CONTENTS

INTRODUCTION

The low-lying limestone areas of eastern Clare and southern Galway contain over 270 permanent and seasonal water bodies. The area is delimited by the Shannon estuary to the south, the Slieve Bernagh mountains to the south-east, the Slieve Aughty mountains to the north-east, by the Dunkellin river to the north and by the Burren and west Clare shales to the west.(See Map I).

The bulk of the area is occupied by the Fergus river and its associated tributaries and lakes. The river rises 2½ miles north-west of Corofin and enters the sea at the Shannon estuary, south of Clarecastle. Along its course to the sea, the river drains many large lakes. Most of these are to be found in the upper reaches of the catchment, particularly in the Corofin-Ruan area. Because of the number and density of large water bodies in this region it is to be expected that the area will contain extensive stretches of wetland. For this reason the Ballyeighter Loughs and the nearby lakes of Lough George, L.Atedaun, Muckanagh Lough, Lough Inchiquin and Lough Bunny were the subjects of detailed study as an assessment of their scientific interest was considered to be of some importance. Some smaller lakes outside this area were also visited where general surveys were carried out. This was with a view to obtaining information on the range of variation in lake type throughout the catchment area.

Geology:

The lithology of the study area is dominated by Carboniferous limestones in the form of the Central Clare limestones . The catchment is bordered to the north-west by the limestone escarpments of the Burren, which to the south are capped by Namurian shales. The peat-capped, ill-drained surfaces of that portion of the western boundary provide a striking contrast with the surrounding well-drained limestone region. To the north and south the limestones run uninterrupted into Galway Bay and the Shannon estuary respectively. To the east the area is limited by

the rising ground of the Slieve Aughty and Slieve Bernagh mountains;the rock types here being predominantly Old Red sandstone with a border of of sandstones and shales. These significantly overlap the lowland area at only one point to surround Lough Graney and Lough Cutra.

Soils:

The soils of the area are many and varied though for the most part Rendzinas cover the northern half of the study area whilst Grey Brown Podzolics predominate in the southern half. There is,of course,much local variation. In the area surrounding the Ballyeighter Loughs extensive areas of limestone pavement occur. These can be included within the Rendzinas & are called the Burren Series. They are shallow soils with carbonates totaling 40-50% and they are very free-draining. It is on such soils that the flora of the Burren type occurs. In contrast the Grey-Brown Podzolics are of a heavy texture and are only moderately well-drained. The organic matter content is high. Peat deposits occur extensively in the Ballyeighter region and in the inter-drumlin hollows east of Ennis. These are of two types. The first, that of fen peat, is formed is formed under the infl nce of base-rich ground water and occurs in the river valleys and in the hollows between drumlins. The second type, that of raised bog peat, builds up on top of fen peat and is more influenced by the amounts of rainfall than by ground water. Bogs of this type also occur in the Ballyeighter area and here both types of peat have been extensively cut for fuel in the past. The vegetation invading the bog surface after cutting has ceased produces a very uniform sward of species consisting principally of Bog Cottons and Heathers.

Gley and Grey Brown Podzolic soils cover the Galway portion of the study area.

Geomorphology:Hydrology.

The hydrology of the limestone plain is heavily influenced by the local geology and geomorphology. The combination of the limestone geology, the thin irregular drift and the low level and therefore

shallow water table produces the characteristic topography and drainage patterns of the region. The feeder streams, on reaching the lowlands, from the non-limestone highlands either disappear underground to reappear at a later stage or enter lakes via an overground course. The general drainage is southward via the Fergus river into the Fergus Estuary and eventually the Shannon Estuary. The many underground water courses feed large numbers of turloughs which are sensitive to small changes in the water table and as a consequence they can range dramatically in size depending on the time of year. The more permanent water bodies are surrounded by extensive fens and bogs. The majority of the lakes display high water clarity and frequently have extensive deposits of marls on their shores.

Land-use:

In general most of the land within the catchment is utilised as pasture or meadow. All of the marginal areas by the lakes, including the cut-over bogs are heavily grazed by cattle and to a lesser extent by sheep. On the limestone pavement areas feral goats are an added factor. Peat is no longer cut on the bog areas on the extensive scale it used to be though some cutting on a small scale is still carried on. Portions of the peat deposits at Ballyeighter have been denuded of peat in an attempt to reclaim the land.

No drainage operations have been instigated in recent times though sections of the Fergus river have been canalised in the past in an attempt to arrest flooding. The areas surrounding the major lakes are pitted with drainage ditches and link many of the small lakes in the region with the larger bodies of water and ultimately the outflow streams. This is especially so in the areas of cut-away bog where past exploitation of the peat has left a maze of drainage ditches and pools.

Lake-Use:

Many of the lakes and rivers of the region are good for fishing, game fish being abundant in the Fergus river and in Lough Inchiquin. The river is said to be the best limestone river for fly-fishing in the

country. Coarse fishing is carried out in many of the remaining lakes particularly in the lakes east of Corofin. Water is drawn for local use from many of the lakes.

Previous studies:

Much of the area has received considerable attention from botanists in the past particularly the turloughs around Gort and the lakes and pavement areas of Corofin and Ennis(Praeger,I932,I974). Many rare species occur within the study area in particular Limosella aquatica which has its Irish headquarters in the Gort-Corofin region. The rich Burren flora penetrates as far south as Ennis and as far east as Crusheen and it is commonly found on the limestone pavement fringing the lakes.

With regard to systematic surveys, the compilations Areas of Scientific Interest in Co. Clare, A preliminary Survey of the Areas of Scientific Interest in Co. Galway and Areas of Scientific Interest in Ireland all published by An Foras Forbatha list several wetland areas within the Fergus catchment as being of importance, scientifically. One site is of International Importance, 4 of National Importance, 8 of Regional Importance and 5 of Local Importance. These rankings are appended to the sites in question on the map of the sites within the study area(See MAPI)

Detailed ecological surveys have been carried out by Ivimey-Cook and Proctor(I966) at a number of the wetland sites within the Fergus catchment. These include investigations on the plant communities of the river Fergus, turloughs near Gort, Ballyeighter Loughs, Lough Bunny, Lough George and Lough Cullaun. Research by the Forest and Wildlife Service, Plant Ecology Section has been conducted in the past on the turloughs of the region, Coole Lough, Dromore Lough and the surrounding area and the river Fergus. It is apparent,then, from the previous research carried out in the area that scientifically the catchment is of interest and of importance.

METHODS

Sites, within the Fergus catchment and in that portion of Galway included within the study area, were chosen prior to fieldwork as possible venues for general surveys. These numbered 32. A wide geographical spread of sites was aimed for so that a range of lake types would be sampled. The general survey of a site involved the compilation of a comprehensive species list and notes on the vegetation types present.

Detailed surveys of the lakes in the Ballyeighter Lough system were also conducted. The area involved totaled approximately 1,500 hectares. Here, comprehensive species lists were drawn up, detailed notes on the vegetation types were compiled, relevé data using the Braun-Blanquet methods of cover assessment was collected and and a vegetation map of the plant communities was drawn up. In both general and detailed surveys information on land use and management, assessment of value and educational and amenity potential was also collected. Conservation value was estimated by a) assessing the value of the site within the Fergus catchment on a I to 4 scale, 4 refering to a site of the highest grading and b) assessing the value of the site within the country as a whole these being ranked according to the criteria laid down by An Foras Forbatha in Areas of Scientific Interest in Ireland. Here sites are evaluated according to 7 criteria, namely naturalness, diversity, rarity, typicality, size, scientific research and amenity.

RESULTS

GENERAL SURVEY

All of the sites within this category can be divided into, three main types:-

I. Turloughs: Depressions with standing water only in winter but sometimes with water during wet summers. Inflow and outflow usually via subterranean channels with the water entering and draining via sink-holes. These wetlands are subject to marked fluctuations in water levels throughout the year.

Included within this category are river flood plains liable to frequent inundation.

2. Lakes: Permanent water bodies with above ground inflow and/or outflow channels. In the area many of the lakes are subject to marked fluctuations in level as many of them may be fed/drained by subterranean streams.

3. Bogs: Peat deposits not associated with a lake system and relying on atmospheric precipitation for water input and not on ground water.

The suffixes T, L, and B identify the sites listed below as one of the three types.

Table I below summarises the position, size, vegetation types occurring, conservation value and amenity potential of the sites which have been investigated during the general survey phase. From the releve data collected during the detailed phase of the study it was possible to recognize thirty community types as occurring in the catchment. These have been numbered so that they can be easily accommodated within the column 'Vegetation Types'. A full description of each community type is given in Appendix I .

Table 2 and Map 3 summarise the results of the investigations on the Ballyeighter lough system.

SITE	Number	6" Sheet	County	Size (ha.)	Soils	Vegetation Types	Rare species	Conservation Rating		Management assessment	Potential
Lough Fingall L. and turlough T.	I	I03	Galway	177		3,4,5,I6 Extensive Dryas heath with Arctostaphylos	Gentiana on heath	4	R	Partially owned by FWS. Control burning	Educational good.
Caranavoodaun T.	7	I03/I04	Galway	92		5,7,2I,25 Good heath and scrub	Spiranthes Gentiana Sorbus aria	4	R	FWS property adjoins	Educational good
Loughanawarla L and T	I3	I04	Galway			3,4,5,7,I6,24		2	L	Stop drainage	
Lissagunna T	II	I03	Galway				polluted				
Kilchreest (river margin)	I5	I05	Galway			5,I8,24	partially drained	I	-		
Streamstown (river margin)	47	I23	Galway				drained				
Tullaghnafrankagh Lough L	3	I03	Galway			4,5,8,I5,2I,26	water level lowered	2	L		
Cahernalinsk Lough L	9	I03	Galway			3,4,5,7,I2,I6,2I	Nitella tenuissima	2	L	control burning & excessive poaching	
Cloghballymore Lough L	2	I03	Galway			3.4.5,I2,I6,26		I			
Ballindereen Lough L	8	I03	Galway			2,3,4,5,7,I2		2	L	boulder dumping has affected lake level	Shooting/ Fishing
Pollagh T	58A	I03	Galway			2I and Typha					
Lough Cutra L	92	I29	Galway			3,4,I4		I		Gort reservoir	swimming fishing
Rathorp T	77	GI28/CII	Clare/Galw.		Rendzina	3,4,7		2	L		
Bunahow Lough L	I47	GI33/CI8	Clare/Galw.		Rendzina G-B Po.	4,8,I3,I4,I6,22,30	Thelypteris palustris	4	R	retain as now	Educational
Colman's Lough L	86	I28	Galway			3,7,I6,I8,24		2	L		Bird colonies
Ballymachill Lough L	I84	34	Clare		Complexes G-B Po.	I,5,9,II	Nitella tenuissima	2			
Lough Bridget L	I7I	36	Clare		Peat, Brown Earths, G-B Po.	4,I4,I6,30 and swamp woodland	Carex pseudocyperus	3	L	partially owned by FWS	Developed as an amenity Coarse fish
Cullaunyheeda Lough L	I03	3?/43	Clare		Peats, G-B Po. Brown Earths, Gley	4,5,I2,2I	Ophrys insectifera	3	L	shores partially owned	Fishing

