

4.15

Oysterhaven Lake, Clashroe, County Cork O.S. W 699 501
O.S. Discovery Sheet 87



Conservation Designation: NONE

General description:

Situated 6km east of Kinsale on the eastern shore of the Oyster Haven estuary. A small (3ha), shallow (<3m) **artificial lagoon** formed behind a coastal embankment carrying a road. Ranging in salinity at the time of sampling (19-20/8/02) from 6-15 psu.

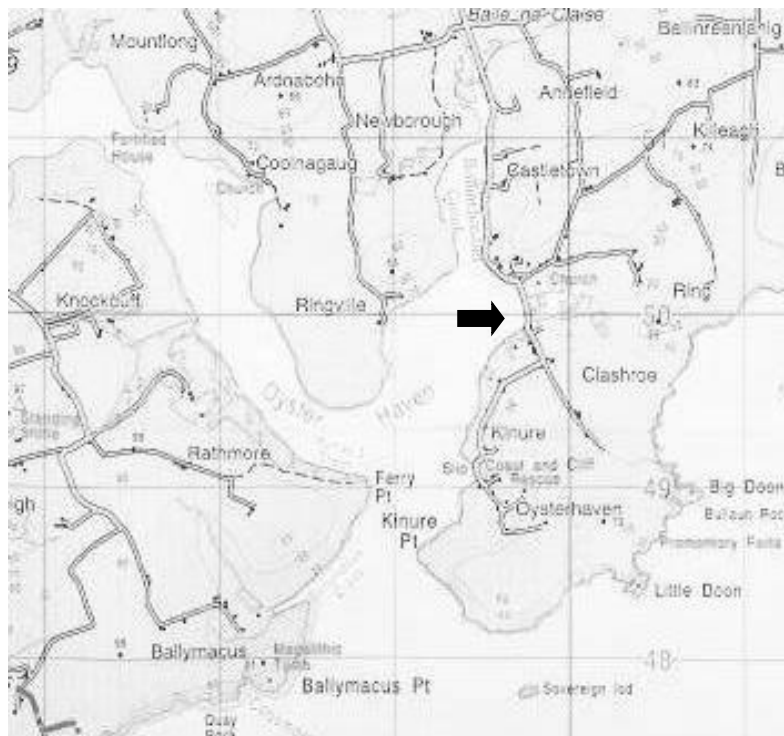


Figure 15.1 Location map of Oysterhaven Lake.

Oysterhaven Lake was surveyed in 2002 as part of a PhD study (Oliver 2005) and used in a biological classification of Irish coastal lagoons. Four stations were selected for the sampling of aquatic fauna and flora (Figure 15.2, Table 15.1).

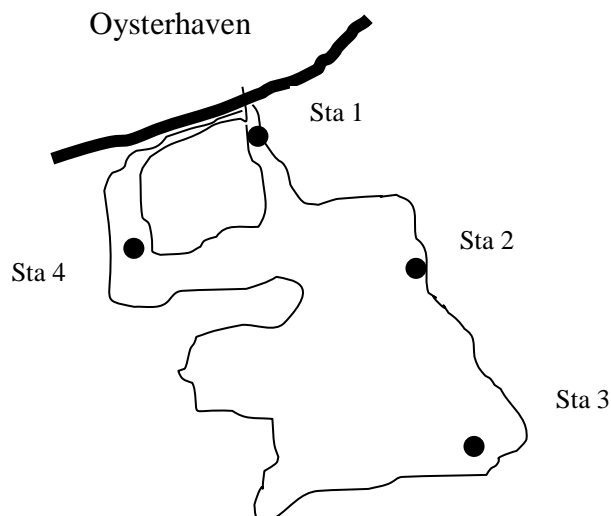


Figure 15.2 Sampling stations used at Oysterhaven Lake 19-20/8/02.

Flora

A total of 9 floral taxa were recorded at Oysterhaven, of which 7 were identified to species (Table 15.1). Two of these taxa are regarded as lagoonal specialists.

Table 15.1 Positions of sampling stations in Oysterhaven Lake, with sampling date, hydrological variables (salinity, temperature and depth of water) type of substratum and percent cover of vegetation and bare ground. Species in bold text are "lagoonal specialists" or rare species.

		Sampling stations			
		Sta 1	Sta 2	Sta 3	Sta 4
GPS position					
Sampling dates		19-20/8/02	19-20/8/02	19-20/8/02	19-20/8/02
Salinity(psu)		15	6	6	7
Depth(cm)		0-100	0-100	0-150	0-100
Substratum		Soft mud, occasional stones	Peaty silt	Soft, loose peat and silt	Peaty silt, occasional stones
Percentage cover					
Algae					
Chlorophyta	<i>Chaetomorpha linum</i>	1			1
	<i>Cladophora</i> sp.	1	+	+	1
	<i>Enteromorpha</i> sp.	5			
Phaeophyta	<i>Fucus vesiculosus</i>	5			
Angiosperms	<i>Phragmites australis</i>	+	+	5	5
	<i>Juncus maritimus</i>	+			
	<i>Lemna tricuspa</i>		+	+	
	<i>Potamogeton pectinatus</i>		25	20	
	<i>Ruppia maritima</i>	1	25	10	10
	<i>Scirpus maritimus</i>	+	+	5	5
	<i>Schoenoplectus lacustris</i>		20		5
Bare mud		85	30	70	75

Chaetomorpha linum. There is some doubt about the taxonomic status of the unattached lagoonal form of this species, and it was recorded by Hatch and Healy (1998) as *C. mediterranea*. It is a common, characteristic alga of semi-isolated Irish lagoons, recorded at 49 of the 87 (56.3%) lagoons surveyed.

