

4.75

Dooniver Lough, Achill Island, County Mayo O.S. F 738 074
O.S. Discovery Sheet 30



Conservation Designation: NONE

General description:

Small (3ha), shallow (<1m) **natural sedimentary lagoon** with a cobble barrier overlying sand and peat with an artificial pipe through the barrier, situated on the northeast shore of Achill Island, bordering Blacksod Bay, 8km north of Achill Sound. Substratum consists of sand, partly overlying peat, and salinity is probably low most of the time, measuring less than 2psu at the time of sampling (15/8/06).

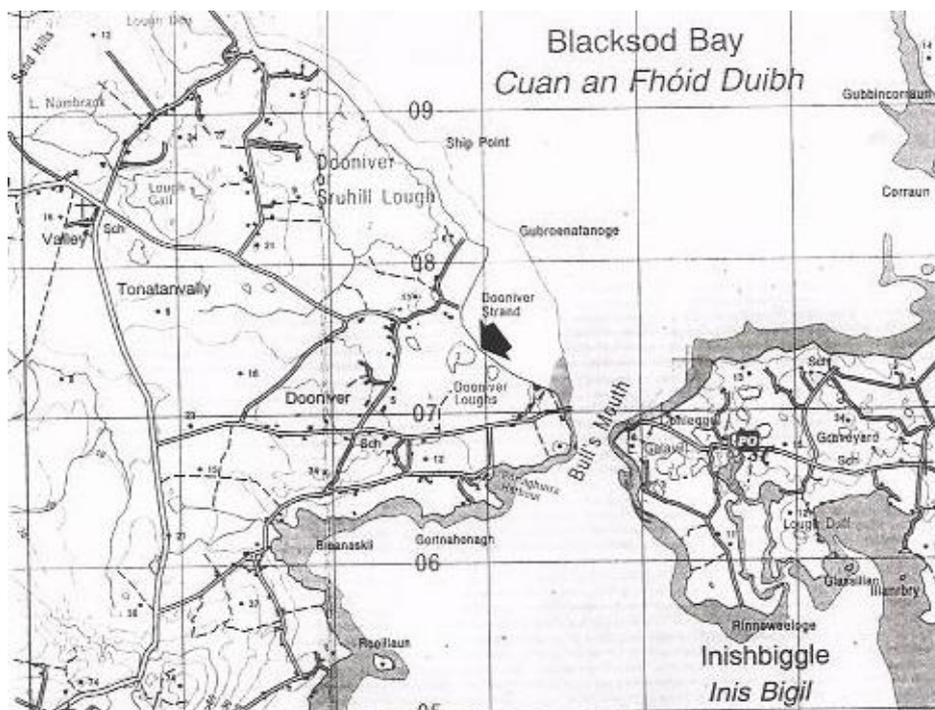


Figure 75.1 Location map of Dooniver Lough, Achill Is.

Dooniver Lough was surveyed on 15/8/06 for aquatic fauna and flora. Three stations were selected for sampling at this time (Figure 75.2, Table 75.1)

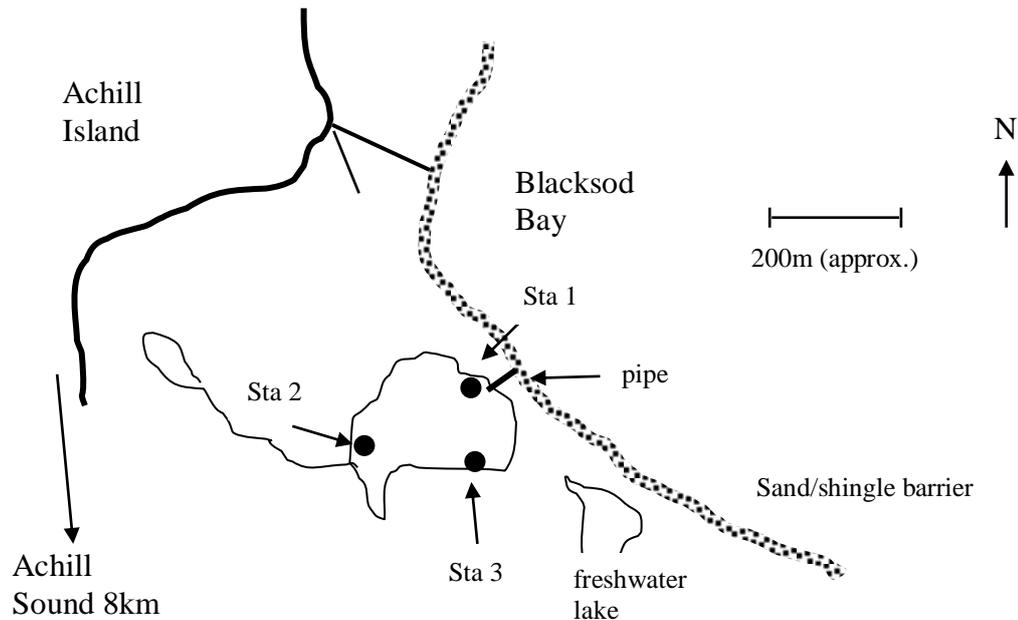


Figure 75.2 Sketch map of sampling stations used Dooniver Lough lagoon 15/8/06.

