

1985 SPEY VALLEY LOCH SURVEY

Loch name ... Loch an Gilein ... Estate Rothiemurchus No. NH8037
 Grid Reference ... NH 895075 ... Date surveyed Sept 16th - 17th 85
 Loch size 46.2 ha. Altitude 255 m Secchi disk depth m
 Water colour clear Loch level up cm down cm
 Adjacent wetland occ marshy boggy patch in bays

Substrate types

- Sand (0.1 - 4mm diam.)
- Bedrock
- Silt (< 0.1mm diam.)
- Boulders (> 30cm max diam.)
- Organic mud
- Stones (5-30cm diam.) mainly
- Peat
- Gravel (4-50mm diam.)
- Artificial embankment

Uses and Damage

USE	AREA AFFECTED	DAMAGE
Water abstraction	.....	.....
Sewage inflow	.....	.....
Agricultural pollution	.....	.....
Tourism: edge trampling	<u>N corner nr Visitor Centre</u>	<u>locally bare</u>
litter	.....	.....
boating	.....	.....
Fishing	<u>all loch</u>	<u>minimal</u>
Shooting	.....	.....
Others	.....	.....

Fauna

Birds

Mammals

Molluscs

Dragonflies

Lestes sponsa
Erythemis simplicicollis
Aeshna juncea
Sympetrum nigrescens

Others

slow worm
Lizard
Pike

abundant
Gyrinidae
land slaters
+ Nectonecta sp

Conductivity : 40-50 S. scoticum umhos

PH : 6.9

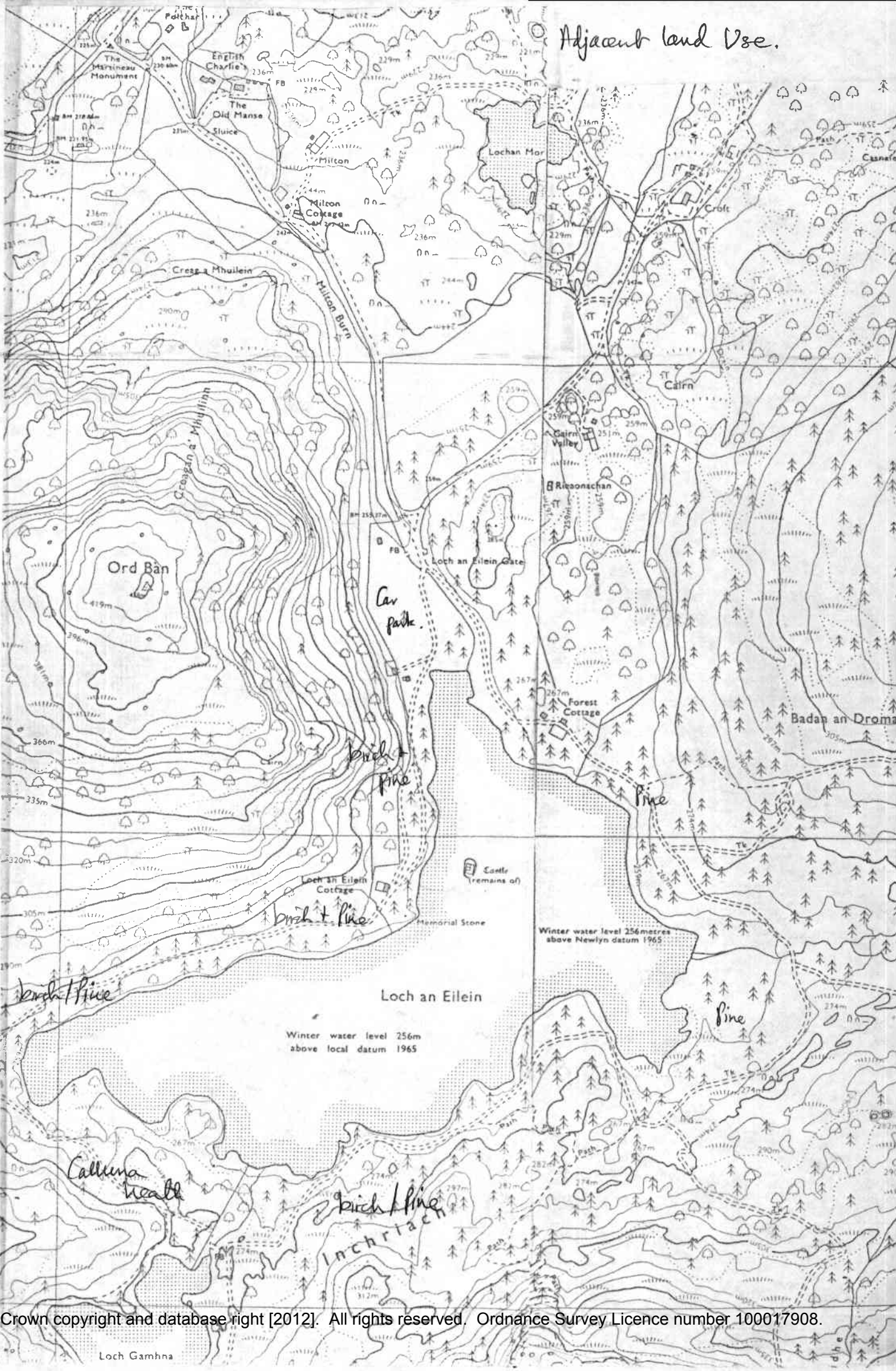
Map Code	Species	DAFOR	Data Code	Map Code	Species	DAFOR	Data Code
Ags	Agrostis stolonifera	..	....	Pha	Phragmites australis	..	....
Api	Apium inundatum	..	....	Pam	Polygonum amphibium	..	....
Cah	Callitriche hamulata	..	....	Pal	Potamogeton alpinus	..	....
Cas	Callitriche stagnalis	..	....	Pbe	Potamogeton berchtoldii	R	....
Cap	Caltha palustris	..	....	Pcr	Potamogeton crispus	..	....
Cxa	Carex aquatilis	..	....	Pgr	Potamogeton gramineus	..	....
Cxl	Carex lasiocarpa	Bays	0-LF	Pn	Potamogeton natans	F-LA	....
Cxro	Carex rostrata	mainly in bays	F-LD	Pob	Potamogeton obtusifolius	..	....
