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# RESTRUCTURING

# CANADA'S

# *Pacific*

# FISHERY

Volume 2 • Issue 3 • March 2000

Fishing has been one of the major industries in Prince Rupert for over a century, along with fish processing, pulp manufacturing, wood processing, tourism, and deep-sea shipping activities from the second largest port on Canada's west coast.

Recent changes and fluctuations in the fishing and forestry industries have meant that Prince Rupert has had to look at new ways of creating economic prosperity in the region, in order to reduce its level

of dependency on primary resources. The Government of Canada continues to fund and support many initiatives in the area that will help to ensure that Prince Rupert prospers for years to come. This issue of Restructuring Canada's Pacific Fishery looks at some of the federal government programs working in Prince Rupert.

The north coast has benefited from several initiatives under the Pacific Fisheries Adjustment and Restructuring Program (PFAR). Over \$1 million

S P E C I A L E D I T I O N

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dollars has been spent on the North Coast under the Selective Fishing Program to fund experimental projects, conduct catch monitoring and stock assessment programs and to fund additional enforcement activities. In 1999, 12 experimental projects involving all three fisheries sectors on the North Coast—First Nations, recreational and commercial—investigated gear modifications, alternative gear, short-term coho mortality and coho encounters. These experiments will be instrumental in developing a selective fishing policy for the future of the Pacific fishery.

More than \$71 million has been invested in the North Coast fishing areas A, C and F to permanently retire 571 commercial salmon licences through three rounds of the 1998-99 Voluntary Salmon Licence Retirement Program. Reductions to the fleet through this program resulted in a balanced reduction across gear types — seine, gillnet and troll. The Voluntary Salmon Licence Retirement Program provided many people with the opportunity to exit the salmon fishery with dignity. Some of those people have reinvested the money in other business ventures — making sure the area continues to grow and prosper.

Indian and Northern Affairs Canada (INAC) supports a number of initiatives under the PFAR program as they pertain to First Nations communities. INAC has worked closely with its federal partners to ensure information about these initiatives reaches outlying communities as well. Funding from Human Resources Development Canada's (HRDC) Fisheries Restructuring and Adjustment Measures Program helped start the successful company Lady Raven's Creative Arts Ltd. in Prince Rupert. See story in this issue.

HRDC has invested nearly \$6.7 million in training and employment insurance initiatives in Prince Rupert, providing support to 1,930 workers and 78 PFAR-related projects. Examples of successful training transitions are in this issue.

Western Economic Diversification Canada (WD) continues to fund new community economic development initiatives in the area, with an investment of \$1.7 million to date through the \$18 million

Community Economic Adjustment Initiative (CEAI). More than a quarter of a million dollars was loaned to lodges and charter operations in the area through the Recreational Salmon Fishery Loan Program, administered by WD's Community Futures Development Corporations. This program offered loans for those businesses that wanted to diversify their operations, including improved marketing, upgrades to resort properties, eco-tourism initiatives, whale watching and charter boat upgrades.

Local lodges and charter operations have also benefited from a \$3.9 million North American sport fish marketing campaign that encourages recreational fishers to come to BC and fish for a wide variety of species, including salmon.

Several initiatives are underway in the north to rebuild the salmon resource and to protect habitat. Community-based watershed stewardship, strategic stock enhancement and habitat restoration projects are all contributing to a healthy environment for fish. See this issue for related stories.

Despite widespread changes in the fishing industry, the 1999 fishing season in the north saw improvements over the previous year in some areas. A successful selective fishery for pink salmon from the Skeena and Nass Rivers netted nearly 5.3 million fish in 1999, with the returns well above average. Also in 1999, Upper Skeena coho experienced much improved marine survival and returns. Although the Nass and Area 5 sockeye spawning goals were achieved, the escapement of Skeena sockeye was only one-half of the target. Returns of Skeena and Nass chinook were slightly below the 1990's average, and chum returns were poor. The outlook for the 2000 fishing season is similar to 1999. Fisheries and Oceans Canada will release updated information as it becomes available throughout the 2000 season.

Conservation, risk-averse management and selective fishing continue to be the priorities for the Pacific fishery. These important policies will help to ensure that fish continue to thrive in the north, and that fishing will continue to be an important part of Prince Rupert's economic landscape for years to come. ♻️

# Voluntary Salmon Licence Retirement Targets Met: North Coast Fishermen Will Benefit From Smaller Salmon Fleet

The 1998-99 Voluntary Salmon Licence Retirement Program is part of the \$400 million package announced by the federal government in June 1998 to restructure the Pacific salmon fishery and assist communities and individuals through a variety of adjustment measures. The Voluntary Commercial Salmon Licence Retirement Program is designed to meet conservation objectives through a substantial reduction in the number of licensed salmon vessels in the commercial fleet. The goal is to reduce the level of dependence on a fluctuating resource. This will help provide more sustainable livelihoods for those fishermen who remain in the industry, and ensure that conservation objectives are not jeopardized.

Since 1980, a commission of inquiry and a series of government-appointed task forces have recommended significant reductions in the number of salmon vessels on the West Coast. In 1998, the British Columbia Job Protection Commissioner reported that “the [commercial salmon fishing] industry as we know it today will not survive unless fundamental change is embraced and implemented.” This was echoed by Dr. Parzival Copes in his report “Coping with the Coho Crisis”, in which he confirmed the “need for a reduction in the size of the salmon fleet.” Many fishermen also recognize this need and have signalled their desire to exit the salmon fishery.

Stakeholders have long acknowledged a serious overcapacity problem in the commercial fleet. Overcrowding and overcapacity increases the pressure to fish intensively and reduces incentives for industry participants to co-operate with enforcement plans. Having too many vessels in the fleet can also reduce earning potential in proportion to a high investment in capital and labour — reducing the level of competitiveness. A reduction in the fleet increases the chance of achieving adequate escapement, provides for adequate returns to vessel owners, and reduces fishing costs.

The licence retirement program is voluntary. Licence-holders themselves make the decision about whether or not to remain in the fleet. Recommendations for the acceptance of eligible bids are made by an independent committee. Criteria for the evaluation of bids may include stated value, vessel length, gear type, catch history, and age or residency of vessel owners. The committee consists of James Matkin, chair, Carol Kulesha and Donald Assu, as well as representatives from each gear type—troll, seine, and gillnet.

