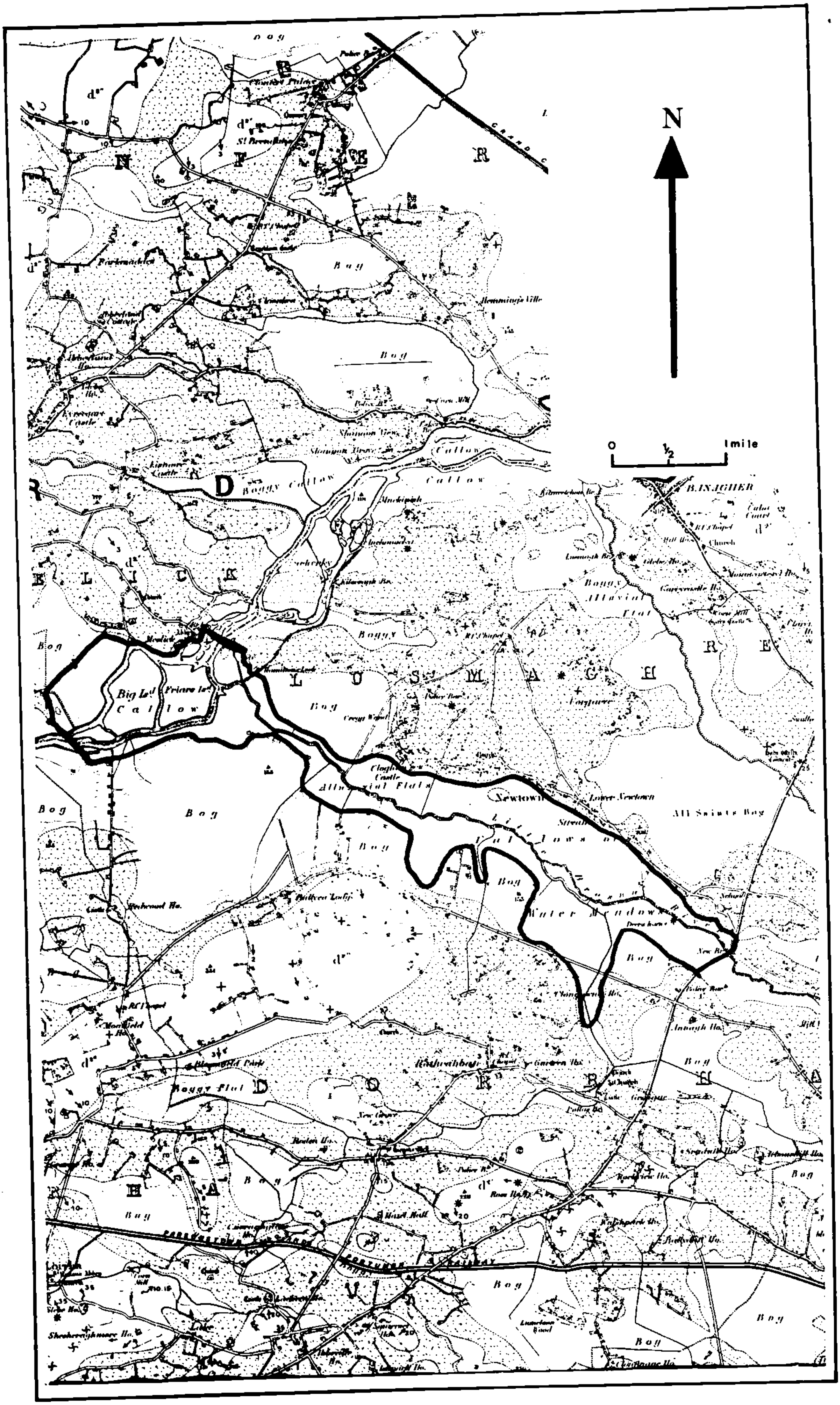
Wildfowl species occurring in numbers of international significance:

Species	Max
Wigeon (Anas penelope)	11,500 March
White Fronted Goose (Anser albifrons flavirostris)	500 1974

Duck numbers fluctuate considerably depending on the extent of flooding of the callows and shooting pressure. Wigeon numbers may go as low as 750 (January 1972), but in 1972/'73 they peaked at 5,000 in March and in 1973/'74 at 11,500 in March when the water level had dropped after extensive flooding. These figures represent much the largest gathering of this species in the Republic and over 1% of the North West European Flyway population. The Greenland White Fronted Goose population is the second largest in Ireland.

Wildfowl species occurring in numbers of national significance:

Species	Max
Pintail (Anas acuta)	250 February
Shoveler (Anas clypeata)	540 "
Lapwing (Vanellus vanellus)	15000
Golden Plover (Pluvialis apricaria)	3000
Black-tailed Godwit (Limosa limosa)	2000



N
0
½
1mile
Bog
Big Ld
Friars Ld
Callow
Boggy Callow
Alluvial Flats
Newtown
Lower Newtown
All Saints Bog
Water Meadows
Boggy Flat

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Cumeen Strand (Sligo Bay)

CRITERIA FOR INCLUSION IN THE DIRECTORY
2-4, 6,8.

GEOGRAPHICAL LOCATION
8°32' W 54°07'N. 2 km WNW Sligo Town, Co. Sligo.

AREA
1,865 ha

ALTITUDE (metres above mean sea level)
0

DEPTH
The area is in the intertidal zone

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Not known

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

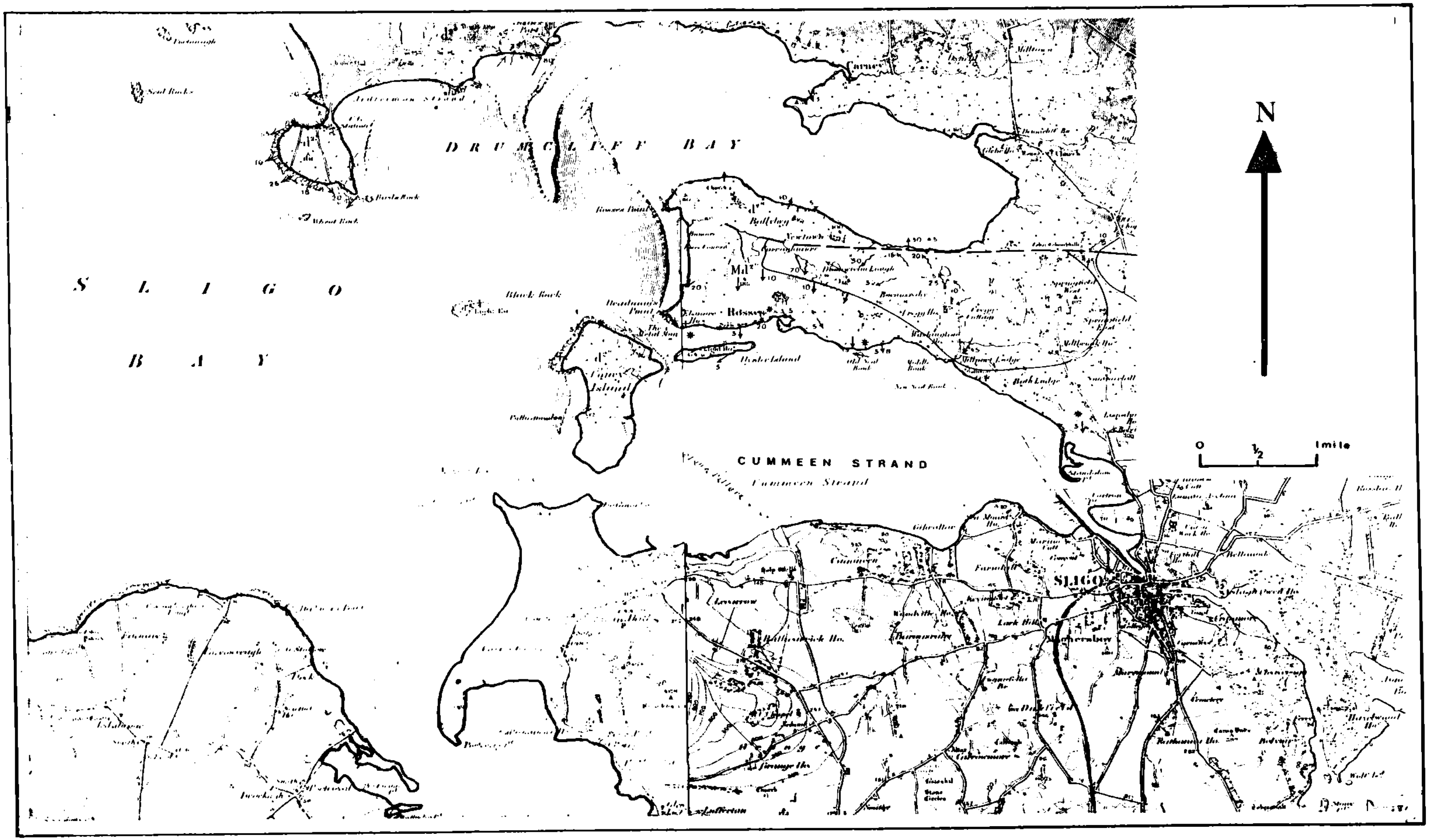
ECOLOGY
Cumeen Strand is the estuary of the River Garavoge partly separated from the sea by Coney Island. No information is available on the vegetation of the area. The birds feed on the extensive mudflats.

Wildfowl counts were carried out in January, February, September and November 1970, January, February and November 1971. January, February and October 1972 and October 1973.

Wildfowl species occurring in numbers of international significance:

Species	Max
Brent Goose (Branta bernicla hrota)	2,250

There is a large arrival of Brent Geese in October. The numbers then decline rapidly and there are normally 200 present in January.


N
0
½
1mile
DRUMCLIFF BAY
SLIGO BAY
CUMMEEN STRAND
Cummeen Strand
SLIGO
Rosses Point
Black Rock
Oyster Island
Coney Island

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Lough Derravaragh

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,4,6,7 and 8 are applicable.

GEOGRAPHICAL LOCATION
7°23'W 53° 39' N.13 km N. of Mullingar, Co. Westmeath.

AREA
1,285 ha

ALTITUDE (metres above mean sea level)
70m

DEPTH
Unknown

WETLAND TYPE
Type 18

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The water level in the lake has been recently lowered due to drainage.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Eutrophication

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY

Lough Derravaragh is part of the River Inny drainage system. At the N.W. end it is backed by raised bog but the long south-eastern arm runs between resistant siliceous limestone outcrops, which slope steeply into the lake. These outcrops are covered in oak woodland. As a result of drainage extensive areas of the lake bed are exposed at the western end forming a mosaic of land and water very attractive to wildfowl.

Wildfowl counts were carried out in November 1970, January, February and November 1971, January and February 1972, monthly through the winter of 1972/'73 and in October and November 1973.

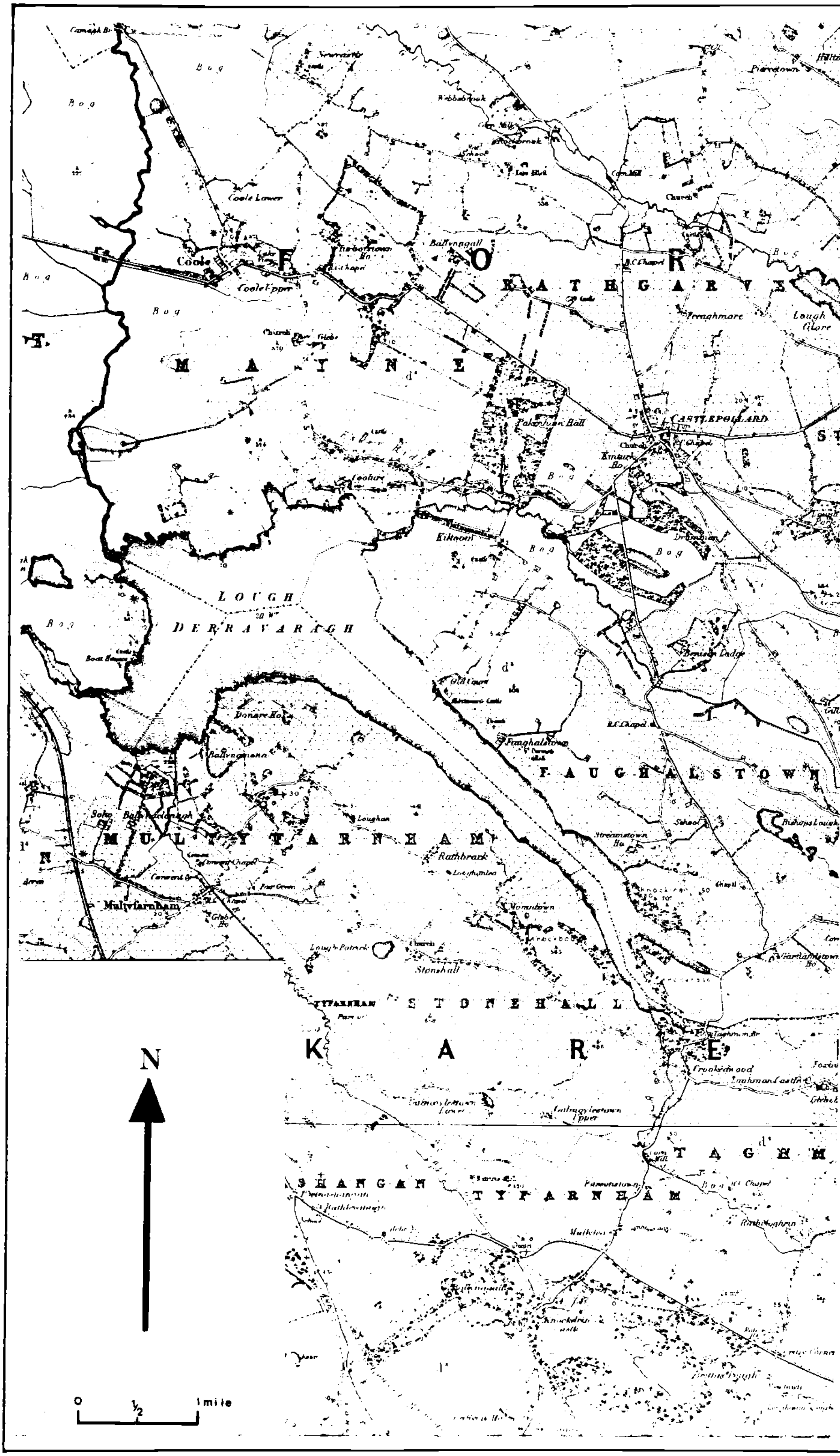
Species occurring in numbers of international significance:

		max
Pochard	(Aythya ferina)	5,600

Peak numbers are recorded in the Autumn. The birds disperse rapidly from November onwards.

Species of national importance:

		max
Tufted Duck	(Aythya fuligula)	1,200 - 2,800



Bog
Coole Lower
Coole
Coole Upper
Ballyvangall
R.C.Chapel
R A T H G A R V E
Loughmore
Lough Glore
Church
Glebe
M A Y N E
CASTLEPOLLARD
Pakenham Hall
Church
R.C.Chapel
Kinturk Ho
Kiltoom
Bog
L O U G H
D E R R A V A R A G H
Boat House
Benison Lodge
Old Court
Donore Ho
Faughalstown
R.C.Chapel
F A U G H A L S T O W N
Bishops Lough
School
M U L T Y F A R N H A M
Multyfarnham
Glebe Ho
Lough Patrick
Church
Stonehall
S T O N E H A L L
K A R E
Crookedwood
T A G H M
T Y F A R N H A M
N
0
½
1 mile

STATE Ireland PROVINCE Leinster

NAME OF WETLAND AREA Lough Owel

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2,4,5,6,8 are applicable

GEOGRAPHICAL LOCATION
7°24' E 53°34'N 4 km N. of Mullingar, Co. Westmeath.

