

Moray Firth Sea Trout Project

Progress Report November 2008



The MFSTP is supported by Fisheries Trusts, Boards and Angling Associations in the Moray Firth region. Co-sponsored by:





1. Background

The Moray Firth Sea Trout Project is a three year collaborative project combining the efforts of District Salmon Fisheries Boards, Fisheries Trusts and Angling Associations around the Moray Firth to address the decline of sea trout stocks. The management area extends from the River Deveron in the East round to the Kyle system in the North taking in all rivers and coastal streams round the coast (Annex 1). The project is now under way and Marcus Walters has been employed as the full time Project Officer since March 2009.

The sea trout fisheries right across the Moray Firth has shown worrying signs of decline in recent years. Moray Firth sea trout stocks are not only an essential alternative to salmon as a source of income in the local area but also a stock of national importance constituting 28% of total Rod & Line caught sea trout in Scotland in 2006. The sea trout has historically been overshadowed by the famed Scottish salmon and the main aim of this project is to reverse this downward trend by implementing a Moray Firth wide management strategy.

2. Management

As the Project Officer Marcus Walters is the sole employee of the MFSTP. The project is managed by a committee consisting of Richard Miller (Deveron Bogie & Isla Rivers Trust), Bob Laughton (Spey Research Trust), Keith Williams (Ness & Beaully Trust), Simon McKelvey (Cromarty Firth Fisheries), Iain McMyn (Kyle of Sutherland Fisheries Board) and Andrew Walker (Wild Trout Trust & Sea Trout Group). The Management Committee meets quarterly to discuss progress and next steps.

3. Outreach

Outreach and public awareness raising has been a key starting point due to the collaborative nature of the project and the need to highlight the threats facing sea trout.

3.1. Questionnaires

205 Questionnaires have been sent to the Angling Associations and the returns have illustrated the importance of sea trout locally with 90% of returns recognising sea trout as an important part of the catch both historically and economically. The questionnaire has highlighted the main perceived threat to sea trout as lack of food at sea.

3.2. Presentations

Through presentations given to Trusts, Boards, Angling Associations and community groups nearly 100 people have been reached and made aware of the threats faced by sea trout. This series of talks will continue with specific emphasis on Angling Associations.

3.3. Press Coverage

A press release prepared by Andrew Graham Stewart was taken up broadly by both local and national press and various angling publications including the Scotsman, Herald, Trout and Salmon and BBC Radio Scotland (Annex 2). These publications have been further supported by newsletter bulletins from the Fishery Boards involved in the project.

3.4. Website

A website (www.mfstp.co.uk) has also been launched to provide a source of information on the project and will be developed in the future to provide an interactive link to sea trout anglers.



4. Catch Return Data

4.1. FRS annual returns

The sea trout catch returns collected annually by FRS are available from 1952 to 2007 and give a good insight into sea trout stock variations. The catch return data has to be used with some degree of caution as it includes many sources of error and is influenced by many factors as well as sea trout abundance. It does however show some consistent trends. The data indicates a steady decline right across the Moray Firth (Annex 3) in the last 10 years. Although the data is very variable between rivers and over time all catchments apart from the Kyle of Sutherland have shown a clear decline since the early 1990s (Annex 4). Just released data shows 2007 was the worst year on record and 56% down on the previous 10 year average (1992-2001).

4.2. FRS Monthly Returns

Using the monthly rod and line catch returns from FRS the different timing of sea trout catches can be illustrated on some of the main rivers (Annex 5). This can also be broken down within each district to reveal how the timing of the sea trout catch has changed from 1952-2006. There has been little change in the timing on the Spey, Deveron or Kyle but quite clear changes can be seen on the Conon and Beaully (Annex 6).

4.3. Other sources

To supplement the FRS catch returns one of the key first steps has been to try and identify long term sea trout angling records held by proprietors and Angling Associations. 2 excellent sets of records have been identified from the Strathspey Angling Association and the records held in the Oykel Bridge Hotel.

5. Logbooks

Logbooks are not only a key way of getting more catch information from anglers but also a method of opening up a line of communication from anglers to the Project Officer.

