

4.42

**Loch an tSáile, Árann, Aran Islands O.S. L 878 081**  
 (Loch an tSáile, Inishmore)

O.S. Discovery Sheet 51



**Conservation Designation:** Inishmore Island SAC 000213, pNHA 000213

**General description:**

Situated 1.5km south of Kilronan on the largest of the Aran Islands. A very small (0.5ha) “estuarine” karst lagoon, which appears to be flooded by all tides but retains shallow water (<1m). Salinity at the time of sampling (08/08/2006) was high (33psu) but measured 16-34psu when visited briefly in 1998.

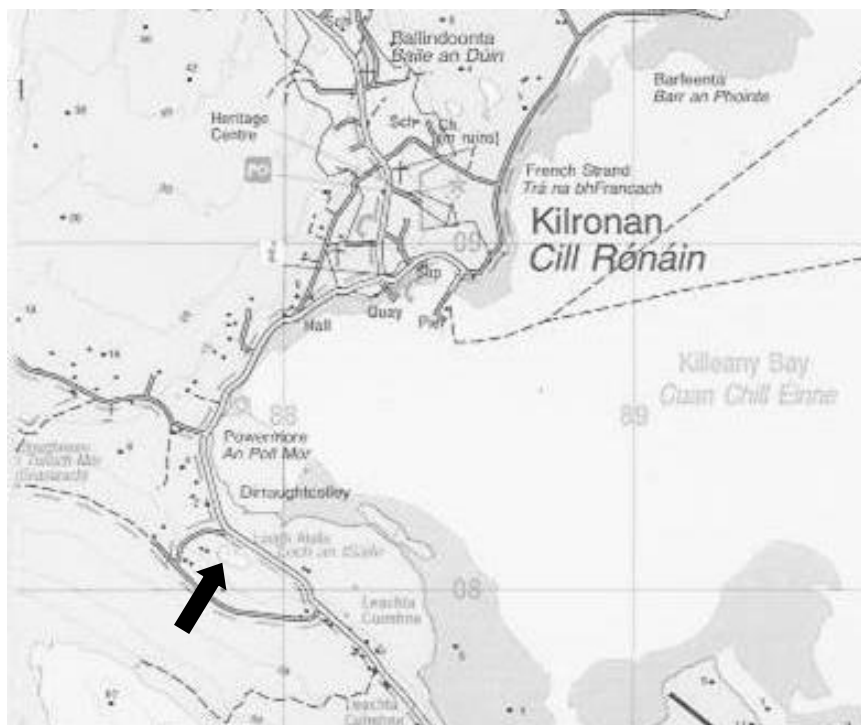


Figure 42.1 Location map of Loch an tSáile, Inishmore.

Loch an tSáile was surveyed on 08/08/2006 for aquatic fauna and flora. The lagoon is a very small lagoon and the entire lagoon was regarded as one sampling station at this time (Figure 45.2, Table 45.1)

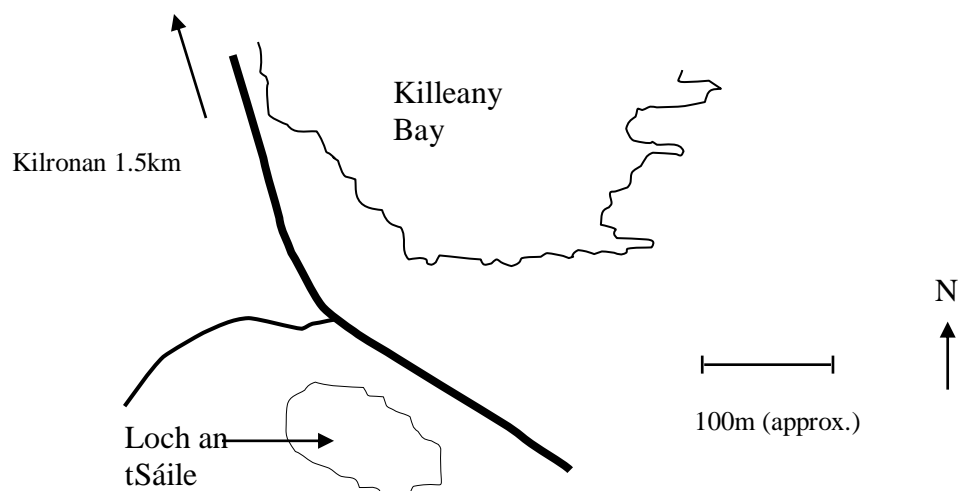


Figure 42.2 Sketch map of Loch an tSáile, Inishmore.

