

FISH RAP

Highlighting releases, returns, policy and legislation affecting the Southeast Alaskan salmon fisheries

Nonprofit Org
U. S. Postage
Paid
Sitka Alaska
Permit #38

Vol. 22 No. 2
December 2004

*F/V Pillar Bay
closes up on another set
of Medvejie "net bled"
Chinook in Bear Cove.*



Value-Added Chinook and Coho Have Upscale Aspirations

Diners in high-end restaurants in the lower 48 enjoyed NSRAA produced chinook and coho this year, after the organization pursued an aggressive value-added program for harvesting and processing NSRAA's cost recovery portion of the chinook and coho returns.

"This turned out to be a fun program," said NSRAA's operations manager Steve Reifentstahl. "We had a vision of what it could be but didn't know how it would unfold. As it turned out, everything was just exceptional. We were thrilled with the results we got in price, and the processor was thrilled with the quality."

In the past, coho and chinook cost recovery was delayed until June, until there were enough fish to make hiring a contract seiner worthwhile. The harvest, which included many dark fish in with the higher quality bright fish, was put in the seiner's hold and run to the processor.

This year, Medvejie staff began beach seining chinook on May 19, about a month earlier than previous chinook cost recovery efforts. The fish tend to come up to the beach, and then immediately retreat. But this time, staff was waiting with nets.

"The fish came in groups of 25 to 100, and we pulled a seine around them, brought them up, bled them and put them on ice, and delivered them fresh to a processor within a few hours," Reifentstahl said.

Just under 10,000 lbs. of chinook was harvested in this manner, with most of it sold to Norquest Sea-

foods and Seafood Producers Co-op.

By June 7, increasing numbers of chinook warranted bringing in a contract seiner. Over the course of several days, NSRAA staff experimented with the best method of harvesting larger amounts of chinook.

"We tried a lot of things, and in the end we came up with a protocol that was efficient and produced good quality fish," Reifentstahl said. "We'd bring up about 2000 lbs. on deck at a time, stun them with CO₂, bleed them, rinse them, and put them in the hold. We could do

*"This benefits the
fishermen by putting
high quality Alaska
fish into the market."*

about 10,000 lbs. an hour that way."

After all day at this pace, 90,000 to 100,000 lbs. were delivered to the processor in Petersburg, where they were finished. A total of 700,000 lbs. of Medvejie and Hidden Falls chinook were processed this way.

Prices received for these fish were over twice what NSRAA got last year, and the processors were happy with the market response. The fish were marketed as "net bled chinook." Reifentstahl said NSRAA expects the demand for these fish to be even greater next year.

Coho returning to Mist Cove

and Hidden Falls were harvested similarly. About half of the Hidden Falls coho harvested were either tendered live or bled on deck and chilled to 34 degrees in the hold. This coho is also very high quality for a high end market. Some are being held frozen, waiting for higher prices this winter.

"This benefits the fishermen by putting high quality Alaska fish into the

market," Reifentstahl said. "We're also getting more money for these cost recovery coho and chinook, which will reduce the number of chum necessary for cost recovery. At the March board meeting there might be discussions about what we expect to make from the coho and chinook harvest and then the chum recovery goal can be set accordingly."

Sawmill Cove Hatchery Update

\$2.5 million in funding for NSRAA's planned Sawmill Cove coho hatchery was included in the federal omnibus budget bill passed in late November, specifically in the Pacific Coastal Recovery Fund portion of that bill, said NSRAA operations manager Steve Reifentstahl.

"We haven't received any official notification letter, but in our telephone conversations with Juneau it looks like it's there," confirmed NSRAA general manager Pete Esquiro in early December.

With the good news arriving in the midst of the NSRAA fall board meeting held November 29, 30, and December 1, board members took up the issue, voting to accept the money and authorizing staff to move ahead with planning.

Board members based their decision on financial figures prepared by Reifentstahl and NSRAA data analyst Chip Blair that show a Sawmill Cove summer run coho hatchery will be able to support itself without the addition of a processing plant on the same site.

