Iascach Intíre Éireann
Inland Fisheries Ireland

# Sampling Fish for the Water Framework Directive, 2007 - 2009

## Summary and Future Work

## Inland Fisheries Ireland

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Plus MANY staff from the 7 Regional Fisheries Boards (now IFI RBDs)

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# WFD fish monitoring sites, 2007 - 2009

2007

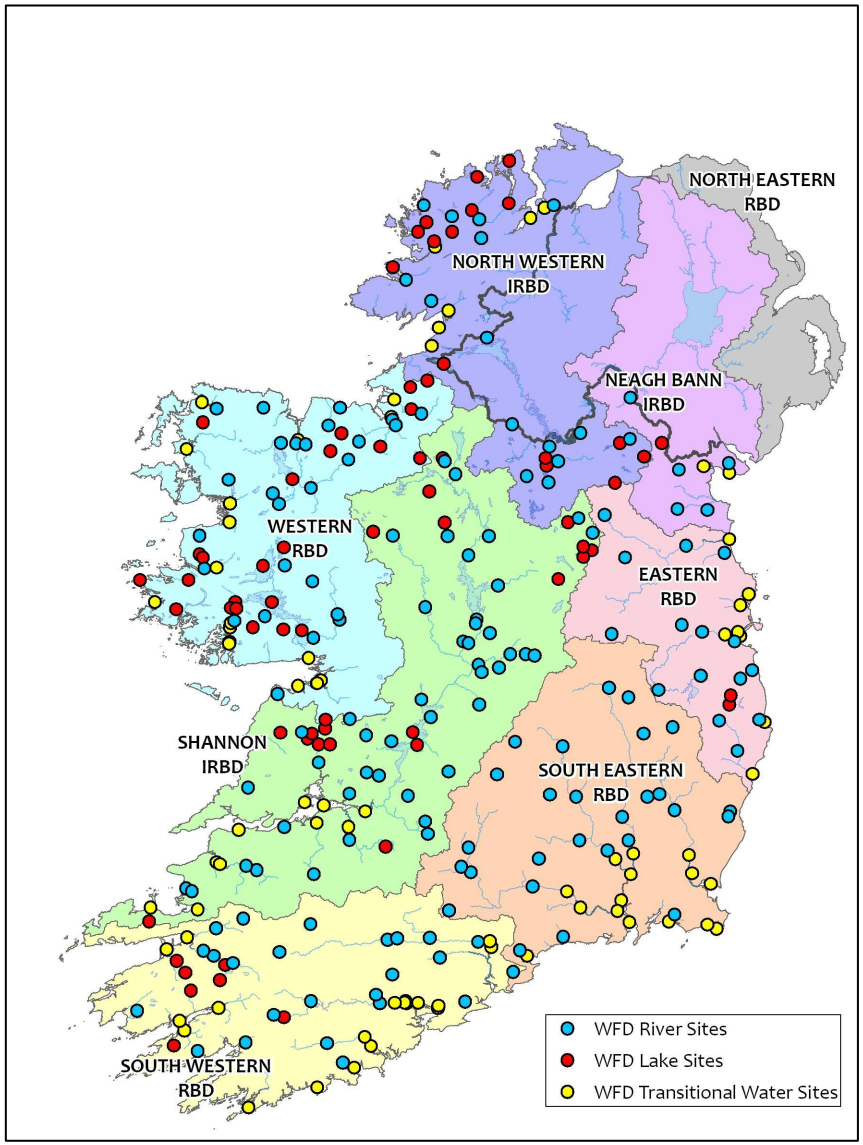
-15 lakes
- 8 transitional waters

2008

- 32 lakes
- 82 river sites
- 41 transitional waters

2009

- 23 lakes
- 52 river sites
- 23 transitional waters




IFI completed surveys
2007 - 2009

70 lakes

134 river sites

72 transitional waters

TOTAL: 276

# WFD fish sampling, 2007 - 2009

- >150,000 fish captured and examined

- 70 fish species (plus hybrids and four brown trout ‘varieties’)

- Huge volume of data collected and processed
  - Abundance, biomass, length, weight, age, stomach contents, sex
  - New GIS database and map viewer

- Detailed reports on each water body surveyed on WFD fish website
  - www.wfdfish.ie