Since the beginning of the 1998-99 Voluntary Salmon Licence Retirement Program, a total of 571 licences have been retired in the three licence areas for the North through three rounds of the program:

AREA A Seine . . . . .	71 licences retired
AREA C Gillnet . . . . .	357 licences retired
AREA F Troll . . . . .	143 licences retired

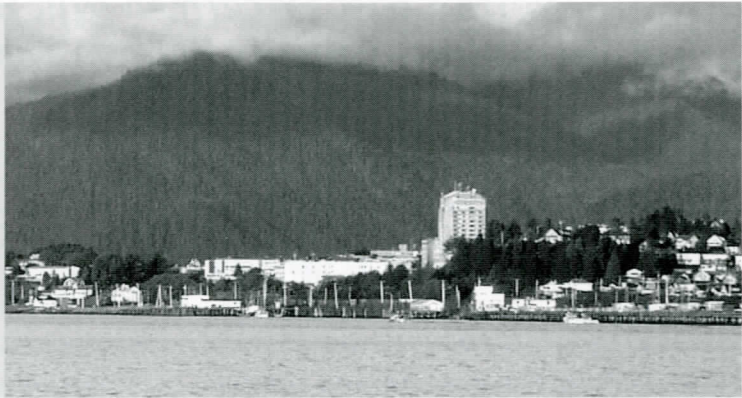
According to the 1998 British Columbia Job Protection Commissioner’s (JPC) report “Fishing for Money”, the short-term (1998 to 2000) financial outlook for the commercial fleet was “gloomy,” with massive losses anticipated due to low catch levels and low returns. Scientific evidence also revealed a prolonged recovery period was needed for stocks at risk, particularly coho salmon.

The JPC Report concluded that another fleet reduction could improve long-term viability of the sector. The Pacific Policy Roundtable provided recommendations to the Department in December, 1995 which set an approximate reduction goal of 50% of the commercial salmon fleet. Through two voluntary licence retirement programs, this goal has been reached. The new salmon fleet of the future is smaller, more efficient, sustainable, and selective. Fishermen throughout the coast will now have a better chance of making a sustainable living from this smaller, stronger fleet. Combined with firm conservation objectives and risk-averse management, a more viable fishery is now possible.

# Prince Rupert Developing Locally-Focused Solutions

*“Attracting new industries and diversifying our economy are key to the economic future of Prince Rupert and to the creation of long-term, decent-paying jobs for our skilled work force. Tourism is a very promising sector: from establishing Prince Rupert as a destination of choice for Alaskan cruise ships to developing cultural tourism built on our rich history and destination heritage sites.”*

*Don Scott, Mayor, Prince Rupert*



## Prince Rupert

Prince Rupert, the most important fish-landing port on the north coast, was hard hit by the change in the salmon fishery.

But there is strength in adversity. The community that was once a meeting place of the Tsimshian and the Haida, that was dubbed the San Francisco of the North and envisioned as a rival of Vancouver as Canada’s Pacific seaport is poised to take advantage of new opportunities.

Prince Rupert is once again becoming a meeting place—a meeting of minds. And the federal government is in the circle.

### Locally-Developed Solutions

Western Economic Diversification Canada (WD) is a key player in the federal government’s Pacific Fisheries Adjustment and Restructuring Program (PFAR).

The numbers speak for themselves: more than \$7.3 million in job creating projects on the west coast under WD’s locally-driven Community Economic Adjustment Initiative (CEAI); nearly \$7 million in low-interest loans (at prime) to the recreational fishing industry under the Recreational Salmon Fishery Loan Program; 183 DFO-WD-CFDC loans totaling more than \$8 million under the Fisheries Legacy Trust. All of these programs are delivered locally, though WD’s partners, the 13 coastal Community Futures Development Corporations (CFDCs).

In addition, the CFDCs have made 76 loans to fishers or to new fisheries-related businesses from their regular investment funds totaling more than \$3.1 million. Total so far and counting: more than \$28.5 million to job-creation projects on the coast.

So far, WD has invested close to \$1.7 million in Prince Rupert and the area under the CEAI and the Recreational Salmon Fishery Loan Program. Prince Rupert’s CFDC of the Pacific Northwest has loaned out \$96,600 under the Legacy Trust Fund, thereby creating or maintaining 83 jobs and leveraging \$456,400 in additional investment.

### Community Economic Adjustment Initiative (CEAI)

WD created the Community Economic Adjustment Initiative under PFAR to encourage long-term, sustainable economic development and diversification in fishing-dependent coastal communities. The objective of the CEAI is to fund projects that address local adjustment priorities, needs and opportunities. Those opportunities must have demonstrable community support, result in long-term strategic investments and help move communities from dependence on the salmon fishery to alternative and sustainable economic activities.

The CEAI is delivered locally in recognition that communities themselves know their needs and opportunities best. The initiative is administered by a Project Steering Committee made up of local community representatives who include mayors,

First Nations, Community Futures Development Corporations and the federal government.

Western Economic Diversification favours a bottom-up approach to economic development. The federal department does this through its partnership with the Community Futures Development Corporations (CFDC) — of which there are 34 in B.C. (13 on the coast). CFDCs are non-profit corporations governed by local volunteer boards of directors representing the interests of the whole community. Funding by WD helps B.C.'s 13 coastal CFDCs and their many local partners work with fishermen, communities and small business to identify local needs and develop economic adjustment opportunities.

The newest member of the CFDC family, the Community Futures Development Corporation of the Pacific Northwest in Prince Rupert, opened its doors in 1999.

The CFDC in Prince Rupert is especially important in providing the region with a local capacity to access and deliver a range of community economic adjustment initiatives funded by the federal government under the Pacific salmon adjustment and restructuring initiative. The federal government has also provided the CFDC with the capacity to: make small business loans to viable oceans-related entrepreneurial ventures and to ex-fishers with new business ideas; and work with communities throughout the Pacific Northwest region to identify, develop and submit project ideas for funding of community development projects under WD's Community Economic Adjustment Initiative (CEAI).

**CEAI and Prince Rupert:  
Seven Projects Totalling More Than  
\$1.4 million**

The CEAI investment in the economy of the region is multi-faceted, ranging from the seeding of new industries (shellfish culture and harvest and manufacturing), to value-added processing, to cultural tourism:

Northcoast Biotoxin and Water Quality Program;  
Prince Rupert .....\$250,000

Humpback Bay Oyster Project;  
Prince Rupert .....\$86,675

Kitkatla Nation Abalone Rehabilitation;  
Kitkatla .....\$250,000

Pike Island (Laxspa'aws) Development;  
Pike Island .....\$231,000

Custom Processors, Prince Rupert .... \$250,000

Browser Guard; Prince Rupert .....\$125,000

Upgrade of Lax Kw'alaams Fish Plant;  
Port Simpson .....\$250,000

Recent CEAI investments in the **Northcoast Biotoxin and Water Quality Program** will enhance the wild harvesting industry in the area, while the **Humpback Bay Oyster Project** and the **Kitkatla Nation Abalone Rehabilitation** project are key to creating a viable shellfish farming industry. Shellfish has been identified as a viable economic opportunity for coastal communities.