Flora

Most of this shallow lagoon is dominated by dense growths of a mixture of *Potamogeton pectinatus* and *Ruppia maritima*. The latter is a lagoonal specialist and confirms the identity of this site as a brackish lagoon, which otherwise is dominated by freshwater fauna and flora.

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. *R. maritima* appears to be the more common of the species and was found at 41 of the lagoons surveyed (47%).

Table 75.1 Positions of sampling stations in Dooniver Lough, 15/8/06, with percentage cover of vegetation and bare ground, salinity, temperature, depth of water and type of substratum. Species in bold text are lagoonal specialists.

	Sta 1	Sta 2	Sta 3
GPS position	F 72914 07436	F 72766 07419	L 72867 07337
Salinity(psu)	1.9	2.1	2.2
Temperature	15.3	15.8	15.8
Depth(cm)	0-30	0-70	0-50
Substratum	Sand, stones	Sand overlying peat	Firm sand
Percentage cover:			
Chlorophyta			
	<i>Cladophora</i> sp.		
	<i>Enteromorpha</i> sp.	10	
Charophyta			
	<i>Chara ?muscosa</i>		+
Angiosperms			
	<i>Potamogeton pectinatus</i>	20	45
	<i>Ruppia maritima</i>	10	45
Bare ground			
	Sand	50	10
	Stones	10	

Small amounts of a *Chara* species, tentatively identified as *C. muscosa* were found in the southeast part of the lagoon (Sta 3). Away from the barrier the lagoon is bordered by low peat cliffs and wet grassland.

Based on aquatic vegetation, Dooniver Lough is rated as of **low conservation value**.

Fauna

A total of 16 faunal taxa were recorded at Dooniver Lough on 15/8/06 (Table 75.2) most of which are common freshwater species. Surprisingly, despite the abundant growths of *Ruppia*, none of the species recorded are lagoonal specialists. The only species of conservation interest is the relatively uncommon freshwater bryozoan, *Plumatella repens*.

Based on aquatic fauna, Dooniver Lough is rated as of **low conservation value**.

Table 75.2 Faunal taxa recorded at stations in Dooniver Lough, 15/8/06.

r = rare, o = occasional, c = common.

			Sta 1	Sta 2	Sta 3
Crustacea	Oligochaeta	Tubificidae indet.	r		
	Ostracoda	indet.	r	r	o
	Copepoda	Harpacticoida indet.		o	o
	Mysidacea	<i>Neomysis integer</i>	o	o	o
	Amphipoda	<i>Gammarus duebeni</i>	a	o	o
Insecta	Heteroptera	<i>Notonecta</i> sp.		o	o
		<i>Sigara dorsalis</i>	r	o	o
		<i>Haliphus obliquus</i>			r
	Coleoptera	<i>Hygrotus inaequalis</i>		o	o
Mollusca	Diptera	Chironomidae indet.	r	c	o
	Gastropoda	<i>Lymnaea peregra</i>		o	o
		<i>Potamopyrgus antipodarum</i>	o	o	o
	Bivalvia	<i>Sphaerium corneus</i>			r
Bryozoa		<i>Plumatella repens</i>		c	c
Pisces		<i>Gasterosteus aculeatus</i>		r	
		<i>Salmo trutta</i>	r		

Summary

Dooniver Lough is a small (3ha), shallow (<1m) **natural sedimentary lagoon** with a **cobble barrier** overlying sand and peat. Salinity appears to be very low most of the time but abundant growths of the lagoonal specialist, *Ruppia maritima*, were recorded on 15.8/06. The fauna is relatively species-poor and are mostly common freshwater species, and despite the abundance of *Ruppia* none of the fauna recorded are lagoonal specialists, or remotely brackish. Aquatic fauna and flora are rated as of low conservation value, but geomorphologically Dooniver Lough is a good example of a small, low salinity, sedimentary lagoon, with a cobble barrier. Overall, conservation value is therefore rated as moderate.

Overall Conservation Value = Moderate

Conservation Status Assessment (from Oliver 2007)

Impacts	Moderate eutrophication from surrounding farmland. Poaching by cattle in places. Risk of natural damage to barrier. Erosion. Silting up.
Conservation Status	Unfavourable-Inadequate

Further Information

Listed as a lagoon by Healy *et al.* (1997), Healy (2003) and Oliver (2005), but not surveyed until 2006. Included in the Conservation Status Assessment (Oliver 2007). Otherwise, no further information available

References:

- 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.
- Oliver, G.A. 2007. Conservation status report: Coastal Lagoons (1150). Unpublished report to the National Parks and Wildlife Service, Dublin.