

A Synopsis of the WFD Surveillance Monitoring Fish Stock Survey on Lough Caum September, 2009

1.1 Introduction

Lough Caum is a corrie lake situated in the Brandon Mountains in north Co. Kerry. The lake is located in the “Mount Brandon” SAC which occupies the central and north-western parts of the Dingle peninsula. The geology of the area comprises of old red sandstone and Dingle beds (oldest Devonian rocks in Ireland) (NPWS, 2002).

The lake has a surface area of 8ha, mean depth of 2.7m and maximum depth of 15m. Lough Caum is categorised as typology class 5 for the purposes of WFD (as designated by the EPA), i.e. shallow (<4m), less than 50ha and moderate alkalinity (20-100mg/l CaCO₃). It has been classed as moderate status by the EPA.

The lake is stocked regularly with rainbow trout by the South Western Regional Fisheries Board.



Plate 1.1: Lough Caum

1.2 Methods

The lake was surveyed over one night on the 16th September 2009. A total of two sets of Dutch fykes, seven (2 @ 0-2.9m, 2 @ 3-5.9m, 2 @ 6-11.9m and 1 @ 12-19.9) benthic monofilament survey gill nets and two surface floating survey gill nets were deployed randomly in the lake (11 sites). Survey locations were randomly selected using a grid placed over the map of the lake. Portable GPS instruments were used to mark the precise location of each net. The angle of each gill net in relation to the shoreline was randomised.

All fish were measured and weighed on site and scales were removed from all trout. Where possible, live fish were returned to the water when the likelihood of their survival was considered to be good. Samples of fish were retained for further analysis.

1.3 Results

1.3.1 Species Richness

A total of three fish species were recorded on Lough Caum in September 2009. A list of the species encountered and numbers captured by each gear type is compiled in Table 1.1. A total of 75 fish were captured during the survey. Brown trout were the most common fish species encountered in the benthic gill nets. Small numbers of stocked rainbow trout were recorded. Eels were also captured in fyke nets during the survey.

Table 1.1: List of fish species recorded (including numbers captured) during the survey on Lough Caum, September, 2009

Scientific names	Common names	Number of fish captured			Total
		Benthic monofilament gill nets	Surface gill nets	Dutch fykes	
<i>Salmo trutta</i>	Brown trout	50	6	4	60
<i>Oncorhynchus mykiss</i>	Rainbow trout	4	5	0	9
<i>Anguilla anguilla</i>	Eel	0	0	6	6

1.3.2 Fish abundance

Fish abundance was calculated as the mean number of fish captured per metre of net, i.e. mean CPUE. Mean CPUE for all fish species per gear type on Lough Caum are summarised in Table 1.2.

Table 1.2: Mean CPUE (mean number of fish per m of net) on Lough Caum, September 2009

Gear type	Mean CPUE (mean number of fish/m of net)		
	Brown trout	Rainbow trout	Eel
Gill nets (all)	0.209	0.035	-
Fykes	0.033	0	0.05

1.4 Further work

All fish were measured and weighed and scales were removed from all brown trout and rainbow trout on site. Eel otoliths will be removed in the laboratory and the fish will be aged. A water sample was taken; the chemical results and age analysis will be available in due course. A more detailed report will be available in 2010.

1.5 References

NPWS (2002) Mount Brandon SAC - Site Synopsis. National Parks and Wildlife Services Website <http://www.npws.ie/en/media/Media,3933,en.pdf>, accessed may 2009.