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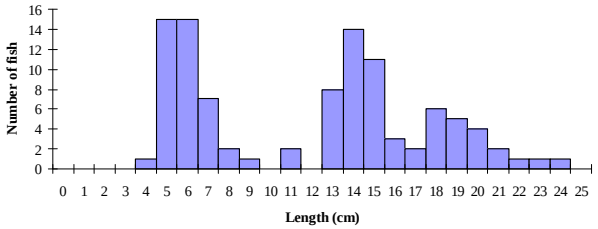
**WFD fish website - www.wfdfish.ie**

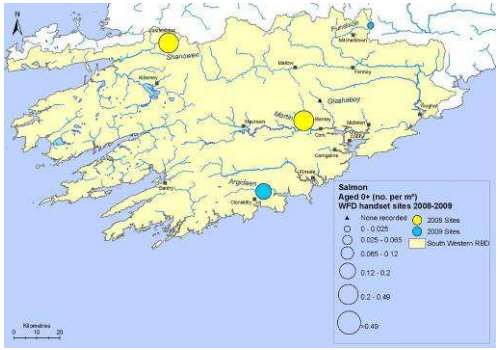
Site descriptions and location maps

Site species lists and abundances

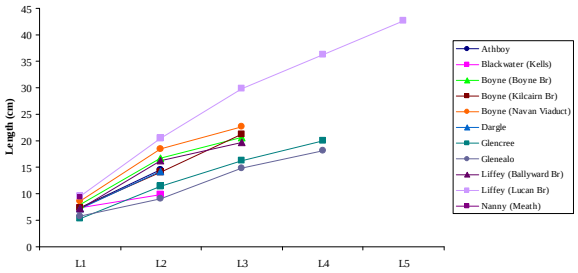
| Species name | Common name | 0+ | 1+ & older | Total density |
|---|---|---|---|---|
| *Salmo trutta fario* | Brown trout | 0.1014 | 0.1315 | 0.2329 |
| *Salmo salar* | Salmon | 0.0225 | 0.0714 | 0.0939 |
| *Anguilla anguilla* | European eel | - | - | 0.0075 |
| *Gasterosteus aculeatus* | Three-spined stickleback | - | - | 0.0075 |
| *Barbatula barbatula* | Stone loach | - | - | 0.0038 |
| *Lampetra* sp. | Lamprey sp. | - | - | 0.0038 |
| All fish | All fish | - | - | 0.3493 |




Length frequency graphs




Distribution maps




Growth rates

# Classification tool development

- Lakes – Fish in Lakes Ecological Classification Tool (FIL2)
- Rivers – Fish Classification Scheme (FCS2)
- Transitional Waters – Transitional Fish Classification Index (TFCI)
- Intercalibration with other EU Member States

