

4.18

Inchydoney, County Cork O.S. W 384 393  
(Cul de sac lake)

O.S. Discovery Sheet 89



**Conservation Designation:** Clonakilty Bay SAC 000091, SPA 004081, pNHA 000091

**General description:**

Situated 2km southeast of Clonakilty on Inchydoney Island bordering Clonakilty Harbour. A small (2ha) **artificial lagoon** formed behind a coastal embankment carrying a road, ranging in salinity at the time of sampling (16-17/08/2002) from 33-35psu.

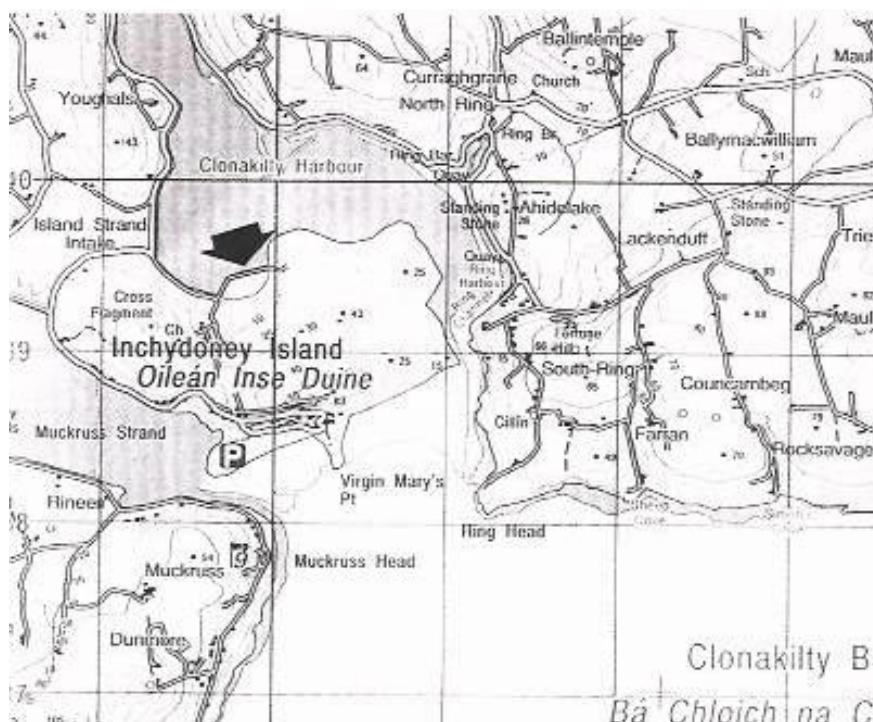


Figure 18.1 Location map of Inchydoney lagoon.

Inchydoney lagoon 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 18.2, Table 18.1)

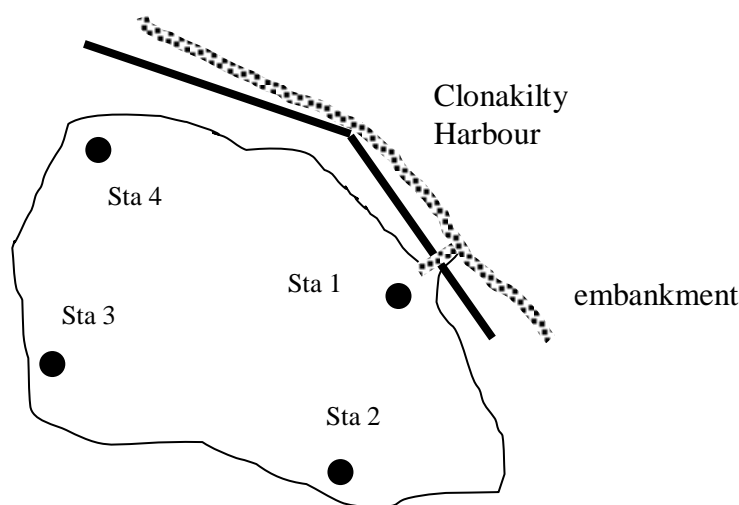


Figure 18.2 Sampling stations used at Inchydoney 16-17/08/2002.

## Flora

Inchydoney Lake is an “estuarine” lagoon and most of the bed of the lagoon is bare mud. Only 11 floral taxa were recorded in the lagoon, of which 7 were identified to species (Table 18.1). Apart from the fringe of *Phragmites* and *Scirpus* most of the other taxa are common shoreline algae, but one of these (*C. linum*) is regarded as a lagoonal specialist.

Table 18.1 Salinity and depth of water, type of substratum and percent cover of vegetation and bare ground in Inchydoney Lake 16-17/8/02. Species in bold text are lagoonal specialist species.

