

Preliminary Synopsis of the WFD Surveillance Monitoring Fish Stock Survey on Lough Arrow in the Western River Basin District, July 2012

1.1 Introduction

A WFD fish stock survey was conducted on Lough Arrow (Fig. 1) from the 23rd to the 27th of July 2012 by staff from Inland Fisheries Ireland as part of the programme of surveillance monitoring for the Water Framework Directive.

1.2 Methods

Lough Arrow was surveyed over four nights from the 23rd to the 27th of July 2012. A total of three sets of Dutch fyke nets, 28 benthic monofilament multi-mesh (12 panel, 5-55mm mesh size) CEN standard survey gill nets (5 @ 0-2.9m, 5 @ 3-5.9m, 6 @ 6-11.9m, 6 @ 12-19.9 and 6 @ 20-34.9m) and seven surface floating monofilament multi-mesh (12 panel, 5-55mm mesh size) CEN standard survey gill nets were deployed randomly in the lake (38 sites). The netting effort was supplemented using seven benthic braided survey gill nets (62.5mm mesh knot to knot) at seven additional sites. Nets were deployed in the same locations as were randomly selected in the previous survey in 2009. A handheld GPS was used to mark the precise location of each net. The angle of each gill net in relation to the shoreline was randomised.

All fish apart from perch were measured and weighed on site and scales were removed from all brown trout, roach, pike, bream, hybrids and rudd. Live fish were returned to the water whenever possible (i.e. when the likelihood of their survival was considered to be good). Samples of fish were retained for further analysis.

1.3 Results

A total of eight fish species and one type of hybrid were recorded in Lough Arrow, with 695 fish being captured. The number of each fish species recorded is shown in Table 1.

Table 1. Number of each fish species recorded in Lough Arrow, July 2012

Scientific name	Common name	Number
<i>Perca fluviatilis</i>	Perch	462
<i>Gasterosteus aculeatus</i>	Three-spined stickleback	80
<i>Salmo trutta</i>	Brown trout	19
<i>Rutilus rutilus</i>	Roach	101
<i>Scardinius erythrophthalmus</i>	Rudd	4
<i>Rutilus rutilus x Abramis brama</i>	Roach x bream hybrid	2
<i>Abramis brama</i>	Bream	1
<i>Esox Lucius</i>	Pike	4
<i>Anguilla Anguilla</i>	European eel	22

1.4 Further work

Perch will be measured and weighed and opercular bones will be removed in the laboratory. Otoliths will be removed from eels and all fish will be aged after the fieldwork season has ended. Catch per unit effort (CPUE), biomass per unit effort (BPUE) and age profiles will be calculated for all fish species and a more detailed report will be available in 2013.