

1997 LOCH INVENTORY: SOUTH EAST SCOTLAND*

Code N58696 Name Black loch Grid Ref. N5861697
 Date 2/7/97 Surveyors MB/JTD Estate

Area 49.2 ha Altitude 230 m Catchment ha Geology 82-3
 Water colour Colourless Clarity clear Boat used No Secchi disc depth / m
 Loch type 3 Edge type(s) S9a, S9a, S9b, S10a, S22a, S27a, S28a, M23b (NVC codes)
 Status Access 1 Road/houses present (underline)
 Land use % Open water Semi-natural Forestry Agriculture

Substrate types (underline main type, tick others present)

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

USES AND DAMAGE

Use	Observations
Adjacent forestry	<u>Conifer plantation to north</u>
Agricultural pollution	.....
Edge trampling	<u>Western shore open to grazing by stock</u>
Fishing (edge/boat)	<u>edge</u>
Litter	.....
Shooting	.....
Water abstraction	<u>Site used for informal recreation - walking, picnicing, swimming etc - mod. intensive use</u>

SURROUNDING LAND USE:

Rough pasture. Some Conifer plantation. Road, housing Some probably unused.

FAUNA

Mammals	Birds	Reptiles Amphibians	Fish	Dragonflies & other invertebrates
	<u>Mallard (Br)</u> <u>G.c. grebe</u>			<u>Ischnura elegans</u> <u>Enallagma cyathigerum</u> <u>Gammarus</u>

SPECIES DIVERSITY

Edge 24
 Open water 11
 Total 33

RARE SPECIES

Scarce (*)
 Red Data Book (**)

WATER CHEMISTRY

Alkalinity 0.22 meq/l
 Conductivity 120 μ S/cm
 p.H. 7.04

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* 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 NS.86.06 Site name Black Loch Grid ref NS.861697 Date 2/2/97