Cxv	Carex vesicaria	..	....	Pper	Potamogeton perfoliatus	R	....
Elp	Eleocharis palustris	0	....	Ppol	Potamogeton polygonifolius	LR	....
Elc	Elodea canadensis	..	....	Ppra	Potamogeton praelongus	..	....
Era	Eriophorum angustifolium	LF	....	Pop	Potentilla palustris	R	....
GlF	Glyceria fluitans	0	....	Rfl	Ranunculus flammula	0	....
Hip	Hippuris vulgaris	..	....	Rhe	Ranunculus hederaceus	..	....
Hyd	Hydrocotyle vulgaris	..	....	Rom	Ranunculus omiophyllus	..	....
Ip	Iris pseudacorus	..	....	Rpe	Ranunculus peltatus	..	....
Jb	Juncus bulbosus	F-LA	....	Sf	Scirpus fluitans	..	....
Je	Juncus effusus	..	....	Sl	Scirpus lacustris	..	....
Lm	Lemna minor	..	....	Scu	Scutellaria galericulata	..	....
Lit	Littorella uniflora	A-D	....	Spa	Sparganium angustifolium	0-LF	....
Lob	Lobelia dortmanna	F-A	....	Spe	Sparganium emeresum	in bays	....
Ma	Mentha aquatica	..	....	Spm	Sparganium minimum	..	....
Mt	Menyanthes trifoliata	in bays	0	Sub	Subularia aquatica	..	....
Mg	Mimulus guttatus	..	....	Tyl	Typha latifolia	..	....
Mm	Mimulus moscatus	..	....	Uti	Utricularia intermedia	0-LF	....
Mon	Montia fontana	..	....	Um	Utricularia minor	bays	....
Myl	Myosotis laxa/caespitosa	..	....	Uva	U. vulgaris/australis	0	....
Mys	Myosotis secunda	..	....	Vb	Veronica beccabunga	..	....
Mal	Myriophyllum alterniflorum	F	....	Vs	Veronica scutellata	..	....
Ms	Myriophyllum spicatum	..	....	Ef	Equisetum fluviatile	F-LA	....
Nas	Nasturtium officinale	..	....	Ep	Equisetum palustre	..	....
Nul	Nuphar lutea	..	....	Isl	Isoetes lacustris	LF	....
Nup	Nuphar pumila	..	....	Ch	Chara spp. *	in pool	LF
Nulp	Nuphar lutea X pumila	..	....	Ni	Nitella spp.	..	....
Na	Nymphaea alba	in bays	0-LF	Fon	Fontinalis antipyretica	..	....
Pa	Phalaris arundinacea	..	....	Pil	Pilularia globulifera	..	....