SITE	Number	6" Sheet	County	Size (ha.)	Soils	Vegetation Types	Rating	Comments	Management assessment	Potential
Lough Bunny L	66	II	Clare	263 (195)	Rendzinas	I,2,3,4,5, 6,7,II,I2, I4,I5,I6, 2I,26,28, 29,30,	4 N	Good Frangula stands. Good pavement (Dryas, Juniper, Arctostaphylos). Some Yew Potentilla fruticosa stand Good orchid site. Rare sp include Filipendula vulgaris, Equisetum trachyodon. Carex serotina Releves 4I-43,48-5I.	Control dumping and siting of caravans.	Educational. Frequently visited by students.
Lough Inchiquin L	I09	I7	Clare	162 (166)	Brown earths to North and south. Rendzinas to east & west.	4,7,II,I4, I9,2I,22, 23,24,25, 26,	3 R	Good pavement flora. Old Limosella site. Rich aquatic flora and woodland around lake. Rare species are Typha angustifolia, Carex spicata. Releves 3I-36.	Under threat as proposed site for new reservoir. This will affect levels of all lakes in vicinity.	Swimming, boating, fishing, Ornithology Excellent regional amenity.
Lough Atedaun L with characteristics of a turlough	II7	I7	Clare	325 338	Brown earths to east with Gleys & Rendzinas elsewhere	I,4,7,II,I4. I6,I8,I9,20, 2I,22,23,	4 N	Lake level subject to extreme fluctuations. New site for Limosella aquatica Carex spicata in grassland Good wet meadows. Good aquatic communities. Ashwood along margin well developed. Releves I7-23, 28-30	No apparent threats unless Lough Inchiquin is affected by reservoir construction.	Important bird haunt. Fishing.
Lough Cullaun L	I20	I7	Clare	440 445	Peat & Rendzinas to north, Brown Earth to south.	I,2,3,4,5,7, I0,I2,I4	3 L	Cut-away bog on eastern and northern sides. Good fen on northern shore. Rich grassland on south and north shores. Here Ophrys apifera and Gentiana verna occur. Ophrys insectifera in fen. Releves I-5.	no apparent threats.	

TABLE II

SITE	Number	6" Sheet	County	Size (ha.)	Soils	Vegetation Types	Rating	Comments	Management assessment	Potential
Ballyeighter Lough(Lower) L	I24	I7	Clare	165	Peat with Complexes & Rendzina to the east	I,2,3,4,5,8, I0,I2,I3,I4,	2 L	Extensively cut-away on all sides. Some good grassland and pavement on south-eastern side. Nitella tenuissima occurs. Releves 6-I2.	No apparent threat.	Educational
Ballyeighter Lough (Upper) L	I24	I7	Clare	232 BOTH = 400 (TOTAL) 397	Peat with Rendzina to the east.	I,2,3,4,5,6, 8,I0,I2,I3, I4,I6,I7,	3 L	Large area of Cladium on western shore. North-west shore has interesting wet pavement. Scraw area at south-western end. Cut-away bog extensive. Nitella tenuissima occurs. Releves 24-27, 44-45.	No apparent threats	
Lough George L	I27	I7	Clare	230 316	Complexes to the east; Brow Earths to the south Rendzinas to the wes	I,2,3,4,5,6, 7,8,9,I0,II, I2,I3,I4,I6.	4 R	Extensive fen and Potentilla fruticosa stands; limestone grassland, scrub adjoins pavement and ash-wood. Carex spicata occurs. Thelypteris palustris and good aquatic communities. Ophrys insectifera, O.apifera Dryas and Eriophorum latifolium also occur. Releves I3-I6 -	no immediate threats	Fishing
Muckanagh Lough L	I32	I8	Clare	744 671	Complexes to the south; the rest G-B Po. and Rendzinas.	I,2,3,4,5,6, 9,I0,II,I2, I4,I6,I7,26.	4 N	Carex spicata occurs. Yew wood on southern shore; Excellent representation of Burren flora on northern shore; Potentilla fruticosa stands; curious fen communities; extensive area of cut-away to the east. Releves 37-40	Some scrub clearance in area of shore on north-east side is threatening curious fen community of Dryas/Schoenus	Fishing Amenity area provided.
River Fergus	I04-I06	I6/I7	Clare		Brown Earths & Rendzinas	7,[illegible],I9,20, 2I,22,23,24, 25,27,	4 N	Good diversity of aquatics and communities. Interesting communities on marginal muds.	Control effluent discharge & drainage	Fishing

SITE	Number	6" Sheet	County	Size (ha.)	Soils	Vegetation Types	Rare species	Conservation Rating	Management assessment	Potential
Rosroe Lake L	229	42	Clare		Peats,G-B Po. Complexes	I,2,4,5,IO	Dactylorhiza traunsteine-ri	4 R	Control burning	
O'Briens Big Lough L	267	26	Clare		G-B Po. Peats	2,3,4,8,I8		2 L		
Clooney Lough L	I97	34	Clare		G-B Po. Peats	4.I4,I8		I		
Roslara Lough L	I63	27	Clare		G-B Po. Peats	4,7,II,I4,I9		I		Fishing
Attyquin Lough L	I45	I8	Clare		Brown Eart-hs,Peats, Complexes	3,4,II,I4		I		
Doon Lough L	235	36/43	Clare		Gleys,Peat Podzolics	4,5,I4,I6 and fen carr behind lake.	Thalictrum flavum	3 L	Partially owned by FWS	Amenities provided
Cloondannagh Lough L	I60	34	Clare		Gleys with Peat	3,IO,I4,22,24		I		Fishing
Cloonteen Lough L	26I	35	Clare		Complexes, G-B Po.	4,7,23	Butomus, Carex vesicaria	I		Fishing
Ballybeg Lough L	222	4I	Clare		Rendzinas, G-B Po, Brown Earth	3,I3,I8,30	Thelypteris palustris Typha angustifolia	4 R	Retain as now	Educational
Clonbrick and Castle Bog B +L	237	43	Clare		Peat G-B Po.	4,IO,I6		I		
Creevosheedy Bog B	207	35	Clare		Peat	IO	Andromeda polifolia Typha angustifolia	I	Being exploited at present	
Inchicronan Lough L	263	26	Clare		G-B Po. Rendzina	4,5,8,IO,II,I8, I9.	Thalictrum flavum	2 R		Fishing
Lough Girroga L	I8I	33	Clare		G-B Po.	3,4,7,II,I2,22	Good scrub of Rhamnus	2 L	curtail over-grazing	Good as near Ennis
Kilbreckan Lough L	I89	34	Clare		G-B.Po	3,4,5,I4,24		2 L		

DISCUSSION

From Table I it will be apparent that 8 of the sites generally surveyed are of scientific interest, receiving a rating of 3-4, on a local or regional basis. Two of the sites are turloughs and the remainder lakes. It is clear that much of their value rests on the species and community diversity at each site. However they also represent the range of,wetland types to be found within the catchment. Four major types are represented ranging from turloughs to lakes with marked fluctuations in level to lakes with little changes in level to lakes with much of their surface covered by scraw vegetation. In a number of instances the habitats adjoining the sites greatly enhance their value. This especially so at Lough Fingall and Caranavoodaun, turloughs partially owned by Forest and Wildlife Service, where the adjacent limestone grasslands and heaths make the sites scientifically valuable.

In those sites subject to detailed study in the Ballyeighter Lough system, eight of the ten sites were rated as being of interest scientifically. Three of these sites, the Fergus river, Lough Atedaun and Lough Bunny were rated as being of importance on a National basis. Each of these holds a rich diversity of species, communities and habitat types including several rare species. The two lakes represent opposite ends of the spectrum of wetland types, Lough Atedaun showing the characteristics of a lake subject to marked fluctuations in water level and which is rich in aquatics. Lough Bunny holds a more stable water body where the primary interest rests on the marginal vegetation, principally the fen and adjoining pavement areas. It contains few truly aquatic species. The Fergus river is an important fishery and is of interest due to its having a well developed aquatic flora and an interesting marginal flora on its banks.

Lough George and Muckanagh Lough are of Regional interest as each holds large stands of Potentilla fruticosa and its associated communities and including good stands of Frangula alnus. Several rare species occur at or near the lake shores. Lough Inchiquin's interest rests mainly on its amenity value to the public and in particular to anglers. Both Ballyeighter Loughs Upper and Lower hold little of interest but display a range of community types representing the stages in the transition from fen to raised bog and the recovery pahses of cut-over bog to fen. Many hundreds of acres of Cladium mariscus occur here around the lake shores.

As all of these lakes are interconnected, tampering with any of them will be to the detriment of the rest in the system. This especially so with respect to the lowering or raising of the water level due to drainage or other operations. Thus the proposed construction of a reservoir at Lough Inchiquin for the town of Ennis must viewed as posing a great threat to the rest of the system and in particulat to Lough Atedaun which is connected with the former by a short stretch of the River Fergus.

UNIQUE FEATURES OF THE LAKES IN THE CATCHMENT

The entire study area holds the greatest concentration of limestone lakes and turloughs in the country. Several hydrological types are represented ranging from seasonal water bodies, the turloughs, through markedly fluctuating lakes to static water bodies. There is also a great variation in the sizes of the lakes and wetlands within the catchment ranging from hundreds of hectares in the Corofin region to areas of a few hectares in the areas east of Ennis.

