

1996 LOCH SURVEY: STRATHCLYDE\* AREA

Code NS4504 Name LOCH LIBO Grid Ref NS433556  
 Date 3<sup>rd</sup> July 1996 Surveyors SSD/NSW Estate SCOTTISH WILDLIFE TRUST  
 Area 9 ha Altitude 110 m Catchment ..... ha Geology SG  
 Water colour COLOURLESS Clarity CLEAR Boat used NO Secchi disc depth / m  
 Loch type SA Edge type(s) SA, SA, SA7a, SA, SA2a, SA2b, SA9b, SA10a, SA10b, SA28a, SA28c, SA7, SA9a (NVC codes)  
SA9b, SA3, SA1C exagranit, SA23, M23a, M23b  
 Status LOCH LIBO SSSI 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.)  Silt (<0.1mm diam.)  
 Stones (5-30cm diam.)  Organic mud  
 Gravel (4-50mm diam.)  Peat - fen  
 Sand (0.1-4mm diam.)  Artificial embankment

USES AND DAMAGE

Use	Observations
Adjacent forestry	.....
Agricultural pollution	.....
Edge trampling	.....
Fishing (edge/boat)	<u>Edge Fishing - angling club. Dredged bouthouse</u>
Litter	.....
Shooting	.....
Water abstraction	.....

SURROUNDING LAND USE:

Railway  
Broad-leaved woodland  
Permanent Pasture

FAUNA

Mammals	Birds	Reptiles	Fish	Dragonflies & other invertebrates
	<u>Mute Swan</u>	Amphibians		<u>Erythemis simplicipennis</u>
	<u>Sedge Warbler</u>	<u>Frog</u>		
	<u>Mallard</u>			
	<u>Coot</u>			
	<u>Little Grebe</u>			
	<u>Tufted Duck</u>			
	<u>Cormorant</u>			
	<u>Oystercatcher</u>			

SPECIES DIVERSITY	RARE SPECIES	WATER CHEMISTRY
Edge ..... <u>33</u> .....	Scarce (*) <u>Civ</u> .....	Alkalinity ..... <u>1:1.6</u> ..... meq/l
Open water ..... <u>13</u> .....	Red Data Book (**) .....	Conductivity ..... <u>386</u> ..... µS/cm
Total ..... <u>46</u> .....		p.H. .... <u>6.6</u> .....