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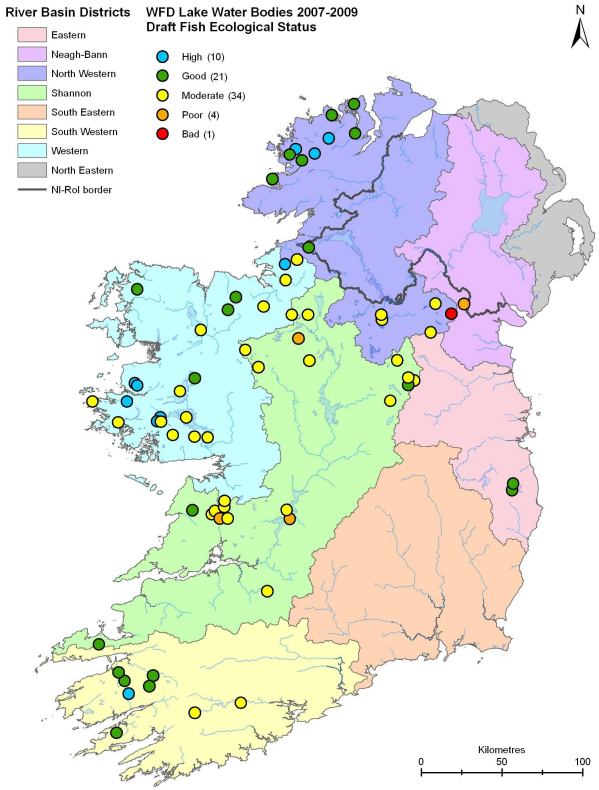
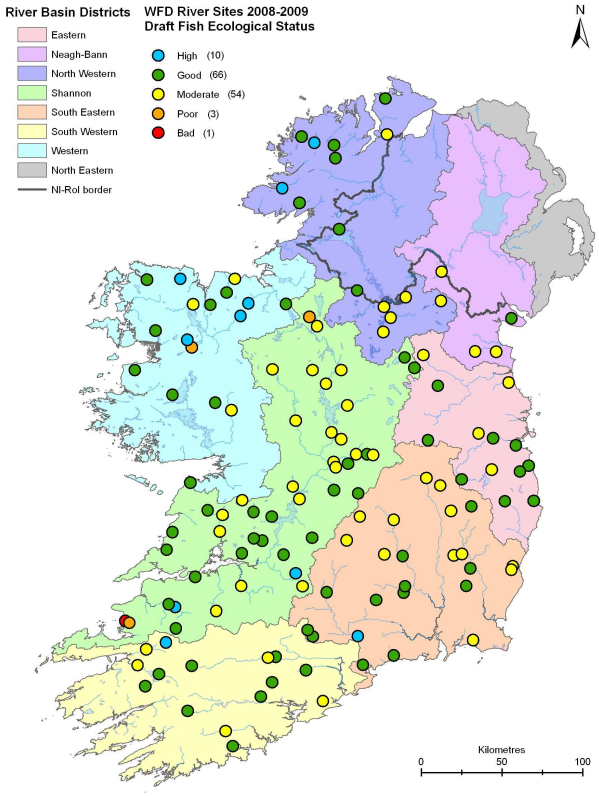
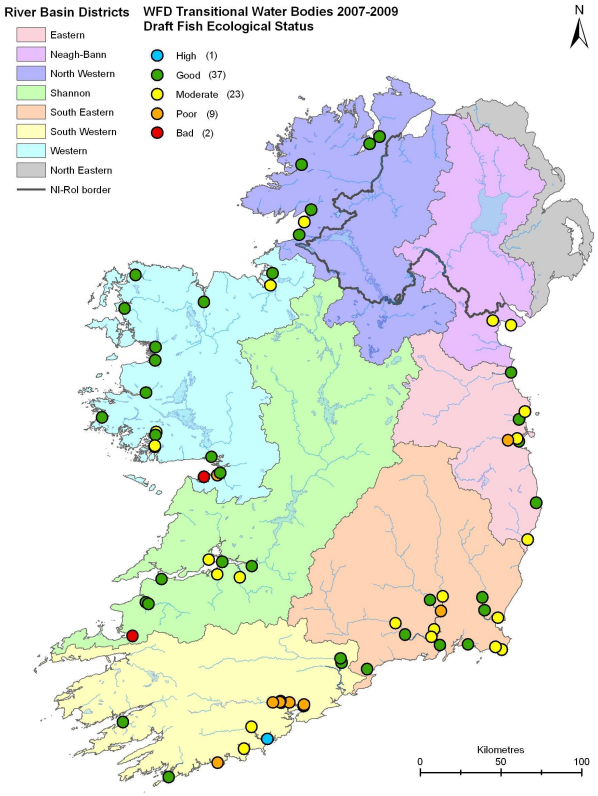
# Ecological status classification