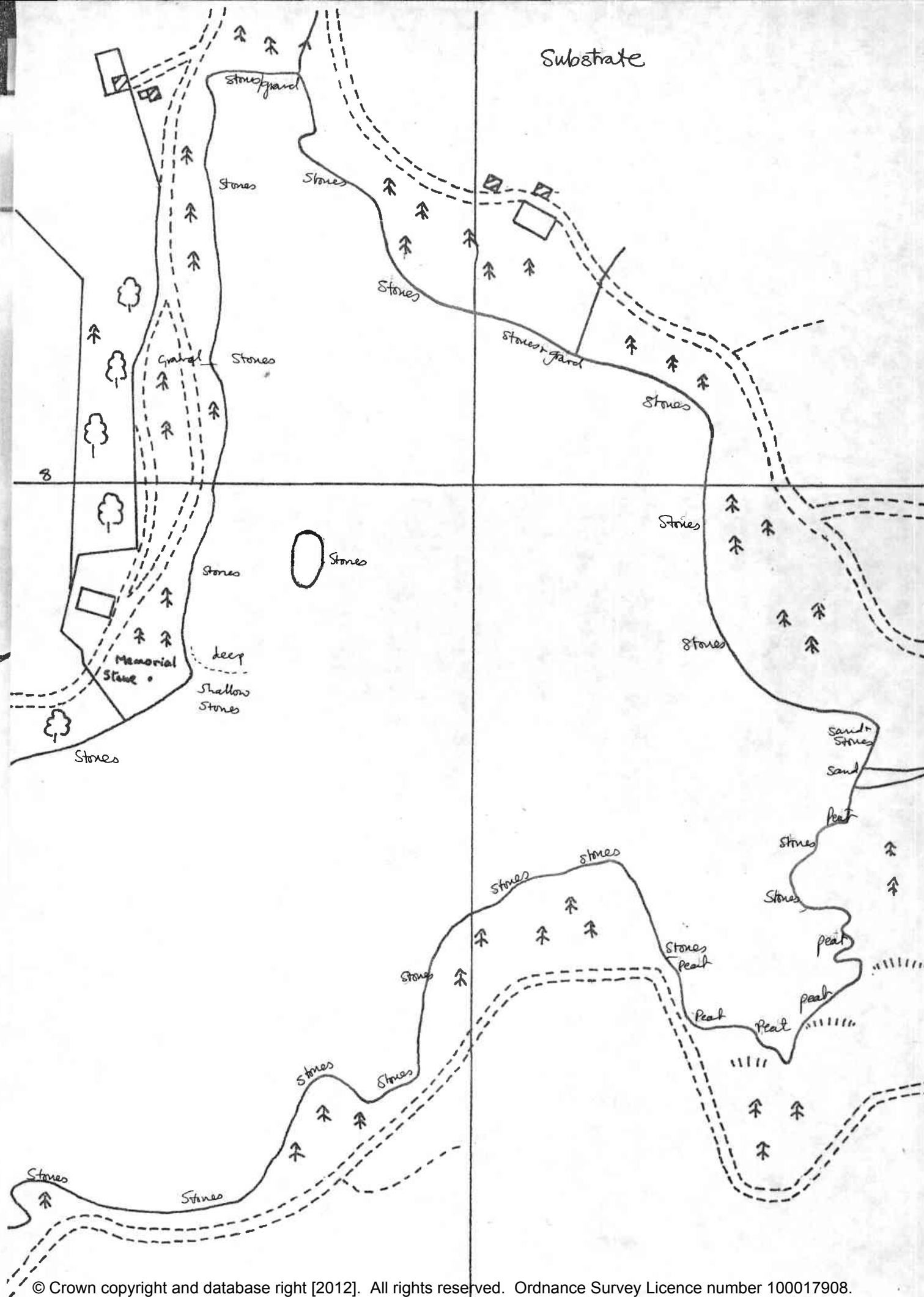
Eleocharis multicaulis in pool L

type 3a

Chara glaucularis (approaching var. virgata)

Adjacent land Use.