1996 STRATHCLYDE AREA LOCH SURVEY: AQUATIC PLANT SPECIES LIST

Code NS4504 Site name Loch Libo Grid ref NS 433 556 Date 3 May 1996

SUBMERGED & FLOATING SPECIES

Map code	Species	DAFOR	Map code	Species	DAFOR
Api	<i>Apium inundatum</i>	.....	Pob	<i>Potamogeton obtusifolius</i>	.....
Af	<i>Azolla filiculoides</i>	.....	Ppec	<i>Potamogeton pectinatus</i>	.....
Bar	<i>Baldellia ranunculoides</i>	.....	<u>Pper</u>	<u><i>Potamogeton perfoliatus</i></u>	<u>0/LF</u>
Cab	<i>Callitriche brutia</i>	.....	Ppol	<i>Potamogeton polygonifolius</i>	.....
<u>Cah</u>	<u><i>Callitriche hamulata</i></u>	<u>LO</u>	Ppra	<i>Potamogeton praelongus</i>	.....
Cher	<i>Callitriche hermaphroditica</i>	.....	<u>Ppu</u>	<u><i>Potamogeton pusillus</i></u>	<u>0</u>
Cao	<i>Callitriche obtusangula</i>	.....	Pxsp	<i>Potamogeton x sparganifolius</i>	.....
Cpla	<i>Callitriche platycarpa</i>	.....	Pt*	<i>Potamogeton trichoides</i>	.....
<u>Cas</u>	<u><i>Callitriche stagnalis</i></u>	<u>R</u>	Pxz	<i>Potamogeton x zizii</i>	.....
Ca	<i>Callitriche sp.</i>	.....	Ra	<i>Ranunculus aquatilis</i>	.....
Ced	<i>Ceratophyllum demersum</i>	.....	Rb	<i>Ranunculus baudotii</i>	.....
Crh	<i>Crassula helmsii</i>	.....	Rc	<i>Ranunculus circinatus</i>	.....
Ela*	<i>Elatine hexandra</i>	.....	Rf	<i>Ranunculus fluitans</i>	.....
Elh*	<i>Elatine hydropiper</i>	.....	Rp	<i>Ranunculus peltatus</i>	.....
Ef	<i>Eleogiton fluitans</i>	.....	Rpse	<i>Ranunculus penicillatus</i>	.....
<u>Ec</u>	<u><i>Elodea canadensis</i></u>	<u>D</u>		ssp. <i>pseudofluitans</i>	.....
En	<i>Elodea nuttallii</i>	.....	Rtr	<i>Ranunculus trichophyllus</i>	.....
<u>Fon</u>	<u><i>Fontinalis antipyretica</i></u>	<u>F/LD</u>	Ruc*	<i>Ruppia cirrhosa</i>	.....
Grd	<i>Groenlandia densa</i>	.....	Rum	<i>Ruppia maritima</i>	.....
Hip	<i>Hippuris vulgaris</i>	.....	Spa	<i>Sparganium angustifolium</i>	.....
Hop	<i>Hottonia palustris</i>	.....	<u>Spem</u>	<u><i>Sparganium emersum</i></u>	<u>R</u>
Hmr	<i>Hydrocharis morsus-ranae</i>	.....	Spn	<i>Sparganium natans</i>	.....
Hyd	<i>Hydrocotyle vulgaris</i>	.....	Sp	<i>Sparganium sp.</i>	.....
Ise*	<i>Isoetes echinospora</i>	.....	Spp	<i>Spirodela polyrhiza</i>	.....
Isl	<i>Isoetes lacustris</i>	.....	Sub	<i>Subularia aquatica</i>	.....
Lam	<i>Lagarosiphon major</i>	.....	Uti	<i>Utricularia intermedia</i>	.....
Lg	<i>Lemna gibba</i>	.....	Um	<i>Utricularia minor</i>	.....
<u>Lm</u>	<u><i>Lemna minor</i></u>	<u>R/LF</u>	Uo	<i>Utricularia ochroleuca</i>	.....
Lmi	<i>Lemna minuta</i>	.....	Us	<i>Utricularia stygia</i>	.....
<u>Lt</u>	<u><i>Lemna trisulca</i></u>	<u>A</u>	Uva	<i>Utricularia vulgaris/australis</i> agg.	.....
<u>Lit</u>	<u><i>Littorella uniflora</i></u>	<u>LA</u>	Ut	<i>Utricularia sp.</i>	.....
Lob	<i>Lobelia dortmanna</i>	.....	Zan	<i>Zannichellia palustris</i>	.....
Lun	<i>Luronium natans</i>	.....			.....
Lyp	<i>Lythrum portula</i>	.....			.....
Mal	<i>Myriophyllum alterniflorum</i>	.....			.....
Maq	<i>Myriophyllum aquaticum</i>	.....			.....
Msp	<i>Myriophyllum spicatum</i>	.....			.....
Nf**	<i>Najas flexilis</i>	.....	Cha	<i>Chara sp.</i>	.....
Nua	<i>Nuphar advena</i>	.....	Nit	<i>Nitella sp.</i>	.....
<u>Nul</u>	<u><i>Nuphar lutea</i></u>	<u>F/LD</u>			.....
Nup*	<i>Nuphar pumila</i>	.....			.....
<u>Na</u>	<u><i>Nymphaea alba</i></u>	<u>F/LD</u>			.....
Nyp	<i>Nymphoides peltata</i>	.....			.....
Pam	<i>Persicaria amphibia</i>	.....			.....
Pil*	<i>Pilularia globulifera</i>	.....			.....
Pal	<i>Potamogeton alpinus</i>	.....			.....
<u>Pbe</u>	<u><i>Potamogeton berchtoldii</i></u>	.....			.....
Pcol*	<i>Potamogeton coloratus</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>	.....			.....
Pxl	<i>Potamogeton x lintonii</i>	.....			.....
Plu	<i>Potamogeton lucens</i>	.....			.....
<u>Pn</u>	<u><i>Potamogeton natans</i></u>	<u>R/LF</u>			.....
Pxn	<i>Potamogeton x nitens</i>	.....			.....

