

Biologist's Report



Trust Activities 2012-13

Range of Activities

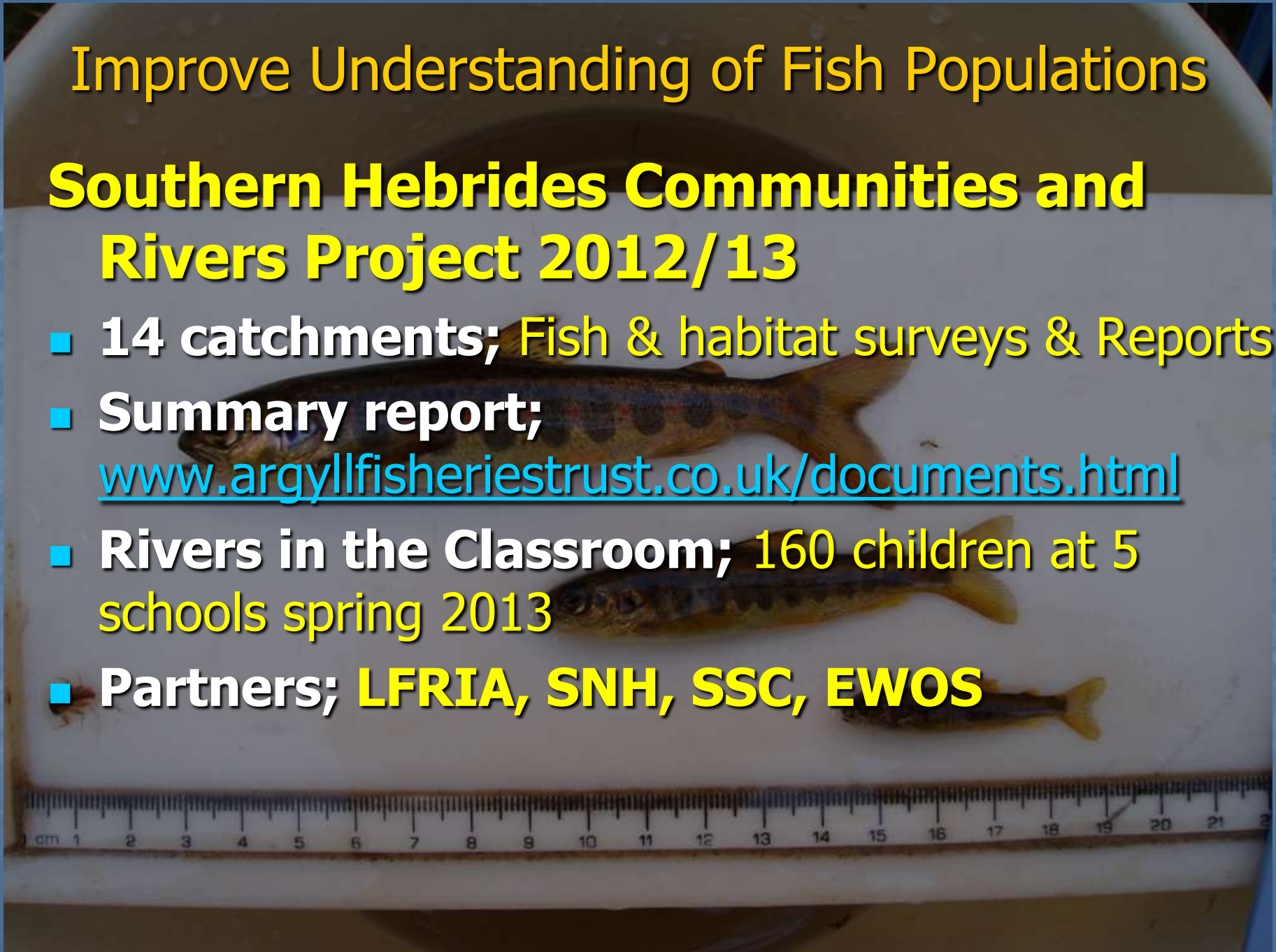
- **Improve Understanding of Fish Populations**
- **Improve Understanding of Factors Affecting Productivity**
- **Protecting Fisheries from New Threats**
- **Fishery Improvement & Restoration**
- **Education & Awareness**