A feature of the wetlands in the area is the extent of limestone pavement fringing many of the sites. As a result the rich Burren flora is well represented increasing the species

richness and thus the scientific interest.

The Ballyeighter lake system is obviously the most important part of the catchment due to its size, diversity and its enormous area of fen,cut-away bog, swamp, and open water. The range of habitats and communities at each of the lakes and in the area as a whole constitutes the most important wetland-limestone pavement complex in the country.

The river Fergus also holds an interesting range of habitats. These range from marginal flooded areas to deep pools and stretches of slow flowing water. It is rich in aquatic life and holds large stocks of brown trout. This makes it one of the prime limestone rivers in the country. Some pollution and spoilation is apparent in the river at the towns of Ennis and Corrofin but these have had no adverse affectes to date. In general the waters of the catchment are unpolluted with the exception of Lough Inchiquin. This lake is highly eutrophic as orthophosphate levels , recorded by the Water Resources Division of An Foras Forbatha, were high in November. This indicates an enriched system and its cause is probably attributable to fertilizer run-off. An algal bloom is a feature of the lake at its northern end during the summer months.

In the Kinvara region several of the wetland sites , principally small turloughs, have undergone drainage no doubt reflecting the more intensive methods of agriculture in the area.

Several of the lakes in the catchment are important wintering areas for wildfowl. These are the Fergus estuary which is of International importance, and Ballyalia Lough which is of National importance. The lakes of Inchicronan, Atedaun, Ballyogan and Inchiquin also hold large populations of wintering birds.

In the amenity sense the lake system around Corrofin and Ennis are extensively visited by tourists and local people for fishing which for the most part is for coarse fish. General amenity

facilities have been developed at Coole Lough, Dromore Lough, Bridgets Lough and Lough Inchiquin.

RECOMMENDATIONS

No great threat to the system is posed by present levels of agricultural activities in the area. As already stated, the major threat to the catchment stems from the proposed construction of reservoir at Lough Inchiquin. This would have adverse effects on the wetlands in the immediate vicinity. Several lakes, suitable as reservoirs occur within the immediate vicinity of Ennis and the town's water supply could easily be drawn from one of these. The disturbance of Lough Inchiquin would have far-reaching effects on its scientific and amenity value and would greatly affect fish stocks. In an area highly dependent on tourism for its income the construction of a reservoir here would be greatly to its detriment.

It is also recommended that the Department of Fisheries and Forestry purchase those areas of Lough Fingall and Caranavoodaun which are marked on the enclosed 6" sheets. (See Appendix 2).

In those areas of the Ballyeighter system which have received a 3-4 rating and which are of importance on a National or Regional scale, disturbance by drainage or scrub clearance should be prevented.

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APPENDIX I

List of Vegetation Types from the Fergus catchment

1. Calcareous grassland.
2. Schoenus and tall sedge swamp.
3. Cladium-Utricularia stands.
4. Scirpus-Phragmites stands.
5. Schoenus-Cirsium dissectum fen.
6. Potentilla fruticosa stands and including marginal pavement areas.
7. Potentilla anserina-Carex nigra, C. panicea stands.
8. Carex hostiana- Molinia fen with Schoenus absent or low in cover.
9. Cut-away with Cladium, Myrica and Molinia.
10. Cut-away with Calluna, Erica tetralix and C.panicea.
11. Blue grassland with Agrostis stolonifera and Calliergon cuspidatum.
12. Carex lasiocarpa swamp.
13. Pure Juncus sundodulosus stands.
14. Nuphar-Nymphaea.
15. Littorella-Potamogeton coloratus marginal shore areas.
16. Carex elata stands.
17. Carex nigra-Calliergon giganteum fen transition.
18. Juncus acutiflorus-Senecio aquaticus marshes and meadows.
19. Littorella-Fontinalis areas by rocky shores.
20. Eleocharis acicularis stands.
21. Myosotis, Mentha and Hippuris stands.
22. Elodea-Potamogeton submerged communities.
23. Carex vesicaria with some C, nigra.
24. Carex rostrata swamp.
25. Potamogeton pure stands.
26. Chara beds.
27. Ranunculus peltatus -penicillatus community.
28. Carex serotina-Potamogeton gramineus on marl.
29. Frangula-Rhamnus marginal pavement areas.
30. Tussock sedge swamp and carr.

COMMUNITY DESCRIPTIONS

1. Calcareous grassland Relevé 2,5,10,44,51.

Examples of this community occupy the higher levels of lake shores. They occur on shallow soils over pavement fringing either the fen areas described below or those of the cut over bog. They also occupy the depressions between limestone outcrops fringing the shore. They are characterised by consisting of a dense sward of species with a total cover value of 100%. They are also particularly rich in species.

Typically the dominants are Succisa pratensis, Briza media, and Festuca rubra with Antennaria dioica, Carex flacca, Leucanthemum vulgare Lotus corniculatus, Potentilla erecta and Danthonia decumbens being the constant associates. Juniperus communis is a frequent member of this community in some areas. The more calcareous grasslands are rich in orchid species whilst the more acidic areas, fringing the cut-away contain Calluna vulgaris, Hypericum pulchrum and occassionally Botrychium lunaria.

2. Schoenus and tall sedge swamp. Releves 7,38.

This type of community, with standing water up to 5 cms in depth, occupies the zone between the Cladium dominated areas listed below and the Schoenus-Cirsium dissectum fen described in 5. Clumps of Schoenus nigricans, up to one metre in height are accompanied by Chara spp. in the water at the base of the tussocks. The presence of tall sedges in this community is usual, the commonest species being Carex elata and C. rostrata. However they never contribute significantly to the cover. Nitella tenuissima and Utricularia minor are the other associates. In some palces the fen community described in 5 occurs on top of the tussocks.

Cladium-Utricularia Relevé 9.

This community is abundant [illegible]

throughout the survey area. It is found between the Schoenus swamp noted above and Phragmites dominated areas occupying the shallower lake waters. Typically Cladium forms dense stands up to two metres in height and has a high cover value of 4 and 5. It occurs on a muddy humus bottom or on marl. The height of the standing water in which it occurs ranges from just above the soil surface to I5 cms. The associates are Schoenus, Phragmites, and Utricularia spp. usually U. intermedia. However they rarely contribute significantly to the cover.

4. Scirpus-Phragmites stands

This community occurs by lake and river margins as a band of Scirpus on the water side with a broader band of Phragmites to the landward side. Several species of Chara occupy this zone.

5. Schoenus-Cirsium dissectum fen Releves 4,I3,26,35,4I,47

This association occupies the drier, higher areas of the lake margins occurring between the Schoenus swamp zone and the grassland or marginal limestone pavement areas. Typically Schoenus occurs here as dense tussocks up to 40 cms high and its constant associates are, Molinia caerulea, Carex flacca, C.panicea, C.hostiana, Potentilla erecta, Briza media, Euphrasia scottica and Parnassia palustris. The total cover = 80%. Ophrys insectifera is sometimes found at the base of the tussocks. Releve 47 represents a curious sample of this community as Dryas octopetala a species more of grassland and heath, contributes quite significantly to the cover. It occurred here as a low, close sward between the Schoenus tussocks.

6. Potentilla fruticosa stands Releves I4, 37,46.

This association is found occupying the area between the Schoenus or Carex hostiana fen, or blue grassland areas and the upper grasslands or pavement areas. At lough George it occupies the pavement areas gently sloping down to the lake waters. At Lough Bunny and Muckanagh Lough it occurred between the Schoenus and Carex hostiana fen or C.panicea areas and the limestone pavement. P. fruticosa occurs as scattered

bushes accompanied by Salix aurita, Prunus spinosa and Frangula alnus all of which were up to half a metre in height. The commonest herbaceous species were grasses of which Festuca rubra and Agrostis stolonifera were the dominant species. If the fringing limestone consists of boulders rather than flat pavement then Thelypteris palustris usually occurs between them.

7. Potentilla anserina-Carex nigra Releves I7,I8.

This association occupies the extreme upper areas of lake margins subject to marked fluctuations in water levels. It consists of a close sward of Potentilla anserina, Agrostis stolonifera and Rumex crispus, whose stems may be up to 50 cms in height. Carex nigra may replace Potentilla as the dominant species. The other associates are Ranunculus repens, in its turlough form, Senecio aquaticus and Myosotis scorpioides.

8. Carex hostiana -Molinia fen. Releve 6.

This widespread community has close affinites with the Schoenus - Cirsium dissectum fen already described. It occurs at the same level along the lake margins as the latter. However, Schoenus is either absent or low in cover probably due to excessive grazing. This community forms a low, close sward up to I0 cms in height and has a total cover value of I00%. C. hostiana is the dominant with Molinia caerulea, Carex panicea and Cirsium dissectum being the frequent associates.

9. Cladium-Myrica-Molinia Releve I5

In flat areas on the north-east corner of Lough George a community occurs in which Cladium, Myrica gale and Molinia caerulea are co-dominant. This type is also found along the eastern side of Ballyeighter upper. The asociates are Cirsium dissectum, Carex hostiana and Succisa pratensis and this association may represent a phase in the invasion of Cladium of the cut-away surface of the raised bog. The species form a close sward up to one metre in height and occur over a peaty substrate which is firm underfoot.

I0. Cut-away dominated by Calluna vulgaris . Releve 8

Cut-away bog occurs abundantly throughout the area on fairly dry

peat. It occurs alongside many of the lake margins and in parts directly fringes tracts of limestone pavement. The dominant species are Calluna vulgaris, Erica tetralix and Carex panicea. The associates are Molinia caerulea, Succisa pratensis and Myrica gale. The vegetation in this community reaches up to 20 cms in height.

II. Blue Grassland. Releves I6, 39, 40.

This heavily grazed community occupies a zone between the pavement areas or grasslands and the Carex hostiana swards in some places around the lake margins. It forms a close sward 5-I0 cms in height. The dominant species is Carex panicea thus giving the sward a blue appearance. The co-dominants are Agrostis stolonifera and Calliergon cuspidatum. The associates are Galium palustre, Ranunculus flammula, Molinia caerulea and Juncus articulatus.