SPECIES TOTAL 13

Other species not included in total:

Sphag *Sphagnum sp.* .....

Specimens:

*Chara sp.* .....\*

*Nitella sp.* .....

*Potamogeton sp.* Pper (73/96) Pbe (74/96) }

identification confirmed by C.D. Preston

*Utricularia sp.* .....

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

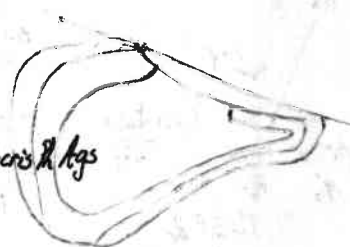
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All species names follow those in Stace 1991.



A medium sized pool in E-W trending valley. The site supports a fine transition from open water to Pen & carr. The open water community is moderate but there are good lily-beds and some interesting For. Lt. communities. There is an excellent series of swamp and mire types and some reasonable Scrub woods. A good site

- ① Reeds swamp community SA a → c : Phr Pop Cxagu Civ Se Gp Cxro Cxpa Angsyl Pha Ip Galep let Ma  
Reeds swamp mat  
S27a
- ② Open water - dense water-lily bed mixed stands Nul Na (EgF Phr) - open areas as open water community ⑤
- ③ Salix cinerea w/ scrub woodland Pha Phr Filium
- ④ Reeds swamp mainly S12 communities with patch/mosaic of SA, S27, S9  
Landward TL Phr Mt Pop → Ty Phr Nul Lmt Mt Na  
S9a Cxro Loch S27a Pop Cxro
- ④a S12a TL - open water
- ⑤ Open water - aquatic community v dense growth Fon Ec Lt Pbe
- ⑥ Reeds swamp - base of railway bank S28a Pha Phr
- ⑥a Railway bank tall herb community with S28c, scrub
- ⑦ Reeds swamp S10a EgF Fon co-dominant with Nul Na Mt Ma Ber Civ reeds swamp mat → surface water
- ⑦a Landward reeds swamp mat S10b EgF TL Phr Pop Cxro → Cxro Phr → Salix scrub ③ by railway
- ⑦b Reeds swamp - S10a EgF ⑦c Reeds swamp - S10a EgF Lt Nul  
S9b S9a
- ③a w/ Sx cinerea scrub wood - Flushed area  
ground flora Cxro Cxagu in wet areas Cxpa : drier areas Filium
- ③b Strip between railway/loch edge openish on ballast stands of Cxa ; Pha ; Cxro ; TL  
- mixed scrub - " bank with broad ballast bank :- ± S28 Ph Runcris R Ag
- ③c
- ③d Salix pentandra w/3 wood over Pha Cxpa Phr Filium Geum riv.
- ⑧ Reeds swamp - loch edge S19 Elp community Lm Lt Cas (Civ Mt EgF)
- ⑨ Dry reeds swamp - loch banks S28b Pha Val off Urt dio Filium
- ⑨a Mixed stands of S28 Pha M28 Ip
- ⑩ Reeds swamp S12a TL Lt Ber
- ⑪ " Cxa Civ
- ⑫ Inflow - small streamlet moderate flow c/m wide : Apr Rf G If Cxro Pha Ja Ber Ip  
- delta - sandy bay Cal Pter
- ⑬ Open water aquatic community Ec Lt Pper Pbe
- ⑭ Reeds swamp S3 Cxpa Filium Val off Ip EgF Lych Fc Geum riv Mt Angsyl Cun Cep pal Ach plar
- ⑮ Woodland Bet pub / Pop tr em with Sx cin Sorb auc over damp/let grd flora Cxpa Eg syl Hj un aq Dry card Lzm Dacty ma.
- ⑯ Reeds swamp : mosaic Cxro Cxa  
⑯a " Cxro S9a
- ⑰ Extensive reeds swamp :- Mainly Phr S4. Landward fringe of S19b Elp Lt Main reeds swamp Phr S4 with Cxro areas - Civ Ber Lt Mt Cap As Malic
- ⑱ Flushed area with small stream with moderate flow over stony bed - Sx cinerea scrub wood over Ph with S25 Rna Eg sy Chrys opp



