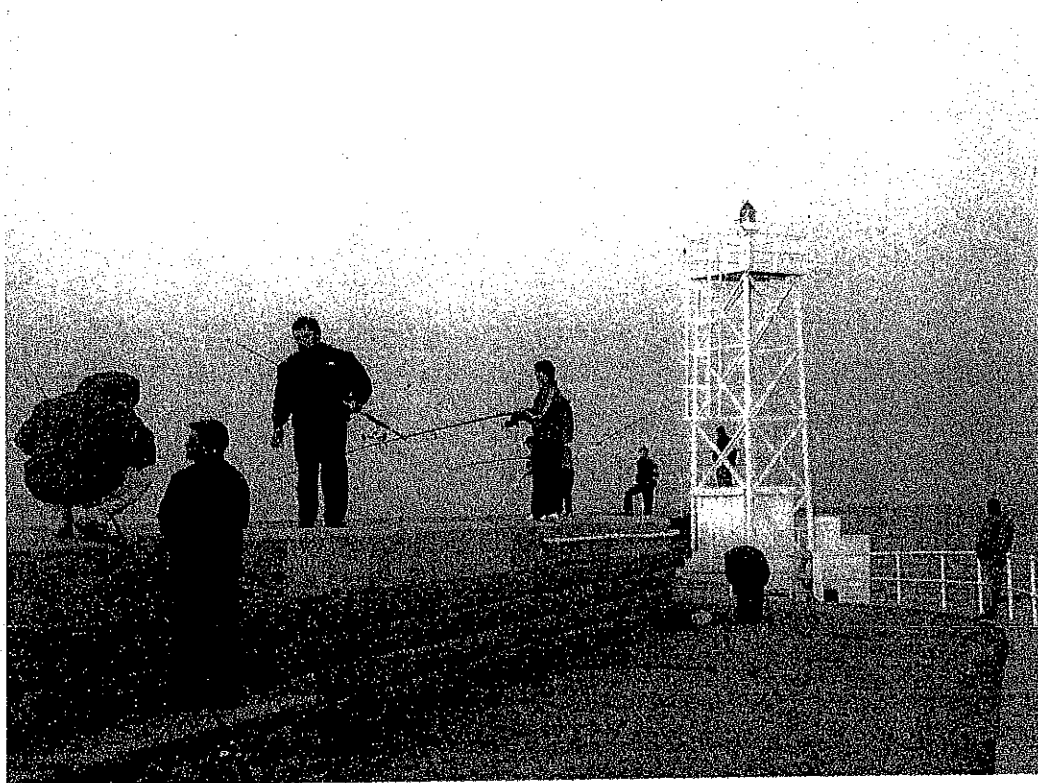


**An Assessment of the Environmental, Social, Economic
and Policy aspects of Jersey's Recreational Fishery**



(Jersey Fisheries Department, 2001)

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(MRes in Coastal and Ocean Policy, University of Plymouth, September 2003)



An Assessment of Jersey's Recreational Fishery

This study looked at the environmental, social and economic factors associated with recreational fishing on Jersey.

Aims

1. Assess the environmental impact, (fish stocks, habitat disturbance and discarding of tackle) of recreational fishing in Jersey.
2. Assess the economic significance of recreational fishing and likely future trends within recreational fishing.
3. Investigate the social benefits of recreational fishing in Jersey.
4. Consider possible legal and policy responses to recreational fishing by comparative study.
5. Make recommendations and institutional responses for recreational fishing in Jersey.

The focus was placed on all recreational fishers, including low-water practices, onshore anglers and various recreational fishing techniques using boats. These topics were researched through interviews and questionnaires.

Environment

In relation to environmental impact on inshore fish stocks, the main interests lie in:

- The quantity of people recreationally fishing

It was found from the street survey that 1740 people potentially fish as a recreation in Jersey waters. 40% of respondents from the questionnaire believe that angling has become more popular over the years.

- The frequency of participation in fishing activities and hotspot areas.

The majority of people (68%) fish 1-2 times a week, with 15% of people going 3-4 day per week.

Low –water fishing survey results: Page 8-9

- The potential environmental impact, with regard to species caught and quantity of wet fish and shellfish kept.

Species caught:

The most commonly caught species are highlighted in the table 10 on the next page.