However, key infrastructure that would allow new development to take place was not available in the region. The biotoxin testing program will ensure consistent access to water quality testing facilities and help meet health and safety standards for consumers as legislated by the Canadian Food and




*The Honourable Raymond Chan officially opens the CFDC of the Pacific Northwest on September 29, 1999*

Inspection Agency and Environment Canada. As such, it is the cornerstone of the new industry.

The economic benefits to the region are many and varied. These three projects, which received a total of \$586,675 in CEAI funding, will help the region take advantage of the North's huge untapped market for clams, oysters and abalones and have a positive impact on Prince Rupert with jobs and economic spin-offs. The projects will enable workers to adapt many of their marine skills in another direction.

The **Pike Island (Laxspa'aws) Development** is meant to create a destination heritage site that will attract additional tourists, enable small entrepreneurs to develop hospitality service opportunities and create jobs. Laxspa'aws has hosted cruise ships, conference groups, college and school classes, as well as the visiting public. CEAI funding builds on the foundation of two years' work and will allow the Metlakatla Development Corporation to fully tap the potential of the site, and attract a greater number of tourists interested in Aboriginal culture.

The Pike Island (Laxspa'aws) Development is a unique First Nations archaeological site; the beginning of eco-tourism as an industry in the region. The fishing industry has always been the backbone of the Tsimshian culture and Metlakatla is no exception. Cultural/marine tourism is one of the few avenues of economic development open to a semi-isolated community like Metlakatla.

There is a two-step process for making applications under the Community Economic Adjustment Initiative. The first step requires applicants to submit a two-page proposal to their local Community Futures Development Corporation (CFDC) for consideration. If the proposal meets published guidelines and criteria, the applicant will be invited to submit a full business or project plan to their CFDC for consideration by the CEAI Project Steering Committee. Only those projects submitted to, and recommended by, the CFDC will be considered for funding by the CEAI Project Committee. 

For more information on the CEAI or on any other program mentioned above, please contact:

CFDC of the Pacific Northwest  
# 200 – 515 3rd Avenue West  
Prince Rupert, B.C. V8J 1L9

Chairperson : Nancy Wilson  
Manager: Maynard Angus  
Fishing Coordinator: Dale Sokoloski

Phone: 250-622-2332  
Fax: 250-622-2334

Western Economic Diversification Canada (WD)  
Vancouver, B.C.  
Toll-Free: 1 888 338-9378

# 13 New Positions Work with Communities on Watershed Stewardship

**T**hirteen individuals are being hired in the North Coast area to work with local communities to create healthier watersheds for people and fish. These individuals are part of a network of new positions—habitat auxiliaries, habitat stewards, stewardship coordinators and habitat fishery officers—across the Pacific Region. These positions are working with community groups, First Nations, industry and government agencies to increase awareness of fish habitat protection, encourage citizen involvement, participate in watershed planning, provide public education and promote an ethic of caring for local rivers, streams, watersheds, and, ultimately, fish.

The new positions have been created through the Habitat Conservation and Stewardship Program.

The program, an innovative part of the \$100 million federal package called Resource Rebuilding, aims to strengthen the capacity of communities to protect, restore and advocate for fish and their habitat. The five-year Resource Rebuilding initiative is, in turn, a component of the \$400 million Pacific Fisheries Adjustment Restructuring Program.

These 13 individuals, based in communities from Prince Rupert to Houston, are part of a total of 83 new positions being filled in 1999-2000. These positions augment the federal government's existing habitat conservation and public involvement programs at the local level. ♻️

*The following are the new North Coast positions:*

**Prince Rupert – habitat steward**

*Community partner: North Coast Fisheries Renewal Council*

**Prince Rupert – Michele Patterson, stewardship coordinator**

*Community partner: North Coast Fisheries Renewal Council*

**Prince Rupert – habitat auxiliary**

**Haida Gwaii/Queen Charlotte Islands – Kimiko Bechta, stewardship coordinator**

*Community partners: Haida Gwaii Marine Resources Group, Haida Gwaii Community Futures Development Corp.*

**Haida Gwaii/Queen Charlotte Islands – Mark Potyrala, habitat auxiliary**

**Smithers – Scott Mackay, stewardship coordinator**

*Community partner: Bulkley-Morice Salmonid Preservation Group, Nadina Community Futures Development Corp.*

**Smithers – Patty Menning, habitat auxiliary**

**Terrace – Steven Groves, stewardship coordinator**

*Community partner: Northwest Watersheds Resource Council, 16/37 Community Futures Development Corp.*

**Terrace – Rob Heibein, habitat auxiliary**

**Terrace – habitat fishery officer**

**Hazelton – habitat steward**

*Community partner: Northwest Watersheds Resource Council, 16/37 Community Futures Development Corp.*

**Houston – habitat steward**

*Community partners: Bulkley-Morice Salmonid Preservation Group, Nadina Community Futures Development Corp.*

**Kitimat – habitat steward**

*Community partner: Northwest Watersheds Resource Council, 16/37 Community Futures Development Corp.*

# Building Profiles of Salmon and Habitat in North Coast Streams

**R**ebuilding weak salmon stocks depends on an accurate picture of salmon in various streams. Through the North Coast Stream Inventory Project, teams of displaced fisheries workers and First Nations have been collecting data on the abundance of coho and chinook salmon fry and habitat characteristics to build profiles on selected streams from Kincolith to Kitasoo.

The Community Fisheries Development Centre (CFDC) in Prince Rupert received \$150,000 in 1999-2000 for the project. The CFDC is managing the project on behalf of the North Coast Fisheries Renewal Council, whose members are drawn from a broad cross-section of the community such as fishing groups, First Nations, local municipalities and salmon enhancement societies.

The federal funding comes from the Habitat Restoration and Salmon Enhancement Program (HRSEP), a key component of the five-year \$100 million focus on habitat, called Resource Rebuilding. HRSEP provided \$7 million in 1999-2000 to more than 100 community projects designed to conserve salmon and their habitat in B.C. and the Yukon, with much of the work aimed at improving weak coho stocks. Of this total, north and central coast projects received \$1.3 million.

The stream profiles include data on the presence and density of coho and chinook salmon fry, habitat mapping and water quality testing, as well as DNA samples for genetic analysis. The information will identify what species are at risk in a watershed and the condition of the fish habitat, which will help determine what watersheds need assistance with habitat restoration, stock enhancement or harvest restrictions. Counts of coho salmon fry will be compared with numbers of coho spawners to draw conclusions about juvenile mortality and, if needed, provide remedies to improve production from a given system.