Improve Understanding of Fish Populations

Southern Hebrides Communities and Rivers Project 2012/13

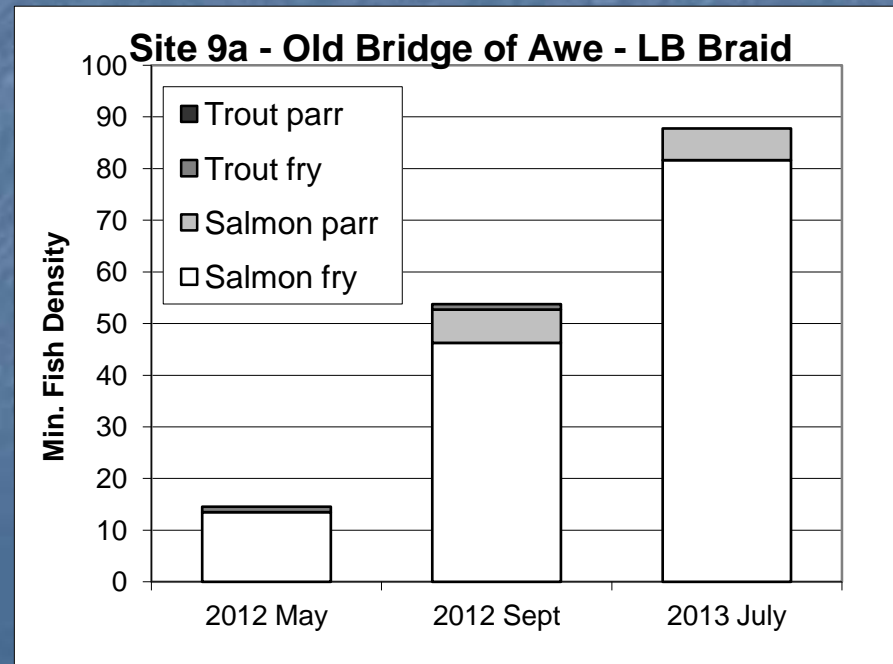
- **14 catchments;** Fish & habitat surveys & Reports
- **Summary report;**
www.argyllfisheriestrust.co.uk/documents.html
- **Rivers in the Classroom;** 160 children at 5 schools spring 2013
- **Partners;** **LFRIA, SNH, SSC, EWOS**



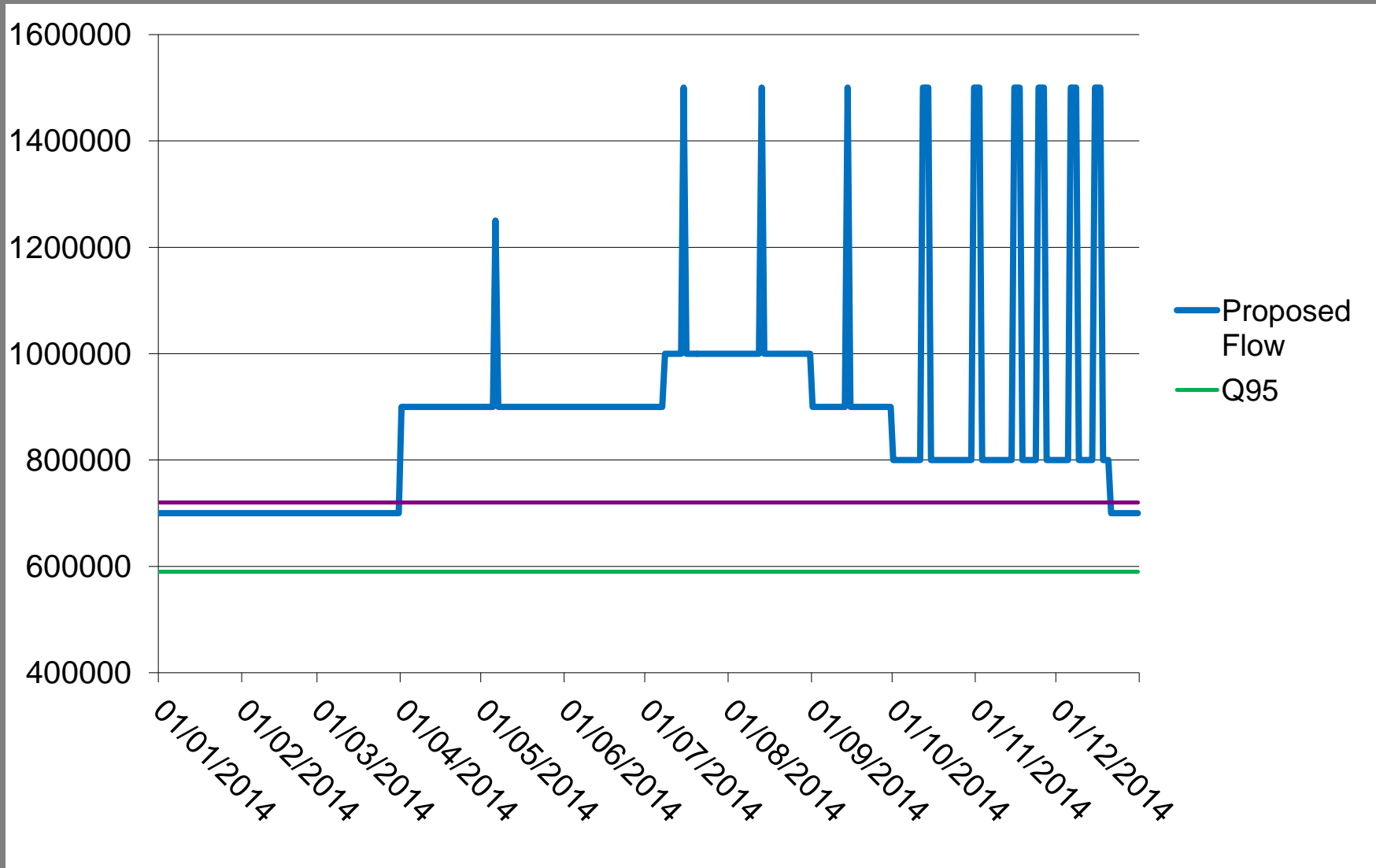
Understand Factors Affecting Productivity