Now all the details need to be worked out.

"We've got to apply for the permits with the Alaska Department of Fish and Game, and go to the town of Sitka to work out a lease or a purchase price that will allow the project to be self sustaining," said Esquiro.

Hatchery permits usually take 18 months to obtain, so construction is not likely to begin until spring of 2006.

KCM Engineering completed a preliminary design for the hatchery earlier this year in order to estimate cost and feasibility.

"Once we get a letter of intent for the money, we will do a full design and engineering effort," Reifentstahl said. "I expect we'll go to bid or sole source in the fall or winter."

NSRAA will refine the project's operation budget after negotiating the lease, and water and electrical fees with the City of Sitka.

In the meantime, brood-

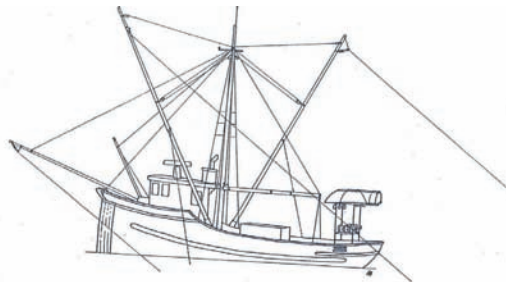
Inside

<u>Market Outlook</u>	<u>2</u>
<u>Hatchery Reports</u>	<u>3</u>
<u>Chum Returns</u>	<u>5</u>
<u>Field Reports</u>	<u>6</u>
<u>Board Member Profile</u>	<u>7</u>
<u>Board of Fisheries</u>	
<u>Charting a New Course?</u>	<u>8</u>

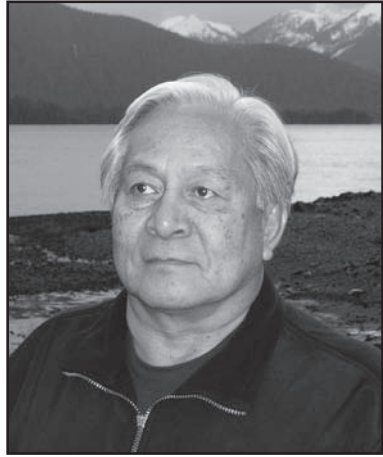
General Manager's Notes:

Once again, the NSRAA Board of Directors is seeking interested people to fill certain appointed seats on the NSRAA Board of Directors. Due to resignations, the Sportfish and the Private Aquaculture seats are open, and both the Subsistence and Municipality seats are up for regular appointment. Appointment to the Sport fishing seat will be for one year, and the Private Aquaculture, Subsistence, and Municipality seats will be three years in length.

It is very important that knowledgeable, interested, individuals fill these seats. As NSRAA plans and implements its salmon enhancement programs for the Northern Southeast Alaska region, the Board wants to insure that the other users of the resource have adequate input to the process. The Board of Directors meets in the fall and spring each year (usually in mid-November and



the first week of March). Each meeting usually runs two and a half days. Board members may be requested to also serve on various committees established by the Board. NSRAA pays for roundtrip transportation and per diem for meetings. The only stipulation on appointed Board members is that they cannot be holders of any Southeast Alaska



commercial salmon gear card. This stipulation was agreed upon, so as not to cause any imbalance between the gear groups on the Board.

We will be sending out letters to various cities, organizations, and agencies soliciting possible candidates. You can help by thinking

about people you know who might be representative of these interests, contacting them to see if they are interested

in serving, then notifying NSRAA of their interest. If any interested party would like more information, or has any questions, please feel free to give them my phone number (907-747-6850).

Finally, on behalf of the NSRAA Board and Staff, thank you for your continuing interest and support. We hope you all have a Happy Holiday.

Market Outlook cont.

fisheries deserve the credit for positive changes in market trends.