	Sampling stations			
	Station 1	Station 2	Station 3	Station 4
Salinity(psu)	34	34	33	35
Depth(cm)	30	30	50	30
Substratum	mud stones	mud	mud	mud
<b>Percentage cover:</b>				
Algae				
Chlorophyta				
<i>Enteromorpha</i> sp.	1	10	15	5
<i><b>Chaetomorpha linum</b></i>	1	5	5	5
<i>Cladophora</i> sp.		5	2	2
<i>Ulva</i> sp.	45	15	10	10
Phaeophyta				
<i>Ascophyllum nodosum</i>	+			
<i>Fucus serratus</i>	+			
<i>Fucus vesiculosus</i>	1			
Rhodophyta				
<i>Ceramium</i> sp.	1		1	
<i>Polysiphonia lanosum</i>	+			
Angiosperms				
<i>Phragmites australis</i>		10		10
<i>Scirpus maritimus</i>				
Bare mud	40	55	75	70

*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.

Based on aquatic vegetation, as a lagoon the site is regarded as of **low conservation value**.

### Fauna

A total of 30 faunal taxa were recorded at Inchydoney Lake, of which 25 were identified to species (Table 18.2). Two of these species are regarded as lagoonal specialists but none are particularly rare, although it is one of the few sites in the country where large, mature *Cerastoderma glaucum* were found.

Table 18.2 Faunal taxa recorded at stations in Inchdoney 16-17/08/2002  
SW = mean of 3x 30 second sweeps, Sed = mean of 3 x 0.005m<sup>2</sup> 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	Sed	L.T.	Ab
<b>Annelida</b>																
<i>Arenicola</i> agg.				c				c				c				c
Polychaeta <i>Hediste diversicolor</i>		5.7		c		0.3		o		0.3		o		3.0		c
<b>Crustacea</b>																
Cirripedia <i>Balanus improvisus</i>				o												
Mysidacea <i>Neomysis integer</i>	29.7		43	c	42.7		7	c	158.3		15	c	326.7		72	c
Isopoda <i>Jaera</i> sp.				c												
Amphipoda Indet	1.0		7	o	3.3		1	c	6.0	0.7	1	c	2.0			o
<i>Chaetogammarus marinus</i>				6	r											
<i>Corophium volutator</i>								o								
<i>Gammarus duebeni</i>									0.3			r	1.3			o
<i>Gammarus locusta</i>	1.0		1	o	3.3		1	c	4.3		1	c	0.7			o
<i>Melita palmata</i>				3					1.0			o	0.3			r
Decapoda <i>Carcinus maenas</i>					0.3		1	c				o				c
<i>Crangon crangon</i>	3.7		15	c	0.3		65	o	0.3		23	o			5	o
<i>Palaemon elegans</i>	0.7			o												
<i>P. serratus</i>	2.7			o												
<b><i>Palaemonetes varians</i></b>	10.0		5	c	6.7		12	c	5.0		2	c	1.7		7	o
<b>Insecta</b>																
<i>Sigara</i> sp.									0.3			r				
Diptera Chironomidae indet.									2.3	1.3		o	0.7	5.0		o
<i>Ephydra riparia</i>									0.7			o				
<b>Mollusca</b>																
<i>Anomia ephippium</i>																
<i>Hydrobia ulvae</i>	0.7			o	4.0			o	1.0			o				o
<i>Littorina littorea</i>				c												
<i>Littorina saxatilis</i>				o	4.0			o	1.3			o				
Bivalvia <b><i>Cerastoderma glaucum</i></b>				o												
<i>Mya arenaria</i>					0.3			o	0.3			r				
<i>Mytilus edulis</i>				c												
<b>Bryozoa</b>																
<i>Alcyonidium gelatinosum</i>																
<b>Pisces</b>																
<i>Anguilla anguilla</i>																
Mugilidae				c								c				
<i>Pleuronectes flesus</i>				c												
<i>Pomatoschistus microps</i>				a								c		1		c

*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.

*Cerastoderma glaucum* Bivalve mollusc. A common lagoonal specialist found at 30 of the 87 lagoons (34.5%) surveyed.

The aquatic fauna of Inchydoney lagoon is generally poor but the site is one of the few lagoons in the country where large specimens of *C. glaucum*. Because of this the site is regarded as of **moderate conservation value**.

### Summary

Inchydoney Lake is a very small, shallow "**estuarine**", **artificial lagoon** with a relatively low number of taxa (11 floral, 30 faunal) most of which are typically estuarine species. Only three lagoonal specialists (1 floral, 2 faunal) were recorded and all of the species recorded are relatively common. However, it is one of the few lagoons in the country where large specimens of *C. glaucum* were found.

**Overall Conservation Value = Moderate**

### Conservation Status Assessment (from Oliver 2007)

Impacts	Moderate eutrophication from surrounding farmland but significant tidal flushing. Occasional low water levels. Drainage. Landfill. Modification of hydrology.
Conservation Status	<b>Unfavourable-Inadequate</b>

### 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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- Barnes, R.S.K. 1989. Coastal lagoons of Britain: an overview and conservation appraisal. *Biological Conservation* **49**: 295–313.
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