River Awe Project – phase 2

- Downstream fish passage (smolts & kelts)
- Flows for spawning (salmon & ferox trout)
- Flows for sediment management
- What type of fish are spawning? And when?
- New summer level (increased for 3 wks in July)



River Awe Project outputs; Flows for fish



Understand Factors Affecting Productivity

RAFTS Managing Interactions Aquaculture Project (MIAP)

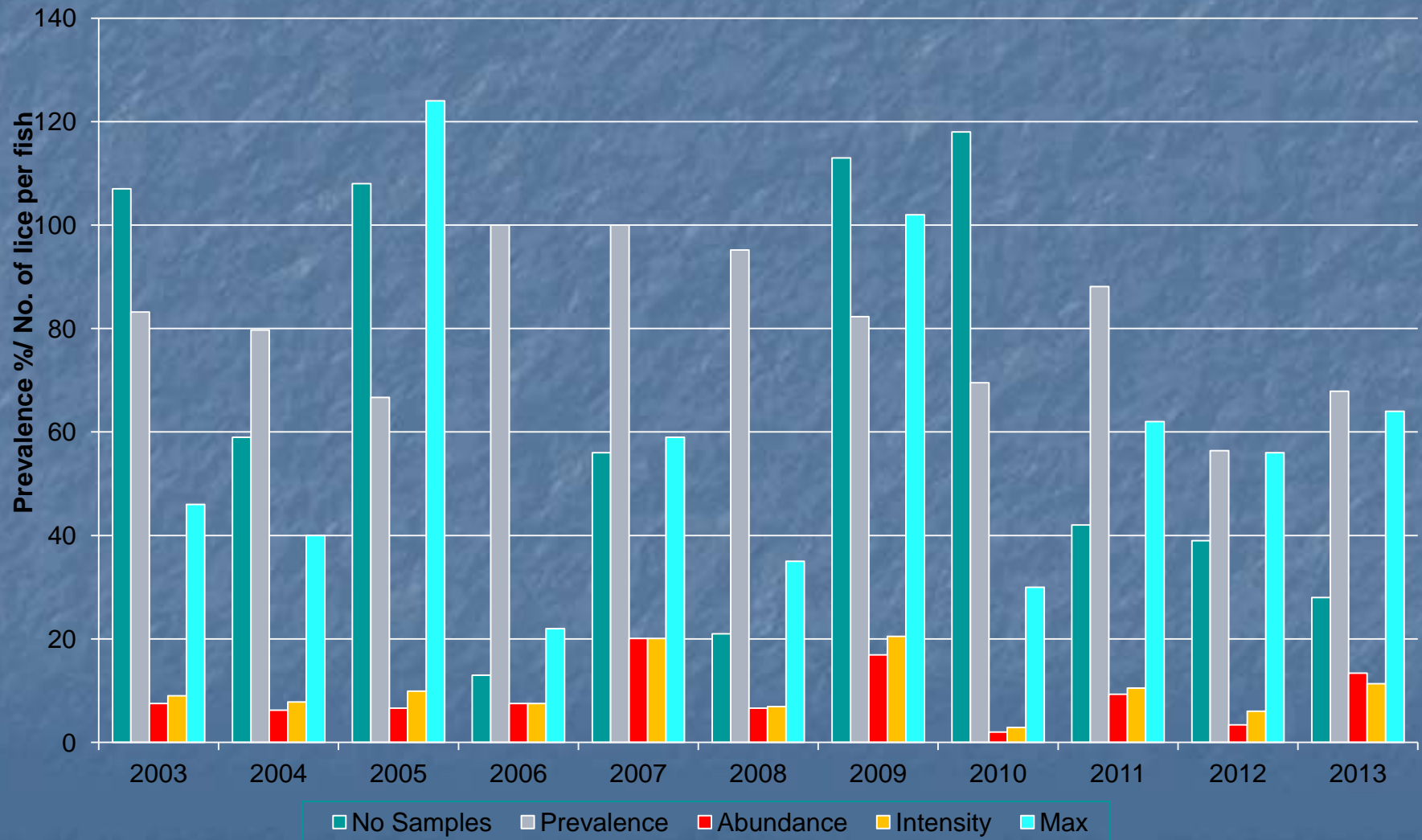
Sea trout / lice sampling twice at 5 sites;