- All water bodies surveyed have been assigned an interim Ecological Status

  - Submitted to EPA for inclusion in RBMPs



# New methods - Hydroacoustics

# WFD fish sampling – resource requirements

- Originally 8 full time IFI WFD biologists + 2 temp fisheries assistants

  - Plus MANY regional staff

- Up to four teams working simultaneously

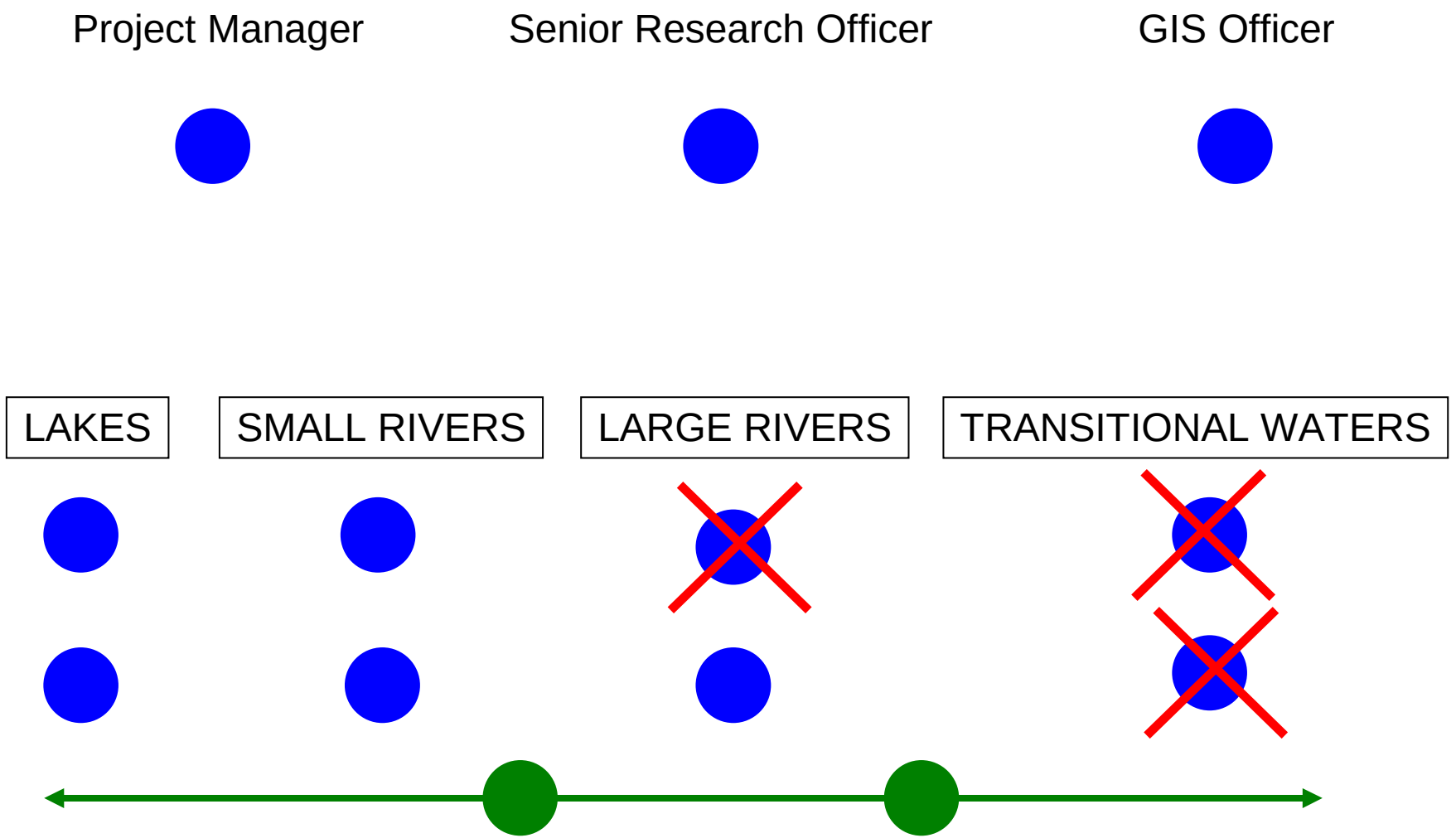
  - Lakes (4 - 8 staff)
  - Small rivers (4 - 7 staff)
  - Large rivers (4 – 13 staff)
  - Transitional Waters (4 – 8 staff)

- Full field work programme

  - All 8 IFI WFD biologists + 2 temp FA + ~600 regional man days per year

- Senior Research Officer, Project Manager and GIS Officer

# WFD fish sampling – resource requirements



# WFD fish sampling – resource requirements

- Full field work programme
  - All 8 IFI WFD biologists + 2 temp FA + ~600 regional man days per year

- Current staffing levels
  - 5 IFI WFD biologists + 2 temp FA + ~600 regional man days per year?

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# WFD fish sampling schedule, 2010 - 2012

| Year | Lakes | | Rivers | | Transitional Waters | |
|---|---|---|---|---|---|---|
| | Planned | Achieved | Planned | Achieved | Planned | Achieved |
| **2010** | **25** | **25** | **53** | **41** | **27** | **25** |
| **2011** | **30** | **30** | **71** | **40** | **28** | **0** |
| **2012** | **23** | **23** | **50** | **50** | **23** | **0** |
| **TOTAL** | **78** | **78** | **174** | **132** | **78** | **25** |

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Summary reports, individual water body reports, GIS Map Viewer, other info…

**www.wfdfish.ie**

## Thankyou