19) Reeds swamp mixed mosaic of S28; S19b/S4; S4a/S9a; S22/S1a/S9a; S12a  
Ph Elp Cxro Phr 1 Lit Ma Mt Pop Civ Egf

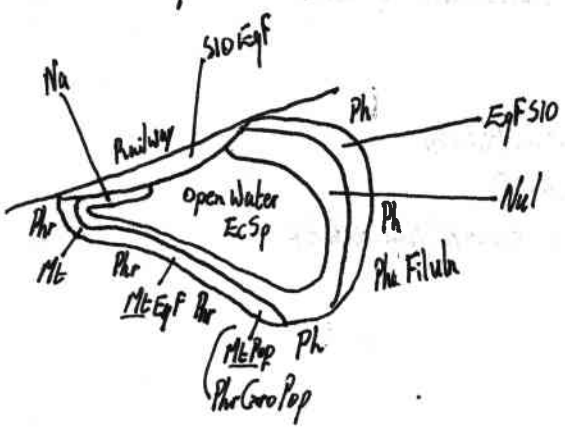
20) Inflow stream - moderate flow stoned  
 Fine Deltaic gravels with Alo gen Pa triv Glf Ph Mon Rrep Stelmed Gld

21) Extensive Fen - reeds swamp around outfall. Mosaic of reeds swamp communities ungrazed  
 Lockside fringe I S12; patches of S27 Mt, S27 Pop; Cxpa S3 patches; Cxro S9a - zones of; Cxra extensive stands;  
Cxaf S7 extensive stands; M23a Sac stands; M69 Des cep patches; Phr S4 lockside stands; S28a Pha stands  
 M25 Fil ulm stands; M23b Se stands  
 Very diverse community - scarce

22) Extensive Fen - reeds swamp. Mostly carex beds with occ. Salix  
Cxaf S7 and Sxra dominate zone with S28(F), M29 Ip, S3, M25 Fil ulm, S27

23) Extensive Fen - reeds swamp. Mainly Pha S28 zone with S12a; M29 - along stream; S9; S27; M25  
 a) Channel at base of railway bank - stands of Cxro S9a with Cxra  
 b) Loch margin I Phr S4a

24) Pond in reeds swamp:-



25) Open channel - sluggish silt bottom deep Egf 1 Ip Spem Sper Ec Lt Cxaf Phr Pha Pop Civ

26) Open water of F railway ballast bank: Ec (Eloc) Lt Pper - wash up (26a) Open water Ec

27) Reeds swamp - Open water mosaic of Egf 1 Ph Lt Ec Fan Nul Na Mt

28) Rough damp grassland: Des cep M69; Se Sac M23

29) Fil ulm mire

30) Ip mire

31) Flushed valley side - dominated by S28 Pha communities but mosaic with S3 Cxpa S4 Phr.

32) Narrow lockedge reeds swamp Phr S4 - broken stands - interspersed with Lit lans occasional S9a Cxro S19b Egp. Series of fishing points