EMERGENT & EDGE SPECIES

Map code	Species	DAFOR	Map code	Species	DAFOR
Ac	<i>Acorus calamus</i>	.....	Ma	<i>Mentha aquatica</i>	.....
<u>Ags</u>	<u><i>Agrostis stolonifera</i></u>	<u>F</u>	<u>Mt</u>	<u><i>Menyanthes trifoliata</i></u>	<u>O/LF</u>
Al	<i>Alisma lanceolatum</i>	.....	Mg	<i>Mimulus guttatus</i>	.....
Apa	<i>Alisma plantago-aquatica</i>	.....	MI	<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>	.....	<u>Mon</u>	<u><i>Montia fontana</i></u>	<u>0</u>
Bom	<i>Bolboschoenus maritimus</i>	.....	<u>Myl</u>	<u><i>Myosotis laxa</i></u>	<u>0</u>
Bu	<i>Butomus umbellatus</i>	.....	<u>Msc</u>	<u><i>Myosotis scorpioides</i></u>	<u>0</u>
Cal	<i>Calla palustris</i>	.....	<u>Msec</u>	<u><i>Myosotis secunda</i></u>	<u>F</u>
Cab	<i>Callitriche brutia</i>	.....	Mst*	<i>Myosotis stolonifera</i>	.....
Cas	<i>Callitriche stagnalis</i>	.....	Oa	<i>Oenanthe aquatica</i>	.....
<u>Cap</u>	<u><i>Caltha palustris</i></u>	<u>O/LF</u>	Oc	<i>Oenanthe crocata</i>	.....
Cxat	<i>Carex acuta</i>	.....	Of	<i>Oenanthe fistulosa</i>	.....
Cxaf	<i>Carex acutiformis</i>	.....	<u>Pam</u>	<u><i>Persicaria amphibia</i></u>	<u>0</u>
Cxa	<i>Carex aquatilis</i>	.....	Ph	<i>Persicaria hydropiper</i>	.....
Cxl	<i>Carex lasiocarpa</i>	.....	Pha	<i>Phalaris arundinacea</i>	<u>O/LD</u>
Cxli	<i>Carex limosa</i>	.....	Phr	<i>Phragmites australis</i>	.....
<u>Cxn</u>	<u><i>Carex nigra</i></u>	<u>F</u>	<u>Pop</u>	<u><i>Potentilla palustris</i></u>	<u>F/LA</u>
Cxri	<i>Carex riparia</i>	.....	<u>Rfl</u>	<u><i>Ranunculus flammula</i></u>	<u>O/LF</u>
<u>Cxro</u>	<u><i>Carex rostrata</i></u>	<u>O/LD</u>	Rh	<i>Ranunculus hederaceus</i>	.....
Cxv	<i>Carex vesicaria</i>	.....	RI	<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>	.....
<u>Elp</u>	<u><i>Eleocharis palustris</i></u>	<u>A</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>	.....
<u>Egf</u>	<u><i>Equisetum fluviatile</i></u>	<u>F/LA</u>	Scp**	<i>Scheuchzeria palustris</i>	.....
Eqp	<i>Equisetum palustre</i>	.....	SI	<i>Schoenoplectus lacustris</i>	.....
Eqxl	<i>Equisetum x litorale</i>	.....	St	<i>Schoenoplectus tabernaemontani</i>	.....
<u>Era</u>	<u><i>Eriophorum angustifolium</i></u>	<u>O/LA</u>	Spem	<i>Sparganium emersum</i>	.....
Gld	<i>Glyceria declinata</i>	.....	Sper	<i>Sparganium erectum</i>	.....
<u>Glf</u>	<u><i>Glyceria fluitans</i></u>	<u>O/LF</u>	Ta	<i>Typha angustifolia</i>	.....
Glm	<i>Glyceria maxima</i>	.....	TI	<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>	.....	<u>Vs</u>	<u><i>Veronica scutellata</i></u>	<u>0</u>
<u>Ip</u>	<u><i>Iris pseudacorus</i></u>	<u>O/LA</u>			
Iv	<i>Iris versicolor</i>	.....		SPECIES TOTAL	<u>24</u>
Jac	<i>Juncus acutiflorus</i>	<u>O/LF</u>			
Jaa*	<i>Juncus alpinoarticulatus</i>	.....		
<u>Ja</u>	<u><i>Juncus articulatus</i></u>	<u>O/LF</u>			
Jb	<i>Juncus bulbosus</i>	<u>0</u>			
Jc	<i>Juncus conglomeratus</i>	<u>0</u>			
<u>Je</u>	<u><i>Juncus effusus</i></u>	<u>F/LA</u>			
Lim*	<i>Limosella aquatica</i>	.....		
Lit	<i>Littorella uniflora</i>	.....		
Lyc*	<i>Lycopodiella inundata</i>	.....		
Lyt*	<i>Lysimachia thyrsoiflora</i>	.....		
Lyp	<i>Lythrum portula</i>	.....		
Lys	<i>Lythrum salicaria</i>	.....		

Other edge species		
Cxd	<i>Carex viridula</i> ssp. <i>oedocarpa</i> (=C. <i>demissa</i>)	R
<u>Cxe</u>	<u><i>Carex echinata</i></u>	<u>O/LA</u>
<u>Cxp</u>	<u><i>Carex panicea</i></u>	<u>F</u>
Cxpa	<i>Carex paniculata</i>	.....
<u>Gp</u>	<u><i>Galium palustre</i></u>	<u>F</u>
<u>Sa</u>	<u><i>Senecio aquaticus</i></u>	<u>F</u>
Tp	<i>Triglochin palustre</i>	.....
<u>Vp</u>	<u><i>Viola palustris</i></u>	<u>O/LF</u>

