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Port na Cora, Inis Meáin, Aran Islands O.S. L 937 066

(Port na Cora, Inishmaan)

O.S. Discovery Sheet 51

NO PHOTOGRAPH

Conservation Designation: Inishmaan Island SAC 000212, p NHA 000212**General description:**

Port na Cora is a very small (0.5ha) natural **karst lagoon** with a sedimentary barrier of cobbles, on the north coast of Inis Meain approximately 1.5km north of the village. The lagoon is shallow (<1m) and at the time of sampling (9/9/06) appeared eutrophic with dense growths of *Enteromorpha*. The bed of the lagoon is limestone bedrock with no obvious connection to the sea. Salinity probably varies considerably and was high on the 9/9/06 (31.2psu) but was recorded as 4-15psu during a brief visit in 1996.

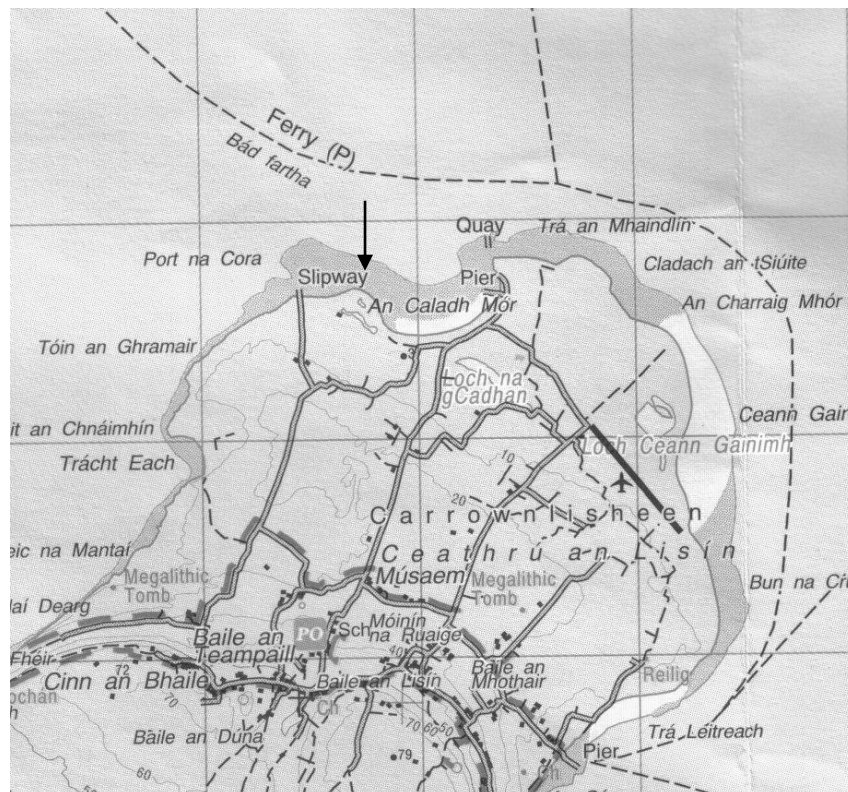


Figure 41.1 Location map of Port na Cora, Inish Meáin.

The lagoon at Port na Cora was surveyed on 9/9/2006, and as the lagoon was so small, the whole lagoon was regarded as one sampling station (Table 41.1).