AREA
1,008 ha

ALTITUDE (metres above mean sea level)
93m

DEPTH
Not known

WETLAND TYPE
Type 18

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT PRACTICES NEEDED
Used as a water supply to Mullingar. This does not at present lead to much fluctuation in water levels.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

MAJOR SCIENTIFIC RESEARCH
None

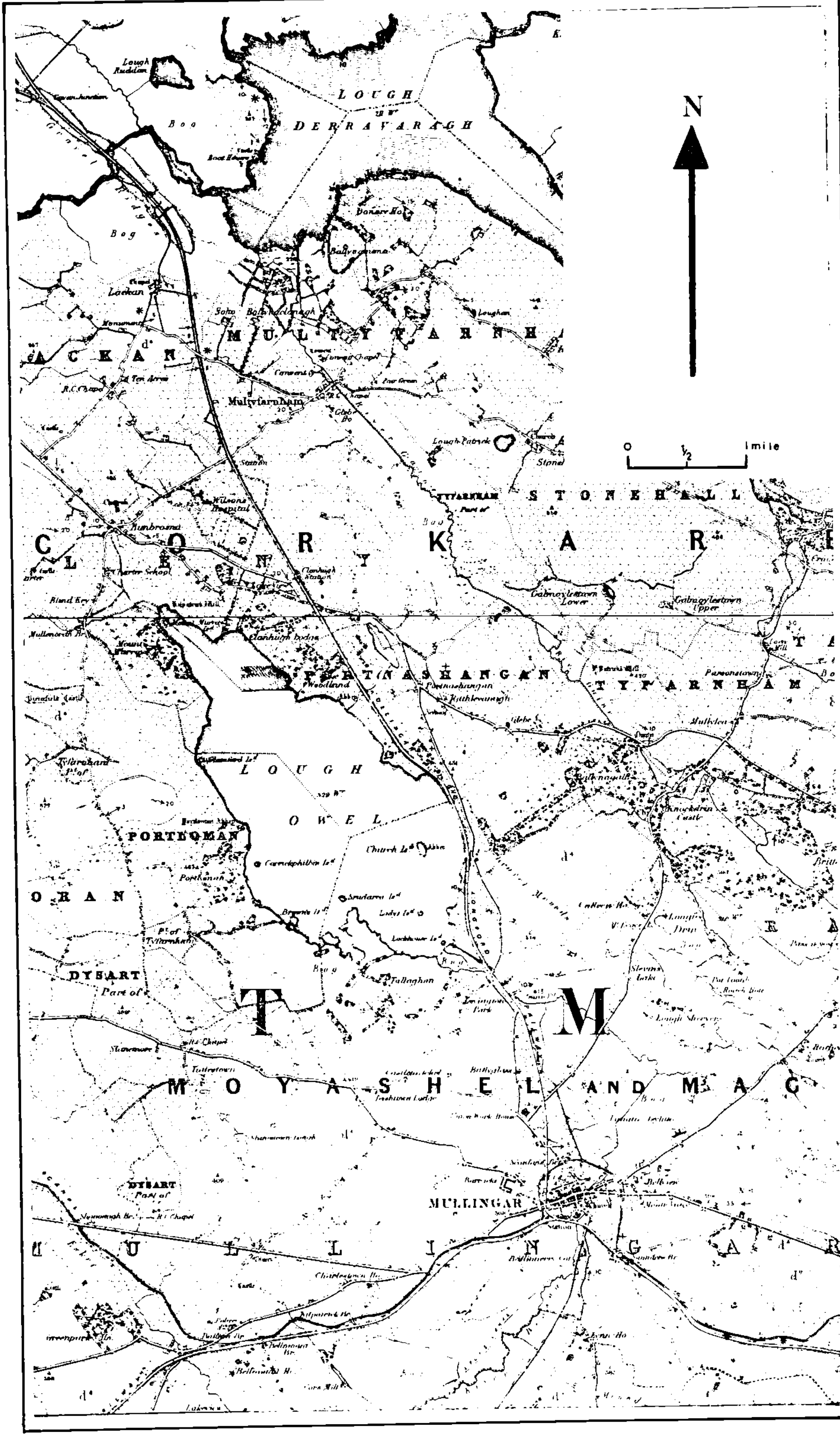
PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Lough Owel is a shallow lake on limestone with marl deposits on the bottom. Marginal vegetation is not well developed but beds of Phragmites communis, Cladium mariscus and Carex rostrata occur on the western side. Wet grassland and Alnus carr also occur.

Wildfowl counts were carried out in November 1971, January and February 1972 and monthly through the winters of 1972/'73 and 1973/'74.

Species occurring in numbers of international significance:

Species	Max
Shoveler (Anas clypeata)	2,000
Species of national importance:-	
Mallard (Anas platyrhynchos)	2,500
Tufted Duck (Aythya fuligula)	2,000
Pochard (Aythya ferina)	2,000



N
0
½
1 mile
LOUGH DERRAVARAGH
MULTYFARNHAM
Multyfarnham
STONEHALL
CORKAREE
TYFARNHAM
PORTNASHANGAN
LOUGH OWEL
PORTLOMAN
DYSART
Part of
MOYASHEL AND MAGHERADERNON
MULLINGAR
Lough Patrick
Wilson's Hospital
Knockdrin Castle

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Tacumshin Lake and Whitehole

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 1-4,6,8 are applicable

GEOGRAPHICAL LOCATION
6°29'W, 52°11'N C.15 km South of Wexford City

AREA
464 ha

ALTITUDE (metres above mean sea level)
at mean sea level

DEPTH
Seasonal flooding during summer from 10 - 100 cms., deeper in winter

WETLAND TYPE
Type 7

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Cattle are grazed along the shores. There is a sluice gate at the mouth of Whitehole where it enters the lake.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE EVELOPMENTS

1. The channel through the shingle bank, if successful may temporarily lower the summer level of the lake.
2. The lake is within 5 miles of the proposed Carnsore Point Nuclear Power Station.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Tacumshin is a lagoonal lake, formed behind a sand-spit growing along the coast under the influence of long-shore drift. The spit is attached at its Eastern end but the growing tip is unstable and mobile; at present it has been moved inshore, blocking the channel between Tacumshin lake and the sea. Under these circumstances the streams emptying into the lake progressively reduce its salinity, the water seeping outwards through the sand-spit, leaching the salt from the spit in the process. At present contact between lake and sea is likely to be made and lost under storm action at relatively frequent intervals. The continuing growth of the spit westwards would indicate, however, that the channel to the sea will at some time become permanently blocked: Tacumshin would then evolve into a fresh-water lake. The lake-margin vegetation contains a large number of maritime plant species, while the spit has an incomplete cover of vigorous Ammophila associated with stands of plants like Eryngium and Euphorbia spp. Whitehole contains an abundance of Ruppia spp.

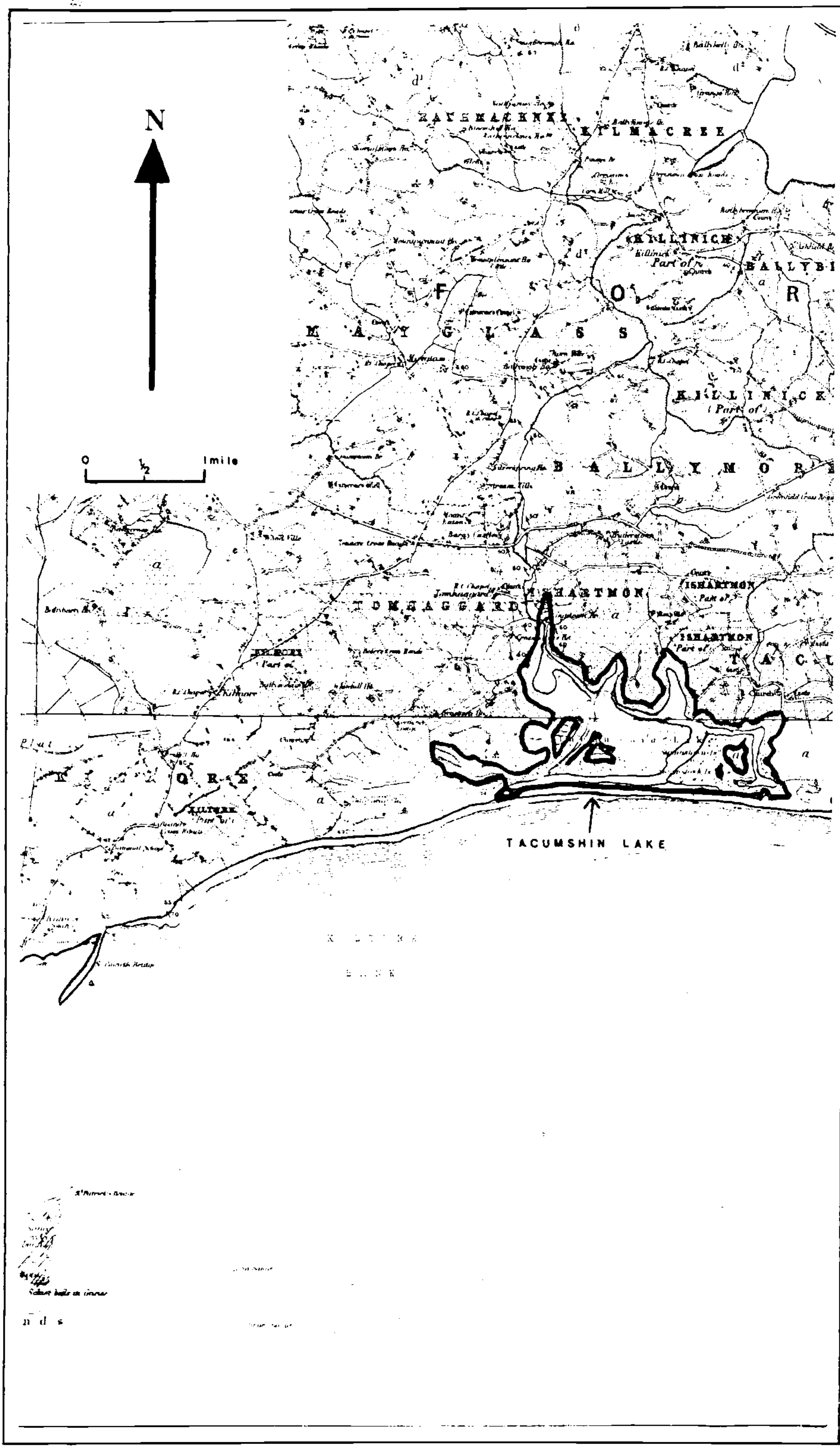
Plant communities present in lake and at its margin:

Zosteretalia:	Ruppion maritimae
Armerion maritimae:	Juncetum gerardii
Phragmition communis:	Scirpeto - phragmitetum
	Scirpetum maritimae
Glycerieto-sparganii:	Heliosciadium-Veronica beccabunga

Wildfowl counts were carried out in January and February 1970, January 1971 and monthly through the winters of 1971/72, 1972/73 and 1973/74.

Wildfowl species occurring in numbers of international significance:

Species	Max
Brent Goose (Branta bernicla hrota)	600


N
0
½
1mile
K I L M A C R E E
K I L L I N I C K
M A Y G L A S S
B A L L Y M O R E
T O M H A G G A R D
I S H A R T M O N
TACUMSHIN LAKE

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Wexford Harbour & Slobs

CRITERIA FOR INCLUSION IN THE DIRECTORY
4,6-8

GEOGRAPHICAL LOCATION
6°24'W 52°19'N. Wexford Harbour is bordered by Wexford City on the S.W. side and the slobs lie to the N.E. and S.E. of the city. The area extends from Ferrycarrig and Castlebridge on the inner harbour to Rosslare Point and Raven Point on the outer (eastern) harbour.

ALTITUDE (metres above mean sea level)
whole area below mean sea level

DEPTH
Wexford Harbour max 10m

WETLAND TYPE
Types 8 (Natural) 25 (Artificial)

LEGAL PROTECTION STATUS OF WETLAND AREA
Part of N.Slob is a wildfowl refuge.

OWNERSHIP
Slobs: Private except for small portion owned by State; Harbour: State.

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED

The area to the North of the harbour is mostly arable farmland with some cattle pasture. A system of ditches and drainage channels operates to keep the ground surface dry throughout the year: in summer this system is used to irrigate the area. Shooting is prohibited. Control is possibly needed over the use of agricultural chemicals in the area. The land-use of the area South of the harbour is more varied, including a number of holiday-chalets and semi-permanent dwellings, plus a golf-course.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS

1. The use of agricultural chemicals like fertilisers and pesticides over the N. Slob could adversely affect the character of the goose feeding-grounds, as could any change in farming priorities.

2. The close proximity of the port of Wexford makes all parts of the area not specifically protected potentially vulnerable to development.

MAJOR SCIENTIFIC RESEARCH

Ecological preferences of Anser albifrons flavirostris and effects on their behaviour and distribution of changing farming patterns.

PRINCIPAL REFERENCE MATERIAL
None

ECOLOGY
Wexford harbour is a mud-filled arm of the sea into which flows the R.Slaney. To the North and South of the harbour are the sloblands. These are areas of alluvial mud now reclaimed and drained and in use as arable farmland. Large areas of wheat field and pasture are separated by drainage ditches which empty into larger drainage channels. The water level is controlled to provide irrigation in the summer. Within the sloblands, plant communities other than controlled pasture-swards and arable crops are restricted to the ditches and their margins. There are areas of sand-dune and salt-marsh along the harbour-edge, particularly in the vicinity of Raven Point and Rosslare Point. The Rosslare dune communities are unusual in that they contain patches of dune scrub with Hippophae rhamnoides (introduced).

The main plant communities in the sloblands are:

(1) Reseeded grassland dominated by Lolium perenne, L. multiflorum, Phleum pratense, and Trifolium repens, plus fields of wheat and barley, on drained areas.

(2) Old pasture with an Agrostis tennis - Agrostis stolonifera -

Authorcanthum odoratium - Holcus lanatus sward on the small area of undrained soils in the Wildfowl Refuge on the North Slob.

(3) Aquatic and emergant communities in the drainage channels.

(a) Phragmition communis: Scirpetium maritimae
Scirpeto - Phragmitetum
(b) Ruppion maritimae
(c) Potemetalia
(d) Salicornietum europaeae
(e) Zosterion

Communities (d) and (e) were found at the seaward end of the channels.

The harbour itself consists mostly of sand and mudflats with a small amount of salt marsh. There is a sand-bar at the entrance to the harbour called Tern Ireland which is a private sanctuary area.

Wildfowl counts were carried out in November, January and February 1969/'70 and 1970/'71 and monthly each winter from 1971/'72 to 1973/'74.

