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Ardfry Oyster pond, County Galway O.S. M 351 211
O.S. Discovery Sheet 46



Conservation Designation: Galway Bay complex SAC 000268, pNHA 000268

General description:

Ardfry Oyster Pond is a small (0.5ha), shallow (<1ha) **artificial “estuarine” lagoon**, 5km southwest of Oranmore, Co. Galway, on a peninsula leading to Ardfry Point, on the eastern shore of Galway Bay. The pond was presumably created for the cultivation of Oysters and is formed in a small bay with a sluiced inlet. Salinity is presumably generally high and measured 23.6psu on 17/10/06, after a period of heavy rainfall



Figure 50.1 Location map of Ardfry Oyster pond.

Ardfry Oyster pond was surveyed in 2005/2006 for aquatic fauna and flora. 17/10/2006. Ardfry Pond is a small lagoon and the entire lagoon was sampled as one sampling station at this time (Figure 50.2, Table 50.1)

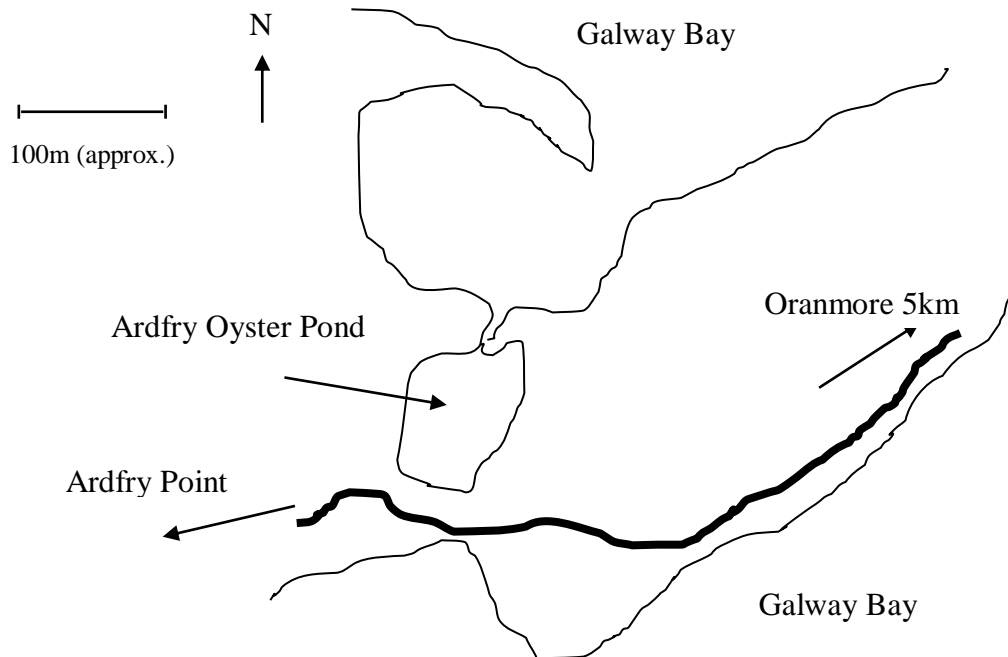


Figure 50.2 Sketch map of Ardfry Oyster Pond, Co. Galway.

Flora

The lagoon is described as an “estuarine lagoon” and most of the bed of the lagoon is bare mud (Table 50.1). A total of 14 floral taxa were recorded on 17/10/06, mostly near the inlet, and most of which are common marine algae, but one species, *Chaetomorpha linum*, is regarded as a lagoonal specialist, though only small amounts were found.

There is some doubt about the taxonomic status of the unattached lagoonal form of *C. linum*, 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 this flora, the site is regarded as of **low conservation value** as a coastal lagoon.

Table 50.1 Percentage cover of vegetation and bare ground in Ardfry Oyster Pond, 17/10/2006, with salinity, temperature, depth of water and type of substratum. Species in bold text are lagoonal specialist species.

Salinity (psu)		23.6 (after heavy rain)
Temperature		13.6
Depth (cm)		0-70
Substratum		soft mud, gravel, shells
Percentage cover		
Algae		
Chlorophyceae	<i>Chaetomorpha linum</i>	1
	<i>Cladophora</i> sp.	20
	<i>Cladophora rupestris</i>	10
	<i>Enteromorpha</i> sp.	+
	<i>Ulva</i> sp.	+
	Phaeophyceae	<i>Ascophyllum nodosum</i>
<i>Fucus vesiculosus</i>		5
<i>Fucus serratus</i>		5
<i>Pelvetia canaliculata</i>		+
Rhodophyceae	<i>Ceramium</i> sp.	10
	<i>Chondrus crispus</i>	+
	<i>Chondria tenuissima</i>	10
	<i>Furcellaria lumbricalis</i>	+
	<i>Gracilaria verrucosa</i>	+
Bare soft mud		70
Stones		5

Fauna

The fauna of Ardfry Oyster Pond is quite rich with a total of 36 taxa recorded on 17/10/06 (Table 50.2), most of which are common marine animals. Only three taxa are regarded as lagoonal specialists and all of these are relatively common in lagoonal habitats.