I2. Carex lasiocarpa swamp Releves I,3,I2

This community occurs in stands of open water between 2-5 cms in depth and it occupies the zone behind the Phragmites/Cladium dominated areas. It commonly occurs by drains or spring-fed sites. It is dominated by Carex lasiocarpa with the commonest associates being Phragmites, Galium palustre and Cardamine pratensis. It usually occurs on a marly substrate with some mud or peat which is firm to walk on but it may also form a quaking scraw as in Releve I2.

I3. Pure Juncus subnodulosus stands. Releve II

Pure stands of this community occur sporadically behind the Cladium-Schoenus and tall sege zones. The water lies up to 5 cms in depth and the ground layer is characterised by an abundant cover of Calliergon cuspidatum. The asscoiates contribute little to the cover but those present include Schoenus, Filipendula ulmaria, Cardamine pratensis, Eriophorum angustifolium and Hydrocotyle vulgaris.

I4. Nuphar-Nymphaea

This association consists of floating aquatics and occupies a zone on the lake side of the Phragmites belt and may overlap with it. Oenanthe aquatica and Potamogeton natans are frequent associates.

I5. Littorella-Potamogeton coloratus marginal areas. Relevé 50

This community occurs on marl just behind the Scirpus lacustris -Phragmites belt and which are dry in summer due to marked fluctuations in the water level. In many cases the Scirpus belt is without standing water. The composition of the stands vary from areas of pure Littorella to stands of Potamogeton coloratus. The commonest associate is Baldellia ranunculoides.

I6. Carex elata stands. Relevés 25,43

Stands of this species may occur behind the Cladium zone where it forms tussocks up to 40 cms in height and which are scattered in distribution.

I7. Carex nigra-Calliergon giganteum. Relevé 27

This community occupies areas of peat alongside lake shores where peat deposits outcrop and which are regularly flooded by calcareous water . It corresponds to that described by Ivimey-Cook and Proctor(I966)and along with the dominants Scorpidium scorpidioides is of frequent occurrence. The community is easily recognized by the dense sward which C.nigra forms in such situations.

I8. Juncus acutiflorus - Senecio aquaticus marshes and meadows. Releves 28,30. Several variants of this community occur on lake edges between stands of Potentilla anserina-Carex nigra and meadows. The zone is usually a wide one and consequently the composition of the dominant species varies from palce to place. Two variants are here represented by releves 28 and 30. The first, occupying the area nearest the lake shore is dominated by Agrostis stolonifera and Leontodon autumnalis with Trifolium repens and Plantago lanceoloata. The second, occupying the hihgest areas , contains a number of sedges including C. hirta, C.ovalis C. disticha and C. nigra along with Juncus acutiflorus , Potentilla anserina and Filipendula ulmaria.

I9. Littorella-Fontinalis areas by rocky shores. Relevé 22

This community occupies the very lowest areas of rocky/stony shores and it marks the limit of the lowest summer water levels. The substrate is frequently marl encrusted. Both dominants usually occur

terrestrially but can also occur in water depths of up to 5 cms.

20. Eleocharis acicularis stands. Relevé 23

This community was found on open mud beside the river Fergus. The area in which it occurs is frequntly inundated and a return visit to a site previously without standing water showed it to be covered with water up to 5 cms in depth. This community is noteworthy in containing Limosella aquatica, a rare species of such situations. The associates are Baldellia, Apium inundatum and Myosotis scorpioides.

21. Myosotis, Mentha and Hippuris stands. Relevés 20,21, 29,31,48.

This community occurs commonly at the junctions of rivers and drains with lakes and on lake margins frequently flooded. It occupies a very muddy substrate. The dominants are as above but also found are Apium inundatum, Callitriche spp. Veronica catenata and Lysimachia nummularia. The depth of water varies from one cm to 6 cms.

22. Elodea-Potamogeton Relevés 33, 34.

This totally aquatic community occurs on soft mud in water depths of between 2 and 15 cms. Elodea is dominant with Potamogeton crispus. The associates are P. pectinatus, Fontinalis and Chara spp. In the deeper waters, with a high nutrient status, Cladophora spp. occur commonly on the vascular species.

23. Carex vesicaria with some C. nigra Relevés 19, 32.

In certain areas by lake shores subject to marked fluctuations in water levels stands of this tall sedge occur. It best developed between the Potentilla anserina-Carex nigra (Type 7) and the Myosotis,Mentha Hippuris or Scirpus-Phragmites communities. The clumps of C. vesicaria are up to 1.25 metres in height and form a dense sward, C. nigra is the usual associate.

24. Carex rostrata swamp. Relevés 24,36

In drains or in areas behind the Scirpus- Phragmites lake shore margins, C. rostrata forms a quaking scraw with Calliergon cuspidatum dominant in the moss layer. Its associates are Juncus subnodulosus, Phragmites and Carex lepidocarpa.

Several species of Chara usually occur at the base of the C. rostrata clumps. The water level here is just below the surface of the scraw.

25. Potamogeton stands.

Pure species of this genus are found in lakes and in the rivers. They occur in water depths of between o.5-4 metres. The stands consist of single species, P.lucens being the commonest in rivers and in the sheltered bays of lakes whilst P. perfoliatus and P. pectinatus are the common lake species.

26. Chara beds.

These are found on a) rocky/stony substrates on marginal shore areas just below the Littorella zone and b) in deeper water up to 2 metres in depth where the substrate is more muddy. Here the most frequent associates are Potamogeton perfoliatus and P. pectinatus.

27. Ranunculus peltatus-penicillatus stands.

Pure stands of either of these species are common in fairly slow-flowing sections of the river Fergus. Fontinalis is the usual associate.

28. Carex serotina-Potamogeton gramineus on marl. Releve 42

This community was found on black, peaty marl with a high shell fraction, on the north-east shore of L.Bunny. It is characterised by a very low cover of species present. The accompamying species were Chara globularis, Baldellia ranunculoides, Littorella and Phragmites.

29. Frangula-Rhamnus marginal pavement areas.Releve 49

This community occupies the transition zone between Schoenus fen and limestone pavement. It is characterised by isolated clumps of Schoenus with bare pavement in between them. Around the tussocks Frangula alnus and Rhamnus catharticus are the dominant shrubby species whilst Festuca rubra is the dominant grass species. Stands of Potentilla fruticosa usually occur at the upper margin of this zone.

30. Tussock sedge swamp and carr. Releve 45

Large stands of tussock forming sedges, principally Carex paniculata occur at a few sites. Their usual position is by drains,

APPENDIX 2

Complete list of sites within the study area

by Ordnance Survey 6" Sheet

Galway 103:

1. Lough Fingall
2. Cloghballymore Lough
3. Tullaghnafrankagh Lough
4. Stillhouse Lough
5. Lough Nahaaley
6. Tobernawoneen Pool
7. Carranavoodaun Turlough
8. Ballindereen Lough

8A. Pollagh turlough

9. Cahernalinsk turlough
10. Cuildooish and Drumacoo turlough

Galway 104:

11. Aggard turlough
12. Aggard stream
13. Loughaunwarla
14. Lough Kintea

Galway 105:

15. Kilchreest river
16. Lough Kintea

Galway 112:

17. Roo House turlough

Clare 3:

18. Lough Luirk
19. Ballyvelaghan Lough
20. Muckinish Lough

Galway 114:

21. Ballinduff turlough
22. Cockstown west and Fahy's L.

22A. Moneen Lough

23. Lough Coy
24. Turloughnacloghdoo
25. Bulaunagh turlough

Galway 122:

26. Lough Mannagh
27. Caherglassaun Lough
28. Lough Briskeen
29. Garryland turlough
30. Doo Lough
31. Coole Lough
32. Hawkhill Lough
33. Lough Nacarriga
34. Newtown Lough
35. Newtown Race Course turlough
36. Drumminacloghaun rises
37. Pollenora Holes-rises

Clare 7:

38. Lough Loum (Poulataggle)
39. Pouleencoona turlough
40. Ballymulfaig turlough
41. Toberawagga rises

Galway 123:

42. Lough Avalla

42A. Annagh Lough

43. Ballycahalan river
44. Tarry river with Lough Nuncere and Ballyturin Lough.

45. Lough Beg
46. Beagh river
47. Streamstown river
48. Ballylee river
49. Ballyboughan rises
50. Polltoophil rises
51. Ballynamantan Lough and Castletown river

Clare I0:

52. Glenroe turlough
53. Cooleash Lough
54. Castle Lough 54A. Fair Green Turlough
55. Creehaun turlough
56. Skagard Lough
57. Travaun Lough
58. Cooloorta Lough
59. Rochforest lough

Clare II:

60. Toberinneenboy rises.
61. Kiltacky Lough
62. Aughrim Lough and L.Awaddy
63. Area south of L.Awaddy
64 Pollatoreen rises
65. Quakerstown Lough
66. Lough Bunny
67. Rockvale and Lough Skeardeen
68. Polladorragha rises
69. Attyslany Lough
70. Templebannagh Lough
71. Balinlisheen Lough
72. Lough Garr
73. Lough Beg
74. Lough Awatia (Galway I28)
75. Lough Duff (Galway I28)
76. Lough Oona (Galway I28)
77. Rathorp turlough (Galway I28)
78. River north-west of Carrowcraheen

Galway I28:

79. Pollifern Lough
80. Moureagh Lough
81. Termon Lough
82. Lough Doo
83. Lough Aslaun
84. Curtaun Lough
85. Castlelodge river
86. Colman's Lough
87. Ardnamullivan Lough
88. Lahyshaughnessy Lough
89. L. Awock

Galway I29:

90. Lough Naneeve
91. Ballyturin Lough
92. Lough Cutra and Beagh river
93. Hanraghan's Lough
94. Lough Atickipple
95. Ballynakell Lough
96. Owendulleegh river
97. Namugga Loughs
98. Lough Nacreeva
99. Lahardaun Lough

Clare I2:

100. Acres and Lannaght Lough
101. Nagilagh Lough (Clare I2)

Clare I3:

I02. Lough Graney

I03. Bleach river

Clare I6:

I04. Fergus river(part)

I05. Ballycasheen turlough

I06. Cahermacon turlough

I07. Poulnaboe(rises)

I08. Fergus river above L.Inchiquin

I09. Lough Inchiquin

II0. Ballymacaugh Lough

III. Ballpotry Lough

II2. Knockaunroe Lough

II3. Shandangan Lough

II4. Macreenfin Lough

II5. Lough Beg

II6. Ballyportry Lough South

II7. Lough Atedaun

II8. Ballard turlough

II9. Ballard & Monanna Loughs

I20. Lough Cullaun

I2I. Knockaundoo Lough

I22. Tool's Lough

I23. Lough Keagh

I24. Ballyeighter Lough both upper & lower

I25. Turkenagh Lough

I26. Round,Rinroe & Parkeighteragh Loughs

I27. Lough George

I28. Lisduff lough

I29. Ballyteige & Maunet Loughs

I30. Lough Nabrichoge

I30A.Lough Avagher

Clare I8:

I3I. Poulnavally(rises)

I32. Muckanagh Lough

I33. Ballyogan Lough

I34. Moyree & Salancuteer Loughs

I35. Castle river

I36. Lough Carr

I37. Derrylumman (liable to floods)

I38. Moyree river.