Participants in this project have all worked in the fishing industry in local coastal communities and have acquired many new skills. These include

identifying juvenile salmonids, selecting proper collection sites, mapping habitat, sampling fish and testing water quality factors such as pH and dissolved oxygen.

Staff from Fisheries and Oceans Canada provided training on methodology for collecting data, mapping and stream inventories and data analysis. Consultation with Fisheries and Oceans staff—including those from the Habitat and Enhancement Branch and Stock Assessment Division—has been ongoing throughout the program. The University of British Columbia Fisheries Centre is another partner, providing technical expertise in statistical analysis of the data.

The following are some other North Coast projects that received funding in 1999-2000 from the Habitat Restoration and Salmon Enhancement Program:


- The Hecate Strait Streamkeepers Society on Queen Charlotte Islands (QCI) received \$60,000 to restore spawning and rearing habitat for coho salmon in Skidegate Inlet and West Skidegate Channel, an area impacted by logging.
- The Haida Fisheries Program on QCI used \$75,000 to obtain accurate estimates of coho spawners on several key streams on Moresby/Graham Island to assist coho conservation.
- The Tlell Watershed Society on QCI received \$57,000 to complete construction of an adult salmon counting fence on the Tlell River. The fence will be operated during coho and pink salmon returns to determine the number of spawners and timing of runs.
- The Hecate Strait Streamkeepers Society of QCI used \$11,500 to survey the status of degraded habitat in the Rennel Sound watershed to develop detailed action plans for the recovery of the highest priority areas.
- The Oona River Community Association on Porcher Island received \$19,700 to complete a

hatchery that will be used to rebuild threatened coho salmon stocks. The group is also using its stream inventory data to determine which watersheds would benefit from habitat restoration or stock enhancement.

- Triton Environmental Consultants, with the City of Terrace and Northwest Community College, received \$80,000 to improve habitat for coho, pink and chinook salmon on Spring Creek.
- The Terrace Salmonid Enhancement Society, Kitsumkalum Band and Kitselas Band Council used \$65,000 to survey several streams in the Skeena River watershed to determine the popu-


lations of adult coho, data that will assist fisheries management and determine the extent of the area's stock rebuilding.

- The Nadina Community Futures Development Corp. received \$36,000 to monitor water quality to determine the effects of nutrients, sediments and temperature on salmon such as coho in the Upper Bulkley River. The project identifies sources of pollution and informs landowners and industries on how to reduce pollution.

Project proposals for 2000/01 are being reviewed and funding will be allocated in early April 2000. 



*Hecate Strait Streamkeepers place a log in a creek to create habitat.*



# Lady Raven's Creative Arts Limited

## Edna Tait, Nisga'a nation

10

**Y**ou enter a Tsimshian longhouse. Immediately, you are welcomed by the young men of the hosting clan of the Ganada, who seat you according to rank. You can hear drums beating the welcoming songs of the Ganada and smell the aroma of smoked salmon and bannock cooking over an open flame. The Ganada host explains the reason for the gathering and thanks everyone for coming out and witnessing the event.

Matriarchs and young women carefully prepare and sort gifts to be distributed, and at the other end of the longhouse you hear voices calling, "Here! Over here! Come on in and be seated!" Once seated, you admire your ceremonial dinnerware, elegant fine bone china adorned with the Northwest Coast raven and frog design. The tradition of the Tsimshian feasting system, the gathering of clans, the celebration of a birth, a wedding, a naming ceremony — this is what the Robinson family had in mind when they set out on their business venture more than eight years ago.

The Robinson family inherit their Raven/Ganada clan status matrilineally from their mother Jean

(Walker) Robinson who originates from the House of Sim'oogit T'u Xhii. She has passed on her inspiration, encouragement and creative talents to her family of ten children.

"Lady Raven started off as a dream. A few of us got together and discussed the possibilities of looking at commercializing our hobbies and our creative talents, and so the work of building the business began," says Tom Robinson.

It all tied together with the beginning of the changes in the commercial fishing industry. The less work the crew had in the net-mending business, the more time they had to really work at their hobbies.

Members of the extended Robinson family are of Tsimshian and Coast Salish ancestry. Wayne Robinson brings his naturally gifted talents to the business creating unique Northwest Coast traditional and contemporary designs. He creates his own style of Native artwork, which he likes to call "an identity of my own."

In conjunction with Royal Doulton of Canada, the company has christened "Lady Raven's Ceremonial

Dinnerware,” using Wayne’s designs to produce a new line of customized dinnerware used for various ceremonial occasions.

In its location along B.C.’s Northwest Coast, the business will provide access to several diverse First Nations groups such as the Tsimshian, Haida Gwaii, Nisga’a, Gitksan and Tahltan, all of which share a common theme within their social and political structures, each practising and maintaining a cultural inheritance which includes gift giving from one clan to another or giving gifts to visitors and dignitaries.

For example, within Nisga’a society, when a Chief’s name is being passed on, it is customary for the young Chief to call upon his paternal relatives to bestow his name, and, depending upon whom he requests to do this honour, he will in turn pay his paternal relative in the form of a gift. The young Chief may belong to the Wolf Clan and his paternal relative may belong to the Eagle Clan; therefore, the young Chief will have a gift ready to present which would symbolize the Eagle Clan. So, the main goal of Lady Raven’s Creative Arts Limited is to retail, wholesale and manufacture goods that will contribute to the various ceremonies and celebrations which will take place within the different First Nations communities.

There are three areas within the company: the woodwork shop employs five people, the sewing shop employs three people and the gift shop is primarily operated by Tom and Wayne. These are the same ten people who were employed within the net-mending business for over 40 years.

When the crew first came up with this innovative business idea, it grew from their displacement from the fishing industry. All employees are of Aboriginal ancestry and originate from the Tsimshian, Nisga’a and Squamish nations and are familiar with First Nations protocol within the feasting system and other cultural aspects.

In February 1999, the crew of Lady Raven’s Creative Arts Ltd. and Human Resources Development


Canada signed an agreement under HRDC’s Fisheries Restructuring and Adjustment Measures Program. That agreement provided support for setting up the new business, including funding for employee wages. In June 1999 the doors opened for business at the present location in Prince Rupert.

In the woodwork area, traditional bowls, paddles, masks and pendants are carved out of alder, red cedar and yellow cedar, complete with traditional First Nations designs. In the sewing shop, items such as the traditional black and red button blankets are designed, and vests and aprons are made to order. An embroidery machine is used to embroider designs on items such as polar fleece vests, blankets and personalized towels for whichever clan a customer may belong to.

In addition to the ceremonial dinnerware the company will produce traditional replica bent-wood boxes or feast boxes which can be used to carry the dinnerware in. These boxes will have little compartments so that the dishes will not break and can be transported safely.