5.1. Anglers' Logbook

The Anglers' logbook is aimed at keen sea trout anglers in a format that they can take with them to the river and fill in easily. It is designed so that data can be directly fed into the Scottish Fisheries Co-ordination Centre catch database that is to be launched soon. Across the Moray Firth it appears the overall fishing effort for sea trout has declined. The logbook will not only provide some indication of fishing effort but will eventually allow some Catch Per Unit Effort Analysis. While also recording the number of fish caught there is also space for individual measurements and weights of the fish which can help to build up an impression of stock structure. There is also space for comments etc regarding fish condition, sea lice and other details. 70 logbooks have been distributed through many Angling Associations around the Moray Firth so far.

5.2. Ghillies' Logbook

The aim of the Ghillies' logbook is to collect information on sea trout that are caught incidentally on salmon beats. Although Ghillies do already record sea trout in their returns they don't always include fish of all size and often have minimal information on individual fish size. The Ghillies' logbook is to encourage them to keep more accurate



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sea trout records and to provide a path of communication between the Project Officer and the Ghillies. 20 Ghillies' logbooks have been distributed around the project area so far.

6. Scale Collection

The collection of scales is a vital way of getting a better understanding of individual life history and collectively, the population structure. The scales can provide information on river age, sea age, and spawning and sea growth although they are characteristically harder to read than salmon scales. Once enough of this data is compiled it can be compared to the only previous sea trout research done in the Moray Firth by G.H. Nall in the 1920-30s. Comparison should reveal how the stock structure has changed and may provide some insight to survival and growth at sea. Scale collection packets and a scale collection protocol are being issued with the logbooks to the angling associations and Ghillies. This season 50+ scale packets have been returned and will be out sourced for analysis by Dr Andy Walker.

7. Next Steps

7.1. Habitat Mapping & Restoration

Habitat mapping using GIS is going to be one of the main outputs from the project and a key part of the management plans. The Project Officer is to attend an ArcGIS training course run by ESRI using the training budget provided by HIE. Using GIS, waterways classified as of concern by Fisheries Trust Biologists will be overlapped with water ways that are highlighted as 1a "At Risk" by SEPA under the Water Framework Directive. This will provide a list and graphical representation of the most threatened waterways and what type of threat they are facing. Mapping will also highlight small and previously unidentified sea trout burns which have excellent potential for restoration and improvement.

7.1.1. Restoration Work

The map outputs from the GIS will be the first step towards implementing restoration, management and mitigation. The maps will provide the basis for consideration and discussion by all the bodies involved in freshwater restoration and management (Trusts, Boards, SNH, SEPA). The mapping will not only enable the impacts to be highlighted but also classified according to their impact and then prioritised accordingly.

7.1.2. Surveying & Monitoring

The maps will enable surveying and monitoring by Trusts and Boards to be targeted in a systematic and logical way to both fill in data gaps and monitor existing populations. This type of work is crucial to getting a better understanding of how the sea trout populations use the Moray Firth and its' surrounding catchments.

7.2. Background study into sea trout at sea.

With declines in sea trout catches occurring right across the Moray Firth and the rest of Scotland it is only logical to conclude that one of the many common factors potentially contributing to the decline is the time spent at sea. Although this project does not have the resources to carry out an extensive marine based research programme it is possible to review existing data and use other indicators to determine whether sea trout maybe threatened due to sea based components in their life cycle. Possible threats currently



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being considered and researched are: predators, food availability, water quality and industrial developments in the Moray Firth.

7.3. Genetics

Genetics is potentially a very powerful tool in getting a better understanding of the Moray Firth sea trout. Genetic analysis can potentially give insight into the distribution of breeding populations, population structure, relationship with brown trout and population size. Samples are currently being collected from known spawning sites to start building up a genetic profile for different breeding populations.

