

1997 LOCH INVENTORY: SOUTH EAST SCOTLAND*

Code N12514 Name GLADHOUSE RESERVOIR Grid Ref N1298534
 Date 12th June 1997 Surveyors SSD/CC Estate
 Area 153.9 ha Altitude 270 m Catchment ha Geology 70171/80
 Water colour VERY PALE BROWN Clarity CLEAR Boat used YES Secchi disc depth 1.4 m
 Loch type SA Edge type(s) S4a, S9a, S9b, S10a, S11a, S11b, S22a, S23, S27a, S28a, M3a (NVC codes)
 Status GLADHOUSE RESERVOIR SSSI Access 1 Road/houses present (underline)
 Land use % Open water Semi-natural Forestry Agriculture

Substrate types (underline main type, tick others present)

- | | |
|---|---|
| Bedrock | |
| <input checked="" type="checkbox"/> Boulders (>30cm max. diam.) | <input checked="" type="checkbox"/> Silt (<0.1mm diam.) |
| <input checked="" type="checkbox"/> Stones (5-30cm diam.) | <input checked="" type="checkbox"/> Organic mud |
| <input checked="" type="checkbox"/> Gravel (4-50mm diam.) | Peat |
| Sand (0.1-4mm diam.) | <input checked="" type="checkbox"/> Artificial embankment |

USES AND DAMAGE
Observations

Use	Observations
Adjacent forestry	<u>landscape shelterbelt conifer plantations (not dense) around loch</u>
Agricultural pollution	.....
Edge trampling	.....
Fishing (edge/boat)	<u>Boat fishing. Fishing hut - jetty moorings < 10 boats N shore. Bouthouse 2 boats east on. Boats N side corner</u>
Litter	<u>Occasional</u> ¹ <u>Fishing intensive</u>
Shooting	.....
Water abstraction	<u>Water supply reservoir - subject to abstraction/drawdown</u>

SURROUNDING LAND USE:

Site fenced - within this plantation, bull herb, rough grassland, fen, willow wood
Beyond road & improved pasture

FAUNA

Mammals	Birds	Reptiles Amphibians	Fish	Dragonflies & other invertebrates
	<u>Great crested Grebe - br.</u> <u>Mute Swan</u> <u>Mallard</u> <u>L. Grebe</u> <u>Tufted Duck</u> <u>Common Sandpiper</u>		<u>1</u>	<u>Ischnura elegans</u>
	<u>Sedge warbler</u> <u>Reed Bunting</u> <u>Coot</u> <u>Grey lag Goose</u>			

SPECIES DIVERSITY

RARE SPECIES

WATER CHEMISTRY

Edge	<u>22</u>	Scarce (*)	Alkalinity	<u>0.54</u> meq/l
Open water	<u>10</u>	Red Data Book (**)	Conductivity	<u>137</u> µS/cm
Total	<u>30</u>		p.H.	<u>7.1</u>

* Includes Angus, City of Edinburgh, Clackmannanshire, Dundee City, East Lothian, Falkirk, Fife, Midlothian, Perth & Kinross, Scottish Borders, Stirling and West Lothian unitary authorities.