"Alaska salmon were certified by the Marine Stewardship Council about four years ago for being sustainably managed," Garner said. "It didn't get a lot of traction early on, but starting this year we've seen certain markets really focus on that, and that's been a help."

Norquest continues its efforts to market value-added salmon to an increasingly receptive public.

"I'm a strong believer in providing the customer with a product form that fits their needs," Garner said. "For a lot of the new markets that have been developed in the last couple years, providing something other than the standard H&G (headed and

gutted) salmon is real important."

For example, Norquest uses chinook and coho purchased from NSRAA to make wild fresh fillets and fillet portions. They are also putting a lot of emphasis on smoked fish.

"The whole industry is on a track of providing fillets, portions, and other more user friendly forms than H&G."

Garner feels it is a little early to speculate about next year's markets, because of variables such as how much fish is produced, what exchange rates will be, and food safety issues that may develop.

"The momentum we've developed this year can and will continue," Garner said. But he remains "cautiously optimistic."

Market Outlook

Readers of the November 2004 issue of the *Salmon Market Bulletin* will have noted two important trends which bode well for Alaska fishermen: the acceptance of frozen salmon product in the marketplace, and a slight decrease in dependence on selling to the Japanese.

Norquest Seafoods president John Garner agreed with the *Bulletin's* assessment, saying that they've seen an uplift in market demand for wild salmon, in a broader geographic area than before.

Also, the Japanese received a much smaller share of red-fleshed salmon (sockeye, chinook, and coho) than they have in the past four or five years, which indicates more of that fish is going to North American and European markets.

The Japanese Hokkaido returns are not at the record levels they were last year, but are still

quite strong, which has continued to have a dampening influence on our imports there, Garner said. But what normally is bad news for the Alaska salmon industry had other implications this past year.

Other customers besides Japan saw market changes coming and "set the plate" a little sooner, in effect picking up what might have been market slack from Japan. "We got the opportunity to develop a broader customerbase and that's very beneficial," he said.

Garner emphasized, though, that Japan will continue to be an important customer for Alaska salmon.

Garner feels that marketing efforts by the state of Alaska and increased consumer attention to health and environmental benefits of wild salmon and Alaska's sustainably managed

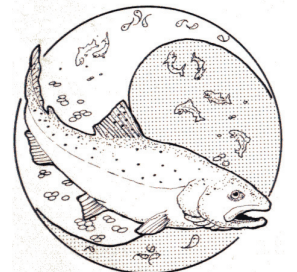
"The whole industry is on a track of providing fillets, portions, and other more user friendly forms than H&G."

cont. below left

Northern Southeast Regional Aquaculture Association **FISH RAP** Vol. 22 No. 2 December 2004

Highlighting releases, returns, policy and legislation affecting the Southeast Alaskan salmon fisheries

NSRAA
1308 Sawmill Creek Road
Sitka, Alaska 99835
Phone: (907) 747-6850
Fax: (907) 747-1470
e-mail: nsraa@nsraa.org
Web: www.nsraa.org



General Manager	Pete Esquiro	Gillnet
President	Kevin McDougall	Seine
Vice President	Chuck Olson	Crewmember
Secretary/Treasurer	Deborah Lyons	

Mailing List: Fish Rap is mailed free to all limited entry salmon permit holders in the Southeast Alaska gillnet, seine, and power/hand troll fisheries. Fish Rap is published bi-annually.

For a change of address notify: Commercial Fisheries Entry Commission
8800-109 Glacier Highway
Juneau, Alaska 99801

Any interested party may also receive **Fish Rap** free of charge. Send your address to NSRAA.