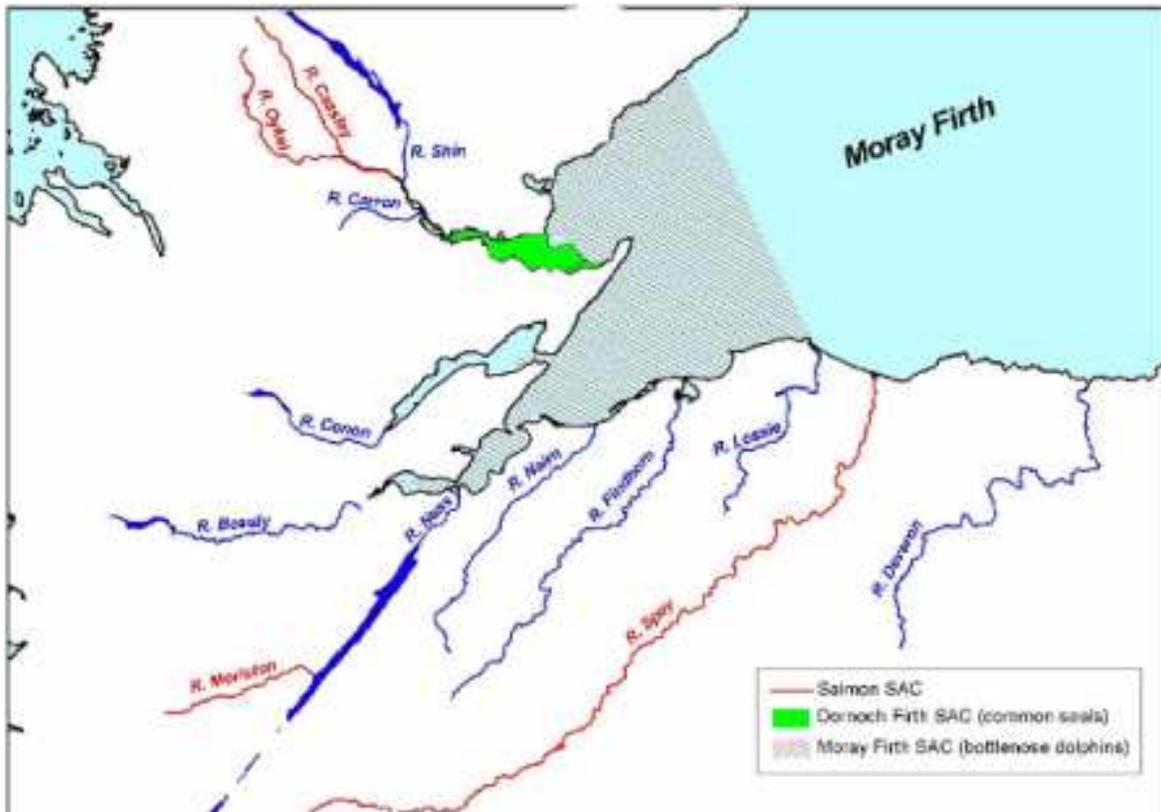
7.4. Logbooks: Distribute logbooks and scale packets (with collection protocols) to all Angling Associations and Ghillies by the beginning of next season.

7.5. Website: Continue website development

7.6. Talks: Continue the programme of talks to Angling Associations and interested parties

7.7. Records: Digitising Strathspey Angling Association and Oykel Bridge Hotel game books.

Annex 1. Map of the rivers included in the Moray Firth Sea Trout Project.





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Annex 2. A sample of some the press coverage and publicity.

MONTHLY BRIEFING Spey Fishery Board
 May 2008 www.speyfisheryboard.com

The Moray Firth Sea Trout Project

The Project: The Moray Firth Sea Trout Project is a three year collaborative project combining the efforts of District Salmon Fisheries Boards, Fisheries Trusts and Angling Associations around the Moray Firth to address the decline sea trout stocks. The management area extends from the River Deveron in the East right round to the Kyle system in the North and takes in all rivers and coastal streams round the coast. The project is now under way and Marcus Walters has been employed as the full time Project Officer.