1997 SOUTH EAST SCOTLAND LOCH INVENTORY: AQUATIC PLANT SPECIES LIST

Code N12514 Site name GLADHOUSE RESERVOIR Grid ref N1298534 Date 12 June 1997

EMERGENT & EDGE SPECIES

Map code	Species	DAFOR	Map code	Species	DAFOR
Ac	<i>Acorus calamus</i>	.....	Ma	<i>Mentha aquatica</i>	<u>FLA</u>
Ags	<i>Agrostis stolonifera</i>	<u>F</u>	Mt	<i>Menyanthes trifoliata</i>	.....
Al	<i>Alisma lanceolatum</i>	.....	Mg	<i>Mimulus guttatus</i>	.....
Apa	<i>Alisma plantago-aquatica</i>	<u>0</u>	Ml	<i>Mimulus luteus</i>	.....
Apn	<i>Apium nodiflorum</i>	.....	Mm	<i>Mimulus moschatus</i>	.....
Bar	<i>Baldellia ranunculoides</i>	.....	Mi	<i>Mimulus sp.</i>	.....
Ber	<i>Berula erecta</i>	.....	Mon	<i>Montia fontana</i>	.....
Bom	<i>Bolboschoenus maritimus</i>	.....	Myl	<i>Myosotis laxa</i>	.....
Bu	<i>Butomus umbellatus</i>	.....	Msc	<i>Myosotis scorpioides</i>	<u>LF</u>
Cal	<i>Calla palustris</i>	.....	Msec	<i>Myosotis secunda</i>	.....
Cab	<i>Callitriche brutia</i>	.....	Mst*	<i>Myosotis stolonifera</i>	.....
Cas	<i>Callitriche stagnalis</i>	.....	Oa	<i>Oenanthe aquatica</i>	.....
Cap	<i>Caltha palustris</i>	<u>OLF</u>	Oc	<i>Oenanthe crocata</i>	.....
Cxat	<i>Carex acuta</i>	.....	Of	<i>Oenanthe fistulosa</i>	.....
Cxaf	<i>Carex acutiformis</i>	.....	Pam	<i>Persicaria amphibia</i>	<u>F</u>
Cxa	<i>Carex aquatilis</i>	.....	Ph	<i>Persicaria hydropiper</i>	.....
Cxl	<i>Carex lasiocarpa</i>	.....	Pha	<i>Phalaris arundinacea</i>	<u>FLA</u>
Cxli	<i>Carex limosa</i>	.....	Phr	<i>Phragmites australis</i>	<u>OLF</u>
Cxn	<i>Carex nigra</i>	<u>F</u>	Pop	<i>Potentilla palustris</i>	<u>OLF</u>
Cxri	<i>Carex riparia</i>	.....	Rfl	<i>Ranunculus flammula</i>	<u>F</u>
Cxro	<i>Carex rostrata</i>	<u>FLA</u>	Rh	<i>Ranunculus hederaceus</i>	.....
Cxv	<i>Carex vesicaria</i>	.....	Rl	<i>Ranunculus lingua</i>	.....
Ca	<i>Catabrosa aquatica</i>	.....	Ro	<i>Ranunculus omiophyllus</i>	.....
Civ*	<i>Cicuta virosa</i>	.....	Rr	<i>Ranunculus reptans</i>	.....
Clm	<i>Cladium mariscus</i>	.....	Rs	<i>Ranunculus sceleratus</i>	.....
Des*	<i>Deschampsia setacea</i>	.....	Roa	<i>Rorippa amphibia</i>	.....
Elac	<i>Eleocharis acicularis</i>	.....	Roi	<i>Rorippa islandica</i>	.....
Elm	<i>Eleocharis multicaulis</i>	.....	Rm	<i>Rorippa microphylla</i>	.....
Elp	<i>Eleocharis palustris</i>	<u>FLA</u>	Rna	<i>Rorippa nasturtium-aquaticum</i>	.....
Elq	<i>Eleocharis quinqueflora</i>	.....	Rxs	<i>Rorippa x sterilis</i>	.....
Elu	<i>Eleocharis uniglumis</i>	.....	Rxh	<i>Rumex hydrolapathum</i>	.....
Egf	<i>Equisetum fluviatile</i>	<u>F</u>	Scp**	<i>Scheuchzeria palustris</i>	.....
Eqp	<i>Equisetum palustre</i>	.....	Sl	<i>Schoenoplectus lacustris</i>	.....
Eqxl	<i>Equisetum x litorale</i>	.....	St	<i>Schoenoplectus tabernaemontani</i>	.....
Era	<i>Eriophorum angustifolium</i>	.....	Spem	<i>Sparganium emersum</i>	.....
Gld	<i>Glyceria declinata</i>	.....	Sper	<i>Sparganium erectum</i>	.....
Glf	<i>Glyceria fluitans</i>	<u>OLF</u>	Ta	<i>Typha angustifolia</i>	.....
Glm	<i>Glyceria maxima</i>	.....	Tl	<i>Typha latifolia</i>	.....
Gln	<i>Glyceria notata</i>	.....	Vaa	<i>Veronica anagallis-aquatica</i>	.....
Glxp	<i>Glyceria x pedicellata</i>	.....	Vb	<i>Veronica beccabunga</i>	.....
Hip	<i>Hippuris vulgaris</i>	.....	Vc	<i>Veronica catenata</i>	.....
Hyd	<i>Hydrocotyle vulgaris</i>	.....	Vs	<i>Veronica scutellata</i>	<u>0</u>
Ip	<i>Iris pseudacorus</i>	.....		<i>Rorippa palustris</i>	<u>0</u>
Iv	<i>Iris versicolor</i>	.....		SPECIES TOTAL	<u>22</u>
Jac	<i>Juncus acutiflorus</i>	<u>LA</u>			
Jaa*	<i>Juncus alpinoarticulatus</i>	.....		Other edge species	
Ja	<i>Juncus articulatus</i>	<u>0</u>	Cxd	<i>Carex viridula ssp. oedocarpa (=C. demissa)</i>	<u>0</u>
Jb	<i>Juncus bulbosus</i>	<u>0</u>	Cxe	<i>Carex echinata</i>	.....
Jc	<i>Juncus conglomeratus</i>	.....	Cxp	<i>Carex panicea</i>	.....
Je	<i>Juncus effusus</i>	<u>LF</u>	Cxpa	<i>Carex paniculata</i>	.....
Lim*	<i>Limosella aquatica</i>	.....	Gp	<i>Galium palustre</i>	<u>F</u>
Lit	<i>Littorella uniflora</i>	<u>OLF</u>	Sa	<i>Senecio aquaticus</i>	<u>0</u>
Lyc*	<i>Lycopodiella inundata</i>	.....	Tp	<i>Triglochin palustre</i>	.....
Lyt*	<i>Lysimachia thyriflora</i>	.....	Vp	<i>Viola palustris</i>	.....
Lyp	<i>Lythrum portula</i>	.....		
Lys	<i>Lythrum salicaria</i>	.....		