Alan Anderson	Troll
Cheyne Blough	Gillnet
Marlene Campbell	Municipality
George Eliason	Troll
Richard Eliason, Jr.	Gillnet
Bob Ellis	Conservation
Tim Grussendorf	Gillnet
Robert Hall	Seine
Walter Jack	Subsistence
Carl Johnson	Processor
Mo Johnson	Seine
Paul Johnson	Interested Person
Tim June	Interested Person
Empty	Sportfish
Jack Lorrigan	Native Org.
Lucas McConnell	Troll
Bill Niebuhr	Troll
Bill Paden	Troll
Bryon Pfundt	Seine
Mike Saunders	Gillnet
Brad Scudder	Seine
Empty	Priv. Aquaculture

FISH RAP STAFF:
Scott Wagner - Editor
Carol Spurling, Writer bookworm@moscow.com

©2001 NSRAA

Hatchery Reports

Medvejie

New and improved facilities, completed in 2003, at the Medvejie Central Incubation Facility (MCIF) increased its fish rearing capacity, and hatchery staff wasted no time in upping the numbers of fry released.

"In the spring of 2004, we released 50.6 million fry between the Medvejie and Deep Inlet sites, which is the highest release number to date," said hatchery manager Jim Seeland.

7.1 million fry were released at Medvejie, which is almost to the limit of the permitted amount. 43.5 million were released at Deep Inlet.

Even while dealing with post-construction cleanup and the usual gamut of maintenance needs, hatchery staff continued their efforts to find new and better ways of rearing and releasing fish, as well, adding a "Late Large" component to the chum fry, continuing the chinook "zero check" and "SeaReady" programs, and adding chinook "early zero check" and "SeaReady zero check" groups to the usual Green Lake and Medvejie chinook programs.

Chum

Here is a breakdown of the chum stocks released:

- 7.1 million Medvejie stock at 1.6 to 2.3 grams (g) released from Medvejie 4/26-5/3/04
- 18 million Hidden Falls (HF) stock at 2g released from Deep Inlet (DI) 4/26, 29/04
- 13.1 million Medvejie stock at 2g released from DI 4/26, 29/04
- 5.3 million HF stock at 4g re-

leased from DI 5/17/04 as Late Large

•7.1 million Medvejie stock at 2.13g released from DI 5/17/04 as Late Large

The last group of Late Large was smaller than the other group, as they went into the net pens late and were very small to start with, Seeland said.

"The Late Large program was in its first year in 2004," Seeland said. "The technique has been proven quite successful at DIPAC."

The program is not simple, however, "especially at Deep Inlet where water flows can be quite poor at times," Seeland explained. "While the late large fry were released in relatively good condition, the situation could have been much better and risk of failure was imminent."

Staff hopes to improve rearing conditions for next year's Late Large component by moving deeper water up to the vicinity of the net pens. They may also vaccinate for Vibriosis, which is routine for chinook, but never tried on chum at NSRAA.

Seeland was satisfied with broodstock collection this season. "I look at 2004 as a model for future years in the sense that we had plenty of broodstock to meet our egg take goals without having a gross excess," Seeland said.

"We hope to meet our production goal of feeding 54 million fry this spring," Seeland said.

Chinook

"This spring we managed to produce the most complicated chinook program I have ever

"We released 50.6 million fry between the Medvejie and Deep Inlet sites, which is the highest release number to date."



Fish tech Greg Dowd, waits for Grant Miller aboard the F/V Heron, to begin offloading the first load of Plotnikof coho in Deep Inlet this spring.

seen," Seeland said. Hatchery staff is working towards consistency and efficiency, but while the program is under development, "basically we are doing research while maintaining production levels of the historical programs."

A summary of the spring chinook releases:

- 749,000 Medvejie yearlings (summer-reared at hatchery) at 36g released 5/27/04
- 909,000 Green Lake yearlings at 48g released 3/26/04; problems with Bacterial Kidney Disease (BKD) plagued this group and they were set free a little earlier than their mid-May scheduled release.

•271,000 Medvejie SeaReady at 75g released 5/19/04; this group of experimental fish was given a six-week SR process in the fall and 24 hour lighting all winter.

•228,000 early zero check at 10g released 6/23/04; experimental group to determine if zero checks released nearer summer solstice will perform better than those released late July.

