

1988 DEESIDE LOCH SURVEY

2169

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Loch name L. L. O. DAVAN Estate D. L. N. S. T. N. N. R. No NJ. 40/02
 Grid reference NJ. 442.007 Date surveyed 12.9.88 13.9.88
 Loch size 41.0 ha. Altitude 175 m Surveyor's name S. B. R. I. G. + E. C.
 Catchment size 31.86.0 ha. Boat used ☒ Secchi disk depth ...
 Water colour light Brown Water clarity Clear
 Loch type SA Edge type(s) S9 (Mk-ef) S4 (Mk) S12 (Cxo) S8 (ef)
 Catchment Geology GRANITE Typha, Cxo, Pha, Si

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 DamageBoat transects being typed

USE	AREA AFFECTED	DAMAGE
Water abstraction		
Sewage inflow		
Agricultural pollution		
Edge trampling		
Adjacent forestry		
Fishing (Edge/boat)		
Shooting (Cartridges)		
Others <u>1) Litter</u> <u>4) Salt Pollution</u>		<u>Litter... Receives salt run off via Red burn.</u>

Fauna	Mammals	Reptiles	Dragonflies	Fish
Birds		Amphibians	and other	
<u>Mallard</u>	<u>otters (being studied here)</u>		Invertebrates	<u>Pike</u>
<u>Coot.</u>			<u>Acoranus lacustris.</u>	
<u>Mute Swan.</u>			<u>Lymnaea peregra.</u>	
<u>Widgeon</u>			<u>Potamopyrgus jenkinsii</u>	
<u>Tufted Duck.</u>			<u>Planorbis albus</u>	
<u>Teal</u>			<u>Planorbis laevis.</u>	
<u>Redshank.</u>			<u>Valvata praeinalis.</u>	
			<u>Anysa fontinalis</u>	
			<u>Sphaerium/Pisidium.</u>	
Species diversity	Conductivity: <u>150.4</u> umhos		Detailed water analysis <u>21/9/88</u>	
Edge: <u>25</u>	pH : <u>8.06</u>		(Date if different from above)	
Open Water <u>22</u>				

Site name 1004. DAVAR Gr N 54 42.997 No. NE 40102

EMERGENT AND EDGE SPECIES:

Map code	DAFOR		
Agg	<u>Agrostis scolonifera</u>	Pha	<u>Phragmites australis</u>
Cap	<u>Caltha palustris</u>	Pam	<u>Polygonum amphibium</u>
Cxa	<u>Carex aquatilis**</u>	Pop	<u>Potentilla palustris</u>
Cxl	<u>Carex lasiocarpa</u>	Rfl	<u>Ranunculus flammula</u>
Cxl	<u>Carex lasiocarpa</u>	Ris	<u>Rorippa islandica</u>
Cxm	<u>Carex nigra</u>	Sl	<u>Scirpus lacustris</u>
Czo	<u>Carex rostrata</u>	Sper	<u>Spartanium erectum</u>
Czv	<u>Carex vesicaria</u>	Spem	<u>Spartanium emersum</u>
Elp	<u>Eleocharis palustris</u>	Vb	<u>Veronica beccabunga</u>
Ers	<u>Eriophorum angustifolium</u>	Vas	<u>Veronica anagallis-aquatica*</u>
(Glf)	<u>Glyceria fluitans</u>	Vs	<u>Veronica scutellata</u>
Hip	<u>Hippuris vulgaris</u>	Er	<u>Equisetum fluviale</u>
Hyd	<u>Hydrocotyle vulgaris</u>	Ep	<u>Equisetum palustre</u>
Ip	<u>Iris pseudocorus</u>		
Ja	<u>Juncus articulatus</u>		
Jb	<u>Juncus bulbosus</u>		
Je	<u>Juncus effusus</u>		
Lit	<u>Littorella uniflora</u>		
Lyc	<u>Lycopodiella inundata**</u>		
Lyp	<u>Lythrum portula</u>		
Mg	<u>Menyanthes aquatica</u>		
Mc	<u>Menyanthes trifoliata</u>		
Mg	<u>Mimulus ruttatus</u> (B)		
Mon	<u>Montia fontana</u>		
Nyl	<u>Myosotis laxa/caespitosa</u>		
Nac	<u>Myosotis scorpioides</u>		
Nas	<u>Nasturtium officinale</u>		
Pa	<u>Phalaris arundinacea</u>		