I39. Iscudda lough

I40. Carheeny river

I4I. Ballygassan lough

I42. Skehanagh lough

I43. Derroogh Lough

I44. Derrogh's Loughs south

I45. Attyquin Lough

I46. Illaunacronan Loughs

I47. Bunnahow lough

I48. Drumroon loughs

I49. Doon lough

I50. Ballinruan lough

I5I. Cloggaswood loughs

I52. Derreen lough

Galway I33:

I53. Scarriff & Inchgarrig loughs

I54. Gortavoher lough

I55. Cregg Lough

I56. Loughaundoongorey

I57. Carheeny river

I58. Hollymount river

Clare 27:

I59. Cloondoorney lough

I60. Cloodannagh lough

I6I. Derrinterriff lough

I62. Clooncoose lough

I63. Rosslara lough

I64. Glenaree river

I65. Mayfort,Castle & Graggourkeel loughs

I66. Cusack's lough

I67. Deryeaghra & Derrynaneal lough

I68. Erinagh lough

I69. Dromroe lough

I70. Loughanillon

I7I. Lough Bridget(Clare 36)

I72. Cloghaun river.

I73. Lough Meelagh

I74. River Graney

I75. Keel lough

I76. Lough O'Grady

I77 Anamullaghaun river

I78. Scarriff river

Clare 33:

I79. Ballyalia lough

I79A.Poulacorry river

I80. River Fergus (Old Race Course)

I8I. Lough Girrcga

I8IA Lough Cleggan

Clare 34:

I82. Gauras river

I83. Cappagh lough

I83A Ballyduff lough

I84. Ballymachill lough

I85. Pouladoghtara

I86. Toreen lough

I87. Cloonawee lough

I88. Loughaunnguinell

I89. Kilbreckan lough

I90. Lough Naslatty

I9I. Lough Ardmurry

I92. Drumdoolaghty & Loughaun-luggure Loughs

I93. Castletown lough

I94. Holaun lough

I95. Moyrisk lough

I96. Finanagh lough

I97. Clooney lough

I98. Newgrove lake

I99. Fomerla loughs

200. river Rine

Clare 35:

20I. Boolyree river

202. Ballyblood bog.

203. Lough Cullaunyheeda

204. Liskenny lough

205. Garruaith lough

206. Lecarrow lough

207. Creeveosheedy bog

208. Asoggaun & Atober Loughs

209. Baderg Bog

2I0. Lough Avuddig

2II. Lough Garr

2I2. Coolbaun lough

2I3. O'Hara's Lough

2I4. Kilgory lough

Clare 36:

2I5. Lough Nacronia

2I5A Ballinahinch lough

2I6. Doorus lough

2I7. Doon lough

2I8. Killure river

Clare 4I:

2I9. Clareen river

220. Edenvale lough

22I. Killone lough

222. Ballybeg lough

Clare 42:

223. Ballycar lough

224. Caherkine & Snugborough loughs

225. Granaghanbeg lough

226. Deerpark, Poulahoyle & Ballymacloon loughs

227. Fin lough

228. Knopoge & Terehan loughs

Clare 43:

230. Clonlea lough

23I. Cappalheen & Cloonboum loughs

232. Lough Avoher

233. Ahaclare river

234. Kilnarrandy & Corbit's loughs

235. Doon lough (Clare 44)

236. Cloonmunnia lough

237. Clonbrick & Castle Bog

238. Ballymulcashel lough

239. Enagh lough

240. Castle lough

24I. Derry lough

242. Shandangan lough

243. Kilkishen & Kilcornan loughs

244. Gortnacoragh lough

245. Cullinagh lough

246. Lough Deragher

247. Rathluby lough

248. Teereen lough

249. Knockacunag lough

250. Lough Nanillaun

25I. Town lough

252. Skeheen lough

Clare 25:

253. Lough Raha

254. Ballycullinan Lough

255. Drumcavan,Cragmoher & Shanvally lough

256. Poulbealnalicka (rises)

257. Lough Reagh

258. Ballymacrogan west(rises)

259. Dromore & Gar loughs

260. Dromore lake south

26I. Cloonteen lough

Clare 26:

262. Loughanore, Curraderra, Nagall & Kennedy's loughs.

263. Inchicronan lough.

264. Derrynacogg lough

265. Gortaphisheen

266. Cappafean lough

267. O'Briens Little & Big Lough

Clare 42:

268. Dromoland lough

269. Lough Ataska and Mooghaun lough

Clare 52:

270. Owengarney river

Clare 5I:

27I. Lough Gash

APPENDIX 3

355528-2-CAREX LASIOCARPA
355301-+-CLADIUM MARISCUS
340201-+-ECHINODORUS RANUNCULOIDES
321107-+-GALIUM PALUSTRE
350115-1-JUNCUS SUBNODULOSUS
322904-+-MENTHA AQUATICA
320601-+-MENYANTHES TRIFOLIATA
353701-+-PHRAGMITES AUSTRALIS
296208-+-RANUNCULUS FLAMMULA

1981 RELEVE 2

332401-+-ANTENNARIA DIOICA
320901-+-ASPERULA CYNANCHICA
332001-+-BELLIS PERENNIS
350401-1-BRIZA MEDIA
266506-2-CALLIERGON CUSPIDATUM
331404-+-CAMPANULA ROTUNDIFOLIA
355526-2-CAREX FLACCA
355504-+-CAREX HOSTIANA
355555-+-CAREX PULICARIS
294602-+-CERASTIUM FONTANUM
350301-+-CYNOSURUS CRISTATUS
327000-+-EUPHRASIA SP.
350805-1-FESTUCA RUBRA
320401-+-GENTIANA VERNA
344100-+-GYMNADENIA SP.
333501-+-LEUCANTHEMUM VULGARE
308602-+-LINUM CATHARTICUM
308002-1-LOTUS CORNICULATUS
350204-+-LUZULA MULTIFLORA
353801-1-MOLINIA CAERULEA
264002-+-NECKERA CRISPA
344601-+-OPHRYS APIFERA
330104-+-PLANTAGO MARITIMA
305904-1-POTENTILLA ERECTA
324601-+-PRUNELLA VULGARIS
296203-+-RANUNCULUS BULBOSUS
327301-+-RHINANTHUS MINOR
355401-1-SCHOENUS NIGRICANS
280501-+-SELAGINELLA SELAGINOIDES
351101-1-SESLERIA CAERULEA
351001-+-SIEGLINGIA DECUMBENS
331201-3-SUCCISA PRATENSIS
307912-1-TRIFOLIUM PRATENSE

1981 RELEVE 3

266503-4-CALLIERGON CORDIFOLIUM
301902-+-CARDAMINE PRATENSIS
355528-4-CAREX LASIOCARPA
355508-+-CAREX LEPIDOCARPA
321107-1-GALIUM PALUSTRE
312901-1-HYDROCOTYLE VULGARIS
350115-2-JUNCUS SUBNODULOSUS
322904-2-MENTHA AQUATICA
353701-+-PHRAGMITES AUSTRALIS
305902-+-POTENTILLA PALUSTRIS
296208-+-RANUNCULUS FLAMMULA
266401-+-SCORPIDIUM SCORPIOIDES

1981 RELEVE 4

350401-1-BRIZA MEDIA
355526-+-CAREX FLACCA
355504-+-CAREX HOSTIANA
355523-+-CAREX PANICEA
355555-+-CAREX PULICARIS
327003-+-EUPHRASIA SCOTTICA
290401-1-JUNIPERUS COMMUNIS
335201-+-LEONTODON AUTUMNALIS
308002-+-LOTUS CORNICULATUS
353801-2-MOLINIA CAERULEA
304701-+-PARNASSIA PALUSTRIS
305904-+-POTENTILLA ERECTA
310701-+-RHAMNUS CATHARTICUS
355401-3-SCHOENUS NIGRICANS
351101-+-SESLERIA CAERULEA
331201-1-SUCCISA PRATENSIS

1981 RELEVE 5

333001-+-ACHILLEA MILLEFOLIUM
332401-1-ANTENNARIA DIOICA
354001-+-ANTHOXANTHUM ODORATUM
280901-+-BOTRYCHIUM LUNARIA
350401-1-BRIZA MEDIA
317001-1-CALLUNA VULGARIS
331404-+-CAMPANULA ROTUNDIFOLIA
355530-+-CAREX CARYOPHYLLEA
355526-+-CAREX FLACCA
355523-1-CAREX PANICEA
355555-+-CAREX PULICARIS
334703-1-CENTAUREA NIGRA
320202-+-CENTAURIUM ERYTHRAEA
350301-+-CYNOSURUS CRISTATUS
350805-2-FESTUCA RUBRA
321106-+-GALIUM STERNERI
344100-+-GYMNADENIA SP.
335635-+-HIERACIUM PILOSELLA
311405-+-HYPERICUM PULCHRUM
333501-+-LEUCANTHEMUM VULGARE
308602-+-LINUM CATHARTICUM
343801-+-LISTERA OVATA
308002-+-LOTUS CORNICULATUS
353801-+-MOLINIA CAERULEA
330103-+-PLANTAGO LANCEOLATA
330104-+-PLANTAGO MARITIMA
310101-+-POLYGALA VULGARIS
305904-1-POTENTILLA ERECTA
324601-+-PRUNELLA VULGARIS
351001-+-SIEGLINGIA DECUMBENS
331201-3-SUCCISA PRATENSIS
307902-+-TRIFOLIUM REPENS
307402-+-VICIA CRACCA
311504-+-VIOLA RIVINIANA