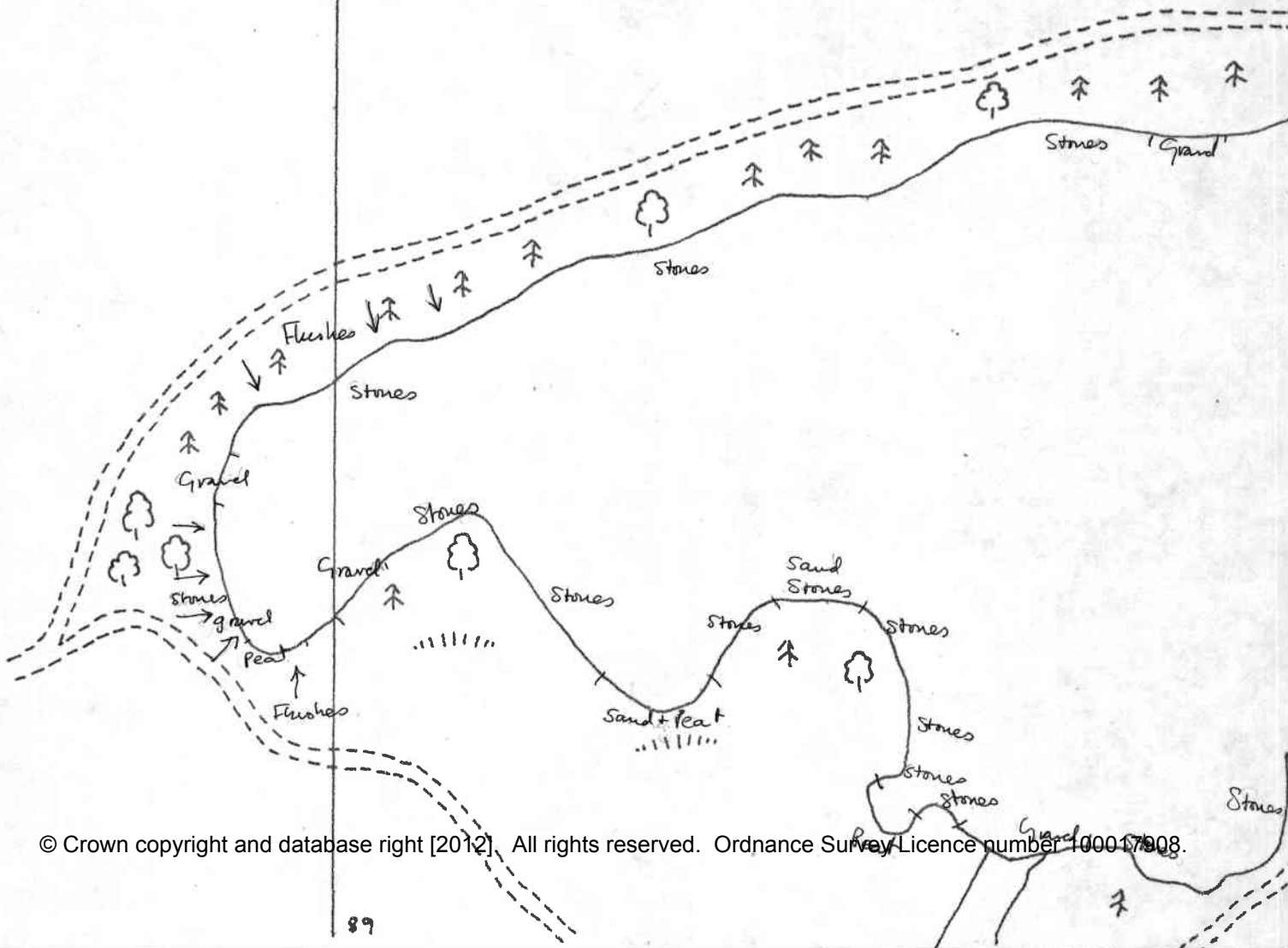




Loch an Eilein

Substrate

1:4,000



	mg/l		Mean (mg/l)	Range (mg/l) for lochs sampled
	a	b		
Phosphate PO ₄	<0.005	<0.005	0.013	< 0.005-0.11
Nitrate NO ₃	<0.010	<0.010	0.038	< 0.010-0.29
Ammonium NH ₄	<0.10	<0.10	0.102	< 0.10 -0.26
Silica Si	3.0	2.7	2.066	< 0.050-5.0
Total Phosphorus P	0.006	0.005	0.034	0.004-0.32
Potassium K	0.48	0.47	0.755	0.2 -2.3
Calcium Ca	2.3	2.2	4.23	0.24-11
Magnesium Mg	0.78	0.80	1.159	0.51-2.4
Aluminium Al	0.052	0.050	0.077	0.003-0.17
Alkalinity in mg/l CaCO ₃	8.0	9.0	11.76	slight-29 acidity
pH	c 6.9		-	4.4-7.5
Conductivity in µmhos	c 40-50		-	27-180

Sample a taken from west end of loch 25.9.85

Sample b taken from north end of loch near outflow 25.9.85

Sample c taken mid-loch 17.9.85

LOCH AN EILEIN

This large loch (46.2 ha), is surrounded by native Scots Pine and Birch forest with small patches of plantation. There is an island mostly occupied by a ruined castle. The loch edge is almost entirely stony and exposed. In the sheltered bays the peat, sand and gravel support richer plant communities; Carex rostrata beds, Nymphaea alba and Potamogeton natans. The inflow from Loch Gamhna in the south adds some diversity. The SW bay has the most deep water vegetation with two other Potamogeton species. (P. berchtoldii and P. perfoliatus). There are local calcareous streams with Chara globularis in the NE.

Communities

Substrate	Depth	Species		
Stones	0-0.5m	Littorella uniflora	F-A	
		Carex rostrata	LD	
		Equisetum fluviatile	LF	