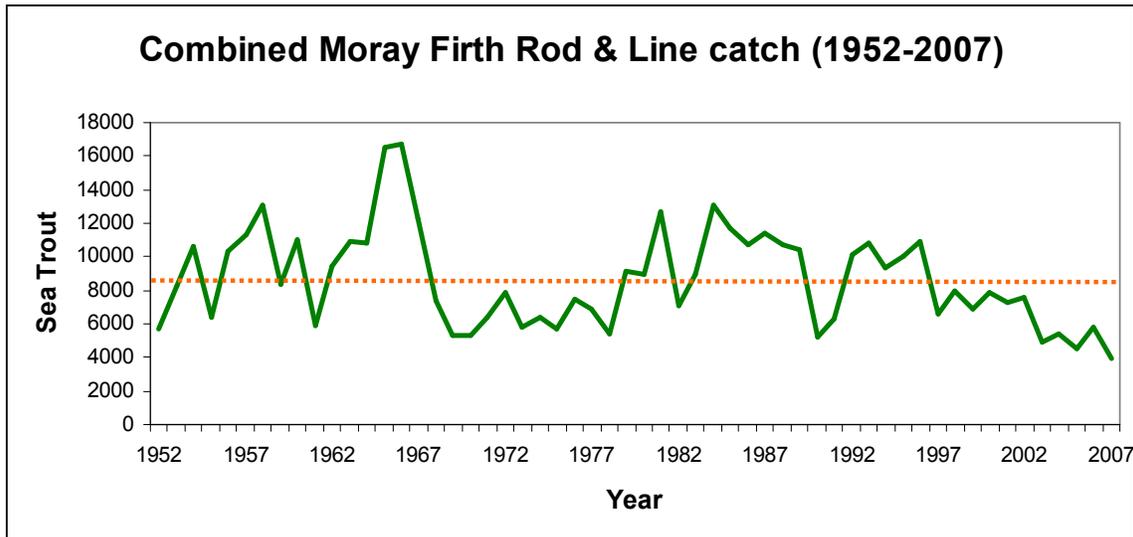
Decline in sea trout: The sea trout fishery right across the Moray Firth has shown worrying signs of decline in recent years. Moray Firth sea trout stocks are not only an essential alternative to salmon as a source of income in the local area but also a stock of national importance continuing 25% of total Rod & Line caught sea trout in Scotland in 2006. The River Spey supports

Imbalance in Management: The main aim of this collaborative project is to address the need for sea trout management in the

The Herald
 Project to determine reasons for decline in sea trout.

THE SCOTSMAN
 Major Probe as sea trout numbers fall by half.

Annex 3. Moray Firth Rod & Line Catch 1952-2007. Combined from FRS catch returns for all rivers in the MFSTP area (Deveron, Spey, Lossie, Findhorn, Nairn, Ness Beauly, Conon, Kyle).

