

FISHERIES DIVERSIFICATION PROGRAM

Emerging Fisheries Development

Project Summary: FDP 293

2002

American Eel Harvesting Pilot Project Labrador Straits



Setting eel fyke net

Introduction

The presence of American eel (*Anguilla rostrata*) in the rivers of coastal Labrador has been long recognized and documented. During the early 1990's, an attempt was made to develop this fishery at several locations, with encouraging results. However, no sustainable development occurred as a result

of this work. The Southern Labrador Development Association (SLDA) recognized the requirement to expand on this previous developmental activity with the assistance of experienced eel fishers and buyers. Effective methods of capture, storage and transportation to market provided reason for concern for the development of this fishery.

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and Labrador**

In response to these questions, the SLDA was provided funding under the Fisheries Diversification Program to carry out an experimental fishery using pots and nets to determine resource levels, as well as to provide samples to existing markets for market testing.

The objectives of this project were: to determine, with the assistance of a technical advisor, eel catch rates within the survey area; to identify effective harvesting techniques using eel pots and eel fyke nets similar to those used in commercial fisheries in other locations in the province; to demonstrate efficient handling and transportation methods; and to determine the economic viability of eel harvesting in the Labrador Straits.

Methodology

This project was conducted using 16 eel traps and 8 eel fyke nets. Survey activity was carried out at four locations throughout the survey area: Forteau River, L'anse au Loup River, Pinware River and Black Bay Brook. Two fishers, Mr. Delbert O'Dell and Mr. Frank Flynn, were contracted to conduct this survey. Mr. Delbert O'Dell was replaced by Mr. Randy O'Dell after day 12 of the survey.

Project monitors were assigned to each fisher for the duration of the field work. Monitors were responsible to log all catch information and ensure the effective day-to-day coordination of the project.

All survey activity, including harvesting, handling, storage and transportation, was carried out under the supervision of a technical advisor. Mr. Louie MacDonald of North Atlantic Aquaponics, an experienced eel fisher and buyer, was contracted to assist with the training component of this survey.

This survey was carried out over a 30-day period between July 17, 2002 and September 16, 2002. The survey period was divided into



Setting Net

two separate survey components, the first running from July 17 to July 28, 2002 using pot technology only, and the second phase from August 20 to September 16, 2002 using a combination of nets and pots.

Results

During the first phase of the project in the Pinware River - Black Bay Brook survey area, from July 17 to July 28, 2002, only pot technology was used, with low catches. Four eels were logged on one survey day, with no other catches reported for the survey period.

Results from the L'anse au Loup River, and Forteau River survey area for the same period were much more encouraging using pot technology. On the Forteau River, a total of 38 eels were caught, with four on the L'anse au Loup River all greater than 20 cm. in size.

The second phase of the project was conducted using a combination of eel fyke nets and pots on all four river systems.

Conclusion

There was an improvement in the catch rates on the Pinware River and Black Bay Brook systems during this second phase. Fifty-three eels were recorded on the Pinware River caught predominantly by fyke net. Nineteen eels were caught in the Black Bay Brook system, again predominantly by fyke net.

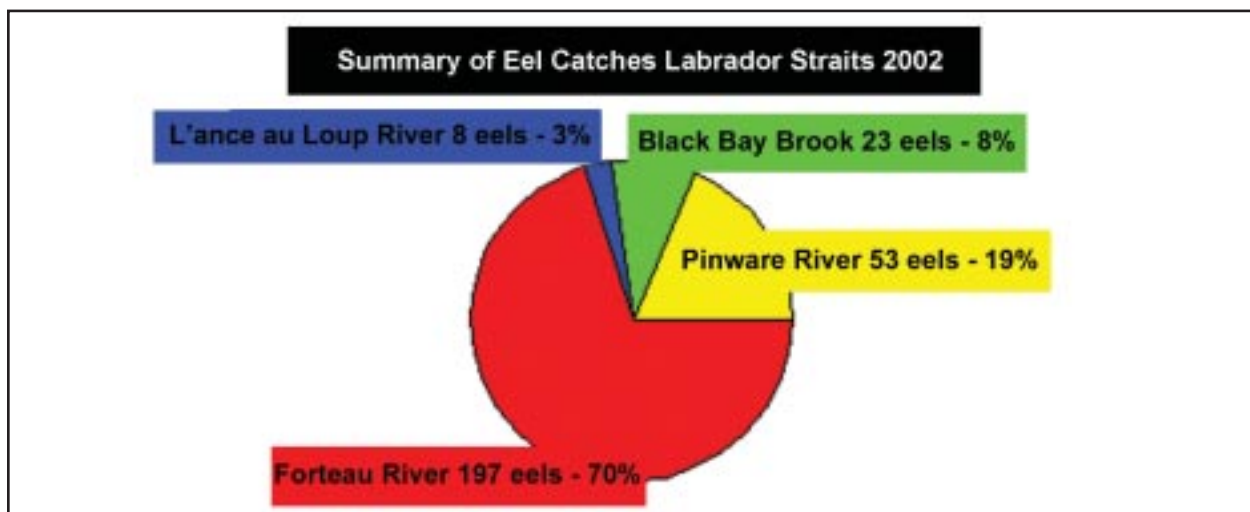
On the Forteau and L'anse au Loup Rivers, during this second phase, 163 eels were caught. Ninety-seven percent of the total catch (159) was caught on the Forteau River, predominantly by fyke net, demonstrating the effectiveness of these nets to capture eels on local rivers. The overwhelming majority were greater than 20 cm. Those less than 20 cm were released unharmed.

Eels were successfully held onsite in holding pens while awaiting transportation to market, effectively establishing that transportation challenges can easily be overcome for the development of this fishery.

The results of this experimental survey indicate that a stock of American eels exists along the Labrador Straits. Catch rates, especially on the Forteau River, where 70% of all eels were caught during this survey, were well within the acceptable commercial levels for an eel fishery. Other rivers, such as the Pinware River, show potential but require more developmental activity.

The eels encountered were quite acceptable to the international market, both in maturity stage and size. All eels were disease-free. The transfer of harvesting technology appears to have been done successfully, as the technical advisor was satisfied that fishers were capable of working the gear effectively. Concerns over the transportation of eels to market and onsite holding practices were addressed successfully in this project which should provide adequate incentive for further development of this fishery.

It was recommended that fishers be permitted to use the maximum allowable amount of gear to spread effort over as much area as possible and that the fishing area be expanded to include all other rivers along the Labrador coast.





Eel Net



Eel catch

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The \$10 million Fisheries Diversification Program is part of the \$81.5 million Canada-Newfoundland Agreement Respecting the Economic Development Component of the Canadian Fisheries Adjustment and Restructuring Initiative.