Research on the River Spey

SPEY FOUNDATION

CAIRNGORMS NATIONAL PARK AUTHORITY
ÙGHDARRAS PÀIRC NÀISEANTA A' MHONAIDH RUAIDH

Spey Fishery Board

Overview

- Fisheries management
  - Juvenile monitoring
  - Smolts
  - Genetics
- Water abstraction
- Invasive Non-Native Species (INNS)
  - Ranunculus
  - Scottish Mink Initiative
- Upland woodlands
- Spey Catchment Initiative
- Pearls in Peril
- Summary

Fisheries Management

Juvenile Monitoring

- Electrofishing surveys – trout and salmon
- Other fish species
- Timed and Density sites
- River Spey mainstem
- Tributaries (3 year rotational programme round catchment)
- Wealth of long term data 1991 onwards

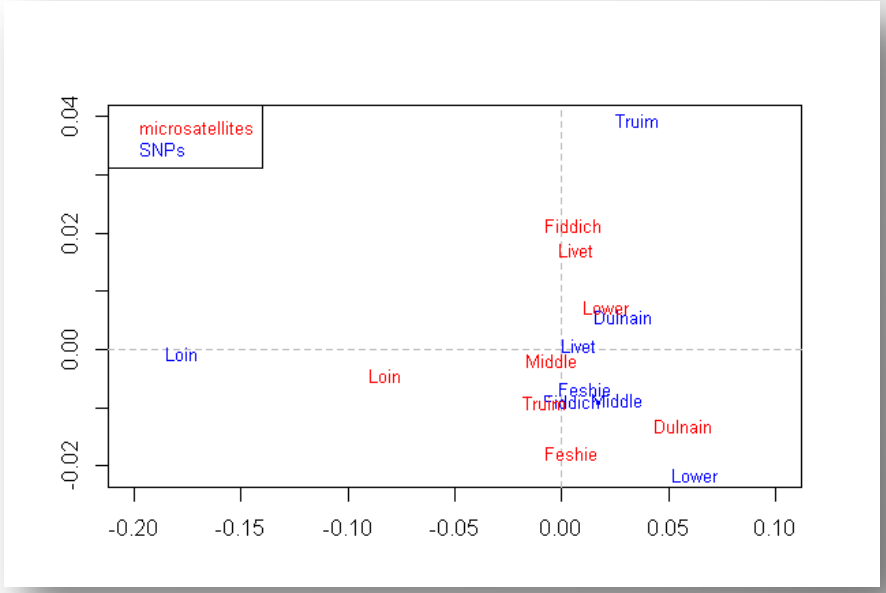
Smolts

- Smolts – migratory stage of salmon and trout as they go to sea
- Smolt traps – estimation of river output
- Operated in lower Spey mainstem, Truim and Tromie
- Mark recapture trials
- Scales taken to age fish

Genetics

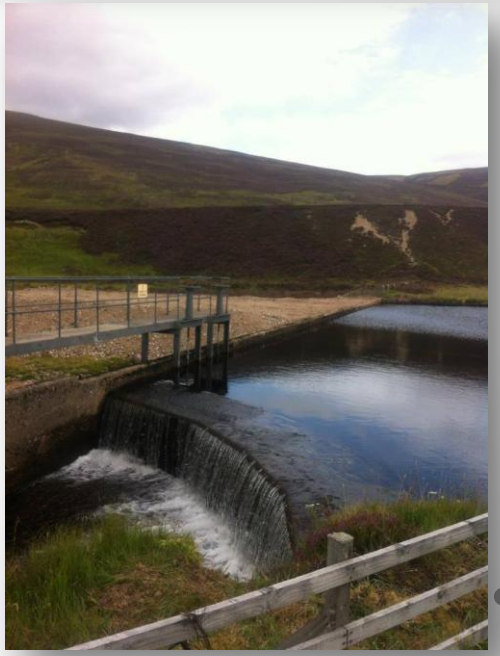
- FASMOP project
- In river stock discrimination
- Marine stage river assignment
- Contribution of hatchery to rod catch

- Hatchery contribution ranged from 0 to 1.8% between 2008 and 2012



Water Abstraction implications

- Reviews of "Old" hydro schemes may provide opportunities: re-watering of the Allt Bhran – sediment management
- New "micro" hydro
- Conflicts between abstraction and ecology
- Water quality phosphorus levels – freshwater pearl mussels