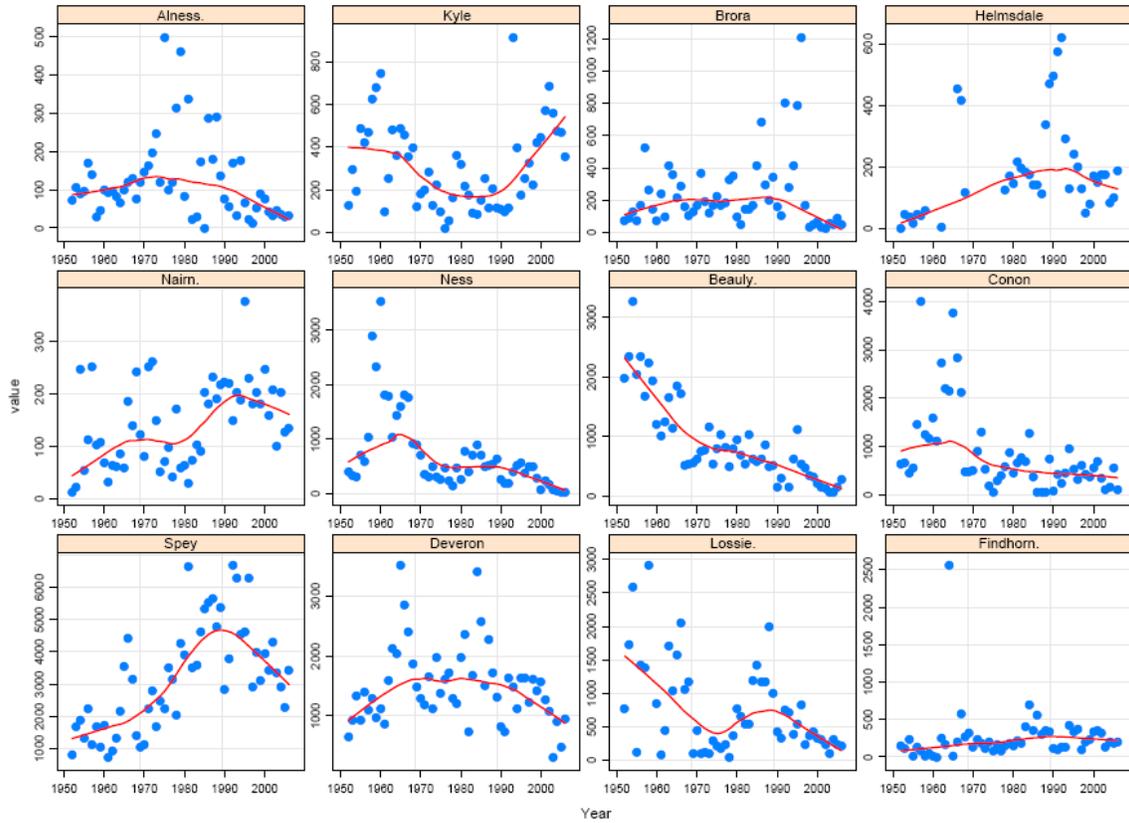


Although the Moray Firth sea trout Rod & Line catch has been very varied it is clear that since the mid 1990s there has been a steady decline from the long term average shown by the orange dotted line.

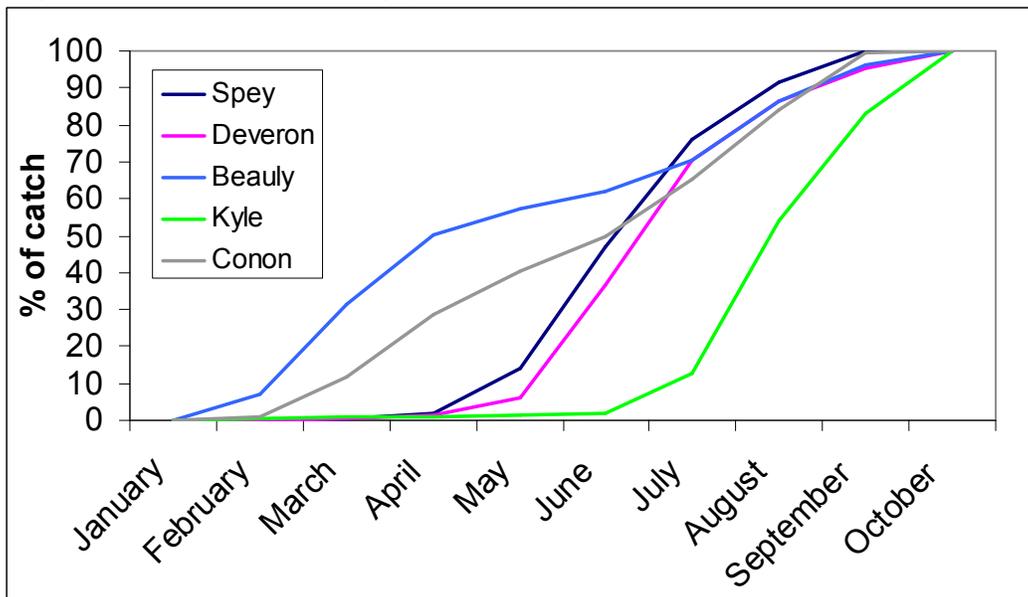


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Annex 4. A summary of the catch return data (Rod & Line) 1952-2006 for each of catchments in the project. The graphs are produced using a statistical programme called R” with smoothers applied to summarise the trend.