Note: * = Scarce plants (occurring in 16-100 10x10km squares in Great Britain) known to occur in the Scottish Environment Protection Agency East & West Regions.

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1997 SOUTH EAST SCOTLAND LOCH INVENTORY: AQUATIC PLANT SPECIES LIST

Code N12614 Site name GLADHOUSE RESERVOIR Grid ref N1298534 Date 12 June 1997

SUBMERGED & FLOATING SPECIES

Map code	Species	DAFOR	Map code	Species	DAFOR
Api	<i>Apium inundatum</i>	.....	Pxn	<i>Potamogeton x nitens</i>	.....
Apd	<i>Aponogeton distachyos</i>	.....	<u>Pob</u>	<u><i>Potamogeton obtusifolius</i></u>	<u>o/LF</u>
Af	<i>Azolla filiculoides</i>	.....	Pxo	<i>Potamogeton x olivaceus</i>	.....
Bar	<i>Baldellia ranunculoides</i>*	.....	Ppec	<i>Potamogeton pectinatus</i>	.....
<u>Cah</u>	<u><i>Callitriche hamulata</i></u>	<u>0</u>	Pper	<i>Potamogeton perfoliatus</i>	.....
Cher	<i>Callitriche hermaphroditica</i>	.....	Ppol	<i>Potamogeton polygonifolius</i>	.....
Cao	<i>Callitriche obtusangula</i>	.....	Ppra	<i>Potamogeton praelongus</i>	.....
Cpla	<i>Callitriche platycarpa</i>	.....	Ppu	<i>Potamogeton pusillus</i>	.....
Cas	<i>Callitriche stagnalis</i>	.....	Pxsa	<i>Potamogeton x salicifolius</i>	.....
Ca	<i>Callitriche</i> sp.	.....	Pxsp	<i>Potamogeton x sparganiifolius</i>	.....
Ced	<i>Ceratophyllum demersum</i>	.....	Pxsu	<i>Potamogeton x suecicus</i>	.....
Crh	<i>Crassula helmsii</i>	.....	Pt*	<i>Potamogeton trichoides</i>	.....
Ela	<i>Elatine hexandra</i>	.....	Pxz	<i>Potamogeton x zizii</i>	.....
Elh*	<i>Elatine hydropiper</i>	.....	Ra	<i>Ranunculus aquatilis</i>	.....
Ef	<i>Eleogiton fluitans</i>	.....	Rb	<i>Ranunculus baudotii</i>	.....
<u>Ec</u>	<u><i>Elodea canadensis</i></u>	<u>F</u>	Rc	<i>Ranunculus circinatus</i>	.....
En	<i>Elodea nuttallii</i>	.....	Rf	<i>Ranunculus fluitans</i>	.....
<u>Fon</u>	<u><i>Fontinalis antipyretica</i></u>	<u>o/LF</u>	Rxk	<i>Ranunculus x kelchoensis</i>	.....
Grd	<i>Groenlandia densa</i>	.....	<u>Rp</u>	<u><i>Ranunculus peltatus</i></u>	<u>F</u>
Hip	<i>Hippuris vulgaris</i>	.....	Rpse	<i>Ranunculus penicillatus</i>	.....
Hmr	<i>Hydrocharis morsus-ranae</i>	.....		ssp. <i>pseudofluitans</i>	.....
Hyd	<i>Hydrocotyle vulgaris</i>	.....	Rtr	<i>Ranunculus trichophyllus</i>	.....
Ise*	<i>Isoetes echinospora</i>	.....	Rum	<i>Ruppia maritima</i>	.....
Isl	<i>Isoetes lacustris</i>	.....	Sas	<i>Sagittaria sagittifolia</i>	.....