Carradale, Dunstaffnage, L.Riddon, L.Fyne & L.Goil

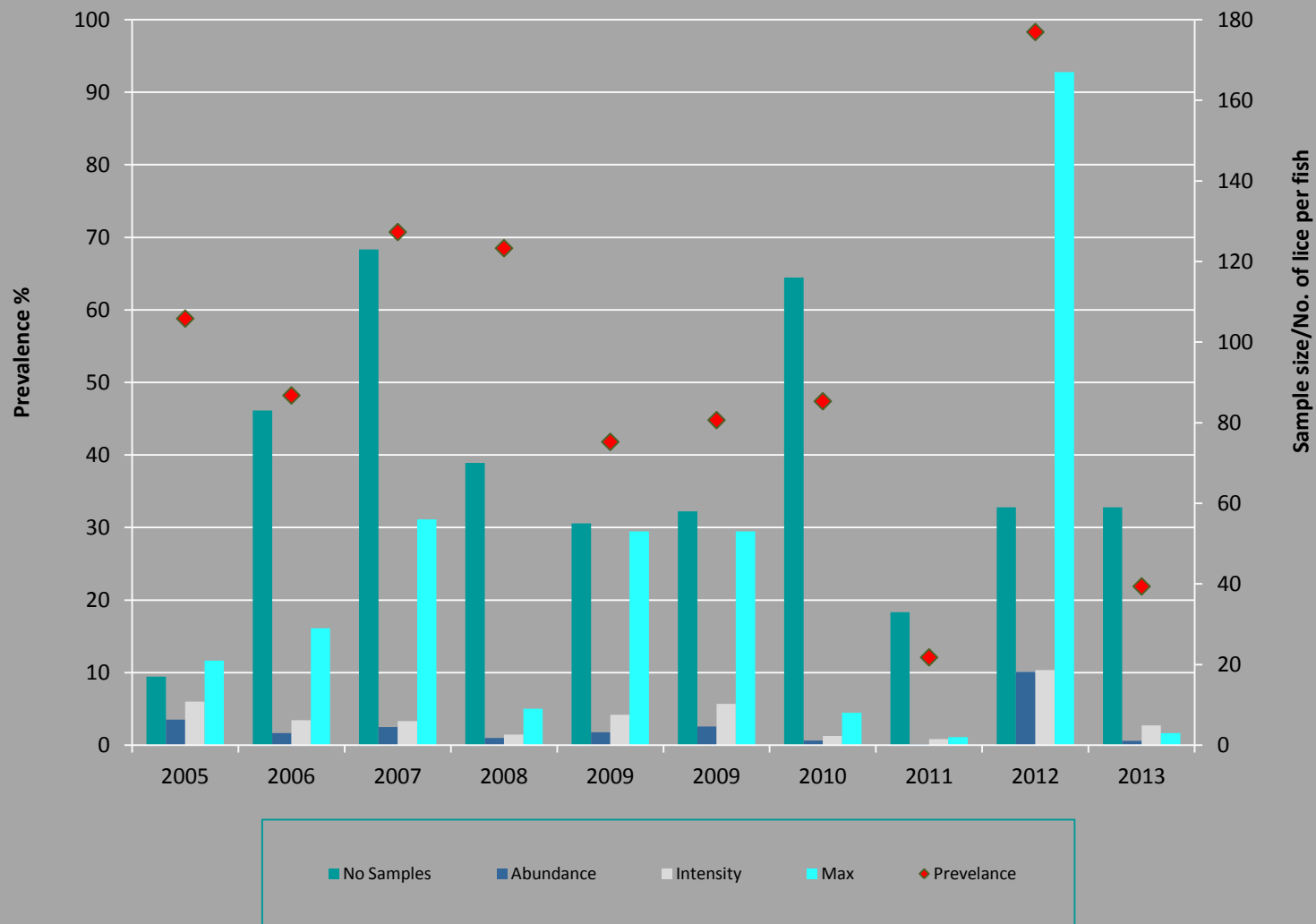
- 300+ trout sampled

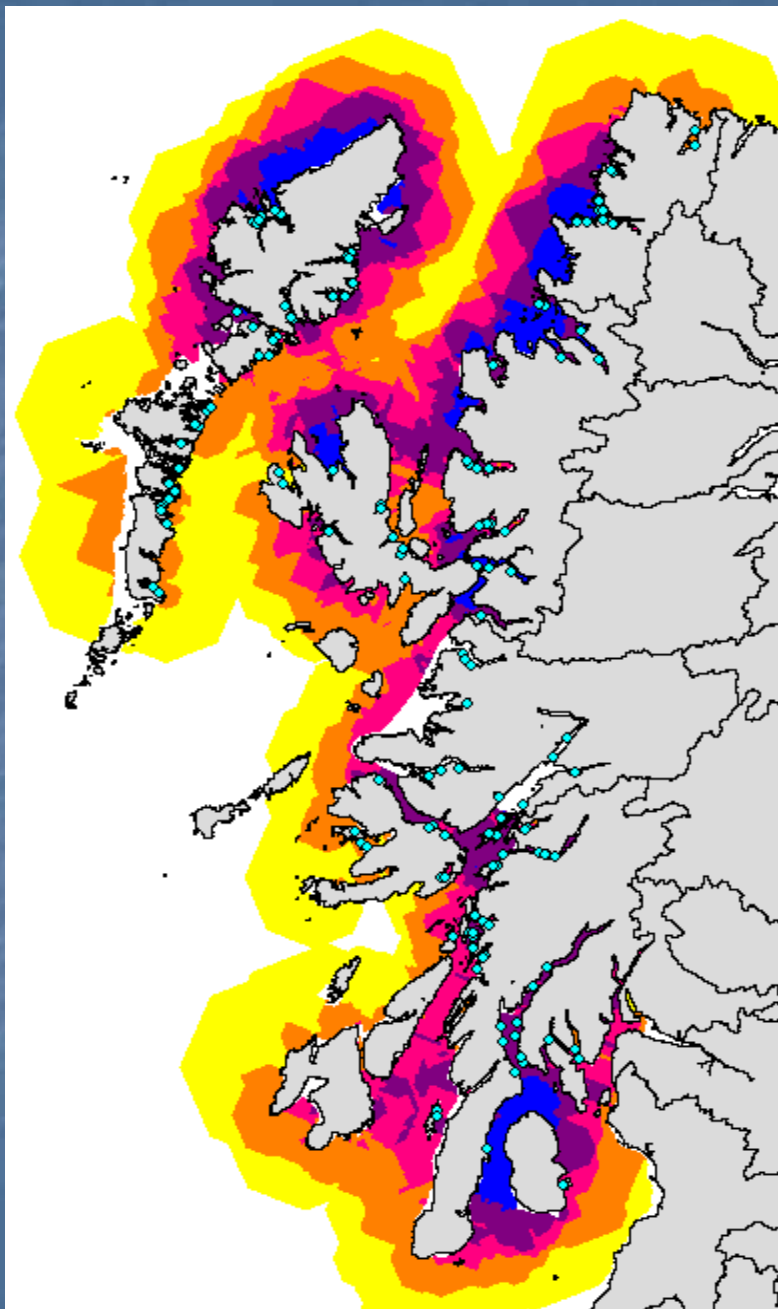


MIAP Project – lice counts on sea trout



Sea lice found on Sea trout 2013 Loch Riddon

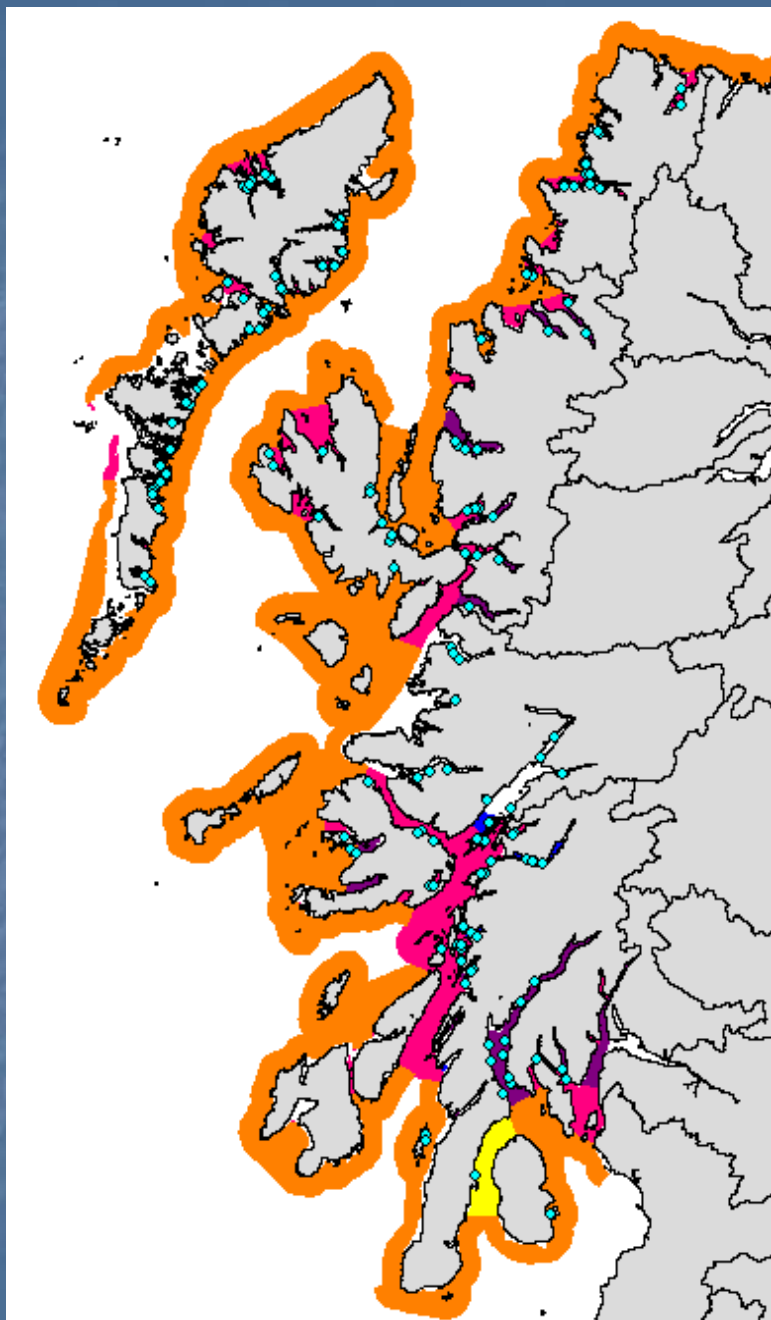




Rivers and Fisheries Model and current Aquaculture Activities

Colour Code	Sensitivity Score	Area km ²	Area %	Active Farm (Ex. Lochaber)	% Active Farm (Ex. Lochaber)
Yellow	1	11479	39	5	4
Orange	2	7585	26	24	18
Pink	3	4625	16	28	21
Purple	4	4009	14	53	39
Blue	5	1569	5	24	18

Five Scale Sensitivity Classification
(Total Area Modelled 29,267km²)



Coastal and Transitional Model overlaid with current aquaculture activities

Colour Code	Sensitivity Score	Area km ²	Area %	Active Farm (Ex. Lochaber)	% Active Farm (Ex. Lochaber)
Yellow	1	172	1	1	1
Orange	2	10664	83	28	21
Pink	3	1584	12	72	54
Purple	4	395	3	26	19
Blue	5	40	1	7	5

(Total Area Modelled 12,855 km²)

Understand Factors Affecting Productivity

Lower Orchy Project – Phase 1

- Habitat survey (Early summer 2013)
- Redd counts (Autumn 2013)
- Fry surveys (Summer 2014)
- Habitat restoration (?)



Understand Factors Affecting Productivity

Scottish Beaver Trial – Final Year

- Monitor fish alongside beaver activity
- Fish surveys in 7 catchments (brown & sea trout)
- Redd counts (verify recruitment habitat)



Protecting Fisheries from New Threats

EU Invasive Plants - Awe catchment (CIRB 1)

(LAIA / ADRIA / RAFTS / FC)