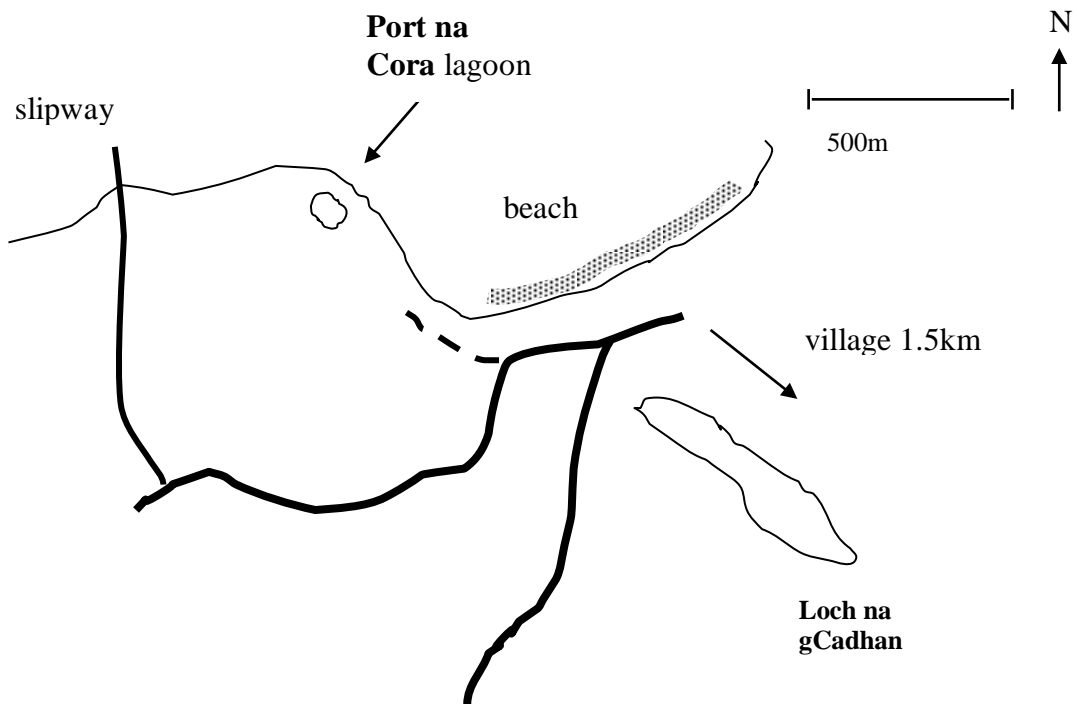


Figure 41.2 Sketch map of Port na Cora lagoon, Inish Meáin.

Flora

The lagoon was dominated by dense growths of *Enteromorpha* sp. and only two floral taxa were recorded, the other being a small percentage of the lagoonal specialist *Chaetomorpha linum*. It is thought that salinity varies considerably in this lagoon and the latter species is also likely to vary in percentage cover, perhaps seasonally. Table 41.1 Aquatic flora, salinity, temperature, water depth and substratum and recorded at Port na Cora, Inis Meáin, Co. Galway 09/09/2006.

Sta 1	
GPS position	L 93391 06584
Salinity (psu)	31.2
Temperature	16.3
Depth (cm)	0-100
Substratum	limestone pavement, stones, soft mud
Percentage cover	
Algae	
Chlorophyceae	
<i>Chaetomorpha linum</i>	5
<i>Enteromorpha</i> sp.	50
Bare soft mud	50
Bedrock and stones	50

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 the site is regarded as of **low conservation value** as a coastal lagoon.

Fauna

Only 13 faunal taxa were recorded in 2006, but this includes four lagoonal specialists and some interesting species (Table 41.2).

Table 41.2 Aquatic fauna recorded at sampling stations in Port na Cora lagoon, Inis Meáin Co. Galway 8/8/06. c = common; o = occasional; r = rare. Species in bold text are lagoonal specialists or rare species.

Taxa		Sampling Stations
		Sta 1
Annelida		
Polychaeta	<i>Nereis diversicolor</i>	c
Oligochaeta	Tubificidae indet.	r
Crustacea		
Isopoda	<i>Idotea chelipes</i>	o
	<i>Jaera ischiosetosa</i>	a
Amphipoda	<i>Corophium volutator</i>	a
	<i>Gammarus ?finmarchicus</i>	c
	<i>Melita palmata</i>	a
Acarina	indet.	r
Insecta		
Heteroptera	<i>Sigara selecta</i>	o
Coleoptera	<i>Agabus ?nebulosus</i>	c
Diptera	Chironomidae indet.	c
Mollusca		
Gastropoda	<i>Hydrobia ventrosa</i>	c
Opisthobranchia	<i>Phytia myosotis</i>	o

Idotea chelipes is a common, lagoonal, isopod crustacean, often found in association with the lagoonal form of *Chaetomorpha linum*. Found at 23 of the 87 (26.4%) lagoons surveyed, mostly at relatively high salinity.