1981 RELEVE 6

355504-3-CAREX HOSTIANA
355523-2-CAREX PANICEA
355555-+-CAREX PULICARIS
334305-1-CIRSIUM DISSECTUM
321102-+-GALIUM BOREALE
312901-+-HYDROCOTYLE VULGARIS
335201-+-LEONTODON AUTUMNALIS
353801-2-MOLINIA CAERULEA
305904-+-POTENTILLA ERECTA
324601-+-PRUNELLA VULGARIS
355401-+-SCHOENUS NIGRICANS
331201-1-SUCCISA PRATENSIS

1981 RELEVE 8

317001-2-CALLUNA VULGARIS
355523-3-CAREX PANICEA
304101-+-DROSERA ROTUNDIFOLIA
317107-+-ERICA CINEREA
317101-2-ERICA TETRALIX
355101-+-ERIOPHORUM ANGUSTIFOLIUM
350204-+-LUZULA MULTIFLORA
353801-1-MOLINIA CAERULEA
291201-1-MYRICA GALE
341701-+-NARTHECIUM OSSIFRAGUM
305904-+-POTENTILLA ERECTA
281301-+-PTERIDIUM AQUILINUM
291011-+-SALIX AURITA
331201-1-SUCCISA PRATENSIS

1981 RELEVE 7

266506-+-CALLIERGON CUSPIDATUM
355532-+-CAREX ELATA
355523-+-CAREX PANICEA
355301-+-CLADIUM MARISCUS
266206-+-DREPANOCLADUS REVOLVENS
355004-+-ELEOCHARIS MULTICAULIS
350115-+-JUNCUS SUBNODULOSUS
322904-+-MENTHA AQUATICA
220307-+-NITELLA TENUISSIMA
353701-1-PHRAGMITES AUSTRALIS
355401-2-SCHOENUS NIGRICANS
327804-1-UTRICULARIA MINOR

1981 RELEVE 9

355301-4-CLADIUM MARISCUS
350115-+-JUNCUS SUBNODULOSUS
353701-+-PHRAGMITES AUSTRALIS
355401-1-SCHOENUS NIGRICANS
327805-+-UTRICULARIA VULGARIS AGG.

333001-+-ACHILLEA MILLEFOLIUM
332401-1-ANTENNARIA DIOICA
354001-+-ANTHOXANTHUM ODORATUM
308101-+-ANTHYLLIS VULNERARIA
320301-+-BLACKSTONIA PERFOLIATA
350401-2-BRIZA MEDIA
266506-+-CALLIERGON CUSPIDATUM
355530-+-CAREX CARYOPHYLLEA
355526-+-CAREX FLACCA
355504-+-CAREX HOSTIANA
355555-+-CAREX PULICARIS
334703-+-CENTAUREA NIGRA
320202-+-CENTAURIUM ERYTHRAEA
294602-+-CERASTIUM FONTANUM
315801-3-DAUCUS CAROTA
350805-1-FESTUCA RUBRA
321104-2-GALIUM VERUM
320401-+-GENTIANA VERNA
352601-+-HELICTOTRICHON PUBESCENS
352901-+-KOELERIA CRISTATA
335201-+-LEONTODON AUTUMNALIS
333501-+-LEUCANTHEMUM VULGARE
308602-+-LINUM CATHARTICUM
308002-+-LOTUS CORNICULATUS
350203-+-LUZULA CAMPESTRIS
330103-+-PLANTAGO LANCEOLATA
305904-+-POTENTILLA ERECTA
296203-+-RANUNCULUS BULBOSUS
269202-2-RHYTIDIADELPHUS SQUARROSU
351001-+-SIEGLINGIA DECUMBENS
331201-2-SUCCISA PRATENSIS
323203-1-THYMUS DRUCEI
307906-+-TRIFOLIUM CAMPESTRE
307912-1-TRIFOLIUM PRATENSE
307902-3-TRIFOLIUM REPENS
326705-+-VERONICA OFFICINALIS
311504-+-VIOLA RIVINIANA

1981 RELEVE 11

266506-4-CALLIERGON CUSPIDATUM
301902-+-CARDAMINE PRATENSIS
355101-+-ERIOPHORUM ANGUSTIFOLIUM
305102-+-FILIPENDULA ULMARIA
321107-+-GALIUM PALUSTRE
312901-+-HYDROCOTYLE VULGARIS
350115-4-JUNCUS SUBNODULOSUS
322904-+-MENTHA AQUATICA
353801-+-MOLINIA CAERULEA
353701-+-PHRAGMITES AUSTRALIS
296208-+-RANUNCULUS FLAMMULA
355401-1-SCHOENUS NIGRICANS

1981 RELEVE 12

301902-+-CARDAMINE PRATENSIS
355528-2-CAREX LASIOCARPA
344803,+ DACTYLORHIZA INCARNATA
355101-+-ERIOPHORUM ANGUSTIFOLIUM
321107-+-GALIUM PALUSTRE
312901-+-HYDROCOTYLE VULGARIS
350115-1-JUNCUS SUBNODULOSUS
320601-3-MENYANTHES TRIFOLIATA
353701-2-PHRAGMITES AUSTRALIS
341104-+-POTAMOGETON COLORATUS

1981 RELEVE 13

317502-+-ANAGALLIS TENELLA
350401-+-BRIZA MEDIA
355526-2-CAREX FLACCA
355504-+-CAREX HOSTIANA
355523-+-CAREX PANICEA
344803-+-DACTYLORHIZA INCARNATA
343701-+-EPIPACTIS PALUSTRIS
327003-+-EUPHRASIA SCOTTICA
267405-+-EURHYNCHIUM PRAELONGUM
350805-1-FESTUCA RUBRA
253716-+-FISSIDENS ADIANTHOIDES
308602-+-LINUM CATHARTICUM
353801-2-MOLINIA CAERULEA
304701-+-PARNASSIA PALUSTRIS
327702-+-PINGUICULA VULGARIS
305904-+-POTENTILLA ERECTA
324601-+-PRUNELLA VULGARIS
291014-1-SALIX REPENS
355401-3-SCHOENUS NIGRICANS
280501-+-SELAGINELLA SELAGINOIDES
351101-+-SESLERIA CAERULEA
331201-1-SUCCISA PRATENSIS

1981 RELEVE 14

353204-2-AGROSTIS STOLONIFERA
302100-+-ARABIS SP.
350401-+-BRIZA MEDIA
331404-+-CAMPANULA ROTUNDIFOLIA
355526-+-CAREX FLACCA
355523-+-CAREX PANICEA
355301-1-CLADIUM MARISCUS
306701-+-CRATAEGUS MONOGYNA
327000-+-EUPHRASIA SP.
350805-3-FESTUCA RUBRA
305102-+-FILIPENDULA ULMARIA
310801-1-FRANGULA ALNUS
321102-+-GALIUM BOREALE
321107-+-GALIUM PALUSTRE
321104-+-GALIUM VERUM
308401-+-GERANIUM SANGUINEUM
352801-+-HOLCUS LANATUS
311408-+-HYPERICUM TETRAPTERUM
350116-+-JUNCUS ACUTIFLORUS
308602-+-LINUM CATHARTICUM
308002-+-LOTUS CORNICULATUS
322904-+-MENTHA AQUATICA
305901-3-POTENTILLA FRUTICOSA
306801-+-PRUNUS SPINOSA
294701-+-SAGINA NODOSA
291011-1-SALIX AURITA
355401-+-SCHOENUS NIGRICANS
324801-+-SCUTELLARIA GALERICULATA
304305-+-SEDUM ACRE
331201-+-SUCCISA PRATENSIS
307912-+-TRIFOLIUM PRATENSE

1981 RELEVE 15

355504-1-CAREX HOSTIANA
355523-+-CAREX PANICEA
334305-+-CIRSIUM DISSECTUM
355301-2-CLADIUM MARISCUS
353801-2-MOLINIA CAERULEA
291201-2-MYRICA GALE
353701-1-PHRAGMITES AUSTRALIS
355401-1-SCHOENUS NIGRICANS
331201-+-SUCCISA PRATENSIS

1981 Rreleve 16

353204-2-AGROSTIS STOLONIFERA
332001-+-BELLIS PERENNIS
266506-4-CALLIERGON CUSPIDATUM
301902-+-CARDAMINE PRATENSIS
355504-+-CAREX HOSTIANA
355508-+-CAREX LEPIDOCARPA
355523-3-CAREX PANICEA
334305-+-CIRSIUM DISSECTUM
321107-1-GALIUM PALUSTRE
312901-+-HYDROCOTYLE VULGARIS
350117-1-JUNCUS ARTICULATUS
350118-+-JUNCUS BULBOSUS
351701-+-LOLIUM PERENNE
322904-+-MENTHA AQUATICA
353801-+-MOLINIA CAERULEA
324601-+-PRUNELLA VULGARIS
296208-1-RANUNCULUS FLAMMULA
294703-+-SAGINA PROCUMBENS
331201-+-SUCCISA PRATENSIS

1981 RELEVE 17

353204-1-AGROSTIS STOLONIFERA
295901-+-CALTHA PALUSTRIS
355535-3-CAREX NIGRA
355005-2-ELEOCHARIS PALUSTRIS
322301-+-MYOSOTIS SCORPIDIOIDES
305903-+-POTENTILLA ANSERINA
296201-2-RANUNCULUS REPENS
293006-+-RUMEX CRISPUS
334002-+-SENECIO AQUATICUS