Wildfowl and Wader species occurring in numbers of international significance:

	Max
White-fronted Goose (Anser albifrons flavirostris)	7000
Pintail (Anas acuta)	1120
Bewick Swan (Cygnus bewickii)	317
Lapwing (Vanellus vanellus)	22000
Golden Plover (Pluvialis apricaria)	8000
Waders	39000
	1600

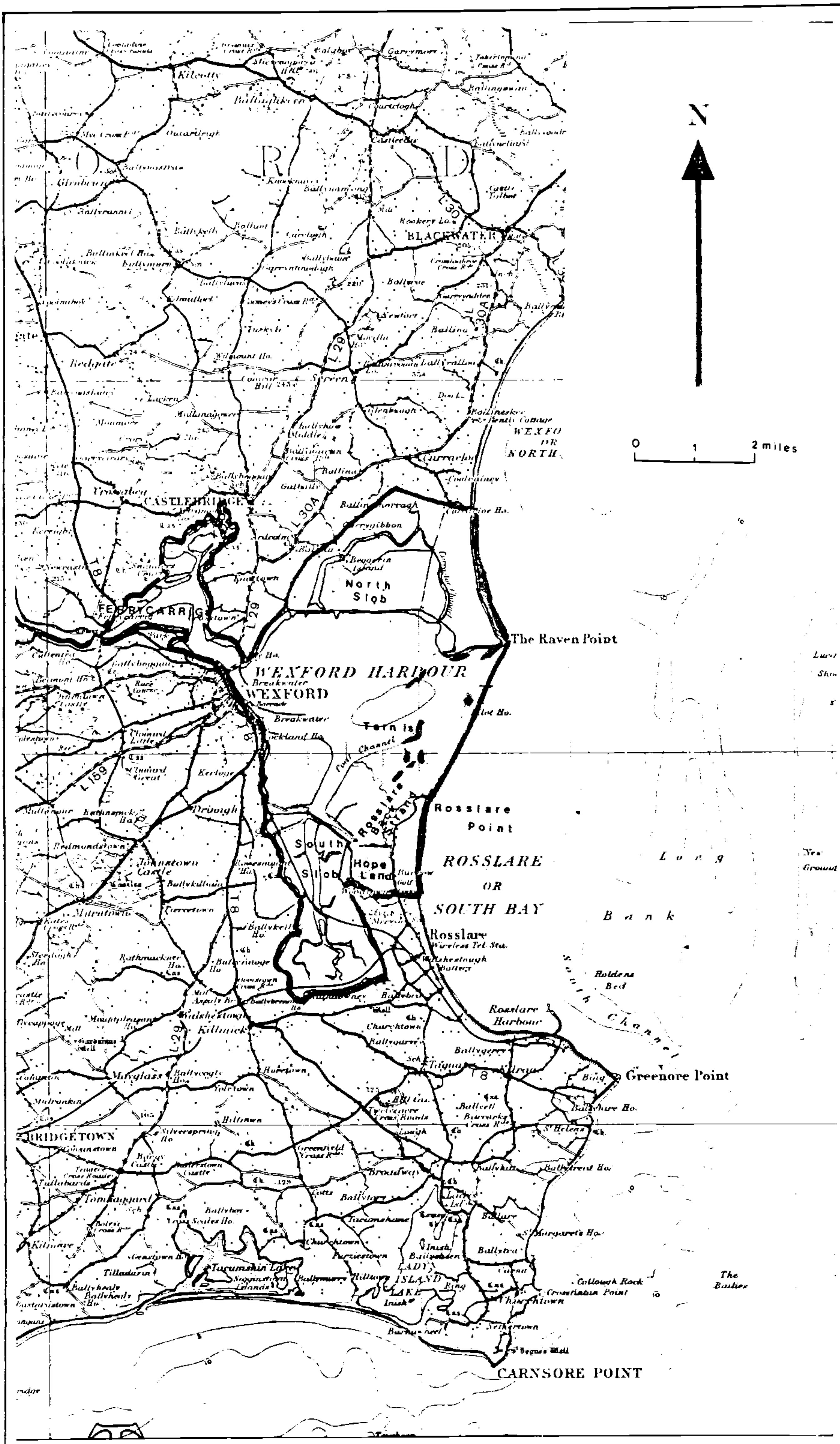
The Greenland White-fronts feed on the old pasture and in the barley stubble and roost in Wexford harbour at night. This flock represents at least 35% of the world population of this race. The Pintails represent approximately 1% of the N.W. European Flyway population of this species. The numbers of Bewick Swans has increased in recent years. There are a large number of waders, mostly Lapwing and Golden Plover.

Species occurring in numbers of national significance:

Species	Max	
Brent Geese (Branta Bernicla hrota)	600	
Mallard (Anas platyrhynchos)	3800	Autumn
Teal (Anas crecca)	1900	"
Black Tailed Godwit (Limosa limosa)	1600	

The numbers of Mallard peak in the autumn and then decline to between 500 and 1,300. The autumn peak is the largest known gathering of this species in the Republic.

In the winter of 1973/'74 up to 600 Brent Geese were counted, but numbers are normally below 200.


N
0 1 2 miles
BLACKWATER
CASTLEBRIDGE
FERRYCARRIG
North Slob
WEXFORD HARBOUR
WEXFORD
The Raven Point
Tern Is
Rosslare Point
South Slob
Hope Land
ROSSLARE OR SOUTH BAY
Rosslare
Long Bank
South Channel
Rosslare Harbour
Greenore Point
BRIDGETOWN
Tacumshin Lake
LADY ISLAND LAKE
CARNSORE POINT

PART II

WETLANDS OF NATIONAL IMPORTANCE

WETLANDS OF NATIONAL IMPORTANCE FOR WATERFOWL IN THE REPUBLIC OF IRELAND

Summary List

This list is arranged in alphabetical order by county and then by wetland.

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Lough Ballyallia

CRITERIA FOR INCLUSION IN THE DIRECTORY
2, 4, 6.

GEOGRAPHICAL LOCATION
8°58′ W52°53′ N.4km N. of Ennis, Co. Clare

AREA
33 ha

ALTITUDE (metres above mean sea level)
17 m

DEPTH
Not known

WETLAND TYPE
Type 18 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
Game Preservation Act 1930

OWNERSHIP
Private Multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
permanent cattle pasture

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

Ecology

Ballyallia is a small lake on the river Fergus occupying a depression in undulating limestone country. It is surrounded by cattle pasture. A thorough survey of the lake has not been made but the following plant communities occur:

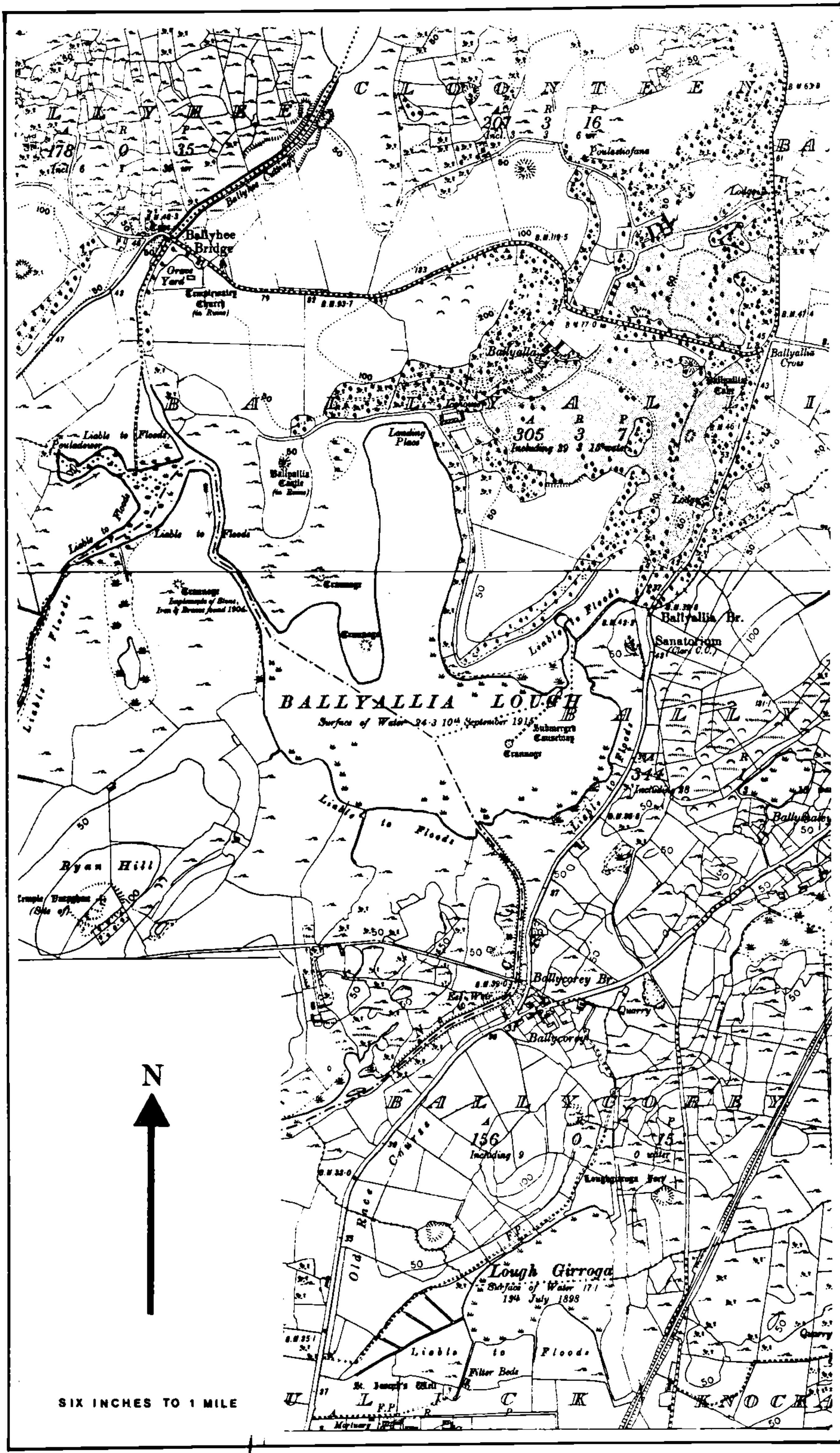
1. Floating aquatics, including Potamogeton spp., Ranunculus circinatus, Elodea canadensis.
2. Marginal communities with Caltha palustris, Veronica spp., Myosotis spp. and Littorella uniflora.
3. Grassland dominated by Poa trivialis, Anthoxanthum odoratum, Lolium perenne and Cynosurus cristatus.

Wildfowl counts were carried out in February 1972, January and February 1973 and throughout the winter of 1973/'74.

Species occurring in numbers of national significance:

Species	Max
Shoveler (Spatula clypeata)	450
Gadwall (Anas strepera)	38

The Shoveler occur regularly on the lake from November to January. The lake is also one of the few haunts of Gadwall in Ireland.



BALLYALLIA LOUGH
Surface of Water 24·3 10th September 1915
Ballyhee Bridge
Grave Yard
Landing Place
Liable to Floods
Crannoge
Ballyallia Br.
Sanatorium
Ballycorey Br.
Ballycorey
Quarry
Ryan Hill
Old Race Course
Lough Girroga
Surface of Water 17·1
19th July 1898
Filter Beds
Lodge
N
SIX INCHES TO 1 MILE

STATE . Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Mutton Island

CRITERIA FOR INCLUSION IN THE DIRECTORY
4

GEOGRAPHICAL LOCATION
9°3' W 52°4' N. 9 km W.S.W. Milltown, Malbay, Co. Clare

AREA
75 ha

ALTITUDE (metres above mean sea level)
0 - 34 m

WETLAND TYPE
10

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Sheep are grazed on the island during the summer. This practice may now be decreasing. As a result the vegetation may become unsuitable for grazing by the geese. Summer grazing on the island should be encouraged.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Changes in the vegetation resulting from lack of grazing (see above) by livestock.

MAJOR SCIENTIFIC RESEARCH
Survey of population of Barnacle Geese.

PRINCIPAL REFERENCE MATERIAL
D. Cabot and B. West Population dynamics of Barnacle Geese, Branta leucopsis, in Ireland. Proc. R. Iv. Acad. 73, B, (24), 415 - 443

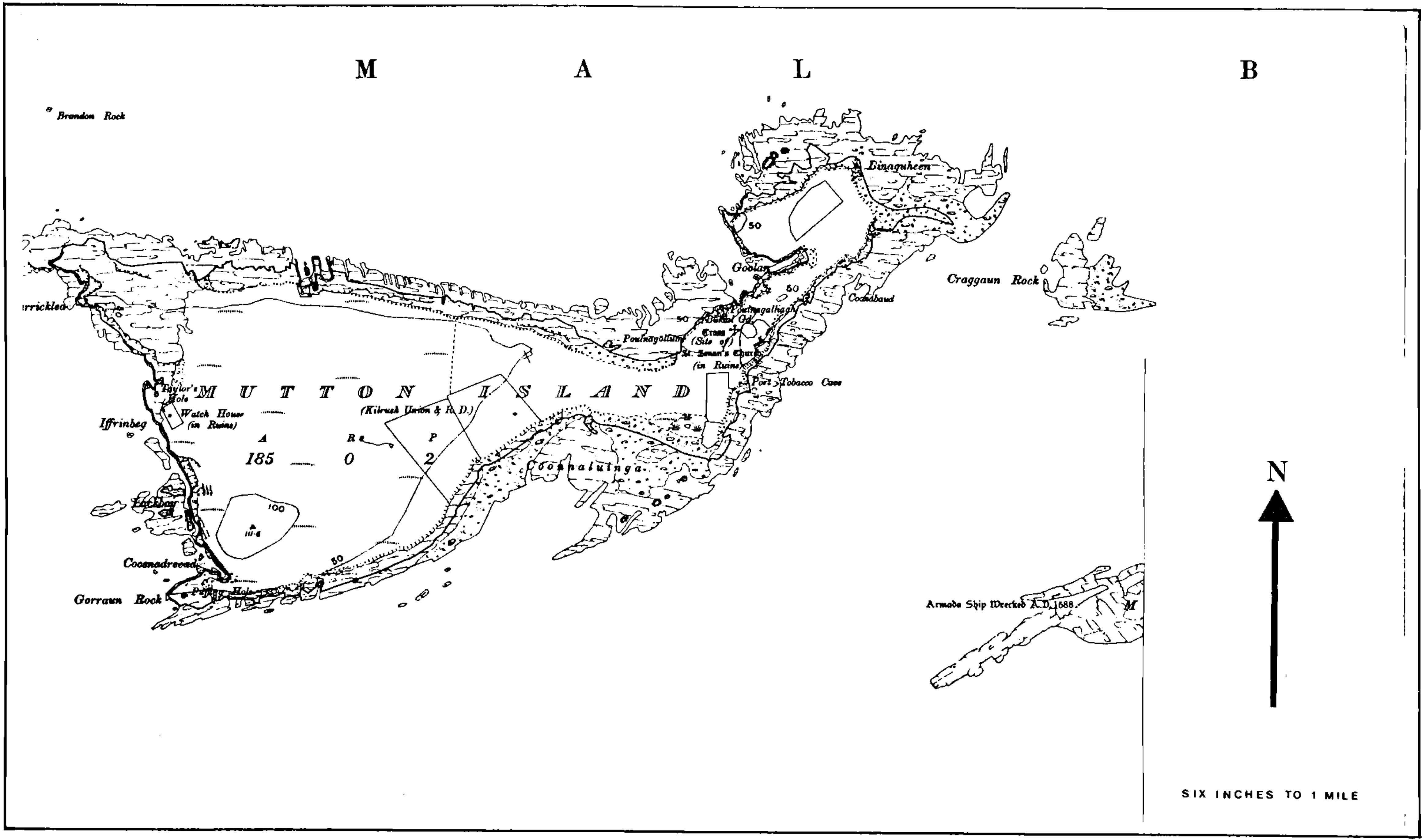
Ecology
Mutton Island is low-lying windswept and rocky. The main vegetation type is a rank maritine grassland. Sheep are grazed on the island during the summer months. The only other animal likely to make an impact on the vegetation are the hares.

Four counts of barnacle geese were carried out in 1961, 1962, 1966 and 1973.

Species occurring in numbers of national importance:

Species	Max
Barnacle Geese (Branta leucopsis)	480

This is the second largest colony of Barnacle Geese in Ireland.