•231,000 regular zero checks at 23g released 7/20/04; zero check means they're released their first year rather than being held through the winter.

•249,000 SR zero checks at 10g released 7/2/04; another new program, with good initial results.

"By continuing to try new methods and analyzing the return data, the hatchery will someday be able to narrow its focus on rearing chinook," Seeland said.

Currently on hand are 900,000 smolts in saltwater pens that were summer-reared at Green Lake, 250,000 Medvejie summer-reared smolts, and another 430,000 fish from the Medvejie group that underwent the SR process.

"In the hatchery right now we have 1 million eggs for our zero check program, 1 million for Medvejie yearlings, and 1 million for Green Lake yearlings.

Coho

In the final year of Indian

River coho releases at Shamrock Bay, 364,000 smolts at 20g were released on 5/21/04. 11,000 Indian River stock were released at Medvejie a day earlier, and this release will continue in order to keep the stock viable for future projects.

39,000 Plotnikof stock coho were released at Deep Inlet, which may provide some broodstock in the event the Sawmill Cove coho project is funded next year.

The 1.75 million Deer Lake coho fry were transported by float-plane on 6/14/04. "These are the 'miracle fish' of 2004," Seeland said. "We had a water problem during the egg phase of these fish and thought we had lost them all, but miraculously, most of them survived."

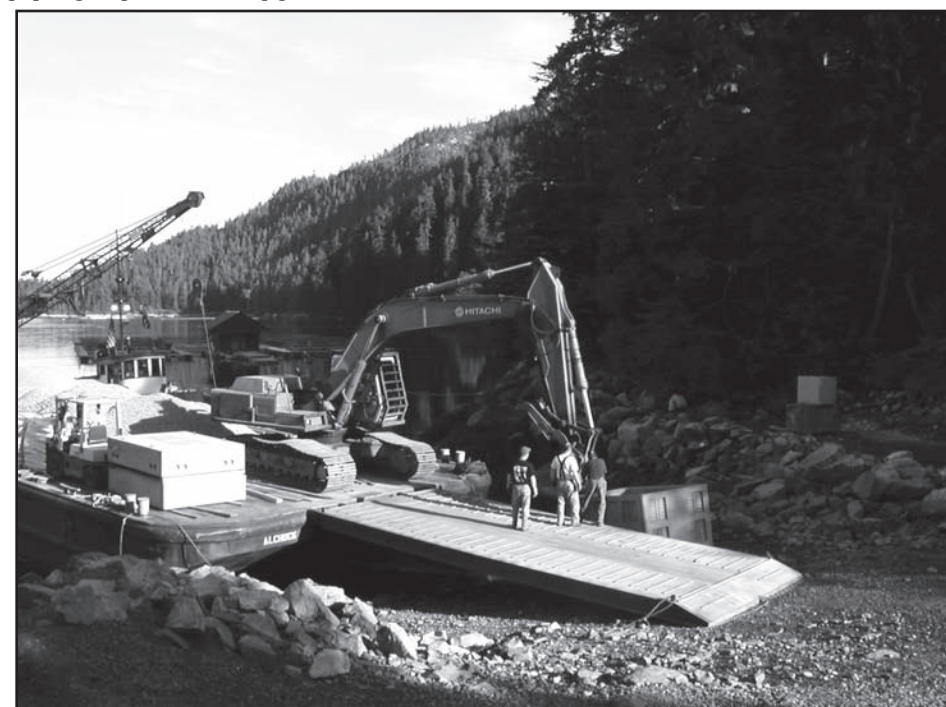
Stock on hand consists of 309,000 fingerlings, Seeland said. "We have applied for a permit to release all but 10,000 at Deep Inlet this spring."

Around the hatchery this summer, the crew spent 300 hours grinding, prepping, and painting the structural steel beams for the hatchery buildings. They also replaced windows, re-sided, and accomplished some roof repair on one of the hatchery's residences.