“As a young fella,” says Tom, “I can remember growing up at home and whenever a feast was held, our women folk, our matriarchs had to cart their dishes to the hall or longhouse, where the feast was being held. They used to pack those dishes in laundry baskets, or galvanized tubs, so what we did was create feast boxes.”

Another area Lady Raven’s Creative Arts is going to market to is the hotel and restaurant industry. They would like to involve business owners and non-profit organizations. The company has received stock of its first line of ceremonial dinnerware, which in turn will be ready to go out into the world as wholesale as well as retail.

For more information on the ceremonial dinnerware and other products, contact Lady Raven’s Creative Arts Limited at P.O. Box 1145, Prince Rupert, B.C. V8J 4H6 or 413 – 3rd Avenue East, Prince Rupert, B.C. V8J 1K7. You can reach them by phone, (250) 622-2122/2124, and fax (250) 627-5265. 

# Recreational Fishermen Look for New Ways to Fish Selectively

Recreational fishermen from many areas of British Columbia have been contributing to the wealth of research being developed on selective fishing methods and technologies.

Recreational fishermen are concerned about being able to avoid species at risk while fishing for target species. There is no doubt that northern British Columbia is one of the most popular sport fishing destinations in the world. Recreational fishermen have a very large stake in protecting the resource to ensure that opportunities will always exist for exciting sport fishing adventures in BC.

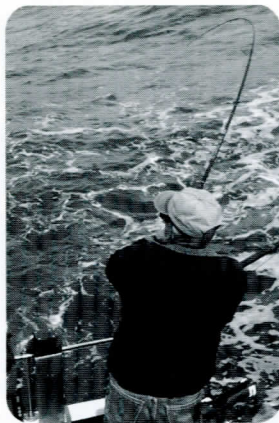
In the Prince Rupert area and the northern coast of BC, several experimental projects were carried out last year which looked at coho avoidance and, the types of different gear and bait that might be effective in avoiding non-target species.

At a selective fishing workshop in Richmond in November 1999, representatives of the sport fishing community presented the results of several projects to commercial and First Nations fishermen, environmental and community groups. All agreed that one of the most difficult and important tasks in the coming year is to educate recreational fishermen in proper catch and release techniques that will increase the survival rate of released fish, and species identification. These are both areas being addressed by a Public Education and Awareness project team under the Selective Fisheries Program.

## Skeena River Recreational Catch Monitoring Program

*Led by J&S Outdoor Ventures Ltd.*

This coho encounter study took place on the lower Skeena River. The goal of this project was to determine the number of coho encounters while recreational anglers fished for chinook, pink, steelhead and trout.



A total of eleven surveyors recorded information at twelve of the most popular fishing bars on the lower Skeena River. Data was collected through a total of 1,465 angler interviews at Ferry Island, Skeena Street, Kraut, Alberta, Chicken, Delta, Shames, Andesite and Café Bars. The data collected included: fish condition at release, DNA samples and gear type. This information should help managers determine what areas could be kept open or possibly closed during times of coho concerns. Data was also collected to

determine what coho stocks are being encountered, what condition released fish were in and what types of gear may effect the coho encounter rate. This project was also an excellent opportunity to educate the angling public on proper catch and release techniques, as well as the Selective Fisheries Program.

The results of this project confirmed the selectivity level of a chinook fishery, where very few coho were caught. The monitoring showed that the use of large #0 and #2 spin'n'glo lures in conjunction with barbless hooks made this a very selective sport fishery.

## Bulkley/Morice River Recreational Catch Monitoring Program

*Led by Upper Skeena Sport Fish Advisory Committee / Toboggan Creek Salmon and Steelhead Enhancement Society*

This project was carried out by members of the Upper Skeena Sport Fish Advisory Committee and the Toboggan Creek Salmon and Steelhead Enhancement Society. The study monitored coho encounters on the Bulkley/ Morice rivers while anglers fished for chinook, pink, steelhead and trout.

A total of 437 recreational anglers were observed at five of the most popular fishing sites on the Bulkley/ Morice rivers: the Moricetown Pool, the

Toboggan Creek confluence, the Chicken Creek confluence and the Aspen campground. Data collected included: species caught, gear type, fish condition at release, angler effort and angler origin.

This study resulted in extra recreational fishing opportunities for pink salmon at Chicken Bar.

## Scientific Studies

Three short-term mortality studies were carried out by the Chatham Sound Charter Boat Association and the Sport Fishing Institute of British Columbia under the direction of the science branch of Fisheries and Oceans Canada. The goal of the studies was to gather data on short-term hooking mortality rates for coho captured and released by anglers using similar types of fishing gear in different fishing locations in northern British Columbia. The studies also looked at factors affecting hooking mortality.

The studies were conducted at three different locations: Stevens Island, Langara Island and Dundas Island from late July through late August, 1999. Three different gears were tested: motor-mooched herring, trolled herring and trolled artificial lures.

### Stephens Island

Stephens Island is located near Prince Rupert. Between August 12 and 18, 1999 six boats fished for coho using motor-mooched herring, trolled herring (with or without flashers), and trolled artificial lures, both fished from downriggers. Independent observers were aboard each vessel to record data.

### Langara

Participating anglers from each lodge had observers on board the selected fishing vessels to take part in the study that was jointly funded by Fisheries and Oceans Canada, Fisheries Renewal BC and the Sport Fishing Institute.

Observers recorded data such as the number of fish strikes, number of fish hooked, length of time on the line, location of the hook, etc. The observers did not fish. Guests as well as staff from the participating lodges took part in the study as they fished. Lodges provided boats, fuel and accommodation to observers, as required.

### Dundas Island

Again, this study determined short-term hooking mortality rates for coho salmon captured and released in the Dundas Island recreational fishery. Three boats fished for coho between July 26 and 30, 1999, and all boats had independent observers aboard.

## Results

All coho caught were handled in the same manner in all three studies. After the fish were hooked by anglers, they were either netted by the anglers in knotless web landing nets; or tailed by anglers with a gloved hand at the side of the boat. Once netted or tailed, observers recorded biological and specific hook location information, as well as information on how the fish were handled by the angler. All of this information will be useful in developing rigorous standards for fish handling and better catch and release techniques.

Following the recording stage, the landed fish were either transferred directly to a live tank or held for retrieval in a fish holding bag in the water at the stern of the boat. The fish were then tagged and transported to a holding site close to the fishing grounds for further observation (transport time ranged between two and ten minutes to minimize stress to the fish).

At the holding site, each coho was measured, tissue sampled for DNA analysis, its sex recorded, and then kept in the holding tanks for periods of up to 24 hours. All coho were released prior to the beginning of the next day's fishing.