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

1997 SOUTH EAST SCOTLAND LOCH INVENTORY: AQUATIC PLANT SPECIES LIST

Coden NS8696 Site name Black loch Grid ref. NS8697 Date 21/7/97

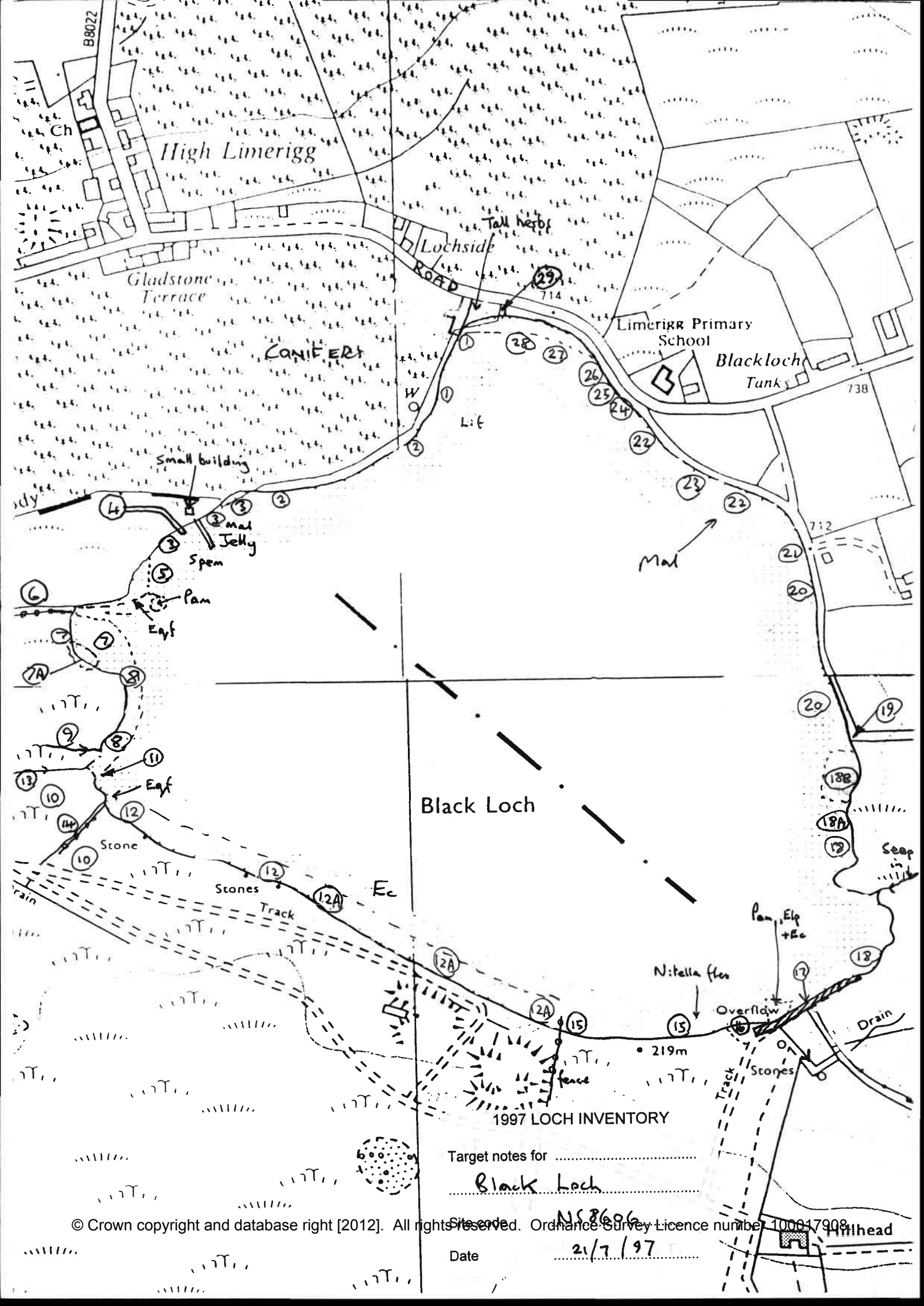
SUBMERGED & FLOATING SPECIES

Map code	Species	DAFOR	Map code	Species	DAFOR
Api	<i>Apium inundatum</i>	.....	Pxn	<i>Potamogeton x nitens</i>	.....
Apd	<i>Aponogeton distachyos</i>	.....	Pob	<i>Potamogeton obtusifolius</i>	.....
Af	<i>Azolla filiculoides</i>	.....	Pxo	<i>Potamogeton x olivaceus</i>	.....
Bar	<i>Baldellia ranunculoides</i>	.....	Ppec	<i>Potamogeton pectinatus</i>	.....
Cah	<i>Callitriche hamulata</i>	.....	Pper	<i>Potamogeton perfoliatus</i>	.....
Cher	<i>Callitriche hermaphroditica</i>	.....	Ppol	<u><i>Potamogeton polygonifolius</i></u>	R/LA
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 sp.</i>	.....	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>	.....
Ec	<u><i>Elodea canadensis</i></u>	..LF..	Rc	<i>Ranunculus circinatus</i>	.....
En	<i>Elodea nuttallii</i>	.....	Rf	<i>Ranunculus fluitans</i>	.....
Fon	<u><i>Fontinalis antipyretica</i></u>	..R/LF	Rxk	<i>Ranunculus x kelchoensis</i>	.....
Grd	<i>Groenlandia densa</i>	.....	Rp	<i>Ranunculus peltatus</i>	.....
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	<u><i>Juncus bulbosus</i></u>	..O/LF	Spa	<u><i>Sparganium angustifolium</i></u>	O/LA
