Recreational fisheries in British rivers and waterways

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Freshwater fisheries governance

England and Wales

- Environment Agency has statutory duty to maintain, improve and develop fisheries
- Biodiversity is enhanced and fish stocks are managed sustainably
- Funded by licence sales and Government grant

Scotland

- 41 District Salmon Fishery Boards with statutory powers for salmon and sea trout
- Funded by tax on fish caught
- 25 charitable Fisheries Trusts and Foundations cover management and conservation of all species
British freshwater fish

- British fauna poor (44 native species) compared with mainland Europe (> 200 species)
- During Ice Age all 31 non-migratory species exterminated (12,000 years ago)
- Ice sheet melted and fish moved into Britain
- Present-day communities the result of immigrations from NW Europe into South and East England
- Land bridge broken about 7,500 years ago
- Species like barbel naturally only in South East
- Scotland’s fish fauna still dominated by salmonids
British freshwater fish types

57 species

Taxonomy

Order Salmoniformes, 10
- (Game fish)
- Others, 29
- Family Cyprinidae, 18

Feeding groups

- Fish, 9
- Invertebrates, 32
- Omnivore, 16
River fish habitat zonation (after Huet, 1949)
River fish distribution

- Migratory and non-migratory salmonids occur mostly in the West and North
- Non-salmonid fish predominate in the East and South
Status of fish populations

- In general terms, fish populations have remained stable or improved
- Atlantic salmon and eel have shown periods of significant decline
River Trent coarse fish catches

Biological Oxygen Demand

Catch Per Unit Effort
Significant upward trends in catches

Of 10 rivers under investigation:

- 7 showed that CPUE had increased significantly
- 3 showed an upward trend albeit not significant.
Species composition
Relative importance in catches

R. Swale 1996-98

R. Ouse 1996-98
Annual salmon catches River Severn

Solid line = 5 year moving average
Abundance of salmon in England & Wales

Status of salmon population as probability of achieving management objective -

- At risk
- Probably at risk
- Probably not at risk
- Not at risk
Abundance of eel in England & Wales

Index of elver recruitment in European rivers - River Severn shown separately

![Graph showing abundance of eel in England & Wales from 1955 to 2001. The graph compares 19 European rivers and highlights the River Severn.]
Recreational fishing

• All the larger watercourses are exploited for recreational angling
• In England and Wales the majority of anglers fish for non-salmonids whereas the converse is the case for Scotland
Recreational fishing

• In 1496 Dame Juliana Berners published ‘A Treatyse of Fysshynge wyth an Angle’

• The author asks –
  – “whiche ben the meanes and the causes that enduce a man in to a mery spyryte”

• … and goes on to name the
  – “honest gamys… of huntynge: haukynge: fysshynge: and foulynge.”

• The author then proclaims –
  – “The beste to my symple dyscrecon whyche is fysshynge: callyd Anglynge wyth a rodde: and a lyne and an hoke.”

• This implication that angling can induce a person into a merry spirit certainly embraces the principle of recreation as it is understood today
Importance of recreational fishing

• Societal change
  – Commercial capture importance decreasing
  – Recreational importance increasing

• 10% of population engages in recreational angling

• Social, economic and ecological benefits

• Recreational fishing is ritual pursuit of pleasure
Value of recreational fisheries

England and Wales (2007)

- £2.4 billion total annual expenditure
- > £1,000 expenditure per angler per year
- 12,000 jobs dependent upon tackle trade

Scotland (2008)

- Annual value of salmon fisheries to Scottish economy £120 million
- 2,800 jobs supported
Importance of recreational fishing

- UK Government stated that inland fisheries should be managed to enhance
  - Contribution to the economy
  - Social value of fishing as a healthy recreation

- Recreational fisheries sector is entire network of stakeholders
  - Government Departments
  - Non-governmental organizations
  - Managers and business operatives
  - Individual anglers
Recreational fisheries
Sector responsibilities

• Provide quality fishing experiences within limits set by ecology, economics and society
• Adopt long-term conservation and sustainability measures
• Use ecosystem approach as guiding philosophy

• Identify all parties with a legitimate interest and engage them in the management process
Issues for the future

- Conflicts between users
- Habitat degradation
- Stocking
- Non-native species
- Cormorants and otters
- Fishery collapse and sustainability
- Fish welfare
- Catch and release
- Codes of good practice
Management – the continuum

- Fish stocks
- Fish habitat
- Fishing activity
- Anglers’ environment

Sustainable fishery performance

Fact perception
Angler motivation and preferences

• Fisheries management is as much about people as it is about fish stocks and ecosystems
• Improving the quality of life and enhancing wildlife
• In order to manage freshwater fisheries in a successful and sustainable way, it is important to understand the motivation, preferences and constraints of anglers
• Influenced by upbringing, local practice, availability and fashion
• Human and non-human dimensions
• Target species and location preferences
Coarse angler preferences
Target species

Of those coarse anglers with a preference -
- 1970 - 39% preferred roach
- 1994 - 36% preferred carp, 28% roach
- 2000 - 55% preferred carp