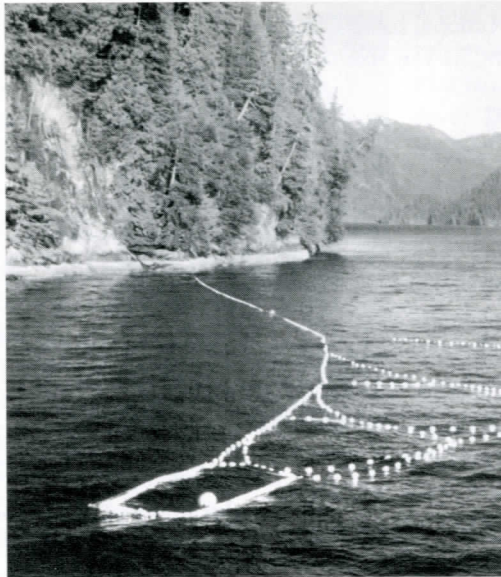
A total of 627 adult coho were captured and held for observation. A total of 62 coho died, resulting in a combined area mortality rate of 9%. The mortality rates were not significantly different when the different gears were compared at Dundas and Stephens Island. However, the short-term mortality rates were significantly different for motor-mooched herring fished at Langara Island, compared to Dundas and Stephens Island.

For all gears tested, the location of the hook in the

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# Hawkshaw's Floating Trap Net Gains New Ground

**F**red and Linda Hawkshaw are pioneers in the experimental area of selective fishing. The Hawkshaws are gillnetters in Prince Rupert who are two of many fishermen who have been experimenting with alternative gear, and modifying existing gear over the past several years to keep the selective fishing current moving forward. The goal has always been the same — to avoid catching non-target species and promote conservation of species at risk.



*Fred Hawkshaw's Trap Net.*

tle experience with previously, and it took some time to get to know the patterns and behaviours of the fish.

The original idea for the trap net comes from a Finnish design, which has been used for over 40 years to trap Atlantic salmon. The Hawkshaws experimented last year with the floating trap net, and implemented several modifications to improve the selectivity of the model.

This is how the trap works. The entire trap net is towed or held into the current by

14 Eighty selective fishing experiments were carried out in many areas of British Columbia in 1999 with the enthusiastic participation of stakeholders. Fisheries and Oceans Canada has invested \$12.2 million to fund experimental projects; to support scientific research; to provide monitoring by independent on-board observers to ensure that conservation objectives are attained; to support increased enforcement to ensure compliance with selective fishing measures; and to provide training support for fishermen and anglers about effective selective fishing practices.

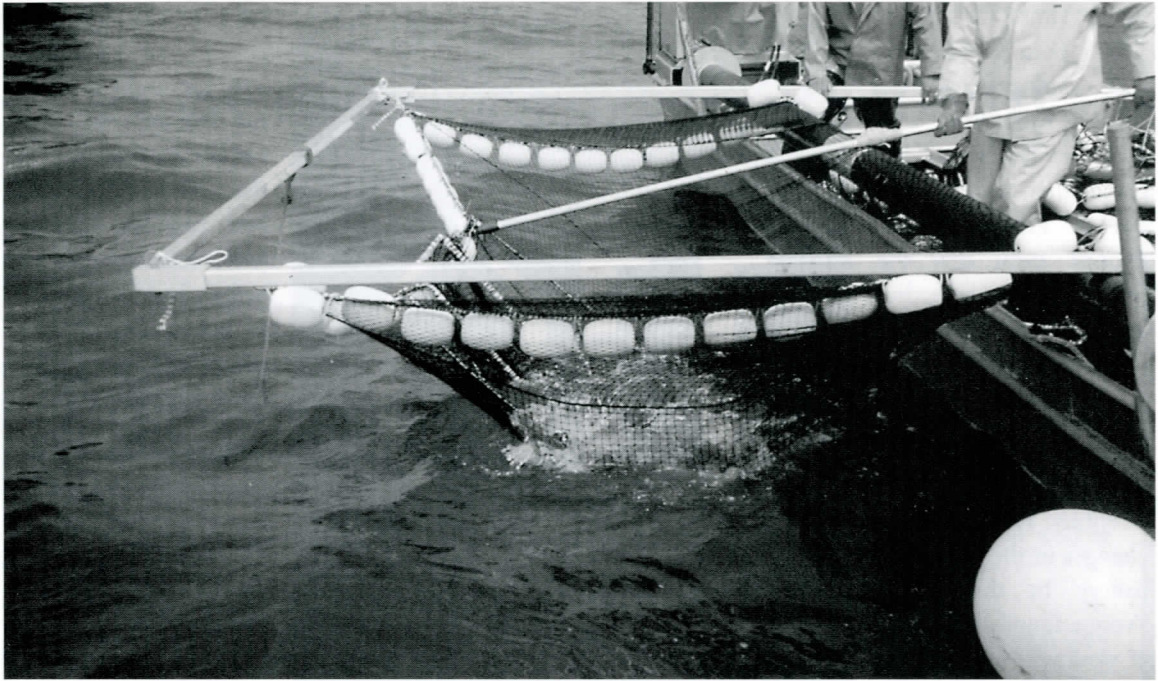
The setting for the Hawkshaw's project is on the North Coast, in the Nass River (Area 3) and Smith Island at the mouth of the Skeena River. Area 3 was an area the Hawkshaws and their crew had lit-

two gillnet boats with a third assisting to help hold the trap's shape and to sort the catch from the "cod end" (also known as a spiller). The trap has two wings, which extend from the main body. These wings guide the fish into the main area of the trap, which has three to four internal chambers or rooms leading to a "cod end." The body is made of conventional seine web, which avoids gilling, and the entire trap is held upon the water by corks. The leads or chambers progressively taper in size and each lead has a pass-through hole for the fish to enter the next chamber. Each time the fish go through an opening it decreases in size from 12" to 6" to 3". By the time the fish get to the "cod end," they cannot turn back. At the "cod end," a floating rectangle of aluminum tubing keeps the last section stretched taught to minimize crowding and

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fish was found to be the major factor associated with mortality. Most fish that died were those hooked in the deep mouth area where injuries to various blood

vessels and nerves occurred. Fish size may also influence the short-term mortality rates, as larger, feistier coho were able to deeply ingest the motor-mooched baits more easily than smaller fish. ↻



*Salmon are brailed (dipnetted) and sorted from a removable cage.*

stress if the fish bunch up at the opening. This piece was added at the suggestion of local fishery officers, who monitored the initial in-water tests closely.

Once in the “cod end,” the fish can be moved into a removable cage. Once the cage is full, it is removed and replaced by an empty cage. The full cage is brailed (dipnetted) and sorted and all non-target species are released. The advantage of the cage is that it can be brailed on the spot, moved to a calmer position to perform the work, or taken ashore. Approximately 90% or more of the fish released to the ocean were observed to be in excellent condition.