		Glyceria fluitans	O	
	0.5-1m	Littorella uniflora	LD	
		Lobelia dortmanna	LA	
		Myriophyllum alterniflorum	O	
		Juncus bulbosus	F	
	>1m	J. bulbosus	F	
		Littorella	F	
		Utricularia vulgaris	O	
		Lobelia dortmanna	LF	
		Isoetes lacustris	LF	
	Gravel	0-0.5m	Myriophyllum alterniflorum	O
			Littorella uniflora	A
Lobelia dortmanna			F	
Eleocharis palustris			LF	
0.5-1.5m		P. natans	LA	
		Nymphaea alba	O	
		Lobelia dortmanna	O-F	
		Sparganium angustifolium	O	
Peat (& sand)		0-0.5m	Menyanthes trifoliata	O
			Carex rostrata	LD
	C. lasiocarpa		LA	
	Equisetum fluviatile		LF	
	P. polygonifolius		LA	
	Utricularia vulgaris		O	
	Eriophorum angustifolium		LF	
	0.5-1m	P. natans	O-LF	
		J. bulbosus	O-LF	
		Nymphaea alba	LF	
		Sparganium angustifolium	LF	

Target Notes

- (i) Pool containing Carex rostrata, Eriophorum angustifolium, Eleocharis multicaulis, Juncus bulbosus, Potamogeton polygonifolius, Utricularia intermedia, Scorpidium scorpioides and Chara globularis.
- (ii) Pool with Sphagnum species dominating, but also Carex rostrata, Eriophorum angustifolium and patches of Potamogeton polygonifolius, Menyanthes trifoliata, Carex nigra.
- (iii) A system of small pools and several inflows with Carex rostrata and Potamogeton polygonifolius.
- (iv) Indented peat loch edge with inlets containing Utricularia vulgaris, P. natans, Menyanthes, Potentilla palustris, Equisetum fluviatile, Juncus bulbosus, P. polygonifolius and Eriophorum angustifolium at the edge. Flushes run down to the loch edge fed by springs.