Lam	<i>Lagarosiphon major</i>	.....	Spem	<u><i>Sparganium emersum</i></u>	LA
Lg	<i>Lemna gibba</i>	.....	Spn	<i>Sparganium natans</i>	.....
Lm	<i>Lemna minor</i>	.....	Sp	<i>Sparganium sp.</i>	.....
Lt	<i>Lemna trisulca</i>	.....	Spp	<i>Spirodela polyrhiza</i>	.....
Lit	<u><i>Littorella uniflora</i></u>	..A	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>	.....
Mal	<u><i>Myriophyllum alterniflorum</i></u>	..F/LA	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 sp.</i>	.....
Nul	<i>Nuphar lutea</i>	.....	Zan	<i>Zannichellia palustris</i>	.....
Nup*	<i>Nuphar pumila</i>	.....		
Nus	<i>Nuphar x spenneriana</i>	.....	Cha	<i>Chara sp.</i>	.....
Na	<i>Nymphaea alba</i>	.....	Nitop	<u><i>Nitella opaca</i></u>	R
Nyp	<i>Nymphoides peltata</i>	.....		
Pam	<u><i>Persicaria amphibia</i></u>	F/LA			
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>	.....		
Pgr	<i>Potamogeton gramineus</i>	.....		
Plu	<i>Potamogeton lucens</i>	.....		
Pn	<u><i>Potamogeton natans</i></u>	inflow LA			
				SPECIES TOTAL	11.....
			Other species not included in total:		
			Sphag	<i>Sphagnum sp.</i>	.....

Charophyte identification
verified by N.F. Stewart

Specimens:	
Chara sp.	
Nitella sp.	x <i>N. opaca</i> x <i>N. flexilis</i> 20/97
Potamogeton sp.	
Utricularia sp.	