“The trap is very successful for live handling of fish,” says Fred Hawkshaw. One of the obvious benefits of this method is the minimal stress experienced by fish due to the fact that there is no direct handling. This increases the value of the fish on the market. The Hawkshaws experimented with delivering live salmon and were successful in keeping fish alive for several days before delivering them to the dock for processing.

The group started fishing on July 3, 1999 and continued intermittently until August 30. Everyone was

pleased with the total catch — 2,941 pink salmon, 36 coho, 76 sockeye, 7 steelhead, 3 chum and 1 chinook salmon.

Todd Johansson, Selective Project Authority for Fisheries and Oceans Canada in Prince Rupert, describes the process. “The Hawkshaw trap net project went very well this year. After a slow start, to get the hang of handling the trap and figuring out how salmon would react to it, catches started to pick up. Developing gear and methods is a slow process but the Hawkshaws made a lot of progress not only with the trap but also with delivering live salmon to market, which may result in higher returns for their catch.”

“There are still more questions to answer about this gear,” Johansson said, “but a firm foundation has now been built. I must commend the Hawkshaws and all of the project members for their efforts in 1999.”

“Although we had many successes this year, we have lots to learn,” Hawkshaw said. For example, the fishermen noticed that the salmon seemed to be avoiding the original web in the trap, which was

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**Y**vonne Collins was born to fish. She comes from a long line of fishermen, with both her father and her grandfather having fished out of Prince Rupert. Yvonne even met the man who became her husband when he worked on her father's boat.

She and her husband made a living by fishing for more than a quarter of a century. Then came the changes in the west coast fishery in the 1990s. Yvonne found herself out of work with no prospect of returning to the only type of work she knew how to do. The future looked daunting if not downright devastating.

"I only completed grade 10," said Yvonne. "I'd never worked in a store or office. Simple things like using a fax machine or transferring a phone call were all new to me."

But on March 22, 1999, Yvonne started intensive, on-the-job training through one of Human Resources Development Canada's (HRDC) programs set up to assist people and communities to adjust to the loss of jobs in the fishing industry. Called "Term Job Creation", the program provided Yvonne with intensive skill development while working with the Prince Rupert Economic Development Commission.

Yvonne has a contract position with the Commission as an office/research assistant. Her day begins with one and one half hours of computer training. Then Yvonne does a myriad of tasks including answering queries from the public, giving out information packages, and compiling daily economic research for her boss. She has taken on larger projects for the office such as building a contact management system for the Commission. This computer program maintains all the Commission's con-

**YVONNE COLLINS, HRDC PROGRAM –  
TERM JOB CREATION**

**GIVING  
110  
PER CENT**

**PRINCE RUPERT ECONOMIC  
DEVELOPMENT COMMISSION**


tacts such as companies, government departments and agencies. It is also the Commission's mailing list for their newsletters and email contacts. Not bad for someone who, less than a year before, had to learn how to turn a computer on and off and what 'pulling down a menu' meant.

Yvonne admits the new job environment is still a big challenge for her. "There are so many people to meet and I'm learning new things all the time. Sometimes it seems overwhelming," she said. "I get here early in the morning and stay

till 6 o'clock every day. Lots of times the hours zoom by and suddenly I realize, hey, I haven't had lunch."

Yvonne's commitment hasn't gone unnoticed. "I'm really impressed with Yvonne," said her manager, Don Allan. "She always gives 110 per cent."

Yvonne particularly likes the research duties of her job. She is responsible for a clipping service which involves scanning a number of business publications for information about companies and the economy. But her research can cover such diverse tasks as scouting information for potential movie sites for the local film commission. Occasionally, Yvonne gets to do research for the fishing industry, an area where she feels right at home.

Although her position is only for a specified time period, both Yvonne and her manager are hoping to renew the contract. Regardless of the outcome, Yvonne is grateful for her time spent at the Commission. "This is such a good opportunity for me. It's giving me transferable skills while at the same time I hope I'm making a difference by working hard for the Commission." 

# A Sense of Empowerment

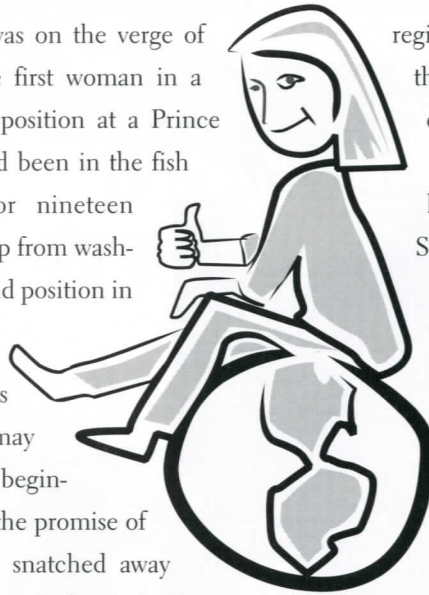
Denise Lewis, HRDC Program – Term Job Creation  
North Pacific Cannery Museum

Denise Lewis was on the verge of becoming the first woman in a management position at a Prince Rupert cannery. She had been in the fish processing business for nineteen years, working her way up from washing fish to the highest paid position in the cannery.

But fate sometimes plays cruel tricks. At least it may seem that way in the beginning. For Denise found the promise of a management position snatched away when west coast fishery stocks began to experience a decline. Suddenly her cannery career was floundering. Work became sporadic and lay-off periods longer.

She can be forgiven for being bitter at first. “I had a tough time in the beginning,” Denise admits. “Then I heard through co-workers about some re-training in new jobs.”

These on-the-job training programs were part of Human Resources Development Canada’s many initiatives for helping displaced fish industry workers. Denise was soon working in the North Pacific Cannery Museum on a Term Job Creation. She has done stints in the gatehouse selling tickets, in the gift store working the cash



register and in the cafe. Throughout the process, Denise has been taking courses and learning new skills that cover a wide range of occupational health and safety studies as well as Superhost courses.

“It’s a change learning to deal with the public,” says Denise who has now completed a number of these courses. Her next challenge is the computer. “I’ve never been on a computer before, so I’m looking forward to it,” she says.