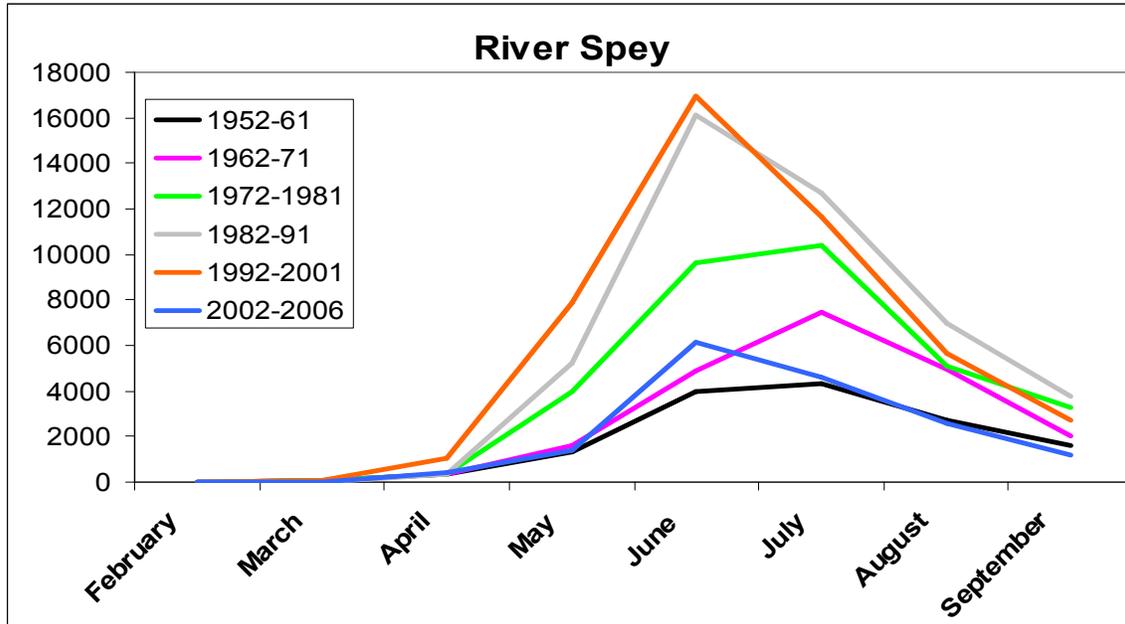


Annex 5. Timing of rod and line catch on some of the main rivers. This is a cumulative % compiled from the FRS monthly (Rod & Line) catch return data 1952-2006.

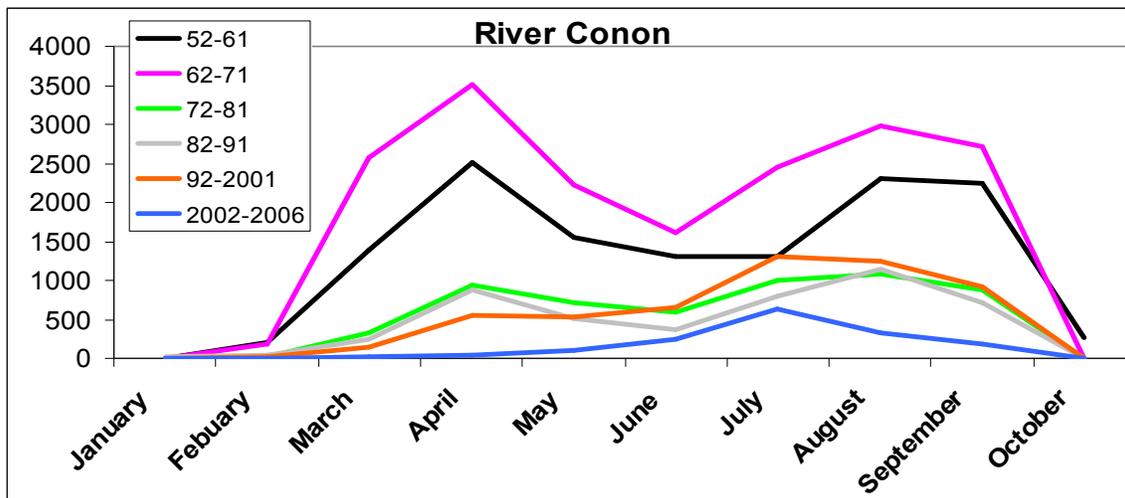




Annex 6. An illustration rod & line catch timing from 1952-2006 on the Spey and the Conon systems. FRS monthly catch return data has compiled into 10 year periods of total catch per month.



Although size of the catch has changed annually there has been no obvious change in the timing of the sea trout catch on the Spey. Note the most recent line (2002-2006) is only 4 years so the total number of fish caught is not comparable.



The timing of the sea trout catch on the Conon has changed significantly. In the 1950s and 60s there was clearly a peak in the catch in the spring and then a second in the late summer and autumn. The early peak has gradually declined and is no longer apparent. Note the most recent line (2002-2006) is only 4 years of data so the total number of fish caught is not comparable.