Species	Amount of people	Size / weight ranges of species
Bream	12	1-3lbs - 10-15lbs
Conger	11	15-45lbs - 100lbs
Mullet	8	1-2.5lbs
Bass	50	1-2lbs - 4-5lbs
Mackerel	69	0.2lbs - 1-2lbs - 15lbs
Ray	4	5-20lbs
Tope	3	/
Scallop	15	12 -25, 20-24
Sandeels	3	/
Pollack	24	1-2lbs - 11lbs
Sole	6	1lbs - 2.5lbs
Dogfish	13	2 - 4- 7lbs
Crab	12	/
Lobster	23	1- 6
Garefish	5	/
Whiting	1	/
Pouting	1	/
Wrasse	11	2 - 5lbs
Snip	2	1lb
Turport	3	/
Roach	3	/
Ling	3	/
Brim	1	/
Razor	25	50 - 60, 100-200
Cockles	13	/
Top shell	6	/
Ormer	40	2-10 - 24- 50
Shrip/Prawn	11	2- 6 pints
Mussels	2	/
Pouting	2	/
Cod	2	8lbs
Oyster	1	/
Other shell fish	12	thought to be crab
Anything	7	/

Table 10: This table shows the frequency at which people caught specific fish species and their size /weight ranges. The highlighted areas show the most commonly caught wet and shell fish.

Quantity of fish kept:

Whist fishing respondents (54%) generally caught between 1-4 fish per session however, 14% of respondents claimed they do not catch much but just enjoy the social aspect of fishing. At the other end of the scale 5% of people catch between 10-20 fish and 3% catch 20+ per session. When asked how many of these fish they kept 50% said a few and 16% the majority, people were keen to say that they always replaced undersized fish. This shows that recreational fishermen are aware of regulations already enforced.

- **Abundance of fish.**

People were asked to gauge the stability of fish populations for their target species. 56% of respondents felt a decrease had occurred, 27% felt that population numbers had declined a small amount. There was 15% of respondents who felt that availability of their targeted fish had changed a lot. However, there are some species which have grown in numbers and have been found to be caught more frequently than before.

- **Disturbance to marine habitats.**

The majority of people feel that they are aware of the environmental impact of discarding unwanted tackle and consequently they throw it in the bin. With 56% of people taking tackle home and 48% of people putting tackle in the bin.

Discussion

Results of individual fishing effort were found to be relatively low, however the combined effort could amount to a high level of impact when concentrated on inshore stock populations (anything up to 26.8 tonnes per annum). A number of hotspots were located from the low water fishing survey (see 5.7 p 8-9), which are important areas to research for the impact that recreational fishermen have in these areas.

Questionnaire responses highlight the issue of concentrated effort on certain species, in Jersey's case the most frequently targeted and caught species are Mackerel, Bass and Bream. There are many potential implications for concentrated effort on specific species these include a decline in population numbers, which could reduce reproductive success. Inshore areas are also thought to be nursery areas therefore impact from recreational fishermen should be kept to a minimum. The majority of fish being caught are generally between 1-2 lbs therefore, one size of fish is being removed from the inshore populations. A negative implication of this is that the average size of fish populations is reduced making them more vulnerable to predation.

Awareness of habitat disturbance is high although continuous programs promote the protection of the marine environment are essential to ensure the marine environment is safe guarded.

Social

The social aspect of recreational fishing was researched through primary literature and related to the Jersey population through questions relating to social benefits.

Jersey recreational fishermen fish for the pleasure gained through the act of fishing and the satisfaction of catching fish to eat.

Results from the questionnaire showed that the majority of people fish for relaxation (70%) and/or fun (58%). Therefore, protecting this resource is important not only for its environmental and economic worth but also for its social – economic value and benefits it creates for the fishermen's health and well being and the benefits this provides to society as a whole.

Economics

The economics of recreational fishing to the Island are currently not realised. The interest in the economic benefits of angling is increasing and it has been quoted many times that:

“ a fish is worth more in the sea (to a recreational fisherman) than on the slab (to commercial fishermen)”.

This quotation gathers credibility when considering sales in tackle shops, transport costs, hotels, restaurants, pubs, tourist attractions and money spent by those accompanying the visiting anglers.