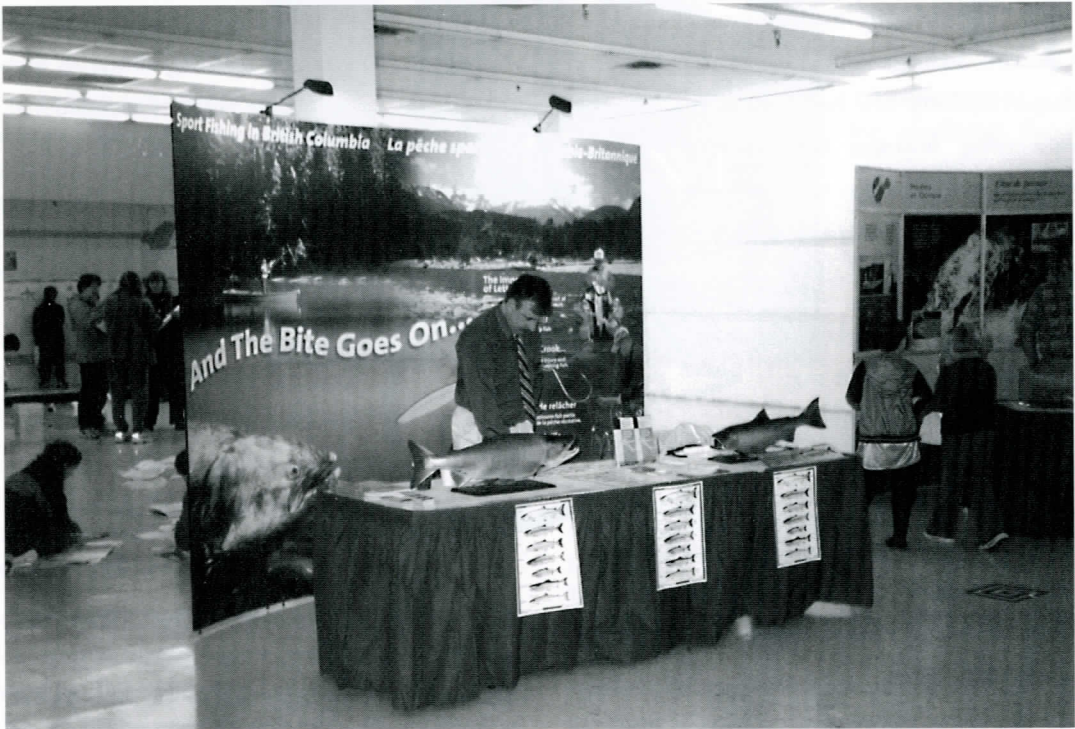
Denise’s term job will be finished soon and she is considering what her next steps will be now that she is armed with better career skills. And a funny thing happened in the midst of her re-training. Denise had always liked sewing and occasionally fantasized about being a seamstress. It just never occurred to her that this was a possibility. With her new sense of empowerment, Denise is actively planning to make her dream come true. “I’m looking into seamstress jobs and there are some opportunities for me,” she says. “I used to be losing sleep over work and now I’m looking forward to the future.”

Fate’s little twists sometimes do turn out for the better. ↻

# Community Outreach in Prince Rupert

Fisheries and Oceans Canada continues to respond to the needs and requests of the people of the Pacific region for more

resource. Fisheries and Oceans staff on the North Coast will continue to work with people in the area to help them find local solutions to



*Employees greet the public at a Fisheries and Oceans Canada open house in Prince Rupert.*

information on programs and policies administered by the department. That response includes attending meetings and forums in remote communities, setting up information booths at fairs and community events, running programs for school children, consultations with stakeholders and community groups, and person-to-person interaction on a daily basis. People on the North Coast have consistently shown their appreciation for the dedication of Fisheries and Oceans employees and their efforts to protect the

some of the problems occurring in an industry which is experiencing widespread changes.

Fishery officers, biologists, fishery managers, stock assessment technicians, community advisors and scientists work in areas all over the North Coast. These people have daily interaction with the public, and are always available to discuss the latest issues concerning the area. The newest group to hit the rivers and streams are Stewardship Co-ordinators, Habitat Auxiliaries, Habitat Stewards and Habitat

Enforcement Officers who will work with community groups, First Nations and local governments to proactively protect fish habitat and strengthen the stewardship of watersheds.

Denise Zinn, Community Liaison Officer for Fisheries and Oceans Canada in Prince Rupert, attended many meetings throughout the North Coast area in 1999, listening to the concerns of First Nations, recreational and commercial fishermen. "It is important to be available at all times

to people who want to talk about what is happening locally with the resource," Zinn said. "I handle dozens of calls every day from concerned citizens and people who are looking for information about our programs and policies."

Since January, 1999 Zinn has helped to organize information sessions in communities in the North Coast area to explain the range of adjustment and economic development options available to individuals and communities under the \$400 million Pacific Fishery Adjustment and Restructuring (PFAR) program. Federal partners from Human Resources Development Canada, Indian and Northern Affairs Canada, Fisheries and Oceans Canada and Western Economic Diversification Canada provided information and answered questions at local sessions in Prince Rupert, Bella Coola, and Masset. Local Community Futures Development Corporations also took part in these meetings.

Highlighting the importance of local involvement in the \$100 million Resource Rebuilding

Program, Fisheries and Oceans Canada hosted public forums in the spring of 1999 to help shape the delivery of new habitat programs in local watersheds. These meetings were launched with a conference in Vancouver in early January attended by 300 people and then moved across British Columbia and the Yukon. Information sessions were held in Atlin, Smithers, Dease Lake, Terrace, Prince Rupert, Bella Coola and the Queen Charlottes.

A successful community economic development conference was held in Prince Rupert on May 17, 1999 to bring together leaders and entrepreneurs from different sectors of the community and economy, as well as community economic development practitioners and federal government representatives to provide information on the tools communities need to creatively develop and pursue alternative ways of diversifying

their economies.

Fisheries and Oceans Canada also had representatives attend the Nisga'a Convention, SeaFest '99, the Northern Quality Seafood Expo, and celebrations for Oceans Day. "These are really excellent opportunities to talk to people, answer any questions they might have, and for people to see the wide range of activities undertaken by Fisheries and Oceans Canada in British Columbia," Denise Zinn said. The Community Liaison Officer is busy working together with other Community Outreach officers to organize upcoming events for 2000. ↻

**"IT IS IMPORTANT  
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standard white. This problem was quickly solved by dying the material black. Sockeye salmon catch was very low and this is a problem the group would like to solve for the next fishing season. The Hawkshaws hope to be able to solve some of the other problems they encountered this year before the 2000 season begins.

"I am positive that this gear will more than meet its expectations not only as a selective harvesting tool, but also as a financially-viable option for three small vessels, because of the option to harvest salmon alive," concluded Fred Hawkshaw.

The dedication of the Hawkshaws and their team in continuing to improve and refine their trap net is creating exciting alternative fishing opportunities for fishermen around the globe. Canada is on the leading edge of selective fishing initiatives, and fishermen like the Hawkshaws are providing the foundation for the conservation-based fishery of the future here in British Columbia. 