Jb	<i>Juncus bulbosus</i>	.....	Spa	<i>Sparganium angustifolium</i>	.....
Lam	<i>Lagarosiphon major</i>	.....	Spem	<i>Sparganium emersum</i>	.....
Lg	<i>Lemna gibba</i>	.....	Spn	<i>Sparganium natans</i>	.....
Lm	<i>Lemna minor</i>	.....	Sp	<i>Sparganium</i> sp.	.....
Lt	<i>Lemna trisulca</i>	.....	Spp	<i>Spirodela polyrhiza</i>	.....
<u>Lit</u>	<u><i>Littorella uniflora</i></u>	<u>F/LA</u>	Sta	<i>Stratiotes aloides</i>	.....
Lob	<i>Lobelia dortmanna</i>	.....	Sub	<i>Subularia aquatica</i>	.....
Lun	<i>Luronium natans</i>	.....	Uti	<i>Utricularia intermedia</i>	.....
Lyp	<i>Lythrum portula</i>	.....	Um	<i>Utricularia minor</i>	.....
<u>Mal</u>	<u><i>Myriophyllum alterniflorum</i></u>	<u>F</u>	Uo	<i>Utricularia ochroleuca</i>	.....
Msp	<i>Myriophyllum spicatum</i>	.....	Us	<i>Utricularia stygia</i>	.....
Nf*	<i>Najas flexilis</i>	.....	Uva	<i>Utricularia vulgaris/australis</i> agg.	.....
Nua	<i>Nuphar advena</i>	.....	Ut	<i>Utricularia</i> sp.	.....
Nul	<i>Nuphar lutea</i>	.....	Zan	<i>Zannichellia palustris</i>	.....
Nup*	<i>Nuphar pumila</i>	.....		
Nus	<i>Nuphar x spenneriana</i>	.....	Cha	<i>Chara</i> sp.	.....
Na	<i>Nymphaea alba</i>	.....	<u>Nit</u>	<u><i>Nitella opaca</i></u>	<u>o/LF</u>
Nyp	<i>Nymphoides peltata</i>	.....		
<u>Pam</u>	<u><i>Persicaria amphibia</i></u>	<u>F/LD</u>			
Pil*	<i>Pilularia globulifera</i>	.....		
Pal	<i>Potamogeton alpinus</i>	.....		
Pbe	<i>Potamogeton berchtoldii</i>	.....		
Pcol*	<i>Potamogeton coloratus</i>	.....		
Pcom*	<i>Potamogeton compressus</i>	.....		
Pxco	<i>Potamogeton x cooperi</i>	.....		
Pcr	<i>Potamogeton crispus</i>	.....		
Pfil*	<i>Potamogeton filiformis</i>	.....		
Pfr	<i>Potamogeton friesii</i>	.....		
<u>Pgr</u>	<u><i>Potamogeton gramineus</i></u>	<u>o/LF</u>			
Plu	<i>Potamogeton lucens</i>	.....		
Pn	<i>Potamogeton natans</i>	.....		

SPECIES TOTAL 10

Other species not included in total:
Sphag *Sphagnum* sp.

Specimens:
Chara sp. op
Nitella sp. Nitella (17/97)
Potamogeton sp. Pob (30/97) Pgr (31/97) Pgr (32/97)
Utricularia sp.

Potamogeton identification verified by C. D. Preston

Note: * = Scarce plants (occurring in 16-100 10x10km squares in Great Britain) known to occur in the Scottish

** = Red Data Book Species (occurring in >15 10x10km squares in Great Britain) known to occur in the Scottish Environment Protection Agency East & West Regions.