Sigara selecta Hemipteran insect (water-boatman) abundant in L. an Chara on Inishmore in 1998. Previously recorded only from Ventry on the Dingle peninsula (McCarthy and Walton 1980). This species is listed as a lagoonal specialist in Britain, where it tolerates higher salinities than *S. stagnalis* (Scudder 1976). The previous record from Ventry was regarded by McCarthy and Walton as “difficult to explain since it has not previously been found at other brackish water sites recently investigated along the south coast”. This record from the Aran Islands is therefore of great interest. A few specimens of this species were recorded at Port na Cora in the Aran islands, which is only 5km from the site on Inishmore where found in 1998. These may have been temporary colonists, especially in view of possible extreme fluctuations in salinity and other environmental conditions (temperature, dissolved oxygen, pH etc.).

Hydrobia ventrosa. Gastropod mollusc commonly found in brackish lagoons and ditches and generally not on the open coast. Recorded at 18 of the 87 (20.7%) lagoons surveyed up to 2006.

Jaera ischiosetosa Isopod crustacean recorded at 12 sites from West Cork to Donegal. The only previous record appears to be for L. Hyne. Co. Cork (Goss Custard *et al.* 1979).

The water beetle *Agabus ?nebulosus* (unconfirmed) may prove to be a rare species. The gastropod *Phytia myosotis* (= *Ovatella*) is described as “often abundant beneath plant litter near the high-water mark in estuaries and saltmarshes, and just above the water level in lagoons” by Barnes (1994), but was only recorded at two lagoons of the 87 surveyed.

Very few faunal species were recorded in the lagoon but the list includes 4four lagoonal specialists, at least one of which (*S. selecta*) is very rare in Ireland. Based on this fauna, the site is regarded as of **high conservation value** as a coastal lagoon.

Summary

The lagoon at Port na Cora is a very small (0.5ha) natural **karst lagoon**, which appears to be eutrophic and largely choked with *Enteromorpha* covering largely anoxic sandy mud. A total list of only 15 taxa, were recorded (2 floral, 13 faunal) but this includes four lagoonal specialists, at least one of which (*S. selecta*) is very rare in Ireland. Geomorphologically, it is an interesting and rare lagoon type in Europe with an interesting biota, including at least one rare species. Overall, despite its small size and signs of eutrophication it is rated as of high conservation value.

Overall Conservation Value = High

Conservation Status Assessment (from Oliver 2007)

Impacts	Moderate eutrophication in small, shallow lagoon. Erosion. Accumulation of organic material.
Conservation Status	Unfavourable-Inadequate

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:

- Barnes, R.S.K. 1994. *The brackish-water fauna of northwestern Europe: a guide to brackish-water habitats, ecology and macrofauna for field workers, naturalists and students*. Cambridge University Press. 287 pp.
- Goss Custard, S., J. Jones, J.A. Kitching & Norton, T. A. 1979. Tidepools of Carrigathorna and Barloge Creek. *Philosophical Transactions of the Royal Society of London*. Series B, **287**: 1-44.
- 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.
- McCarthy, T.K. & Walton, G.A. 1980. *Sigara selecta* (Fieb.) (Heteroptera: Corixidae) new to Ireland, with notes on water bugs recorded from the Dingle Peninsula. *Irish Naturalists' Journal* **20**: 64-6.
- Oliver, G.A. 2005. *Seasonal changes and Biological Classification of Irish Coastal Lagoons*. PhD Thesis. U.C.D., Dublin. Available on www.irishlagoons.com
- Oliver, G.A. 2007. *Conservation status report: Coastal Lagoons (1150)*. Unpublished report to the National Parks and Wildlife Service, Dublin.
- Scudder, G.G.E. 1976. Water boatmen of saline waters (Hemiptera: Corixidae). In: Cheng, L. (ed) *Marine Insects*. North Holland Publishing Company, Amsterdam. 263-289.