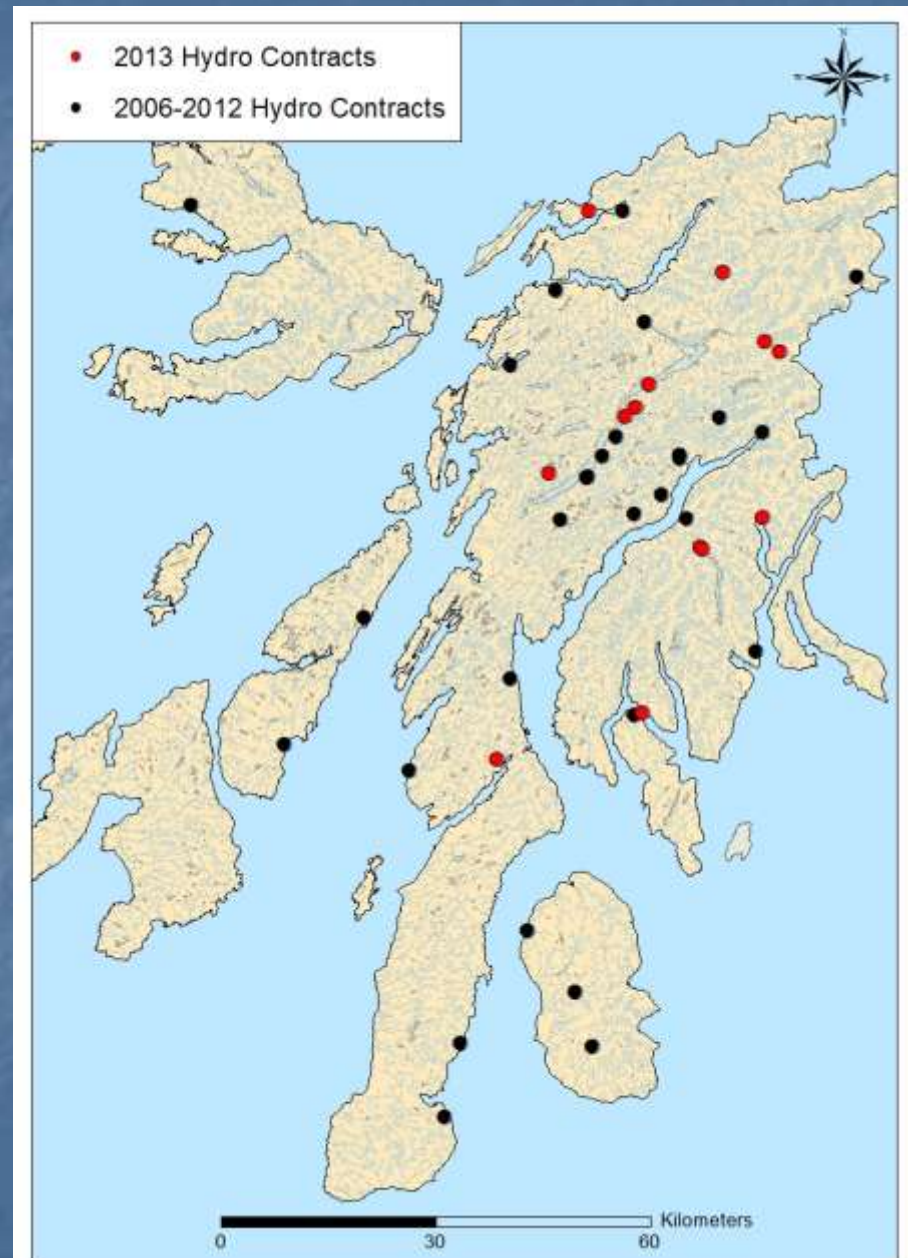
- INNS follow-up survey 2013
- Treatment 2011-15;
Control measures; JKW (spraying)
RP (cutting & spraying)
- Invited to enter CIRB 2 (cover new area's, train volunteers)



Protecting Fisheries from New Threats

Renewable Energy Developments & Aquaculture

- Fish / Habitat surveys; 13 hydro, 1 wind farm
- Involved in 42 hydro developments since 2006
- Consultations (ADSFB / AFT)



FISHERY IMPROVEMENT & RESTORATION

Management Plan Development

- Argyll Fishery Management & biosecurity Plans available on website - www.argyllfisheriestrust.co.uk
- Creran Fishery Restoration & CMP
- Ruel CMP
- Upper Loch Fyne Rivers Restoration
- Awe Catchment FMP