An average of £600-1000 is thought to be spent per angler per trip, which on a large scale amounts to high revenue with substantial benefits to Jersey's economy. Places such as Ireland and America have a thriving recreational fishery in terms of economic gain for which they make millions of Euros or Dollars respectively. There is no reason to doubt that Jersey could not benefit in the same way, although consideration has to be given to the size of Jersey.

An estimate for the value of the local recreational fishing activity was achieved by calculating the average amount of money spent by the respondents of the questionnaire - £506.5 per recreational fishermen per year. This figure was then multiplied by the number of people recreationally fishing on the Island (discovered by the street survey) 1740. It has been estimated that local recreational fishermen spent in excess of £88,1310 per year.

There are already some good initiatives in Jersey but many more could be produced if communication levels between all parties involved were increased. If recreational fishing continues to develop then it will be essential to protect the species important to its success.

Management

The management of Jersey's recreational fisheries was evaluated, with consideration to present strategies.

Presently Jersey's recreational fisheries are managed to a relatively high level compared to France and the UK.

Results

The majority of respondent (78%) are aware of the regulations enforced on recreational catch – size limits. Views on whether it was necessary to regulated this activity were divided between the participant, however when asked if they personally had an environmental impact the majority of people (86%) felt they had no significant impact, although some did feel that it was necessary to consider collective impact.

Discussion

There are various types of legal tools, which can be applied as solutions to recreational fishery problems. Formulating a policy framework is one such tool available to the Fisheries Department. However, it is vital to establish clear objectives within this framework before implementing the regulations to control recreational activity.

In Jersey's case a few of objectives include:

1. Maintain the recreational fishery (species population numbers) to ensure sustainable for the benefit of future generations.
2. Ensure that heavily targeted species have additional protection.
3. Preserve/ enhance the quality of angling/ low water fishing experienced today.
4. Ensure that a management framework using the most appropriate tools available, including legal tools but also voluntary approaches protects the recreational fishery.
5. Make certain of adequate protection of the wider environment from impacts of angling and low-water fishing though education and voluntary approaches.
6. Improve available biological and scientific data to enable appropriate management framework to develop.

There is a range of regulatory tools available to fisheries managers, including:

1. Bag limits – reducing the amount of fish taken per recreational fisherman.
2. Licensing – Apply a licensing scheme similar to the Scallop to heavily targeted fish.
3. Marking/tagging – Mainly of commercially important species would be a useful tool in preventing the illegal catch and selling of fish.

Regulation is expensive and should not that place of other methods such as voluntary and educational approaches. At the present time an increase in the later would probably be sufficient to ensure sustainable use of the recreational fishery.

Conclusion

Jersey's recreational fishery is a very important resource for both the people of Jersey and the visitors it entices, not only for the money it brings to Jersey's economy but also the social – economic benefits that many people enjoy. It is therefore necessary to monitor and manage the fishery to ensure sustainable use so future generation can enjoy what we have today.

To accurately assess trends in recreational fishing effort an adaptive management strategy needs to be utilised so that catch records can be collected and correlated over a period of time. This will improve the quantity of biological and scientific data available for example, collection of catch returns, which will allow the constant up dating of the management strategy for the recreational fishery.

A focus on educational facilities should be developed to ensure that the recreational fishing community is kept informed of the importance of preserving the marine environment. This could include field trips, workshops and lectures. More advertising of current and additional procedures and events would ensure people are kept aware of their impact on the ecosystems and why regulations are in place.

With regards to the economics of recreational fishing on Jersey, an in-depth economic analysis needs to be conducted. Which would involve the collection of data on the total annual expenditure, estimated economic output and estimated full-time employment associated with recreational fishing on an annual basis for local and tourist users. This assessment would then enable the viable amount of advertisement, time and money to be put into promoting recreational fishing to both tourists and local people.

The commercial fishing industries catch records indicate that Jersey's stocks (species diversity and abundance) are relatively healthy at the present time. However, the general feeling of respondents is that there is a significant decline in some species for example, lobster, crab and various wet fish species. Therefore it is important to start developing appropriate measures within a policy framework that have specific objectives aimed directly at the preservation and sustainable use of the recreational fishery. This should incorporate legislative methods for controlling these impacts but also encourage other methods such as educational and voluntary incentives. These methods must be developed so that they are biologically and environmentally sound but allow easy enforcement and administration, whilst also being supported by the general public and politicians alike (Fisheries, 2002). This framework should be put into place for future protection of species because even with the commercial and recreational effort stocks around Jersey seem to be in relatively good condition.