M A L B
Brandon Rock
MUTTON ISLAND
(Kilrush Union & R.D.)
A 185 R 0 P 2
Taylor's Hole
Watch House (in Ruins)
Iffrinbeg
Coosnadreead
Gorraun Rock
Coonaluinga
Poulnagollum
Cross (Site of)
St. Senan's Church (in Ruins)
Port Tobacco Cave
Goolan
Binaguheen
Coosdaud
Craggaun Rock
Armada Ship Wrecked A.D. 1688
N
SIX INCHES TO 1 MILE

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Ballycotton and Ballynamona

CRITERIA FOR INCLUSION IN THE DIRECTORY
1 - 8

GEOGRAPHICAL LOCATION
8°02' W 51°49' N. 32 km E.S.E. of Cork City on S. Coast of Ireland.

AREA
365 ha

ALTITUDE (metres above mean sea level)
5m

DEPTH
Subject to tidal and seasonal flooding; average 0·3m

WETLAND TYPE
Types 1 and 7 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
A Wildfowl Sanctuary established under the Game Preservation Act (1930)

OWNERSHIP
Private multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
No management at present. Reduction of tourist pressure and cessation of gravel extraction from shingle bank necessary.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
1. Tourist development
2. Continual removal of gravel would lead to erosion and breaching of shingle bank.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

Ecology

Ballycotton Bay lies at the eastern end of an east-west valley and is sheltered by high ground to the north and south. The area was an inlet of the sea until 1930 when it was cut off by the development of a shingle storm beach. Two separate lagoons are present with marshy areas surrounding them, each providing very different kinds of food.

Below the shingle bank the foreshore provides a rich feeding ground at low tide and acts as a refuge area if the lagoons are disturbed. The complex is on a major migration flyway.

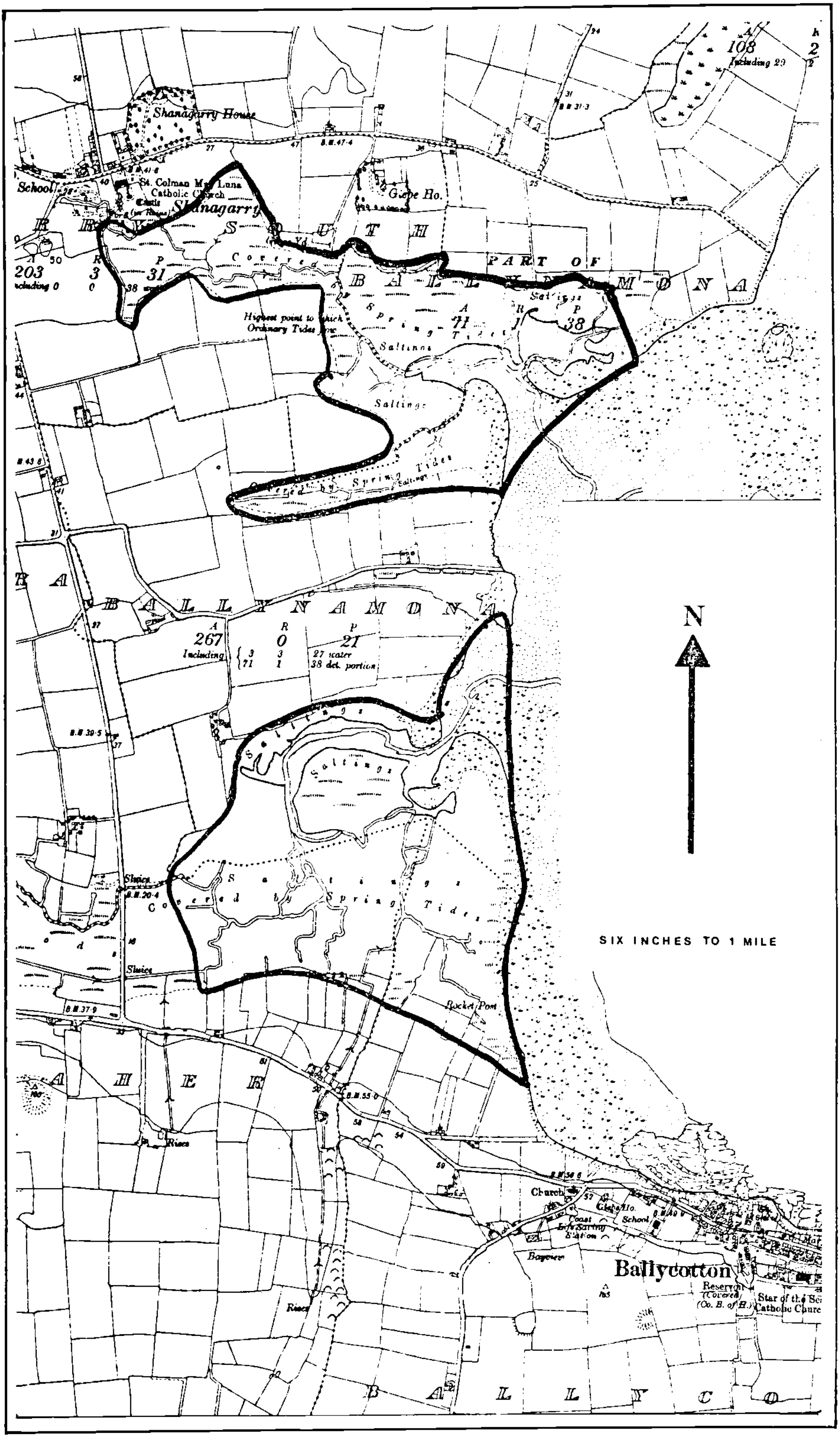
The vegetation consists of Phragmites beds, saltmarsh communities dominated by Salicornia europaea, Halimione portulacoides and Aster tripolium. Extensive beds of Ruppia maritima occur in the lake. Atriplex spp. and Chenopodium spp., growing on the shingle bank produce large quantities of seed.

/..

Species of national importance based on monthly counts from 1971 - 1973:

	Max
Gadwall (Anas strepera)	50

This area shares with Akeragh Lough an international reputation for the number of unusual species of waders, particularly vagrants from North America, which have been recorded.


Shanagarry House
School
St. Colman Mac Luna
Catholic Church
Shanagarry
Glebe Ho.
SOUTH
PART OF
BALLYNAMONA
Covered by Spring Tides
Saltings
Highest point to which Ordinary Tides flow
BALLYNAMONA
A 267 R 0 P 21
Including 3 3 27 water
71 1 38 det. portion
Sluice
Rocket Post
AHEER
Rises
Church
Glebe Ho.
School
Coast Life Saving Station
Bayview
Ballycotton
Reservoir (Covered) (Co. B. of H.)
Star of the Sea Catholic Church
BALLYCO
N
SIX INCHES TO 1 MILE

STATE Republic of Ireland PROVINCE Ulster

NAME OF WETLAND AREA River Foyle

CRITERIA FOR INCLUSION IN THE DIRECTORY
4

GEOGRAPHICAL LOCATION
7°26'W 54°55' N. The stretch from Carrigan's to St. Johnston 10km downstream of Londonderry on borders of counties Donegal and Derry.

AREA
200 ha

ALTITUDE (metres above mean sea level)
Within tidal range

DEPTH
Not known

WETLAND TYPE
Type 8 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Not known

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None

MAJOR SCIENTIFIC RESEARCH
None

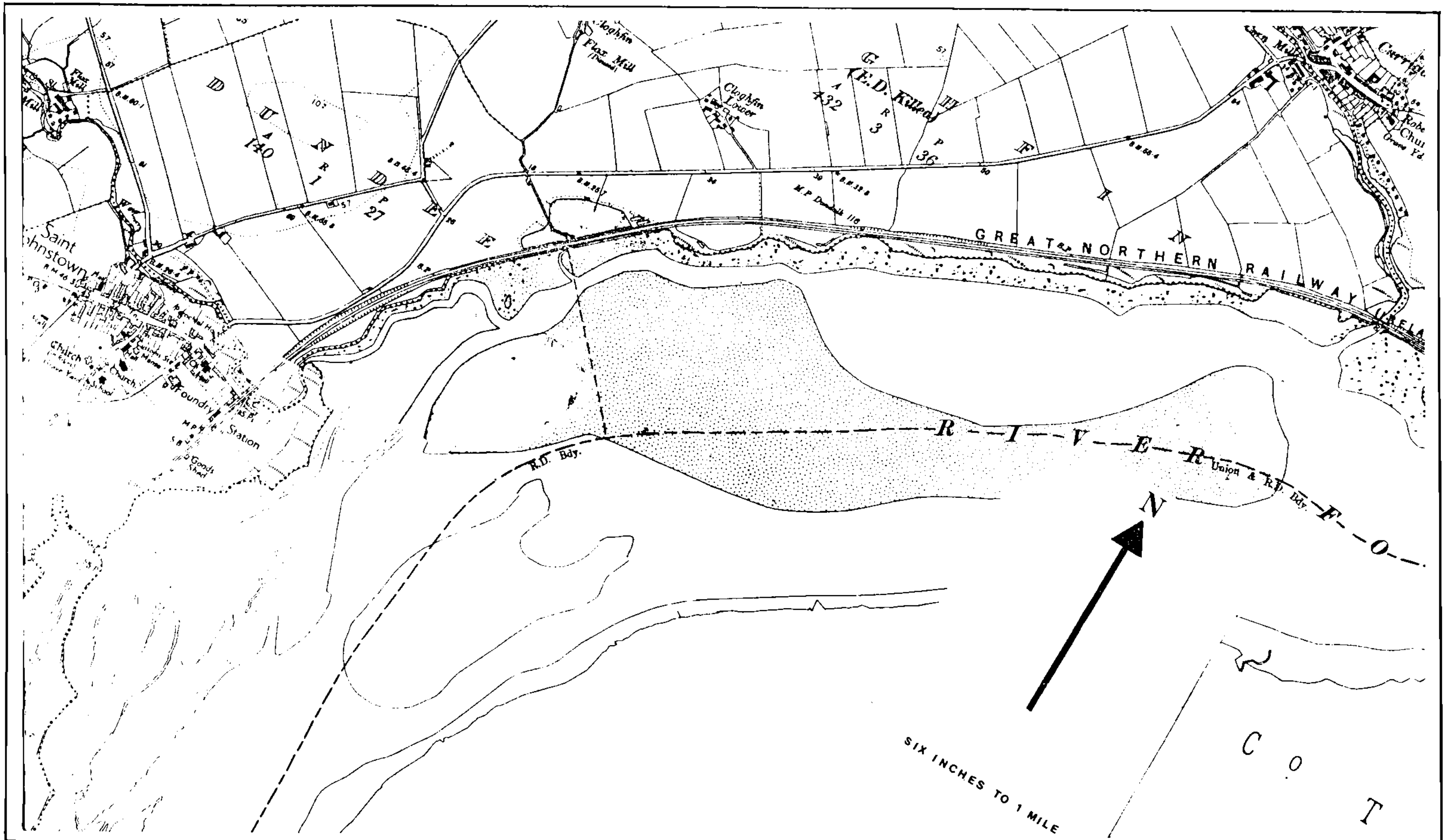
PRINCIPAL REFERENCE MATERIAL
None

Ecology

An area of mud-flats on the narrow estuary of the River Foyle. No information is available on the ecology of the area.

Species occurring in numbers of national significance, based on counts during November 1970, January, February and November 1971, January, February,November and December 1972 and January 1973:-

Species	Max
Mallard (Anas platyrhynchos)	1,000
Grey Lag Goose (Anser anser)	180



Saint Johnstown
Church
Foundry
Station
Goods Shed
Flax Mill
Cloghfin
Cloghfin Lower
E.D. Killea
140
27
432
36
GREAT NORTHERN RAILWAY
R.D. Bdy.
RIVER FO
Union & R.D. Bdy.
N
SIX INCHES TO 1 MILE
CO T

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Portumna Forest Sanctuary

CRITERIA FOR INCLUSION IN THE DIRECTORY
5

GEOGRAPHICAL LOCATION
8°16'W 53°05' W. The lakeshore N.W. corner of Lough Derg 2 k S.W. of Portumna

AREA
219 ha

ALTITUDE (metres above mean sea level)
33m

DEPTH
Parts of the shore are seasonally flooded. The lake in the sanctuary has a maximum depth of 5 metres.

WETLAND TYPE
18

LEGAL PROTECTION STATUS OF WETLAND AREA
An annual non-shooting Order under the Game Preservation Act 1930

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT PRACTICES NEEDED
A low lying area near Otters Island is artificially flooded during the winter to provide feeding for dabbling ducks. Pools have been dug at the edge of the lake and food plants planted in them. Artificial nests are placed on some of the islands. Predator control is exercised on the islands and near the pools on the mainland.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

Ecology
Portumna sanctuary occupies part of the N.W. corner of Lough Derg, an expansion of the River Shannon formed by solution of the limestone. The area has a very indented shore line with many wooded islands containing Betula pubescens, Sorbus aria and exotic species such as Pinus sylvestris. Large tussocks of Carex paniculata from the major marginal vegetation of the islands and are used as nesting sites by the tufted duck (Aythya fuligula).

Aquatic vegetation consists mainly of species of Chara with small amounts of Nymphea alba and Nuphar Lutea in sheltered areas. The marginal vegetation is composed predominently of Phagmites communis and Schrenor plectus lacustris, often forming extensive beds with small area of Cladium mariscus. In places the reed-beds are absent and grassland stretches down to the lake shore. Two types are recognisable. 1. Low-lying, frequently flooded areas with a species - rich Juncus/Carex sward closely grazed by

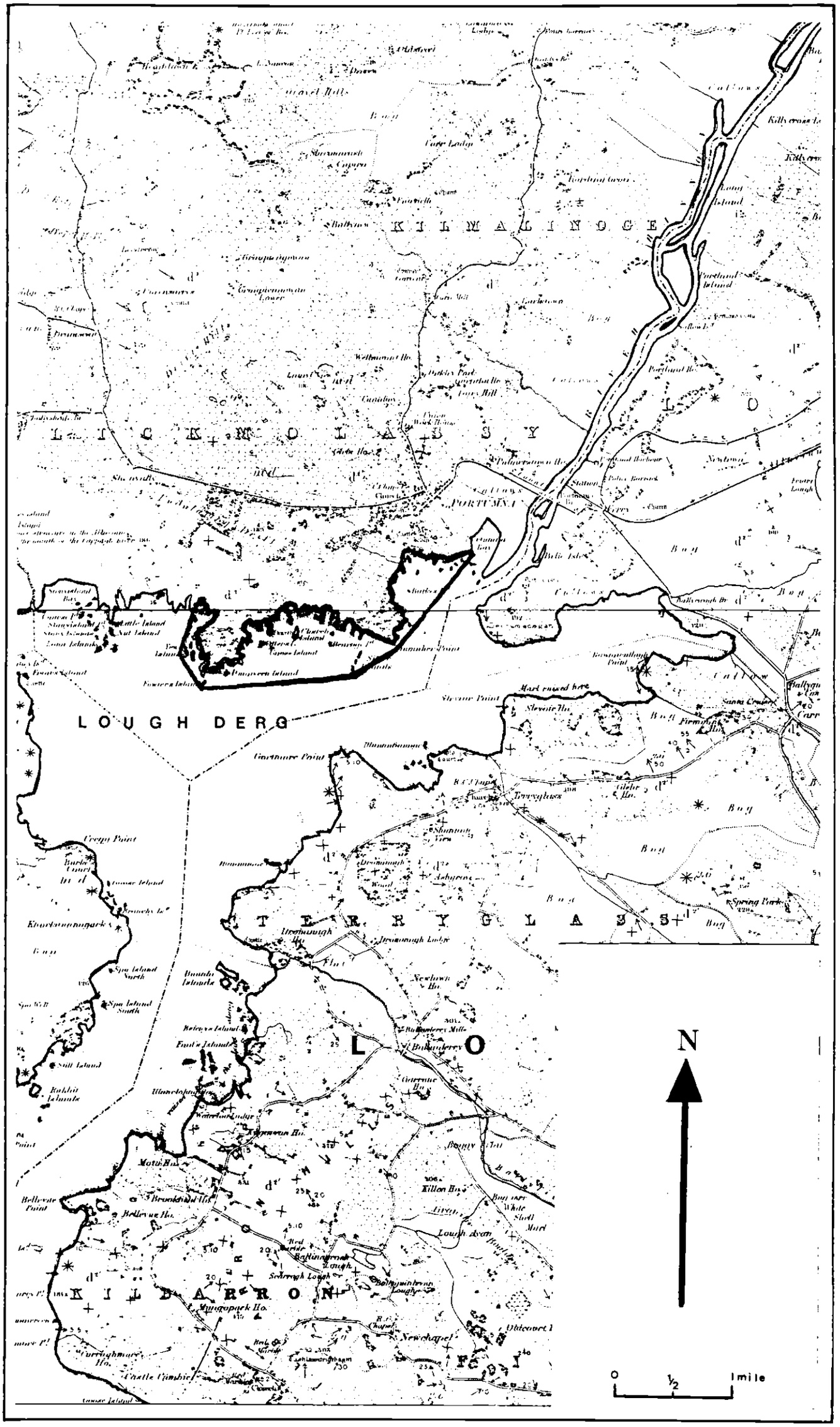
cattle and deer. 2. At slightly higher elevations limestone grassland dominated by Briza media, Sesleia caerulea, Trifolium repens and Carex pulicaris occur. Inula salicina, which occurs nowhere else in the British Isles occurs along the shore.