1981 RELEVE 18

353204-2-AGROSTIS STOLONIFERA
301902-+-CARDAMINE PRATENSIS
355535-1-CAREX NIGRA
355005-+-ELEOCHARIS PALUSTRIS
321107-+-GALIUM PALUSTRE
335201-1-LEONTODON AUTUMNALIS
322301-+-MYOSOTIS SCORPIDIOIDES
353901-+-PHALARIS ARUNDINACEA
330103-+-PLANTAGO LANCEOLATA
330101-+-PLANTAGO MAJOR
305903-3-POTENTILLA ANSERINA
296201-2-RANUNCULUS REPENS
293006-2-RUMEX CRISPUS
334012-+-SENECIO AQUATICUS X JAC

1981 RELEVE 19

353204-2-AGROSTIS STOLONIFERA
295901-1-CALTHA PALUSTRIS
355517-3-CAREX VESICARIA
355005-+-ELEOCHARIS PALUSTRIS
322301-+-MYOSOTIS SCORPIDIOIDES
353901-+-PHALARIS ARUNDINACEA
305903-+-POTENTILLA ANSERINA
296201-1-RANUNCULUS REPENS
301604-+-RORIPPA PALUSTRIS
293006-1-RUMEX CRISPUS

1981 RELEVE 20

340101-1-ALISMA PLANTAGO-AQUATICA
314703-+-APIUM INUNDATUM
314702-+-APIUM NODIFLORUM
295901-+-CALTHA PALUSTRIS
312601-3-HIPPURIS VULGARIS
322904-+-MENTHA AQUATICA
322301-2-MYOSOTIS SCORPIDIOIDES
314306-+-OENANTHE AQUATICA
301601-+-RORIPPA AMPHIBIA
293006-+-RUMEX CRISPUS
354805-+-SCIRPUS LACUSTRIS
343400-2-SPARGANIUM SP.

1981 RELEVE 21

353204-3-AGROSTIS STOLONIFERA
340101-+-ALISMA PLANTAGO-AQUATICA
314703-1-APIUM INUNDATUM
322601-2-CALLITRICHE STAGNALIS
355005-2-ELEOCHARIS PALUSTRIS
280703-+-EQUISETUM FLUVIATILE
321107-+-GALIUM PALUSTRE
351301-1-GLYCERIA FLUITANS
312601-1-HIPPURIS VULGARIS
317302-+-LYSIMACHIA NUMMULARIA
322904-2-MENTHA AQUATICA
322301-2-MYOSOTIS SCORPIDIOIDES
296208-+-RANUNCULUS FLAMMULA
326703-+-VERONICA CATENATA

1981 RELEVE 25

355532-3-CAREX ELATA
355528-1-CAREX LASIOCARPA
340201-+-ECHINODORUS RANUNCULOIDES
350115-2-JUNCUS SUBNODULOSUS
353701-+-PHRAGMITES AUSTRALIS

1981 RELEVE 26

353204-1-AGROSTIS STOLONIFERA
355526-2-CAREX FLACCA
306701-1-CRATAEGUS MONOGYNA
350805-2-FESTUCA RUBRA
318101-+-FRAXINUS EXCELSIOR
308413-+-GERANIUM ROBERTIANUM
308401-+-GERANIUM SANGUINEUM
290401-1-JUNIPERUS COMMUNIS
308002-+-LOTUS CORNICULATUS
353801-2-MOLINIA CAERULEA
330103-+-PLANTAGO LANCEOLATA
350606-+-POA SUBCAERULEA
305904-+-POTENTILLA ERECTA
306801-+-PRUNUS SPINOSA
305204-+-RUBUS FRUTICOSUS AGG.
355401-+-SCHOENUS NIGRICANS
323203-+-THYMUS DRUCEI
307402-+-VICIA CRACCA

1981 RELEVE 27

266504-+-CALLIERGON GIGANTEUM
355508-+-CAREX LEPIDOCARPA
355535-5-CAREX NIGRA
355523-+-CAREX PANICEA
355005-+-ELEOCHARIS PALUSTRIS
312901-+-HYDROCOTYLE VULGARIS
350117-1-JUNCUS ARTICULATUS
322904-+-MENTHA AQUATICA
320601-+-MENYANTHES TRIFOLIATA
296208-+-RANUNCULUS FLAMMULA
266401-2-SCORPIDIUM SCORPIOIDES
341001-+-TRIGLOCHIN PALUSTRIS

1981 Rreleve 28

353204-3-AGROSTIS STOLONIFERA
332001-+-BELLIS PERENNIS
266506-+-CALLIERGON CUSPIDATUM
350801-1-FESTUCA PRATENSIS
335201-2-LEONTODON AUTUMNALIS
308002-+-LOTUS CORNICULATUS
330103-1-PLANTAGO LANCEOLATA
305903-1-POTENTILLA ANSERINA
296202-+-RANUNCULUS ACRIS
293006-+-RUMEX CRISPUS
334002-+-SENECIO AQUATICUS
307902-3-TRIFOLIUM REPENS

1981 RELEVE 29

314703-+-APIUM INUNDATUM
322602-+-CALLITRICHE PLATYCARPA
355005-+-ELEOCHARIS PALUSTRIS
321107-+-GALIUM PALUSTRE
312601-1-HIPPURIS VULGARIS
317302-2-LYSIMACHIA NUMMULARIA
322904-1-MENTHA AQUATICA
322301-3-MYOSOTIS SCORPIDIOIDES
301601-+-RORIPPA AMPHIBIA
293006-+-RUMEX CRISPUS
326703-+-VERONICA CATENATA

1981 RELEVE 30

353204-2-AGROSTIS STOLONIFERA
266506-4-CALLIERGON CUSPIDATUM
301902-+-CARDAMINE PRATENSIS
355542-1-CAREX DISTICHA
355527-2-CAREX HIRTA
355535-2-CAREX NIGRA
355523-2-CAREX PANICEA
350801-+-FESTUCA PRATENSIS
305102-+-FILIPENDULA ULMARIA
321107-+-GALIUM PALUSTRE
350117-3-JUNCUS ARTICULATUS
335201-+-LEONTODON AUTUMNALIS
322301-+-MYOSOTIS SCORPIDIOIDES
330103-+-PLANTAGO LANCEOLATA
305903-2-POTENTILLA ANSERINA
296202-+-RANUNCULUS ACRIS
307902-1-TRIFOLIUM REPENS

1981 RELEVE 31

312601-1-HIPPURIS VULGARIS
322904-+-MENTHA AQUATICA
322301-2-MYOSOTIS SCORPIDIOIDES
326703-+-VERONICA CATENATA

1981 RELEVE 32

353204-4-AGROSTIS STOLONIFERA
295901-+-CALTHA PALUSTRIS
355535-2-CAREX NIGRA
355516-+-CAREX ROSTRATA
355517-+-CAREX VESICARIA
355005-+-ELEOCHARIS PALUSTRIS
351302-+-GLYCERIA PLICATA
350116-+-JUNCUS ACUTIFLORUS
322301-+-MYOSOTIS SCORPIDIOIDES
305903-1-POTENTILLA ANSERINA
293006-+-RUMEX CRISPUS

1981 RELEVE 33

220100-+-CHARA
340701-2-ELODEA CANADENSIS
263201-2-FONTINALIS ANTIPYRETICA
312601-+-HIPPURIS VULGARIS
312502-+-MYRIOPHYLLUM SPICATUM
341113-2-POTAMOGETON CRISPUS
341115-1-POTAMOGETON PECTINATUS
343402-+-SPARGANIUM EMERSUM

1981 RELEVE 34

322604-1-CALLITRICHE HAMULATA
190100-3-CLADOPHORA
340701-+-ELODEA CANADENSIS
343302-+-LEMNA TRISULCA
312502-1-MYRIOPHYLLUM SPICATUM
341113-1-POTAMOGETON CRISPUS
341115-2-POTAMOGETON PECTINATUS

1981 RELEVE 38

220100-3-CHARA
355301-+-CLADIUM MARISCUS
355101-+-ERIOPHORUM ANGUSTIFOLIUM
355401-2-SCHOENUS NIGRICANS
266401-+-SCORPIDIUM SCORPIOIDES
327803-3-UTRICULARIA INTERMEDIA

1981 RELEVE 39

353204-2-AGROSTIS STOLONIFERA
350401-1-BRIZA MEDIA
266506-3-CALLIERGON CUSPIDATUM
355504-+-CAREX HOSTIANA
355523-3-CAREX PANICEA
350301-+-CYNOSURUS CRISTATUS
350805-+-FESTUCA RUBRA
321102-+-GALIUM BOREALE
352801-1-HOLCUS LANATUS
335201-+-LEONTODON AUTUMNALIS
333501-+-LEUCANTHEMUM VULGARE
308002-2-LOTUS CORNICULATUS
353801-1-MOLINIA CAERULEA
304701-+-PARNASSIA PALUSTRIS
305904-+-POTENTILLA ERECTA
324601-+-PRUNELLA VULGARIS
294701-+-SAGINA NODOSA
355401-+-SCHOENUS NIGRICANS
331201-1-SUCCISA PRATENSIS
307912-2-TRIFOLIUM PRATENSE

1981 RELEVE 40

353204-1-AGROSTIS STOLONIFERA
266506-3-CALLIERGON CUSPIDATUM
355508-2-CAREX LEPIDOCARPA
355535-3-CAREX NIGRA
355523-+-CAREX PANICEA
312901-+-HYDROCOTYLE VULGARIS
350117-1-JUNCUS ARTICULATUS
322904-+-MENTHA AQUATICA
320601-+-MENYANTHES TRIFOLIATA
296202-+-RANUNCULUS ACRIS
296208-1-RANUNCULUS FLAMMULA

1981 RELEVE 41

353204-1-AGROSTIS STOLONIFERA
265901-2-CAMPYLIUM STELLATUM
355526-+-CAREX FLACCA
355504-+-CAREX HOSTIANA
355523-1-CAREX PANICEA
334305-2-CIRSIUM DISSECTUM
344803-+-DACTYLORHIZA INCARNATA
327003-+-EUPHRASIA SCOTTICA
253716-1-FISSIDENS ADIANTHOIDES
308602-+-LINUM CATHARTICUM
353801-2-MOLINIA CAERULEA
305904-+-POTENTILLA ERECTA
355401-3-SCHOENUS NIGRICANS
351001-+-SIEGLINGIA DECUMBENS
331201-+-SUCCISA PRATENSIS