***Rissoa membranacea* var.** Gastropod mollusc recorded at eleven of the 87 lagoons surveyed on the west coast from Co. Cork to Co. Galway and also at Castle Espie, Co. Down. These records refer to a ‘lagoonal’ variety of the species, proposed as a lagoonal specialist for Ireland by Oliver and Healy (1998).

Cerastoderma glaucum Bivalve mollusc. A common lagoonal specialist found at 30 of the 87 lagoons (34.5%) 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. None of the other faunal species appear to be of particularly high conservation interest.

The aquatic fauna of the pond is interesting and relatively rich, but only three lagoonal specialists were recorded, all of which are relatively common in lagoonal habitats in Ireland. Based on this fauna, the site is regarded as of **moderate conservation value** as a coastal lagoon.

Table 50.2 Faunal taxa recorded in Ardfry Oyster pond 17/10/06.

r = rare, o = occasional, c = common, a = abundant. Species in bold text are lagoonal specialists.

Porifera		<i>Halichondria panicea</i>	c
Cnidaria		<i>Actinia equina</i>	c
Nematoda		indet.	
Annelida			
	Polychaeta	<i>Arenicola</i> agg.	a
		<i>Janua pagenstecheri</i>	a
		<i>Lepidonatus clava</i>	r
		<i>Platynereis dumerili</i>	c
		<i>Pomatoceros triqueter</i>	c
Crustacea			
	Mysidacea	<i>Praunus flexuosus</i>	c
	Amphipoda	<i>Gammarus</i> sp.	r
		<i>Microdeutopus gryllotalpa</i>	c
	Decapoda	<i>Carcinus maenas</i>	o
		<i>Pagurus bernhardus</i>	o
		<i>Palaemon elegans</i>	c
		<i>Palaemon serratus</i>	c
Insecta			
	Diptera	Chironomidae indet.	r
Mollusca			
	Polyplacophora	<i>Lepidochitona cinerea</i>	c
	Gastropoda	<i>Cerithiopsis tuberculosus</i>	c
		<i>Gibbula umbilicalis</i>	o
		<i>Hydrobia ulvae</i>	o
		<i>Littorina littorea</i>	c
		<i>Littorina saxatilis</i>	o
		<i>Rissoa membranacea</i> var.	o
	Opisthobranchia	<i>Elysia viridis</i>	o
	Bivalvia	<i>Anomia ephyppium</i>	o
		<i>Cerastoderma glaucum</i>	r
		<i>Chlamys varia</i>	c
		<i>Modiolula phaseolina</i>	c
		<i>Mytilus edulis</i>	o
		<i>Ostrea edulis</i>	o
		<i>Tapes decussata</i>	shells
Bryozoa		<i>Conopeum seurati</i>	o
		<i>Alcyonidium gelatinosum</i>	o
		<i>Bowerbankia gracilis</i>	
Tunicata		<i>Ascidella aspersa</i>	o
		<i>Ciona intestinalis</i>	o
Pisces		<i>Pomatoschistus microps</i>	o

Summary

Ardfry Oyster Pond is a small, artificial lagoon. The biota is quite rich with 14 floral and 36 faunal taxa recorded, but only four of these are lagoonal specialists, all of which are relatively common in lagoonal habitats. Most of the lagoon consists of bare mud with very little fauna or flora. Although artificial, the lagoon functions naturally and is not heavily impacted and overall, it is regarded as of **moderate conservation value**.

Overall Conservation Value = Moderate

Conservation Status Assessment (from Oliver 2007)

Impacts	Artificial but no major impacts.
Conservation Status	Favourable

Further Information

Listed as a lagoon by Healy *et al.* 1997, Healy 2003 and Oliver 2005 and included in the Conservation Status Assessment (Oliver 2007).

References:

- Hatch, P. & Healy, B. 1998. Aquatic vegetation of Irish coastal lagoons. *Bulletin of the Irish Biogeographical Society*. **21**: 2-21.
- Healy, B. 2003. Coastal Lagoons. In: *Wetlands of Ireland*. R. Otte (ed). Chapter 4. University College Dublin Press. Dublin. 44-78.
- Healy, B., Oliver, G.A., Hatch, P. & Good, J.A. 1997. *Coastal lagoons in the Republic of Ireland. Vol. 3. Inventory of lagoons and saline lakes*. Report to the National Parks and Wildlife Service, Dublin.
- Oliver, G.A. 2005. *Seasonal changes and Biological Classification of Irish Coastal Lagoons*. PhD Thesis. U.C.D., Dublin. Available on www.irishlagoons.com
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