A 20 ha area on the mainland opposite Otters Island is now being flooded annually from 1st October to 31st March to a depth of 15 cm. This is done by means of an embankment which is breached to allow the water to drain away. The area provides good feeding for dabbling duck.

There are numerous pools on the mainland, all of them probably artificial, some of them recently excavated. These contain species of Chara, Schoenoplectus lacustris and Juncus bulbosus and attempts have been made to establish Sparganium erectum.

Wildfowl counts were carried out monthly in the winter of 1973/74 and some counts for the 1974/75 season are already available.

Species		Max
Mallard (Anas platyrhynchos)	Autumn 1973	1200
	October 1974	2000


KILMALINOGE
LOUGH DERG
TERRYGLASS
KILDARRON
N
0
½
1 mile

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Lough Leane

CRITERIA FOR INCLUSION IN THE DIRECTORY
Criteria 2, 4-7 are applicable.

GEOGRAPHICAL LOCATION
9°32'W 52°02'N.2 km S.W. of Killarney, Co. Kerry

AREA
2177 ha

ALTITUDE (metres above mean sea level)
20 m

DEPTH
The lake has a maximum depth of 70 metres

WETLAND TYPE
Type 18

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private (one owner)

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDS
The lake lies partly within the Bourn Vincent National Park, owned by the State and managed primarily as a recreational resource, but incorporating nature conservation areas and pasture at various points on the lake margin. A folk museum has been incorporated into the Park, at Muckross House. Further control over the quantity and pre-treatment of domestic effluent (sewage, detergents, etc.) entering the lake from the town of Killarney is needed if aquatic life in the lake is to survive.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
The increasing volumes of partly treated human faeces (there is only a secondary treatment plant in operation) entering the lake each year from Killarney pose a serious threat to survival of aquatic life in the lake. Maximal discharge occurs when the tourist season is at its height in mid-summer, when the water-volume in the lake is approaching its lowest annual level. A recent survey demonstrated unbelievably high counts of enteric bacteria in the lake.

MAJOR SCIENTIFIC RESEARCH
Limnological study in progress.

PRINCIPAL REFERENCE MATERIAL
Speight M.C.D. (1972) Ground Beetles (Col. Carabidae) from the Bourn Vincent National Park. Irish Naturalists Journal, 17, (7), 226-230.

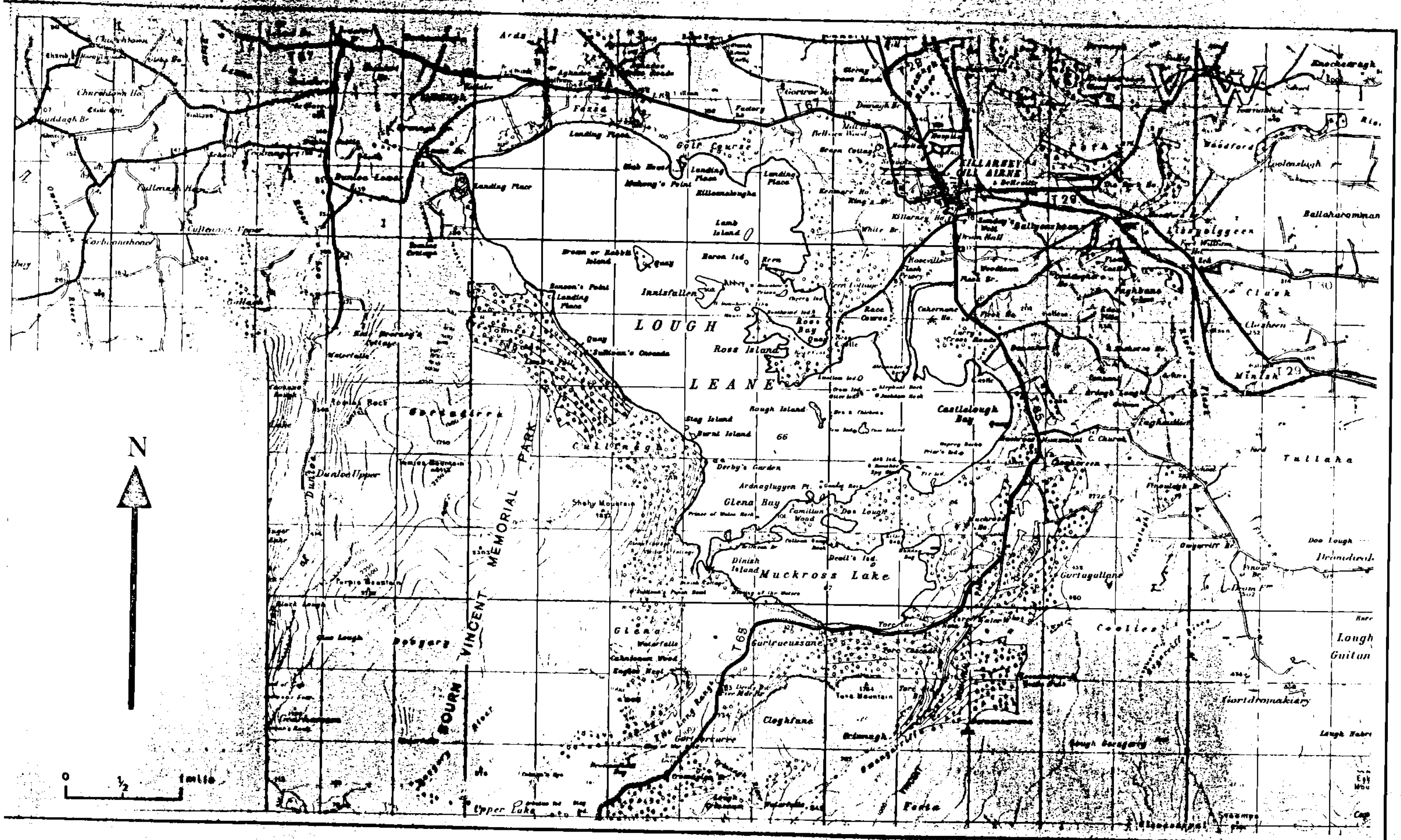
ECOLOGY
L. Leane is on limestone, which at various points round the shore outcrops in low cliffs much weathered by solution. Scattered rocky islets of limestone dot the lake. The lake bottom is covered with calcareous silt, giving way to areas of sandy gravel where the underlying Old Red Sandstone is exposed. The southern shore is drammatic, with well-wooded (oak with a Rhododendron understorey) precipitous slopes rising up nearly 2,000 ft. to the summits of Torc Mt. and Shehy Mt. In this vicinity there is but a thin strip

/...

of lake-margin vegetation, containing species like Schoenus nigricans. Elsewhere there are sheltered muddy bays containing Phragmites beds, Nuphar lutea, N. alba and Lobelia. Potamogeton spp. and Ceratophyllum occur also. Naias flexilis is found washed ashore. The Muckross peninsula, which extends from the Eastern shore, supports a remarkable association of tree species, with Taxus/Arbutus woodland on the limestone reefs and fen carr in the boggy patches, which contain Frangula alnus in one of its very few Irish localities. The invertebrate fauna of the Park is distinguished by its remarkable diversity of wetland species, species associated with disparate and seemingly incompatible ecological niches occurring in close proximity to each other (see Speight, 1972). The fauna of L. Leane itself includes the fish species Salvelinus obtusus (known in Ireland only from this locality and Co. Wicklow) and Alosa fallax killarnensis (a sub-species of shad restricted to L. Leane).

Species occurring in numbers of national importance, based on counts in January 1969, 1970 and 1971 :

Species	Max
Tufted duck (Aythya fuligula)	850



LOUGH
LEANE
Muckross Lake
Castlelough Bay
Glena Bay
Ross Island
Innisfallen
Lamb Island
Rough Island
Derby's Garden
Dinish Island
Devil's Isd.
Ardnagluggen Pt.
Camillan Wood
Doo Lough
Upper Lake
BOURN VINCENT MEMORIAL PARK
KILLARNEY
CILL AIRNE
Ballycasheen
Ballaharomman
Lissyvigeen
Clash
Clasheen
Minish
T29
T65
T67
Landing Place
Golf Course
Mahony's Point
Killeenalougha
Factory
Gortroe
White Br.
Race Course
Gortagullane
Tullaha
Lough Guitan
Gortdromakiary
Cloghfune
Torc Mountain
Torc Cascade
Gurtrueuzzane
Glena
Dunloe Upper
Shehy Mountain
Tomies Mountain
Purple Mountain
Black Lough
Gap Lough
Upper
Churchtown Ho.
Anbaum Br.
Doo Lough
Droumdrud
Woodford
Coolcaslagh
Knockasarnagh
Ards
Fossa
Lough Erhagh
Cooliee
Stag Island
Burnt Island
Quay
N
0
½
1 mile

STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Lough Kinale

CRITERIA FOR INCLUSION IN THE DIRECTORY
4

GEOGRAPHICAL LOCATION
7° 25'W 53°46' N. 27 km N.N.W. of Mullingar, Co. Westmeath

AREA
388 ha

ALTITUDE (metres above mean sea level)
70 m

DEPTH
Not known

WETLAND TYPE
Type 18 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
Not known

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

MAJOR SCIENTIFIC RESEARCH
None

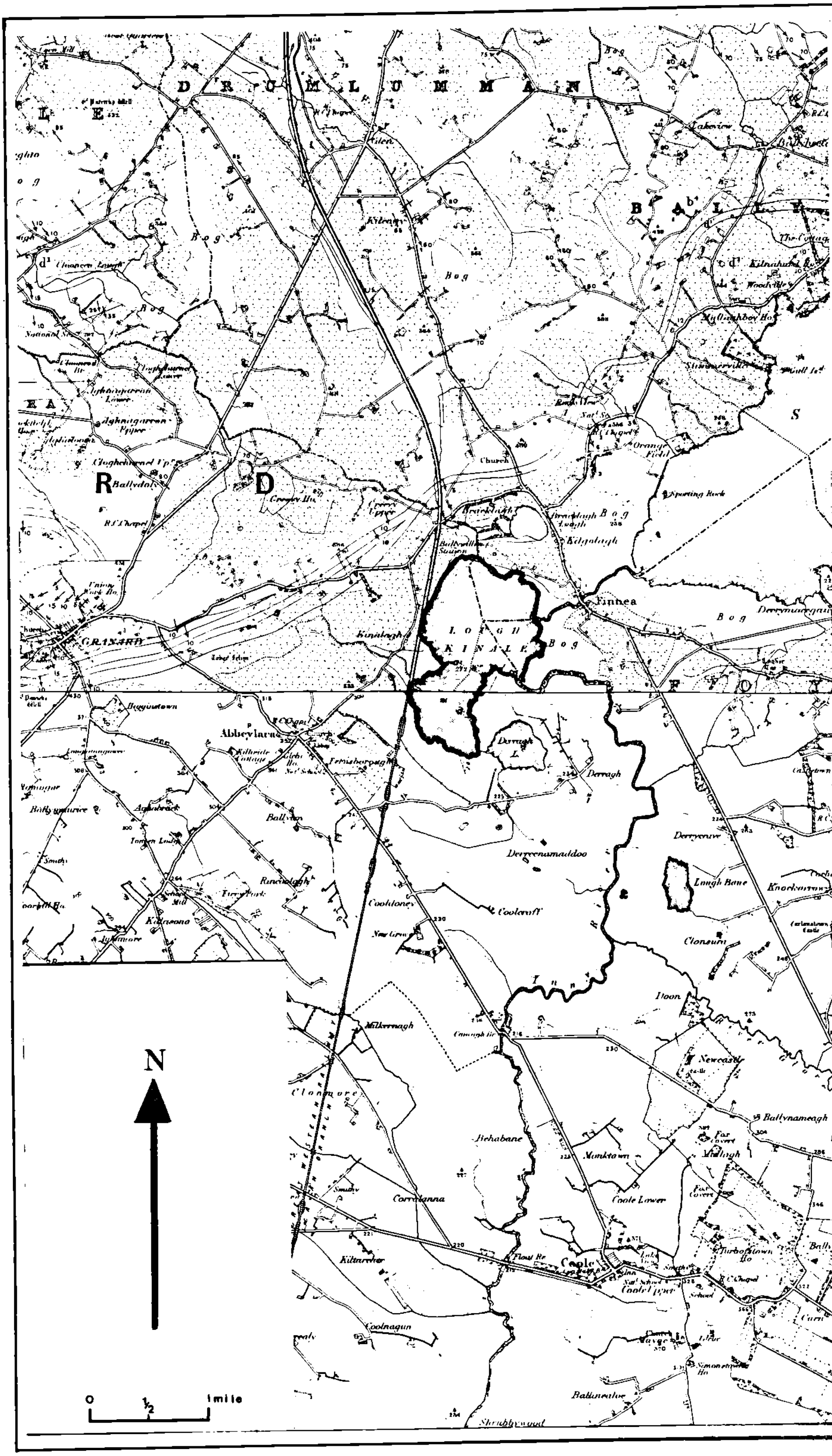
PRINCIPAL REFERENCE MATERIAL
None

Ecology

This is a small lough on the Inny River, surrounded by low-lying wet pasture. Phragmites communis and Scirpus spp. occur round the margin with incipient fen. No other information is available. A wildfowl count was carried out in January 1969.

Species occurring in numbers of national significance:

Tufted Duck	(Aythya fuligula)	2,160
Pochard	(Aythya ferina)	2,425



D R U M L U M M A N
B A L L Y
R D
L O U G H
K I N A L E
Finnea
GRANARD
Abbeylara
Coole
Coole Upper
Coole Lower
Derragh
Kinalagh
Bracklagh
Church
Orange Field
Sporting Rock
Lough Bane
Derrycraw
Clonsura
Newcastle
Ballynameagh
Monktown
Corralanna
Kiltareher
Coolnagun
Ballinealoe
Shrubbywood
Milkernagh
Cooldoney
Coolcroff
Derreenamaddoo
Higginstown
Kilbride Cottage
Ballyduff
Aghnagarron Lower
Aghnagarron Upper
Cloghchurnel Upr.
Bog
N
0 ½ 1mile

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Lough Carra

CRITERIA FOR INCLUSION IN THE DIRECTORY
1, 4, 6 and 7.