1981 RELEVE 42

355511-+-CAREX SEROTINA
220118-+-CHARA GLOB.V.V.F.VIRGATA
340201-+-ECHINODORUS RANUNCULOIDES
350116-+-JUNCUS ACUTIFLORUS
330201-+-LITTORELLA UNIFLORA
353701-+-PHRAGMITES AUSTRALIS
341106-1-POTAMOGETON GRAMINEUS

1981 RELEVE 43

355532-4-CAREX ELATA
355508-+-CAREX LEPIDOCARPA
355516-1-CAREX ROSTRATA
340201-+-ECHINODORUS RANUNCULOIDES
355005-+-ELEOCHARIS PALUSTRIS
312901-+-HYDROCOTYLE VULGARIS
350116-+-JUNCUS ACUTIFLORUS
322904-+-MENTHA AQUATICA
296208-+-RANUNCULUS FLAMMULA

1981 RELEVE 44

291401-+-ALNUS GLUTINOSA
332401-+-ANTENNARIA DIOICA
350401-1-BRIZA MEDIA
317001-3-CALLUNA VULGARIS
355504-+-CAREX HOSTIANA
355523-1-CAREX PANICEA
355555-+-CAREX PULICARIS
334305-1-CIRSIUM DISSECTUM
268901-+-CTENIDIUM MOLLUSCUM
350805-2-FESTUCA RUBRA
321104-+-GALIUM VERUM
290401-+-JUNIPERUS COMMUNIS
308602-+-LINUM CATHARTICUM
308002-1-LOTUS CORNICULATUS
353801-3-MOLINIA CAERULEA
330103-+-PLANTAGO LANCEOLATA
330104-+-PLANTAGO MARITIMA
269201-2-RHYTIDIADELPHUS TRIQUETRUS
355401-+-SCHOENUS NIGRICANS
280501-+-SELAGINELLA SELAGINOIDES
331201-3-SUCCISA PRATENSIS
307912-2-TRIFOLIUM PRATENSE
307902-+-TRIFOLIUM REPENS

1981 RELEVE 45

353204-+-AGROSTIS STOLONIFERA
315201-1-ANGELICA SYLVESTRIS
354001-+-ANTHOXANTHUM ODORATUM
266506-4-CALLIERGON CUSPIDATUM
355540-4-CAREX DIANDRA
312305-+-EPILOBIUM OBSCURUM
355101-+-ERIOPHORUM ANGUSTIFOLIUM
352801-+-HOLCUS LANATUS
312901-+-HYDROCOTYLE VULGARIS
261000-1-MNIUM SP.
296208-+-RANUNCULUS FLAMMULA
355401-1-SCHOENUS NIGRICANS

1981 RELEVE 46

353204-3-AGROSTIS STOLONIFERA
355504-+-CAREX HOSTIANA
355523-+-CAREX PANICEA
327011-+-EUPHRASIA ROSTKOVIANA
350805-2-FESTUCA RUBRA
321102-1-GALIUM BOREALE
321107-+-GALIUM PALUSTRE
335201-+-LEONTODON AUTUMNALIS
308602-+-LINUM CATHARTICUM
353801-2-MOLINIA CAERULEA
305901-2-POTENTILLA FRUTICOSA
324601-+-PRUNELLA VULGARIS
281301-+-PTERIDIUM AQUILINUM
294703-1-SAGINA PROCUMBENS
351001-+-SIEGLINGIA DECUMBENS
331201-+-SUCCISA PRATENSIS

1981 RELEVE 47

353204-1-AGROSTIS STOLONIFERA
332401-+-ANTENNARIA DIOICA
350401-1-BRIZA MEDIA
266506-+-CALLIERGON CUSPIDATUM
355526-1-CAREX FLACCA
334801-+-CARLINA VULGARIS
305701-3-DRYAS OCTOPETALA
327011-+-EUPHRASIA ROSTKOVIANA
350805-3-FESTUCA RUBRA
290401-+-JUNIPERUS COMMUNIS
308002-1-LOTUS CORNICULATUS
304701-+-PARNASSIA PALUSTRIS
330103-+-PLANTAGO LANCEOLATA
305904-+-POTENTILLA ERECTA
305901-1-POTENTILLA FRUTICOSA
324601-+-PRUNELLA VULGARIS
291014-1-SALIX REPENS
355401-2-SCHOENUS NIGRICANS
331201-1-SUCCISA PRATENSIS
307912-+-TRIFOLIUM PRATENSE

1981 RELEVE 48

314703-1-APIUM INUNDATUM
266506-1-CALLIERGON CUSPIDATUM
301902-+-CARDAMINE PRATENSIS
340201-1-ECHINODORUS RANUNCULOIDES
355005-2-ELEOCHARIS PALUSTRIS
321107-+-GALIUM PALUSTRE
351301-1-GLYCERIA FLUITANS
322904-2-MENTHA AQUATICA
320601-+-MENYANTHES TRIFOLIATA
322301-+-MYOSOTIS SCORPIDIOIDES
292511-3-POLYGONUM AMPHIBIUM
341104-1-POTAMOGETON COLORATUS
296208-+-RANUNCULUS FLAMMULA
296217-+-RANUNCULUS TRICHOPHYLLUS

1981 RELEVE 49

353204-+-AGROSTIS STOLONIFERA
355526-+-CAREX FLACCA
350805-2-FESTUCA RUBRA
310801-2-FRANGULA ALNUS
321102-1-GALIUM BOREALE
308401-+-GERANIUM SANGUINEUM
308002-+-LOTUS CORNICULATUS
305904-+-POTENTILLA ERECTA
306801-+-PRUNUS SPINOSA
310701-2-RHAMNUS CATHARTICUS
305204-+-RUBUS FRUTICOSUS AGG.
355401-3-SCHOENUS NIGRICANS
331201-1-SUCCISA PRATENSIS

1981 Rreleve 50

314703-+-APIUM INUNDATUM
340201-+-ECHINODORUS RANUNCULOIDES
355005-+-ELEOCHARIS PALUSTRIS
350118-+-JUNCUS BULBOSUS
330201-2-LITTORELLA UNIFLORA
341104-3-POTAMOGETON COLORATUS
296217-+-RANUNCULUS TRICHOPHYLLUS
326703-+-VERONICA CATENATA

1981 RELEVE 51

350401-+-BRIZA MEDIA
317001-1-CALLUNA VULGARIS
355526-1-CAREX FLACCA
355504-1-CAREX HOSTIANA
327002-+-EUPHRASIA MICRANTHA
327011-+-EUPHRASIA ROSTKOVIANA
350805-3-FESTUCA RUBRA
305101-1-FILIPENDULA VULGARIS
321104-+-GALIUM VERUM
308401-+-GERANIUM SANGUINEUM
352901-+-KOELERIA CRISTATA
308602-1-LINUM CATHARTICUM
308002-1-LOTUS CORNICULATUS
330104-1-PLANTAGO MARITIMA
305904-+-POTENTILLA ERECTA
281301-+-PTERIDIUM AQUILINUM
305302-+-ROSA PIMPINELLIFOLIA
355401-1-SCHOENUS NIGRICANS
351001-+-SIEGLINGIA DECUMBENS
331201-2-SUCCISA PRATENSIS
307912-+-TRIFOLIUM PRATENSE

1981 RELEVE 35

353204-1-AGROSTIS STOLONIFERA
317502-+-ANAGALLIS TENELLA
315201-+-ANGELICA SYLVESTRIS
266506-4-CALLIERGON CUSPIDATUM
355526-+-CAREX FLACCA
355504-+-CAREX HOSTIANA
355508-1-CAREX LEPIDOCARPA
355535-+-CAREX NIGRA
355523-+-CAREX PANICEA
355516-1-CAREX ROSTRATA
331801-1-EUPATORIUM CANNABINUM
321107-+-GALIUM PALUSTRE
312901-2-HYDROCOTYLE VULGARIS
350117-+-JUNCUS ARTICULATUS
322904-+-MENTHA AQUATICA
353801-2-MOLINIA CAERULEA
353701-+-PHRAGMITES AUSTRALIS
296208-+-RANUNCULUS FLAMMULA
355401-2-SCHOENUS NIGRICANS
331201-+-SUCCISA PRATENSIS

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353204-+-AGROSTIS STOLONIFERA
266506-4-CALLIERGON CUSPIDATUM
295901-+-CALTHA PALUSTRIS
355508-2-CAREX LEPIDOCARPA
355516-4-CAREX ROSTRATA
220100-2-CHARA
266206-+-DREPANOCLADUS REVOLVENS
312305-+-EPILOBIUM OBSCURUM
312303-+-EPILOBIUM PARVIFLORUM
350117-+-JUNCUS ARTICULATUS
343303-+-LEMNA MINOR
322904-+-MENTHA AQUATICA
301801-+-NASTURTIUM OFFICINALE AGG
304701-+-PARNASSIA PALUSTRIS
353701-1-PHRAGMITES AUSTRALIS

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353401-+-AIRA PRAECOX
354001-+-ANTHOXANTHUM ODORATUM
308101-+-ANTHYLLIS VULNERARIA
355523-+-CAREX PANICEA
294602-+-CERASTIUM FONTANUM
350805-1-FESTUCA RUBRA
305102-2-FILIPENDULA ULMARIA
321104-+-GALIUM VERUM
335201-+-LEONTODON AUTUMNALIS
308602-+-LINUM CATHARTICUM
309002-+-LOTUS CORNICULATUS
335701-+-PILOSELLA OFFICINARUM
330103-+-PLANTAGO LANCEOLATA
330104-+-PLANTAGO MARITIMA
305904-+-POTENTILLA ERECTA
305901-2-POTENTILLA FRUTICOSA
324601-+-PRUNELLA VULGARIS
306801-1-PRUNUS SPINOSA
267001-+-PSEUDOSCLEROPODIUM PURUM
269202-+-RHYTIDIADELPHUS SQUARROSU
305300-+-ROSA SP.
334001-+-SENECIO JACOBEA
351101-4-SESLERIA CAERULEA
331201-+-SUCCISA PRATENSIS
322703-+-TEUCRIUM SCORODONIA
323203-2-THYMUS DRUCEI
307902-+-TRIFOLIUM REPENS