Fishery Improvement & Restoration

Loch Fyne River Project 2011 outcome

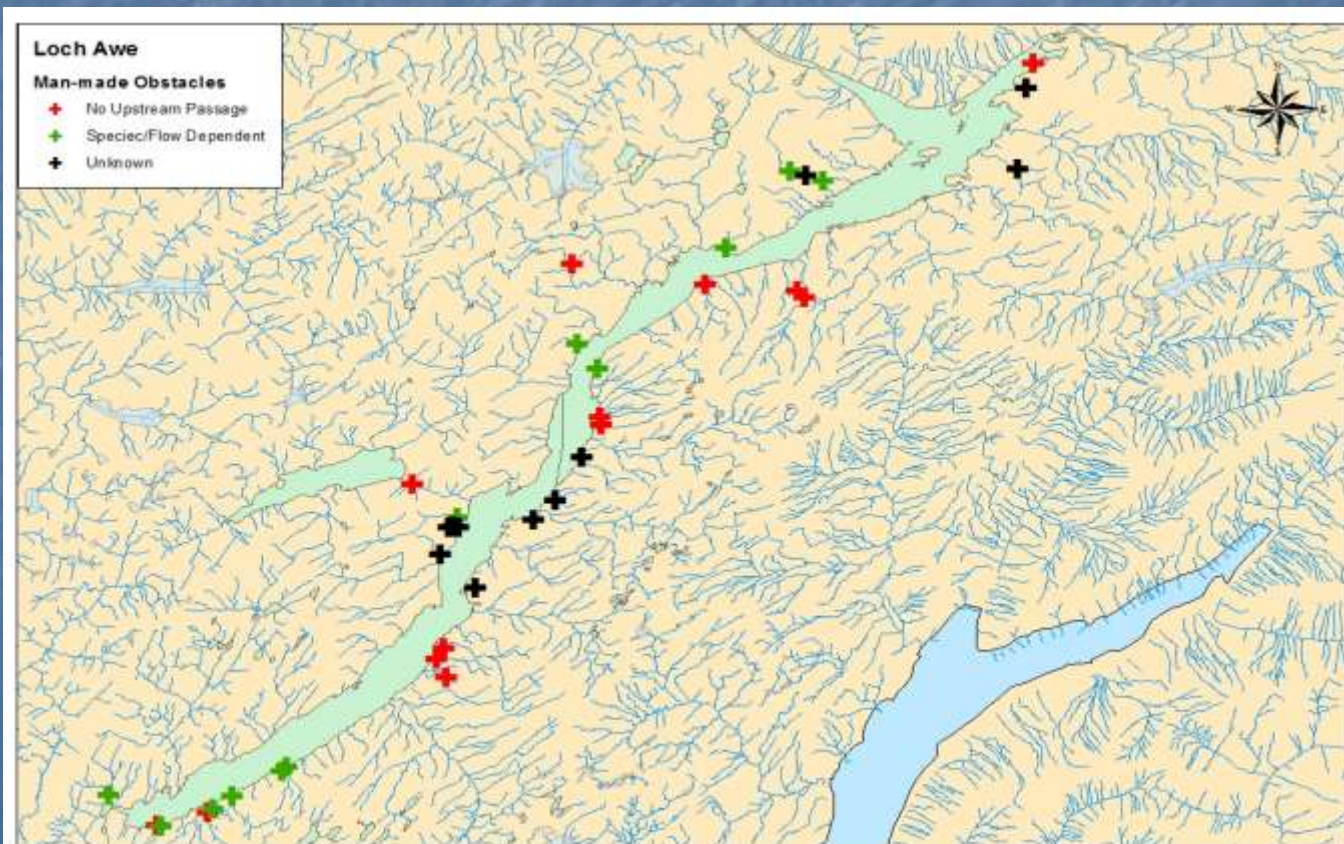
Follow-up visit to Auchalick River to assess salmon spawning success following 2012 obstacle removal – Deemed Successful



Fishery Improvement & Restoration

Loch Awe Stream Crossings 2012/13 (AFT/LAIA)

- 114 man-made obstacles to fish migration previously identified.
- Electrofishing surveys of 29 sites in 2013
- Propose to address some of these obstacles in 2014.
- Also liaised with FC officers to discuss removal of commercial forestry related obstacles to fish migration (West Loch Awe).



Public Relations & Awareness



- **Education** – Rivers In The Classroom delivered to 5 primary schools in early 2013. Anticipate delivering to 4 or 5 primary schools early 2014.
- **One-off field trip days** – Pond dipping, tree planting.
- **Angling development** – Fishing equipment for 3 schools in 2013. More planned for the future. Fishpal.
- **Encouraging volunteer participation in AFT work and working with angling clubs**
- **RAFTS Salmon stocking paper** – Salmon stocking conference (27th/28th Glasgow).
- **Sharing Good Practise (SNH)** – River Restoration Workshop.
- **Professional Training** - Revised SFCC river habitat survey protocol course hosted by AFT in 2013.

2013/2014

- Pearls in Peril Project – Mingary River, Mull
- Loch Etive Rivers Project 2014
- Loch Awe Stream Crossings
- River Orchy Project
- River Awe Flows Project
- Riparian Tree Planting (Kinglas, Gail?)
- M.I.A.P
- River Classification desktop study & ground truthing
- Wooded Debris Workshop (IBIS/AFT?)
-and hydro and wind farm developments

Thank you for your support



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Flow changes - Objectives

AIMS; Increase 'naturalness' of flows to better serve general ecology & improve recruitment of Juvenile fish

- Egg incubation; > Jan-March 700,000 (m³/day)
- Alevin Survival; < April; 900,000 (m³/day)
- Emergent Fry > May – 15th June; 1,000,000 (m³/day)
- Inverts & fish growth; 16th June – July; 700,000 (m³/day)
- Increase habitat area; Aug-Sept; >900,000 (m³/day)
- Spawning; Oct – >Dec; 800,000 (m³/day)
- Freshets; 10 times per year at 1,500,000 (m³/day); 23 days
- Spare water for adaptive management