GEOGRAPHICAL LOCATION
9°15' W 53°42' W, 20 km S.S.E. Castlebar, Co. Mayo.

AREA
1,701 ha

ALTITUDE (metres above mean sea level)
23m

DEPTH
Average depth 3m, maximum depth 27m

WETLAND TYPE
Type 18 Natural

LEGAL PROTECTION STATUS OF WETLAND AREA
Game Preservation Act 1930

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The area has been a sanctuary since 1969. Drainage has lowered the winter level of the lake but the summer level has remained the same.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Increased drainage would greatly decrease the size and depth of the lake: drainage schemes are currently under consideration.

MAJOR SCIENTIFIC RESEARCH
Study of Mallard Population dynamics

PRINCIPAL REFERENCE MATERIAL
None

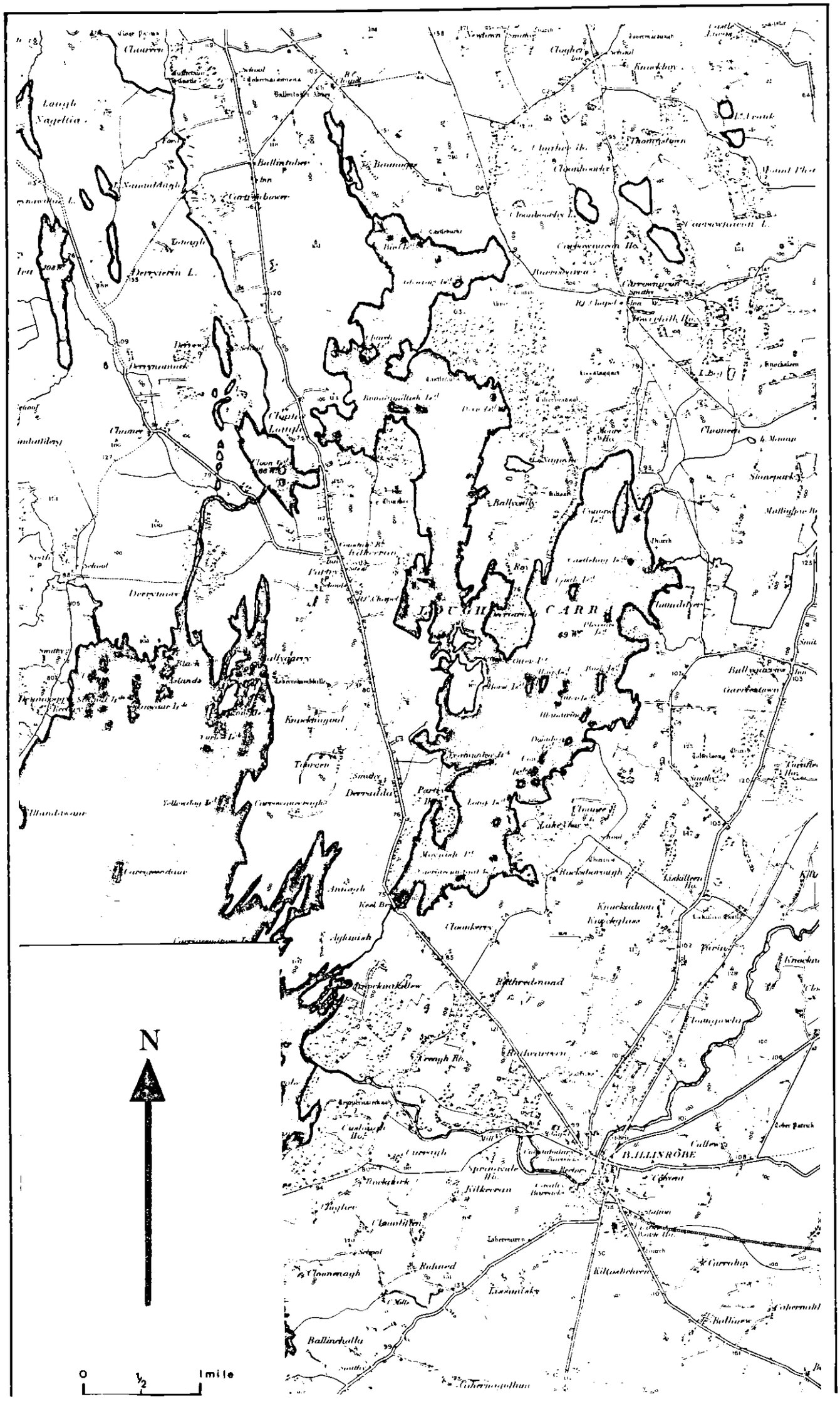
Ecology
Lough Carra is a moderate sized lake forming part of the drainage system of Loughs Corrib and Mask. It lies just east of the Connemmara Mountains at the Northern end of the limestone belt running down the western side of Ireland. It is a highly calcareous lake with unusually extensive marl deposits. The lake, which is surrounded by woods, limestone, grassland and fen, is very shallow and is greatly constricted in the middle. Extensive reed beds occur round the margins and often extend well out into the lake. There are numerous wooded islands which, until recently, were grazed by cattle.

The vegetation communities present are:

1. Scirpus/Phragmites beds
2. Carex/Schoenus communities
3. Juncus squarrosus communities
4. Limestone grassland
5. Characetalia
6. Potametalia

The lake is of national importance for the following bird species: (Numbers based on counts in November and January 1969/70, 1970/71, November, January and February 1971/72 and monthly through the winters of 1972/73, 1973/74).

		Max.
Mallard	(Anas platyrhynchos)	1,800
Gadwall	(Anas strepera)	85
Shoveler	(Anas clypeata)	395


N
0
½
1 mile
BALLINROBE

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA River Suck

CRITERIA FOR INCLUSION IN THE DIRECTORY
5

GEOGRAPHICAL LOCATION
From 8°17'W 53°03'N to 8°03'W 52°17'N. From Mount Talbot to the confluence with the river Shannon, forming the boundary between Cos. Roscommon and Galway.

AREA
3670 ha

ALTITUDE (metres above mean sea level)
50m - 40m

DEPTH
Subject to seasonal flooding

WETLAND TYPE
Type 12

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private Multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The area is grazed by cattle in the summer. A continuation of the present management regime would be necessary to maintain its value for birdlife.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Heavy shooting pressure exists. Drainage of the Shannon system would affect the level of flooding on the callows.

MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

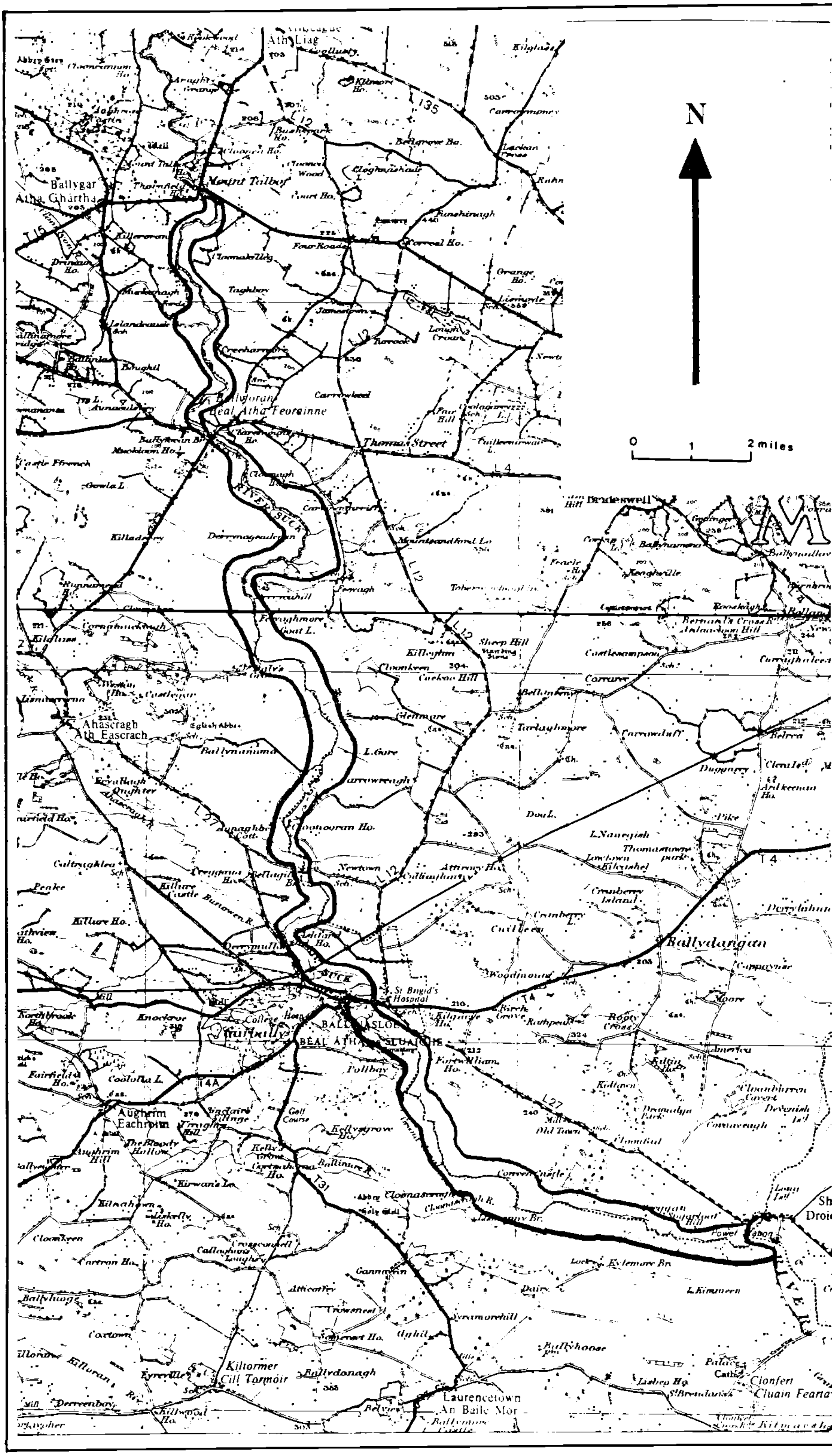
Ecology

The River Suck is part of the Shannon Drainage system and land use and vegetation seem to be similar to that along the River Shannon, although little information is available at present.

Species occurring in numbers of national significance, based on aerial counts in September, January 1972, January, March and April 1973 and throughout the winter of 1973/74 :

Species		Max
Wigeon (Anas penelope)	January 1973	2,462
	February 1974	5,406
Lapwing (Vanellus vanellus)		13,000
Golden Plover (Pluvialis apricaria)		3,600

The wigeon count for February 1974 is probably an unusually high figure. If such a figure was reached regularly the area would qualify as a site of international importance.


N
0
1
2 miles
Ath Liag
Ballygar
Atha Ghartha
Mount Talbot
Four Roads
Ballyforan
Beal Atha Feorainne
Thomas Street
RIVER SUCK
Brideswell
Mountsandford Lo
Ahascragh
Ath Eascrach
Ballymanuma
L. Gore
Cloonooran Ho.
Newtown
Attirory Ho.
Killure Castle
Ballydangan
St Brigid's Hospital
Knockroe
Garbally
BALLINASLOE
BEAL ATHA NA SLUAIGHE
Pollboy
Aughrim
Eachroim
Aughrim Hill
Kellysgrove Ho.
Clonmacnowen
Kylemore Br.
L. Kimmeen
Kiltormer
Cill Tormoir
Ballydonagh
Laurencetown
An Baile Mor
Clonfert
Cluain Fearta
Palace
Lisbeg Ho
Sycamorehill
Gannavin
Killaghbeg
Fairfield Ho.
Coolofla L.
Doo L.
Crumbery L.
Tarlaghmore
Carrowduff
Belrea
Cleraun
Ardkeenan Ho.
Pike
L. Nanagish
Thomastown park
Dugganry
Sheep Hill
Castlesampson
Corrarue
L4
L12
L27
T4
T4A
T31

STATE Republic of Ireland PROVINCE Connaught

NAME OF WETLAND AREA Lissadell (Ballygilgan)

CRITERIA FOR INCLUSION IN THE DIRECTORY
2, 4, 7.

GEOGRAPHICAL LOCATION
10° 33' W 54° 21' N. 10km N.W. Sligo Town, Co. Sligo. The mud-flats at the entrance to Drumcliffe Bay, particularly Ballygilgan strand and the field immediately behind.

AREA
28ha

ALTITUDE (metres above mean sea level)
0 - 10m

DEPTH
Within tidal range

WETLAND TYPE
Type 8

LEGAL PROTECTION STATUS OF WETLAND AREA
Game Preservation Act 1930

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The field, which is the most important area, has been fertilized and treated with herbicide to remove weeds and improve the quality of the pasture, It is grazed by sheep in winter and cattle in the summer. Winter grazing is to be discontinued. An observation tower has been built.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
None apparent

MAJOR SCIENTIFIC RESEARCH
None

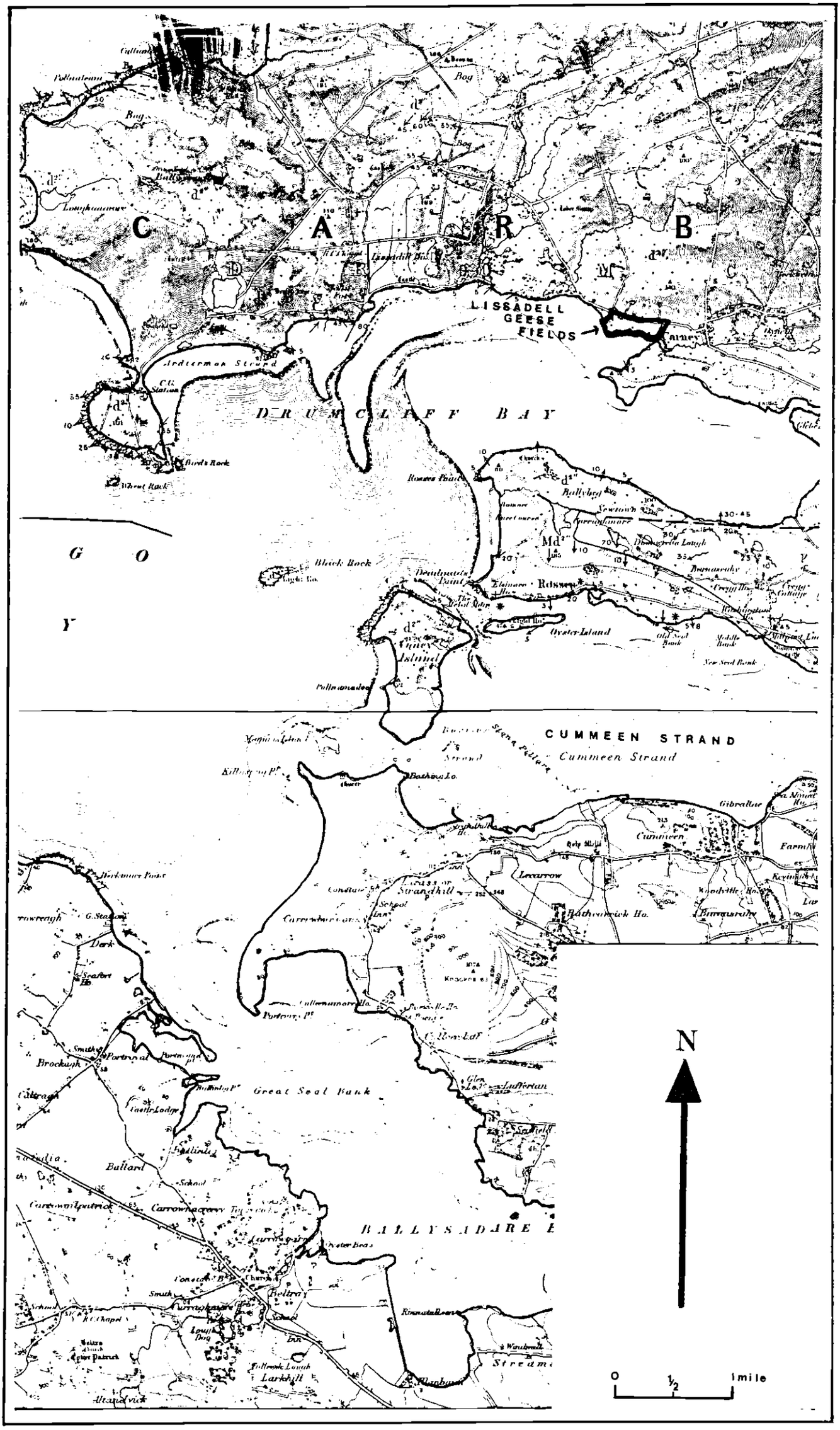
PRINCIPAL REFERENCE MATERIAL
None

Ecology
The most important part of this area is the field immediately behind Ballygilgan Strand. This is now managed by the Forest and Wildlife Service of the Department of Lands, specifically to encourage barnacle geese. The sward consists of Festuca spp., Anthoxanthum, Holcus mollis and Trifoluim spp., with a low-lying area of marshy vegetation.