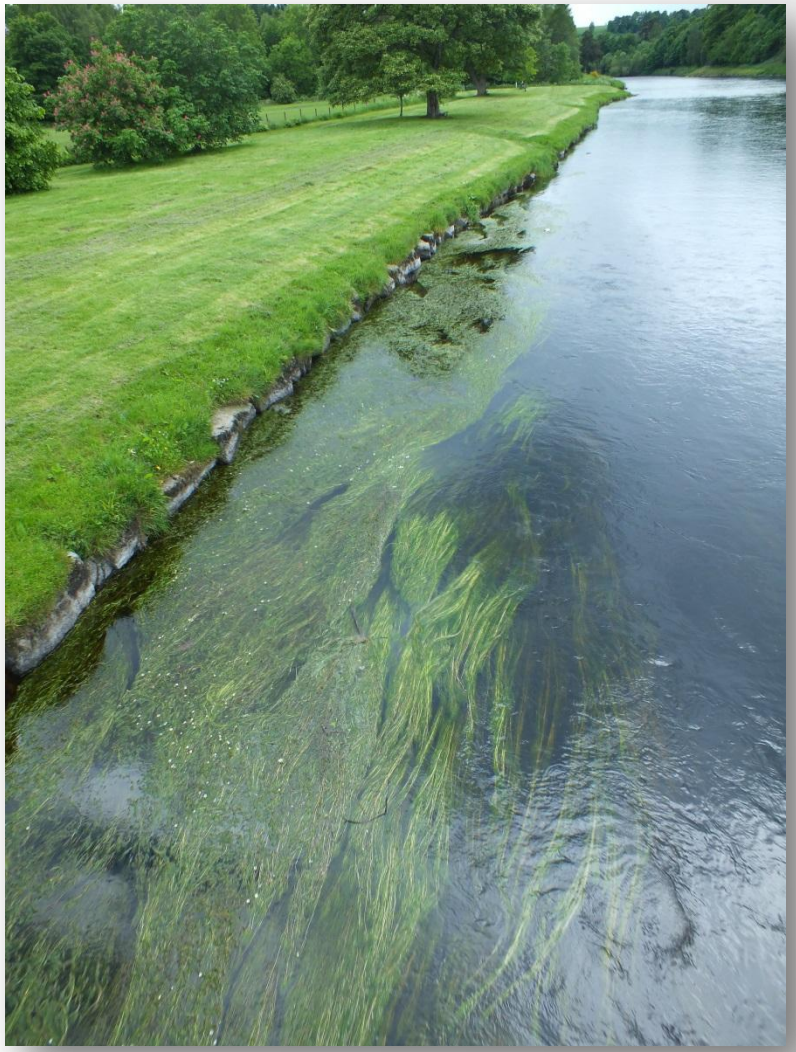


Invasive Non-Native Species

Those already present and those around the corner

Ranunculus

- Water crowfoot *Ranunculus fluitans*
- Arrived in Spey in late 1970s
- Major threat to freshwater pearl mussels
- Modifies instream habitat
- Associated with nutrient enrichment
- No control method available



Scottish Mink Initiative

- RAFTS co-ordinated project
- Split into river trust areas
- MinkApp wesbite allows data of sightings, signs and captures to be mapped
- Extensive network of volunteers

Scottish Mink Initiative
Working with Communities to Protect Native Wildlife

Upland riparian woodland

Restoration of shading –climate change mitigation
Restore nutrient status
“Slowing the flow” – natural flood management
Biodiversity/habitat connectivity or not!

Spey Catchment Initiative

- Instigated in 2010
- Takes forward key points from the Spey Catchment Management Plan (SMP), written in 2003
- Aims to create sustainable use of the water system, and to protect and enhance the Spey catchment naturally – natural river processes

Spey Catchment Initiative

Allt Lorgy project

- Restoration of natural river processes
- Reconnection with floodplain
- Riparian woodland creation
- Engaging communities with river

Spey Catchment Initiative

River Mashie project –

"morphologically inert"

Pearls in Peril

- LIFE+ NATURE project
- Aims to restore habitat, secure the long term survival and raise awareness of the issues.
- Spey Foundation involved in ‘Pearls in the Classroom’
- How healthy is the Spey population?

Research areas

- Impacts on river ecology whilst human population and associated pressures are increasing
- Freshwater pearl mussels
- Sediment management and river processes
- Upland woodland restoration
- Riparian regeneration
- Water temperature loggers
- Riparian and aquatic invasives
- Salmon!

Contacts

- Roger Knight (Director) – Director@speyfisheryboard.com
- Brian Shaw (Biologist) – b.shaw@speyfisheryboard.com
- Polly Burns (Assistant Biologist) – p.burns@speyfisheryboard.com
- Duncan Ferguson (Operations Manager) - d.ferguson.spey@btconnect.com
- Liz Henderson (Spey Catchment Initiative Project Officer) - l.henderson@speyfisheryboard.com