"We are working more and more with the Sheldon Jackson College program and have seen the students coming out to work with us on several occasions," Seeland reported. Allen Marine Tours plan on promoting the Medvejie hatchery tour more in the future, as well.

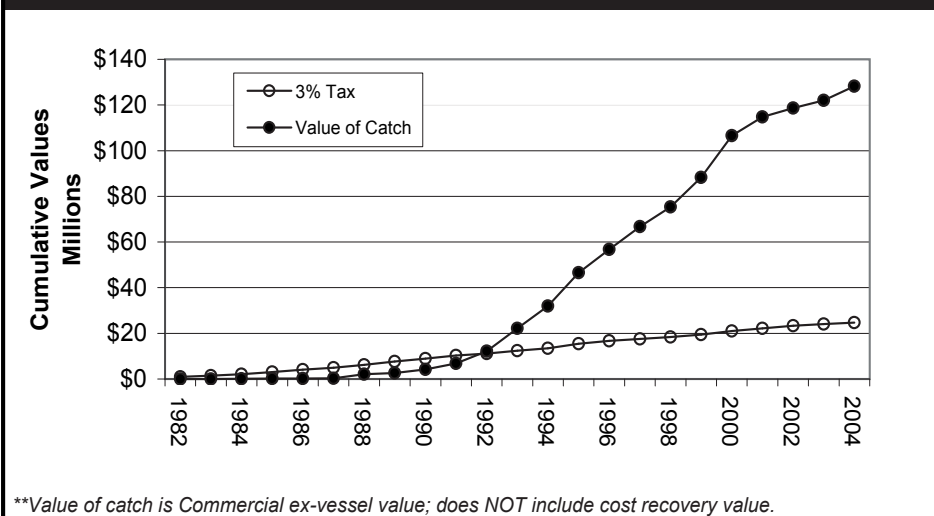
"I would like to see much more done in this area, however, fish culture and site maintenance occupy all our time at this point," Seeland said. "Perhaps if the Sawmill Cove site gets going we can really work on tourism and marketing there."

Seeland said that the hatchery is "anything but status quo" these days. "The support we get from the Board is crucial to the positive attitudes and willingness to continue to develop our program. The bottom line is we'll keep pushing until you tell us to stop."



Lee Hanson and Keystone Construction help unload the new vaults for the piping repairs and upgrades at Hidden Falls.

Comparison of Commercial Value of NSRAA Production to Enhancement Tax



Hatchery Report cont.

Hidden Falls

Hidden Falls hatchery manager Lon Garrison is pleased with the season at the facility, which saw the completion of the new coho expansion project begun last year, a record number of fry released at Hidden Falls and Takatz Bay, and a record-setting chum eggtake of 137 million eggs.

“The Hidden Falls staff focused on improving our fish culture techniques and processes with a mind for efficiency and reducing stress in every step of the culture process,” Garrison said. An abnormally warm, dry summer and some difficulty with a few seasonal employees made Garrison’s job challenging at times, but some “very dedicated seasonal employees together with the full-time staff held it all together and we completed a very successful season.”

Garrison noted that improvements to the freshwater lens system for the chinook complex are already making a marked difference in smolt survival. Improvements in the covered storage area and remodeling of the shop have increased worker productivity and pride.

“Much is yet to be done,

but a major step forward has occurred,” Garrison said.

“The Hidden Falls facilities, from pens to grounds to plumbing parts organization hasn’t looked this good in years and reflects the hard work of the staff and their high regard for the programs,” said NSRAA operations manager Steve Reifentstahl. “I am very pleased with the direction Hidden Falls has gone this past year.”