### Flora

Loch an tSáile is an “estuarine” lagoon and much of the bed of the lagoon is covered by bare, soft mud (Table 42.1). Only 6 floral taxa were recorded, most of which are common green, or fucoid algae, but one species (*Chaetomorpha linum*) is a lagoonal specialist.

Table 42.1 Aquatic flora, salinity, temperature, water depth and substratum and recorded at Loch an tSáile, Inishmore 08/08/2006

Salinity (psu)	33.3
Temperature	17.5
Depth (cm)	0-50
Substratum	soft mud over limestone pavement. Occasional stones
<b>Percentage cover</b>	
<b>Algae</b>	
<b>Chlorophyceae</b>	
<i>Chaetomorpha linum</i>	20
<i>Cladophora rupestris</i>	2
<i>Cladophora</i> sp.	10
<i>Enteromorpha</i> sp.	3
<b>Phaeophyceae</b>	
<i>Ascophyllum nodosum</i>	5
<i>Fucus vesiculosus</i>	5
<b>Bare soft mud</b>	60
<b>Rock, stones</b>	10

*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.

None of the other plants recorded are of any special interest. Based on aquatic vegetation Loch an tSáile is regarded as of **low conservation value** as a coastal lagoon.

## Fauna

The fauna of the lagoon is very poor. Only 15 taxa were recorded and most of these are common estuarine species. Only one lagoonal specialist was recorded (*Palaemonetes varians*), which is perhaps the most common of all lagoonal specialists, but one isopod crustacean (*Jaera ischiosetosa*) appears to be rare, but this species is small and easily overlooked.

Table 42.2 Aquatic fauna recorded in Loch an tSáile, Inishmore 8/8/06

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

Taxa		Sampling Stations
		Sta 1
<b>Protozoa</b>	Foraminifera indet.	<b>o</b>
<b>Cnidaria</b>	<i>Actinia equina</i>	<b>c</b>
<b>Annelida</b>		
	Polychaeta	
	<i>Malacocerus fuliginosus</i>	<b>o</b>
	<i>Nereis diversicolor</i>	<b>o</b>
	Oligochaeta	
	Tubificidae indet.	<b>a</b>
<b>Crustacea</b>		
	Isopoda	
	<i>Idotea baltica</i>	<b>a</b>
	<b><i>Jaera ischiosetosa</i></b>	<b>o</b>
	Amphipoda	
	<i>Corophium volutator</i>	<b>a</b>
	? <i>Gammarus salinus</i>	<b>o</b>
	<i>Marinogammarus obtusatus</i>	<b>a</b>
	<i>Melita palmata</i>	<b>a</b>
	Decapoda	
	<i>Palaemon elegans</i>	<b>o</b>
	<b><i>Palaemonetes varians</i></b>	<b>r</b>
	Diptera	
	Chironomidae indet.	<b>c</b>
<b>Mollusca</b>		
	Gastropoda	
	<i>Hydrobia ulvae</i>	<b>o</b>
	<i>Littorina saxatilis</i>	<b>o</b>

***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.

***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).

None of the other aquatic animals recorded are of any special interest. Based on this fauna Loch an tSáile is regarded as of **low conservation value** as a coastal lagoon.

**Summary**

Loch an tSáile, is a karst lagoon, which is an unusual lagoon type in Europe, but it is very small, with very few species of animals or plants, only two of which are lagoonal specialists, and both of these are relatively common. One apparently rare species (*Jaera ischiosetosa*) was recorded, but this animal is small and easily overlooked. Overall it is rated as of **low conservation value**.

**Overall Conservation Value = Low**

**Conservation Status Assessment (from Oliver 2007)**

Impacts	Very shallow. Mild eutrophication but significant tidal flushing. Urbanisation. Silting up.
Conservation Status	<b>Unfavourable-Inadequate</b>

**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:**

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