Ruppia spp. are the most characteristic aquatic plant taxa of Irish coastal lagoons. The species are hard to distinguish when not flowering, and remain uncertain at some sites, but *Ruppia* of one species or the other (*R. maritima*, *R. maritima* var *brevirostris*, *R. cirrhosa*) was found at 62 of the 87 lagoons (71.3%) surveyed, and is one of the most useful indicators of coastal lagoon status. *Ruppia maritima* appears to be the more common of the species and was found at 41 of the lagoons surveyed.

Both species of lagoonal specialists are common in lagoonal habitats in Ireland. Based on aquatic vegetation, the site is regarded as of **moderate conservation value**.

Fauna

A total of 21 faunal taxa were recorded at Oysterhaven Lake, of which 17 were identified to species (Table 15.2). Four of the species are regarded as lagoonal specialists and one Hemipteran corixids (*A.germari*) appears to be rare in Co. Cork.

Table 15.2 Faunal taxa recorded at stations in Oysterhaven Lake 19-20/8/02 (SW = mean of 3x 30 second sweeps, Sed = mean of 3 x 0.005m² diameter sediment cores, L.T. = Light trap, **Ab** = overall abundance of all sampling methods, including visual searches), r = rare, o = occasional, c = common, a = abundant. Species in bold text are lagoonal specialists or rare species.

	Sta 1				Sta 2				Sta 3				Sta 4		
	SW	Sed	L.T.	Ab	SW	Sed	L.T.	Ab	SW	Sed	L.T.	Ab	SW	L.T.	Ab
Crustacea															
Mysidacea															
<i>Neomysis integer</i>	154.0		950	c	280.0		3500	c	663.3		3000	Ab	500.0	300	a
Isopoda															
<i>Jaera</i> sp.				a											
<i>Lekanesphaera hookeri</i>	53.0		4	c	10.3		2	c	7.7			c	29.7	10	c
Amphipoda															
Amphipoda indet	4.0			c									1.3	1	o
<i>G. zaddachi</i>	4.0			c									1.3	1	o
Decapoda															
<i>Carcinus maenas</i>															o
<i>Palaemonetes varians</i>	2.0		13	o			1	r			1	r	1.7	105	o
Insecta															
Heteroptera															
Corixidae															
<i>Arctocorisa germari</i>	2.3		33	o	16.0		260	c	8.3		56	c	9.3	6	o
<i>Callicorixa praeusta</i>									0.7		1	o			
<i>Gerris</i> sp.	2.7			c	1.3			o	3.3			c			c
<i>Gerris thoracicus</i>				o				o				o			
<i>Gerris odontogaster</i>				o				o				o			
<i>Hydrometra stagnorum</i>															o
<i>Notonecta</i> sp.	0.7			o									0.3		
<i>Sigara concinna</i>			1	r	3.3		35	o			27	o	0.7	3	o
<i>Sigara stagnalis</i>	2.3		32	o	9.3		150	c	4.3		32	c	6.3	2	o
Coleoptera															
<i>Noterus clavicornis</i>				r	0.7			r	0.3			r	2.3		c
<i>Potamonectes variabilis</i>					0.3			r							
Diptera															
Chironomidae	5.0	17.3		c		11.3		c	19.7	18		c			
Mollusca															
Gastropoda															
<i>Potamopyrgus antipodarum</i>	0.3		1	o	7.0		2	o	0.7			o	6.0		o
Bryozoa															
<i>Conopeum seurati</i>				o											o
Pisces															
<i>Anguilla anguilla</i>															o
<i>Gasterosteus aculeatus</i>	0.3		1	r	0.7			o	0.7			o		1	r

Lekanesphaera hookeri is a common lagoonal isopod crustacean, found at 37 of the 87 lagoons surveyed (42.5%).

Palaemonetes varians Decapod crustacean listed as a lagoonal specialist in the U.K. by Barnes (1989) and Bamber (1997), but apparently is no longer regarded as such. Although found in estuaries, this species appears to be far more characteristic of lagoons in Ireland, found in 64 of the 87 lagoons surveyed (73.6%) and may require a lagoonal environment for reproduction. Therefore, it remains on the proposed list of lagoonal specialists for Ireland.

Sigara stagnalis Hemipteran insect (water-boatman). A common lagoonal specialist found at 36 of the 87 (41.4%) lagoons surveyed.

Conopeum seurati Bryozoan recorded at 49 of the 87 lagoons surveyed (56.3%), but is not listed in a recent review of Irish marine Bryozoa (Wyse Jackson 1991). Either the species is under-recorded or is truly a lagoonal specialist.

Arctocoris germari Small water-boatman which appears to be a rare in County Cork.

Four of the species are lagoonal specialists but all are relatively common in lagoonal habitats in Ireland. Based on aquatic fauna, the site is regarded as of **moderate conservation value**.

Summary

Oysterhaven Lake is a small "**estuarine**", **artificial lagoon** with a relatively low number of taxa (9 floral, 21 faunal) most of which are common species but with a small suite of typically lagoonal species, with 2 floral and 5 faunal lagoonal specialist species and one corixids species (*A. germari*) appears to be rare in County Cork.

Overall Conservation Value = Moderate

Conservation Status Assessment (from Oliver 2007)

Impacts	Moderate eutrophication from surrounding farmland but significant tidal flushing. Boating/leisure activities.
Conservation Status	Unfavourable-Inadequate

Further Information

Listed as a lagoon by Healy *et al.* 1997, and Healy 2003. Surveyed in 2002/2003 as part of a PhD study (Oliver 2005) and used in a biological classification of Irish coastal lagoons and in the Conservation Status Assessment (Oliver 2007).

References:

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