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



Black Loch

1997 LOCH INVENTORY

Target notes for
Black Loch
 Site code **NS8606**
 Date **21/7/97**

- ① Adjacent land: healthy grassland: *Calluna*, *Agratis*, *Hol lan*, *Vac myrt*, *Molinia* ... Conifers beyond this.
 Fringe/bank: Je, Pop, Rfl, Elp, Cap, Sa, Jac, Achil pter, Lotus ulig, Hol lan, Ran acetosa, Ran repens, Lotus ulig, occ small Salix.
 Inshore: rather patchy Elp beds over abundant lit, which usually extends into deeper water than the Elp. Substrate: Stones, silt, gravel.
- ② Steep *Calluna* dominated bank (c 3m high) with occ small trees + shrubs. *Rosa* + brown loc co-don. Virtually no fringing or aquatic veg: rare lit, Je + Jac. Substrate: stones, silt, boulders.
- ③ Fringe: sparse with occ *Juncus* spp. Inshore: patchy Elp over lit with Mal (LA).
- ④ Track leads to slipway.
- ⑤ Adjacent land: Sphagnum carpet with *Deschampsia* spp, *Juncus* spp, *Ag can*, *Hol lan*, Pop, *Carex*, *Circa pal*, *Dactylocteniza* sp. Low bank: Je, *Des cer*, *Circa pal*, Pop, *Menka* sp.
 Inshore: Carex swamp with lit, Mal, Jb, Elp + fil algae.
- ⑥ Wide inflow drain, fences to south. *Pn*, *Gfl*, Mal (but c 100m from loch, beyond track).
 Fringe: Je, Carex, Pop, Gp Channel: Spem
- ⑦ Adjacent land: sheep-grazed rough pasture dominated by tussocks of Je + *Des cer*.
 Low peat bank: Je, Gp, Rfl, Pop ...
 Inshore: Broad (to c 8m) band of Carex fringed by Egf.
 (7A) Shorter sward near loch shore has small sedge mix over Sphagnum. Also, wetter mire with: *Carex*, Pop, Egf, Pop, *Juncus* spp, Sphagnum...
- ⑧ Adjacent land as 7. Inshore: open Elp (to 10m wide) with Mal, Pan, fil algae (loc dom), over dense lit. Substrate: boulders, silt + stones.
 Bank locally eroded with 1m vertical or undercut face.
- ⑨ Seepage inflow with Glf, lined by Je
- ⑩ Adjacent land: wet heath with *Erica tet* + *Era*.
- ⑪ Bed of Spa with Mal.
- ⑫ Adj land: cattle- + horse-grazed mosaic of wet heath (as 10), grassland, rush pasture.
 Low banks: dom by Je with Gp, Lotus ulig, *Misc*, *Pha*, *Sa*, *Rumex acetosa*.
 Inshore: Open Elp stands (to 10m) over dense lit with Pan (LF), fil algae (LA), Mal (O/LF).
 Some cattle poaching of banks, and cattle wading in loch and grazing the Elp.
 (12A) Pan gradually becomes more abundant through Elp and forming a continuous band stretching c 15m offshore (beyond the Elp). Ec offshore, in Pan beds + beyond.
 Low cattle-poached bank (with steep grassy bank beyond). Je, Cap (LF).
- ⑬ Narrow trickle inflow over peat: Je, Rfl, *Era*, *Ag can*, *Sphag*.
- ⑭ Je-choked, narrow inflow. Fence to east runs into loch.
- ⑮ Adj land: improved pasture Bank: 2m high, steep, grassy, often eroded with bare gd. Je dom below. Fringe: sparse Elp over lit, with Mal (LF), Gfl (R), fil algae (F+Hb)
- ⑯ Patch of dense Je adjacent; locally Mt near embankment.
 Inshore: Elp, Glf, lit, fil algae, Mal, Pan.
- ⑰ Boulder dam with concrete overflow as marked, bridged for track
 Land behind dam dominated by *Des cer*.
- ⑱ Adj land: *Calluna* heath, with recently planted trees in part. Bank: eroded peat cliff.
 No fringing or aquatic vegetation.
- ⑳ Some veg offshore: Mal, Spa, Elp, fil algae.
- ㉑ Elp beds, over sandy substrate, with lit + Jb, to 10m wide.

(19) Small patches of Ip, and small Salix.

(20) Adj land: tall grassland (developed pasture?)

Bank: frequent small trees (beech) + shrubs (haw + Salix).

Margins: very sparse Elp

Substrate: stones

Aquatics (often sparse): Jt, Mal, Lit, For, frl algae.

(21) Gravel + coal waste beach with grassy bank behind. Track by loch. No aquatic or fringing veg.

(22) Trees + shrubs line bank: haw, Sycamore, ash, beech, Salix. Gravel + stone substrate inshore with ± no veg: Egf (LF).

(23) Small beech line bank.

Fringe: dense band of Salix shrubs, fronted by sparse Egf (with Elp in parts).

Lit further out with Mal.

(24) Artificial stone bank, with retaining wall below road. Tall herbs.

Dense Elp bed inshore to north.

(25) Road runs along loch edge. Artificial bank with tall herbs. Fence between road + loch here.

Fringe, + bottom of bank, usually dominated by Pha, fronted by dense beds of Elp with (Pam) + (Pha). Egf in deeper water.

(26) Artificial bank eroded. Fringing veg sparse

(27) Artificial bank, topped by fence, below road. 5m strip of land between road + loch with varied veg including some S27.

Phalaris fringe fronted by narrow strip of Elp, then by wide (to 15m) band of open Egf with Lit.

(28) Open Salix scrub with Ip + Je between road + loch.

Fringe: mosaic of Pha, Cero, Ip, Elp, Egf. Fronted by mixed swamp of Elp + Egf (to 20m wide) with occ Pam, freq Mal over dense beds of Lit.

(29) Short stretch of grassy, open bank with no fringing veg. Boat launching point?