This is the only regular wintering area of barnacle geese on the mainland in the West of Ireland.

Species occurring in numbers of national importance:

Barnacle Goose Branta leucopsis	November 1972	340
	December 1973	410


LISSADELL
GEESE
FIELDS
DRUMCLIFF BAY
CUMMEEN STRAND
Cummeen Strand
Great Seal Bank
BALLYSADARE
N
0
½
1 mile

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA River Suir at Coolfin

CRITERIA FOR INCLUSION IN THE DIRECTORY
4

GEOGRAPHICAL LOCATION
7°16' W52°18'N. 2km E. Portlaw 12 km W.N.W. Waterford City Co. Waterford. The most important area lies between the river Suir and the confluence of the Clodiagh River, and Kilbunny Stream as far west as the L.26 road.

AREA
76 ha

ALTITUDE (metres above mean sea level)
5m

DEPTH

WETLAND TYPE
Type 12

LEGAL PROTECTION STATUS OF WETLAND AREA
An annual non-shooting order under the Game Preservation Act (1930)

OWNERSHIP
Private

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The marshes in this area are being reclaimed. A network of drainage ditches divide fields which are cultivated for grain crops or meadow. The water level is controlled.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
The area has been proposed for development as an airfield.

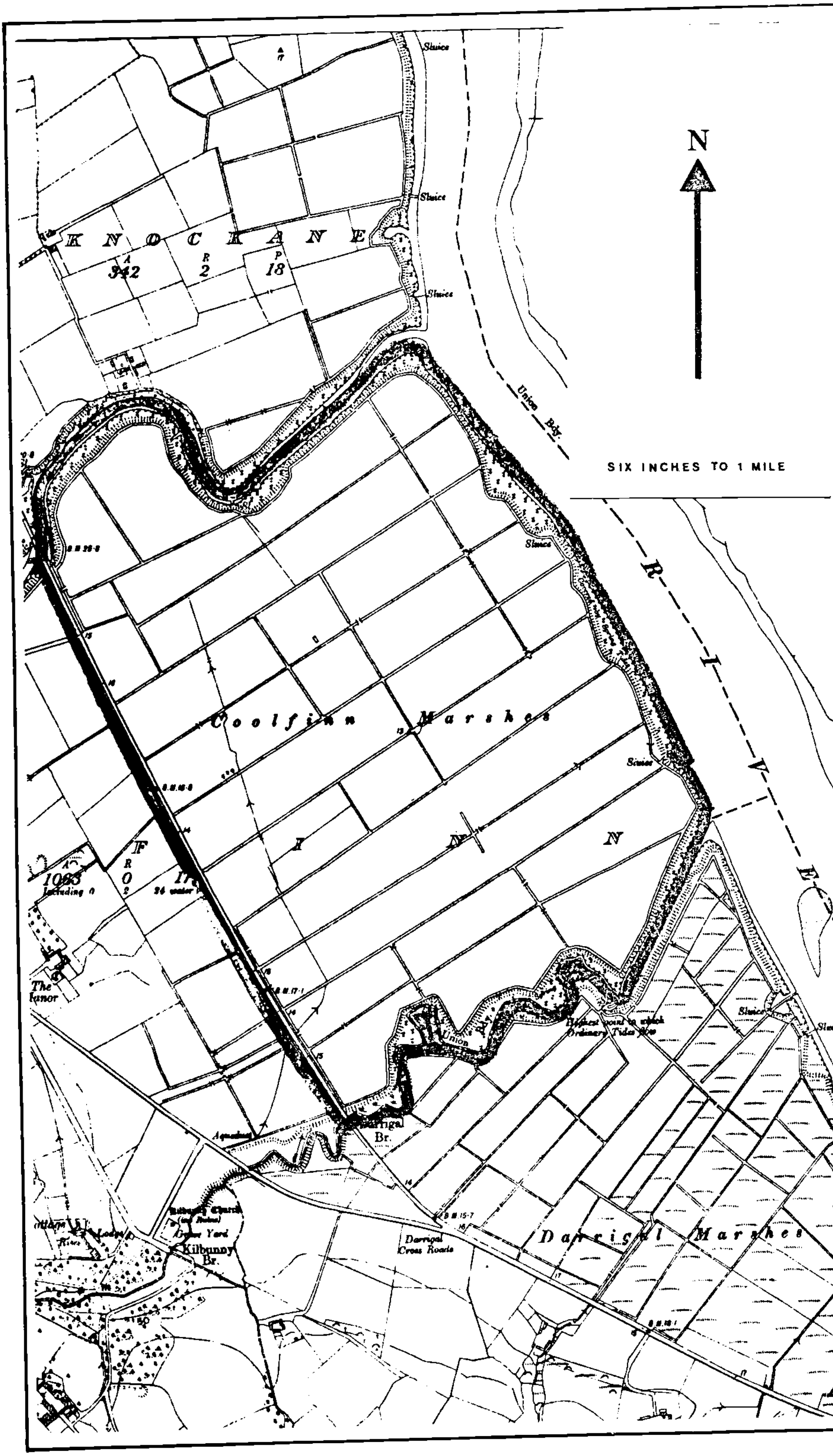
MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

Ecology
The marshes at Coolfin border onto the River Suir which is tidal up to Carrick-on-Suir, 17 km upstream. The areas are bounded by embankments and dissected by drainage ditches which help along with sluice gates, to control the water table. The grey lag geese feed in the stubble and meadows.

Species occurring in numbers of national importance:

Species			
Grey Lag Goose	(Anser anser)	February 1971	80
		December 1971	150
		1972	119



N
SIX INCHES TO 1 MILE
K N O C K A N E
Coolfinn Marshes
R I V E R
Union Bdy.
Sluice
Darrigal Br.
Darrigal Cross Roads
Darrigal Marshes
Highest point to which Ordinary Tides flow
Aqueduct
Kilbunny Br.
The Manor

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Lough Ennel

CRITERIA FOR INCLUSION IN THE DIRECTORY
5

GEOGRAPHICAL LOCATION
7°24'W 53°28'N. 25 km SSW Mullingar, Co. Westmeath

AREA
388 ha

ALTITUDE (metres above mean sea level)
88m

DEPTH
Average depth 7m; maximum depth 30m

WETLAND TYPE
Type 18

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
State

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT NEEDED
The lake level has been lowered several times by drainage in the recent past. A tertiary sewage treatment plant would be required to reduce the pollution level.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Further drainage could reduce the area of the lake considerably but the main problem is eutrophication caused by sewage from Mullingar. There has been a rapid deterioration since 1972.

MAJOR SCIENTIFIC RESEARCH
None

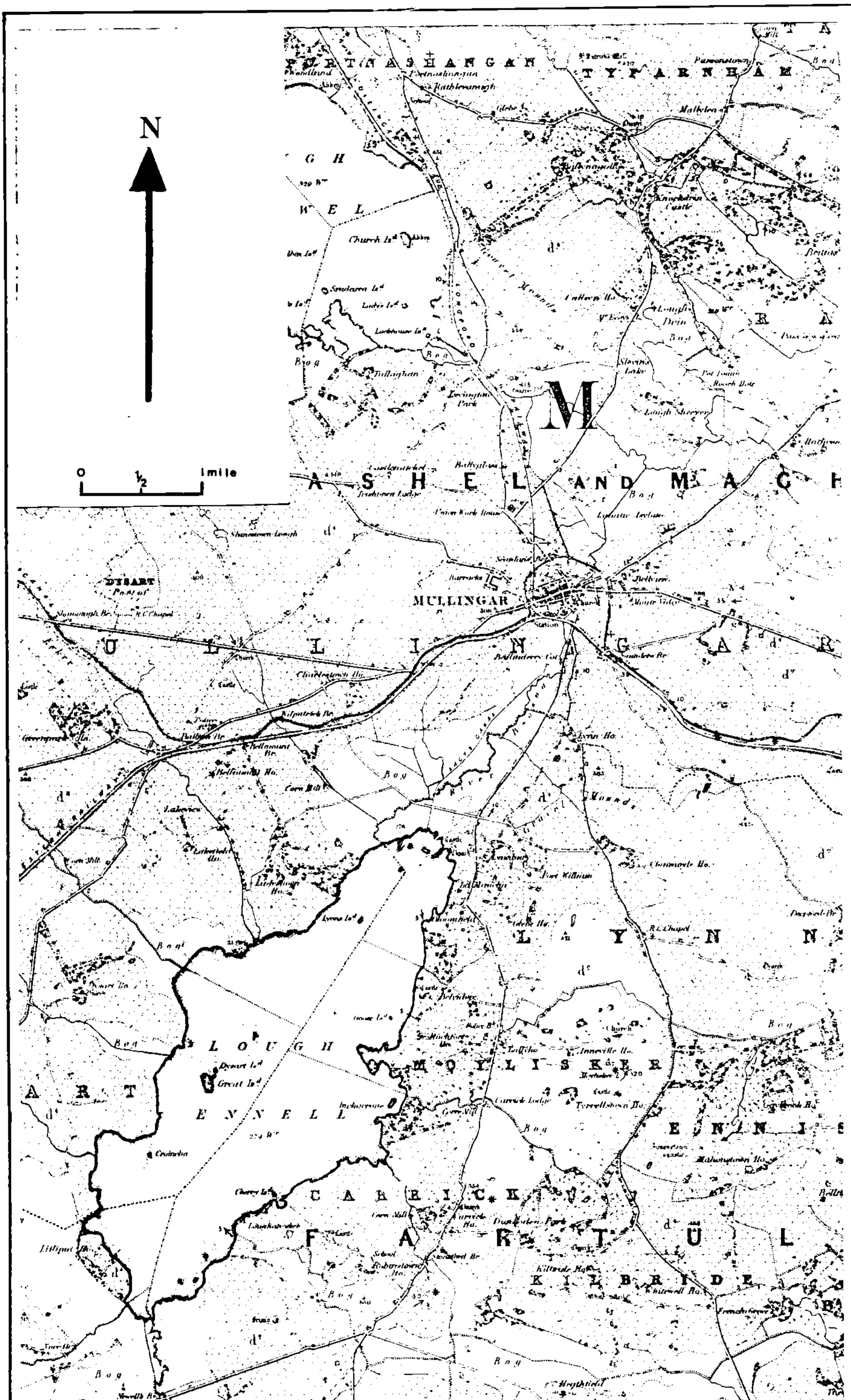
PRINCIPAL REFERENCE MATERIAL
None

Ecology

Lough Ennel is a large, shallow lake on limestone with a marl deposit. Drainage of the lake has led to the exposure of a wide, stony margin, which is being colonized by limestone grassland containing such species as Antennaria dioica and Blackstonia perfoliata. The sedge Carex appropinquata, which is found only in Westmeath and Clare in Ireland, also occurs in the marginal vegetation. Extensive areas of reedswamps, dominated by Phragmites communis, occur at both the inflow and outflow. In recent years increasing amounts of sewage from Mullingar has led to severe eutrophication with frequent blooms of Oscillatoria spp., which have greatly reduced the clarity of the water. This is almost certainly the cause of the decline of Chara spp., which formerly covered large areas of the bottom and is now restricted to shallow waters close to the shore.

The char, Salvelinius schaffi has been taken from the Lake. This species is thought to have originated in Lough Owel and is unique to these two lakes.
Species occurring in numbers of national significance based on counts in January 1969 and January and February 1970:

Species	Max
Tufted Duck (Aythya fuligula)	1230


N
0
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1mile
TYPARNHAM
M
MULLINGAR
Station
Barracks
Church Isd
Lough Derravaragh
Union Work House
Lunatic Asylum
Belvedere
Lilliput
LOUGH
ENNELL
Cruinaha
Great Isd
Dysart Isd
Cherry Isd
CARRICK
KILBRIDE
Bog

STATE Republic of Ireland PROVINCE Munster

NAME OF WETLAND AREA Lady's Island Lake

CRITERIA FOR INCLUSION IN THE DIRECTORY
5

GEOGRAPHICAL LOCATION
6°24'W 52°11'N. 14km SSE Wexford City, on the South coast of Co. Wexford

AREA
466 ha

ALTITUDE (metres above mean sea level)
At mean sea level

DEPTH
Not known but very shallow

WETLAND TYPE
Type 7

LEGAL PROTECTION STATUS OF WETLAND AREA
None

OWNERSHIP
Private multiple

EXISTING MANAGEMENT PRACTICES and/or FUTURE MANAGEMENT PRACTICES NEEDED
A drainage channel is cut through the enclosing shingle bank each spring to lower the lake level. Cattle are grazed along the shore. Until the ecology of the area is better understood future management policies cannot be recommended.

THREATS FROM EXISTING, PROPOSED OR POSSIBLE DEVELOPMENTS
Establishment of a permanent drainage channel would reduce the area of the lake. It lies about 1 mile west of a proposed nuclear.power station on Carnsore Point.