- Increasing interest in non-native fish
- Creation and intensive stocking of new fisheries
Coarse angler preferences
Location

![Graph showing coarse angler preferences by location and year.](image)
Salmon angler habit changes

- 9% drop in total licence sales
- Significant decline in number of days fished
Management challenges

• Necessary to understand motivation - fishing or not fishing

• Recreational fishing components:
  – Fishing factor: number and size of fish
  – Recreational factor: freedom, relaxation and enjoyment
  – Environmental factor: awareness of nature
Constraints

• **Intrapersonal** - involve a person's psychological state and affect preferences for recreational activities

• **Interpersonal** - the result of interactions with others that can influence activity preferences as well as participation frequency

• **Structural** - things that generally come between the desire to participate and the ability to do so

• It is within the *structural constraints* that authorities can do much by improving fishing access and opportunity
Access & opportunity

- Urban fisheries
  - Accessibility and social benefits

- Participation schemes
  - More fishing opportunities on rivers, lakes and canals
  - More people from wider range of backgrounds go fishing
  - Fisheries perform better
  - Partnerships between stakeholders & governing bodies

- Education and liaison between authorities, fishers and public

- Dependent less upon stock manipulation, more on facilitation
Participation schemes

Working in partnership with stakeholders and governing bodies:

- Get Hooked on Fishing
- Scout Angler Badge
- National Fishing Week
- School education programmes
- Working with communities
Marketing

• Angling needs to be proactively publicised
  – e.g. newsletters, angling guides and advertising
• Target lapsed, existing and potential anglers

• In England & Wales licence sales increased in response to promotional activity
• 2% investment produced 6% increase

Recreational fishing licence sales

[Graph showing licence sales trends over years for USA, England & Wales, and France]
Fish stocks and ecology

• Stock conservation e.g.
  – salmon conservation limits
  – salmon catch and release
  – cyprinid rehabilitation stocking

• Habitat improvement
  – in channel e.g. gravel raking, floating islands
  – riparian strip e.g. fencing, tree cover
  – fish passes for **all** species of fish
  – re-connection of oxbow lakes, side-channels, riparian gravel pits
The “Big Society”

• Prime Minister David Cameron’s speech 19th July 2010 -
  – “The Big Society is about a huge culture change…”
  – People feel “both free and powerful enough to help themselves and their communities”

• Big Society –
  – Gives communities more power
  – Encourages people to take active roles
  – Supports the Third Sector
Third Sector fisheries involvement

• Rivers and fisheries trusts
  – independent organizations working for public benefit
  – concentrate effort on practical catchment, river and fishery improvement works
  – Association of River Trusts for England & Wales launched in 2001
  – Rivers and Fisheries Trusts of Scotland formed in 2005 as umbrella organization

• Angling Trust
  – Formed January 2009 by merger of many disparate angling organizations
  – Recognised by government as national representative body for anglers and angling
Third Sector example
Riverfly partnership

• Network of almost 100 organizations representing anglers, conservationists and authorities
  – Protect river water quality
  – Actively conserve river fly habitats

• Angler Monitoring Initiative
  – Launched March 2007
  – Simple monitoring technique which anglers can use to detect severe perturbations
  – Data used by Environment Agency and SEPA
Third Sector example
Partnership in Wales

• Afonydd Cymru (AC) works in partnership with Welsh Government, Environment Agency and other organizations
  – Aim of AC is to assist Rivers Trusts to engage local communities to sustainably manage river catchments

• Key outcomes from partnerships
  – Sharing best practice
  – Better value for money
  – Increased capacity of volunteer base
  – Match funding of time against grants
Third Sector example
Partnership in Wales

• Environmental Improvements to Sustain Welsh Fisheries project will deliver
  – 228 km streams with improved access for migratory fish
  – 36 km streams with improved water quality
  – 25 km streams with restored habitat

• Communities will gain knowledge of environmental and fisheries management
Third Sector example
Scottish fisheries management plans

- Fisheries management in Scotland is difficult to understand and disentangle
  - District Salmon Fisheries Boards, Fisheries Trusts, SEPA, umbrella organizations, etc.

- Fisheries management plans being developed for all species combined and provide transparent basis for implementation
“Manage the people… and the fish will take care of themselves”

- Understand what local communities want
- Look for opportunities to work in partnership
- Increase work done by Rivers Trusts
- Use volunteers for monitoring and reporting alongside responsible bodies’ core programmes
- Promote and develop angling participation via interested parties
- Engage Third Sector input to ecosystem management
- Ensure partners have necessary skills and knowledge
Conclusion

• *For the future of angling* it is important to focus on maintaining participation by better facilitating access and opportunity and to rekindle interest in river fishing.

• *For the future of river fisheries* emphasis needs to be on stock conservation, habitat restoration and co-management by authorities and user groups.

A vision?

– All waters capable of sustaining thriving fish populations and everyone able to experience quality fishing
Recreational fisheries
in British rivers and waterways

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Thank you for listening