Results from this study indicate that recreational fishermen have a significant impact on inshore fish populations that needs to be monitored even if no more restrictions are enforced in the near future.

5.7 Low-water fishing survey results

Observations show that low-water fishermen tend to be concentrated in certain areas, mainly around the south-east coast of Jersey. Therefore indicating hotspot areas which can be targeted for educational approaches to fisheries management for example, information signs.

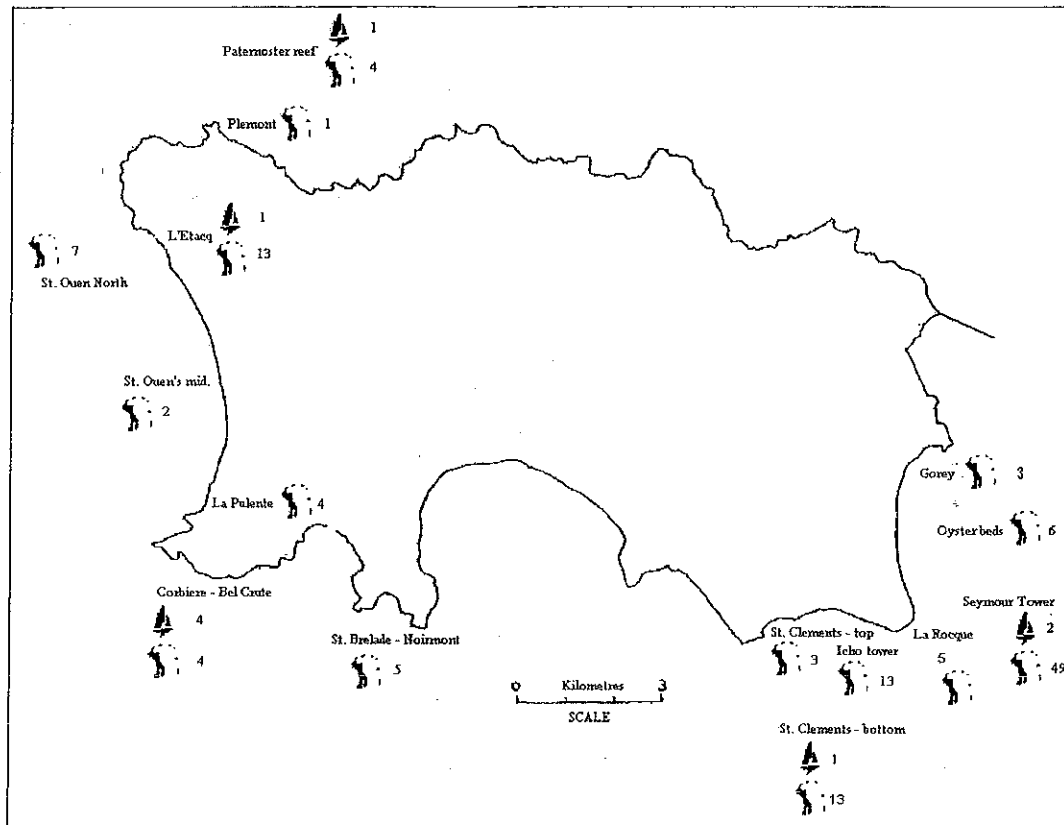


Figure 37: A graph to show the distribution of low-water fishers over a two-hour period. The points on the graph show the general areas where low-water fishermen were sighted.

Location	No. of People	Boats
Paternoster reef	4	1
Plemount	1	0
L'Etacq	13	1
St Ouens -North	7	0
St Ouens -Mid	2	0
La Pulente	4	0
Corbiere - Belcrute	4	4
St Brelade - Noilmont	5	0
St Clements - Top	3	0
St Clements - Bottom	13	1
Icho tower	13	0
La Rocque	5	0
Seamore tower -T	23	2
Seymore tower -B	26	0
Oyster beds	6	1
Gorey	3	0

Table 18 : A table showing the number of people low-water fishing



Figure 38: Photo to show low-water fishing activity on the southeastern coast of Jersey.