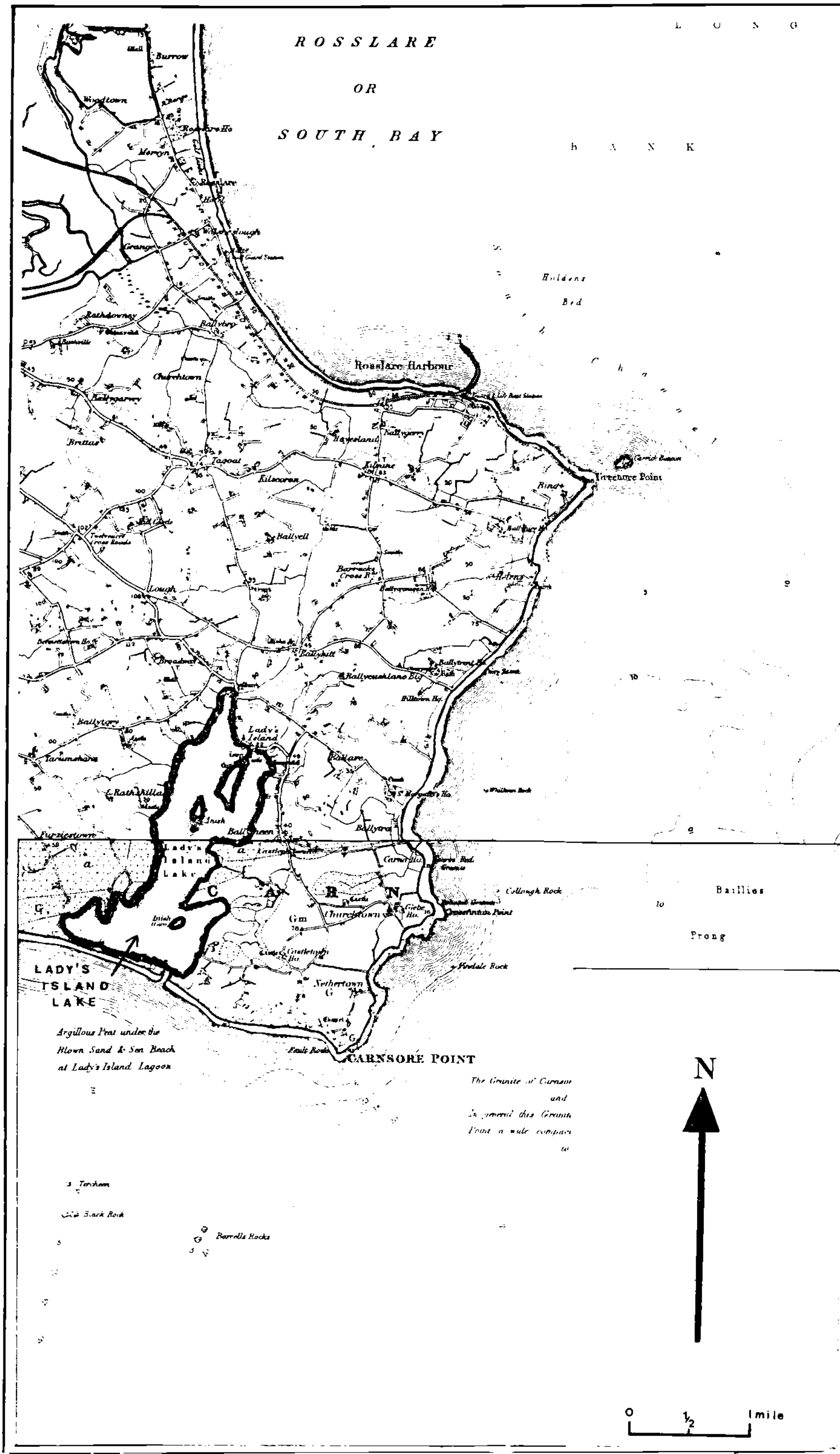
MAJOR SCIENTIFIC RESEARCH
None

PRINCIPAL REFERENCE MATERIAL
None

Ecology

Like Lough Tacumshin, 4 km to the west, Lady's Island Lake has formed behind a shingle bank. The exit has been blocked much longer than that of the former, and marine inundations rarely occur. This has led to considerable vegetational changes although the relationship between the salinity of the water and the vegetation is not fully understood. Ruppia spp. were at one time abundant but now occur only in small quantities. The reasons are not fully understood. The marginal vegetation is very similar to Lough Tacumshin with extensive reed beds, containing Phragmites communis and Scirpus spp. The surrounding area is mainly cattle pasture, which becomes flooded during the winter.

Up to 15 species of wildfowl and 22 species of wader occur annually. In 1971/72 this small lake supported a wintering population of 5500 duck and up to 1000 swans, but in other years numbers have been considerably lower.


ROSSLARE
OR
SOUTH BAY
LONG BANK
Holdens Bed
Rosslare Harbour
Greenore Point
Carnsore Point
Lady's Island Lake
Baillies to Prong
LADY'S ISLAND LAKE
Argillous Peat under the Blown Sand & Sea Beach at Lady's Island Lagoon
Barrels Rocks
N
0 ½ 1 mile

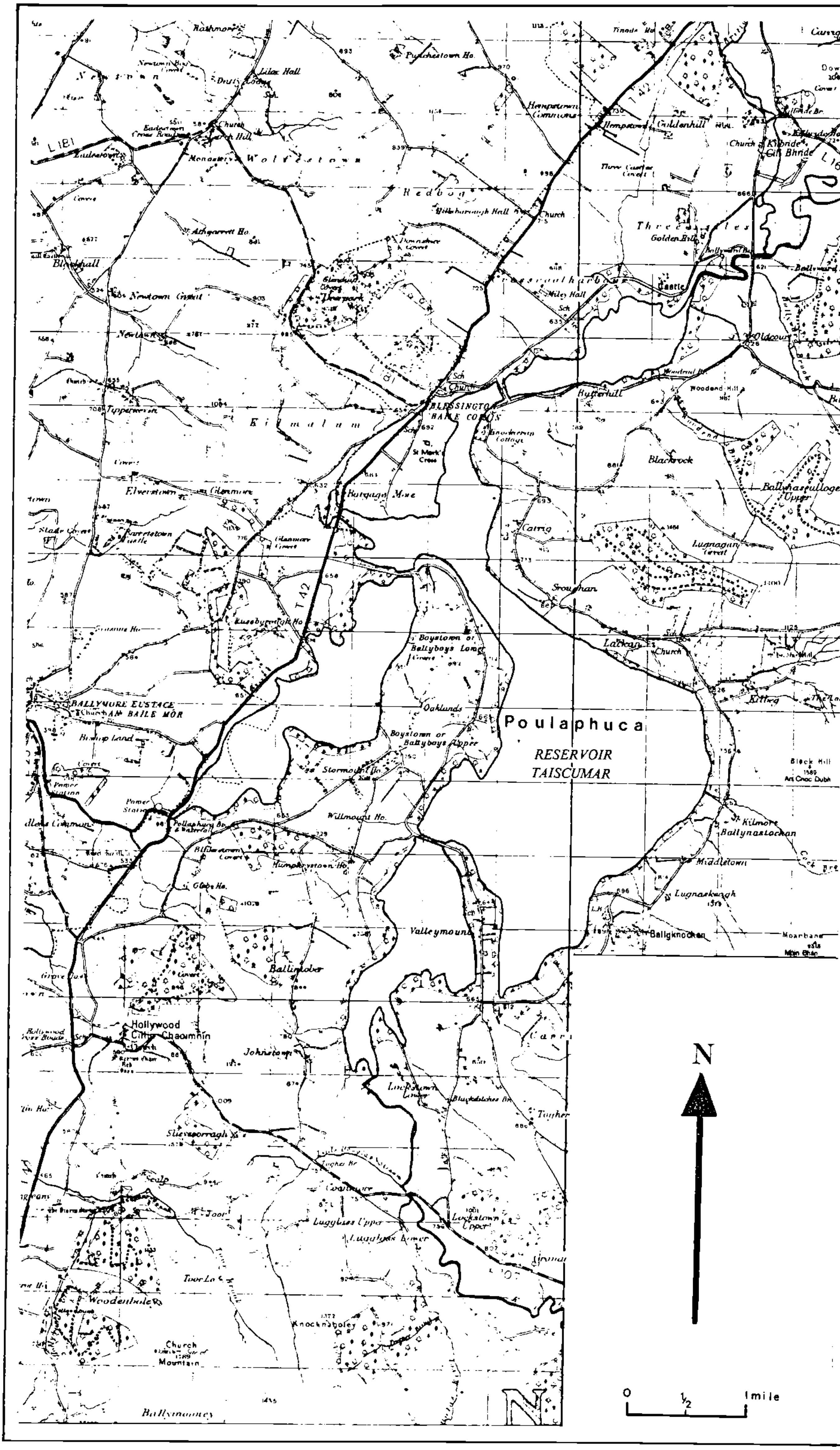
STATE Republic of Ireland PROVINCE Leinster

NAME OF WETLAND AREA Poulaphuca Reservoir

CRITERIA FOR INCLUSION IN THE DIRECTORY
5

Species occurring in numbers of national significance based on counts in November and January of 1969/70 to 1973/74:

Species	
Grey lag goose (Anser anser)	200 - 275



Poulaphuca
RESERVOIR
TAISCUMAR
BLESSINGTON
BALLYMORE EUSTACE
AN BAILE MÓR
Hollywood
Valleymount
Ballinastoe
Johnstown
Blackrock
Butterhill
Lackan
Kilmore
Ballynastockan
Middletown
Lugnaskeagh
Ballyknocken
Oakland
Willmount Ho.
Knocknaboley
Woodenbole
Church Mountain
T42
L181
L161
N
0
½
1mile

Appendix 1

Criteria used in this report, for selection of wetlands of international importance.

Eight criteria have been suggested by the International Union for the Conservation of Nature. Meeting any one of these criteria qualifies a wetland as being of international importance. However, most of the areas listed (as well as most Irish wetlands) have not been intensively examined ecologically. It is therefore difficult to assess the importance of the sites on a general ecological basis. Consequently, where in the preceeding pages criteria 2,3 or 5 below have not been cited under "Criteria for inclusion in the Directory" in the account of an area, this does not mean that these criteria are not applicable, but that the necessary information is not yet available.

The criteria are as follows:

1. The wetland is a particularly good example of a specific type of water-dependent biotic community found in the climatic zone concerned.

2. The wetland is a critical habitat for certain animals or plants (or in some cases certain animal and plant communities), the existence of which depends on preserving the ecological characteristics of the wetland.

3. The wetland has high productivity, producing and supporting (or capable of producing or supporting) large numbers of animals and plants, especially those which are threatened with extinction.

(4) The wetland is of high value to aquatic birds or mammals (whether resident or migratory) as a breeding, staging, feeding, moulting or wintering area.

(5) The wetland is the outstanding or sole site in a region on which breeding populations of fish, amphibians, reptiles, crustaceans, molluscs or other aquatic species depend, or on which terrestrial species, particularly birds and larger mammals, depend for water supply, or on which certain plants or plant communities depend.

6. The wetland is an outstanding area for research, as a demonstration area (either natural or artificial). Where management practices can be shown and studied, as an outdoor laboratory for nature or ecological studies, or for conservation education.

7. The wetland has scenic, aesthetic, scientific, educational, recreational or sporting values which are, potentially or actually, a great attraction for visitors and tourists from other countries.

8. The wetland is an important area to two or more countries because of its hydrobiological values, storage of ground water, irrigation and watering of livestock, domestic supply, stabilisation of run off, reduction or prevention of erosion, creation of fire breaks, etc.

Appendix 2

Wetland Types

The classification system adopted is that suggested by the International Union for the Conservation of Nature. The system is based on the main natural complexes distinguished by Y.A. Isakov. (1.)

Coastal Areas

Open Sea shallow waters

1. Inter-tidal zone of open sea shallow waters.
2. Permanent shallow waters in open sea.

Sea bays and straits

3. Shallow sea waters, bottom uncovered at low tide.
4. Deep sea bays (fiords).
5. Shallow sea bays (always covered).
6. Fresh and brackish water bays.
7. Lagoons, both salt and fresh (including artificial lagoons).

Mouths of rivers

8. Tidal estuaries.
9. Deltas.

Coasts

10. Small islets.
11. Continental and large island coasts (including coastal marshes, dunes, rocky or sandy shores).

River valleys

12. Lowland rivers (meandering), (including flood plains and interior or dry deltas).
13. Mountain rivers.
14. Brooks.

Storage reservoirs

15. Storages with relatively stable level of water.
16. Storages with great changes of water-level.

Other Areas

Lakes

17. Salt lakes (including periodical intermittently-fresh lakes).
18. Fresh eutrophic lakes (including periodical intermittent lakes never salt).
20. Fresh dystrophic lakes.

Mires

21. Fen and transitional mires.
22. Peat-bogs.

Temporary waters

23. Temporary waters from snowmelt or rainfall (wherever situated).

Artificial ponds

24. Ponds (including fish, mill and farm ponds) and small reservoirs.
25. Irrigation and drainage systems (including rice fields, drainage ditches and pits with water).

(1) Yu. A. Isakov, "Problems concerning the Typology and Evaluation Survey of Waterfowl Habitats". 1966 Proc. meeting on International Co-operation in Wildfowl Research, Jabonna, Poland, 67 - 72. IWRB, Slimbridge.

APPENDIX 3

CRITERIA USED IN THIS REPORT FOR CONSIDERING A WETLAND AS OF INTERNATIONAL IMPORTANCE FOR WATERFOWL

Wetlands listed in this report as of international importance are areas in which counts have established the presence of either:

(a) 1% of the N.W. European flyway population of ducks or swans or

(b) 2% of the N.W. European flyway population of geese or

(c) more than 20,000 waders (regularly).

The figures which follow have been extracted from Szijj (1972) for ducks and geese, from International Waterfowl Research Bureau (1972) for geese and from G.L. Atkinson - Willes (pers. com) for waders.

Anas acuta	650
A. crecca	2,500
A. penelope	5,000
A. platyrhynchos	10,000
A. strepera	100
Aythya ferina	2,250
A. fuligula	5,250
Spatula clypeata	700
Tadorna tadorna	1,000
Anser anser	1,700
A. albifrons flavirostris	300
Branta bernicla hrota	240
B. leucopsis	800
Cygnus olor	1,200
C. cygnus	175
C. columbianus	100
Waders	20,000

References

IWRB

1972 Minimum numbers for the determination of the international importance of goose feeding and roosting sites in Europe and W. Asia. 18th Ann. Bd. meeting IWRB, Brno, Czechoslovakia.

SjijjT.

1972 Some suggested criteria for determining the international importance of wetlands in the western Palaearctic, In; Carp E. (ed.) Proc. Int. Conf. on Conservation of Wetlands and Waterfowl, Ramsar, 111 - 118.

APPENDIX 4: CRITERIA FOR CONSIDERING A WETLAND AS OF NATIONAL IMPORTANCE FOR WATERFOWL

The proposed criteria for considering a wetland as of national importance in the Republic of Ireland differ from those for wetlands of international importnace in that they evaluate wetlands both quantitively and qualitatively.

The quantitative criterion is the regular occurrence of at least 5% of the total mid-winter population of any of the species of ducks, geese and swans commonly occurring on wetlands in the Republic of Ireland or, for waders a regular count of over 10,000 waders. It is believed that any concentration of this nature at a wetland is a concentration of national significance and renders that wetland of national importance for the conservation of the relevant species in the Republic of Ireland.

The qualitative criterion is the annual occurrence of at least 12 species of wildfowl or 22 species of waders. Diversity at a wetland is of significance in national terms and the qualitative criterion is based on the total number of species estimated to occur annually at several Irish wetlands which have a reputation for diversity.

In order to establish a figure of 5% of the mid-winter population of ducks, geese and swans the maximum and minimum figures were estimated from a review of the Wetlands Enquiry count data. The mean of these two figures was then calculated and 5% of this figure was taken as the critical measure for establishing wetlands to be of national importance. The calculation is least precise for those species such as Mallard, Teal and Tufted Duck which are widespread in small numbers and most accurate for those species which occur on relatively few wetlands but in large flocks.

The calculations for each species are as follows:

SPECIES	MINIMUM	MAXIMUM	MEAN	5% x MEAN
Mallard	10,000	30,000	20,000	1,000
Teal	15,000	50,000	32,500	1,625
Gadwall	400	600	500	25
Wigeon	50,000	90,000	70,000	3,500
Pintail	2,500	6,000	4,250	210*
Shoveler	2,500	8,500	5,500	225
Tufted Duck	5,000	20,000	12,500	625
Pochard	20,000	40,000	30,000	1,500
Shelduck	5,000	7,000	6,000	300
Grey Lag Goose	500	1,000	750	30*
Greenland White-fronted Goose	7,000	10,000	8,500	425
Pale-bellied Brent Goose	8,000	14,000	11,000	550
Barnacle Goose	4,000	5,000	4,500	225
Mute Swan) Whooper Swan) Bewick's Swan)	Population of each in winter is large but the numbers are difficult to estimate. The criteria for establishing areas as of interrational importance for these species appears adequate to cover all areas of national importance.			

* Rounded down to nearest round figure.

Acknowledgements

We are grateful to the Irish Wildbird Conservancy for information on wildfowl numbers which appears in this report.

We should also like to thank the following people for their help and information:

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