SUBMERGED AND FLOATING SPECIES

Map code	DAFOR		
Apl	<u>Apium inundatum*</u>	Per	<u>Potamogeton perfoliatus</u>
Cab	<u>Callitriche hamulata</u>	Ppr	<u>Potamogeton praelongus**</u>
Char	<u>Callitriche hermaphrodica**</u>	Pool	<u>Potamogeton polygonifolius</u>
Cpla	<u>Callitriche platycarpa</u>	Ppu	<u>Potamogeton pusillus*</u>
Cas	<u>Callitriche stagnalis</u>	Ra	<u>Ranunculus aquatilis</u>
Hip	<u>Hippuris vulgaris</u>	Rtr	<u>Ranunculus trichophyllus</u>
Hyd	<u>Hydrocotyle vulgaris</u>	Sf	<u>Scirpus fluitans</u>
Isl	<u>Isoetes laevigata sp. (B)</u>	Spa	<u>Spartanium angustifolium</u>
Ias	<u>Isoetes setacea**</u>	Sub	<u>Subularia aquatica**</u>
Jb	<u>Juncus bulbosus var. fluitans</u> (B)	Uti	<u>Utricularia intermedia</u>
Lm	<u>Lemna minor (* in NW)</u>	Um	<u>Utricularia minor</u>
Lit	<u>Littorella uniflora</u>	Uva	<u>Utricularia vulgaris/australis</u>
Mal	<u>Myriophyllum alterniflorum</u>	Utr	<u>Utricularia neglecta</u>
Map	<u>Myriophyllum spicatum</u>	Zan	<u>Zannichellia palustris</u>
Na	<u>Najas alba</u>	Cha	<u>Chara sp. globularis var. vulgaris</u>
Nup	<u>Nuphar pumila (reported)</u>	Nit	<u>Nitella sp. pleacis var. flexilis</u>
Pil	<u>Pilularia globulifera**</u>	Pon	<u>Pontederia antipyratica</u>
Pam	<u>Polygonum amphibium</u>	Lob	<u>Lobelia dortmanna</u>
Pal	<u>Potamogeton alpinus</u> (B)		
Pbe	<u>Potamogeton bertholdii</u>		
Pcy	<u>Potamogeton crispus*</u>		
Pfil	<u>Potamogeton filiformis**</u>		
Pfr	<u>Potamogeton friesii**</u>		
Pgr	<u>Potamogeton gramineus</u> (B)		
Pn	<u>Potamogeton natans</u>		
Pxm	<u>Potamogeton x nitens</u> (B)		
Pob	<u>Potamogeton obtusifolius</u>		
Ppec	<u>Potamogeton pectinatus</u>		

(B) - Species only noted from 1004.

Charophyte identification verified by J.M. Moore

WATER CHEMISTRY

DEESIDE LOCHS

1988

TOTAL DEESIDE
SAMPLE OF 10 LOCHS

	Loch .. <u>DAVAN</u>	Sample	Sample
	GR .. <u>NJ.440.007</u>	mean	range
Potassium K mg/l	 <u>1.10</u>	0.57	0.05 - 1.30
Calcium Ca mg/l	 <u>11.0</u>	4.1	0.27 - 11.00
Magnesium Mg mg/l	 <u>3.60</u>	1.50	0.18 - 3.60
Aluminium Al mg/l	 <u>0.020</u>	0.029	<0.010 - 0.059
Chlorine Cl mg/l	 <u>23.0</u>	9.3	1.5 - 24.0
Silica Si mg/l	 <u>3.00</u>	2.36	0.12 - 5.70
Phosphorus P mg/l	 <u>0.024</u>	0.018	<0.005 - 0.051
Phosphate PO ₄ mg/l	 <u><0.005</u>	<0.005	<0.005 - 0.008
Nitrate NO ₃ mg/l	 <u>0.610</u>	0.207	0.021 - 0.880
Ammonium NH ₄ mg/l	 <u><0.10</u>	<0.11	<0.10 - 0.18
Alkalinity Ca CO ₃ mg/l	 <u>22.00</u>	8.95	0.60 - 22.00

TRANSECTS

(1) Potamogeton gramineus

Myriophyllum alterniflorum

Nitella sp.

(Potamogeton berchtoldii)

(2) Nitella sp. (dominant)

Potamogeton perfoliatus

Potamogeton gramineus

Potamogeton X nitens

Myriophyllum alterniflorum

Elatine hexandra

(Elodea canadensis)

(Littorella uniflora)

(Chara sp)

(3) Nitella sp (dominant)

Elodea canadensis

(Juncus bulbosus var fluitans)

Filamentous algae

(4) Nitella sp (dominant)

Sparganium sp

Potamogeton X nitens

Elatine hexandra

(Potamogeton perfoliatus)

(Chara sp.)

(5) Elodea canadensis

- (Nitella sp.)
- (6) Elodea canadensis
Nitella sp.
(Ranunculus sp)
(Potamogeton berchtoldii)
- (7) Nitella sp (dominant)
Eleodea canadensis
- (8) Elodea canadensis (dominant)
Nitella sp.
- (9) Elodea canadensis
Nitella sp.
Potamogeton obtusifolius
(Potamogeton berchtoldii)
(Callitriche hermaphroditica)
- (10) Elodea canadensis
Nitella sp
(Callitriche hermaphroditica)
- (11) Callitriche hermaphroditica (dominant)
Potamogeton obtusifolius
Eleodea canadensis
Potamogeton crispus
- (12) Callitriche hermaphroditica
- (13) Callitriche hermaphroditica (dominant)

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Nitella sp.

Potamogeton obtusifolius