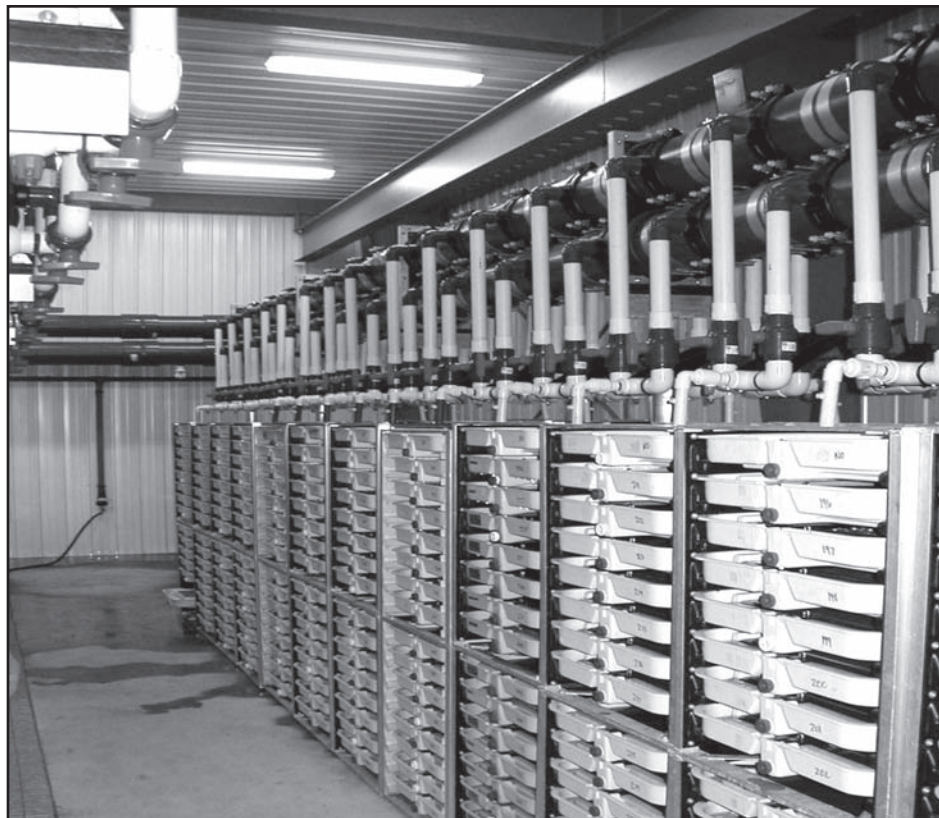
Chum

This year marked the debut of a “Late Large” chum project at Hidden Falls. Six net pens with 2.4 million fry each were ponded on February 26. The resulting 13 million Late Large chum fry were released in the spring.

Ten pens of the traditional chum fry, or “early smalls,” were ponded starting February 27.

Unusually warm ocean temperatures resulting in low dissolved oxygen levels, along with some plankton related gill irritation, played a major role in fish health, but with tender loving care, and by moving the pens to a different location and to full depth, the chum showed exceptional performance.

Average release weight for the late large fry was 3.53 grams,



New incubation stacks in the recent expansion of the Hidden Falls coho/chinook incubation room, made possible with SSSF grant money.

and average release weight for the early smalls was 1.98 grams.

Over 45 million chum fry were released on May 21 at Takatz Bay. Fish culturist Travis Petersen, who has worked on the chum project for eight years, said, “I feel that these were some of the finest fish ever released at Takatz; they were healthy, fat, and uniform.”

Proper usage of Hidden Falls’ new dike and weir, and exceptional crew effort resulted in a record 137 million chum eggs collected and fertilized over a 26 day period.

“We were able to regulate broodstock passage into the holding lagoon, thereby limiting the number of fish subjected to dangerously low concentrations of dissolved oxygen,” said fish culturist Tommy Sheridan.

“We have seen some abnormally high egg mortality, most likely due to the very warm water,” Garrison said. “Other facilities have seen similar problems this year as well. But fortunately we took enough

eggs that we should still be able to pond nearly 44 million fry for each Hidden Falls and Takatz Bay.”

24.3 million eggs were transferred to Medvejie in mid-October for the Deep Inlet project.

Chinook

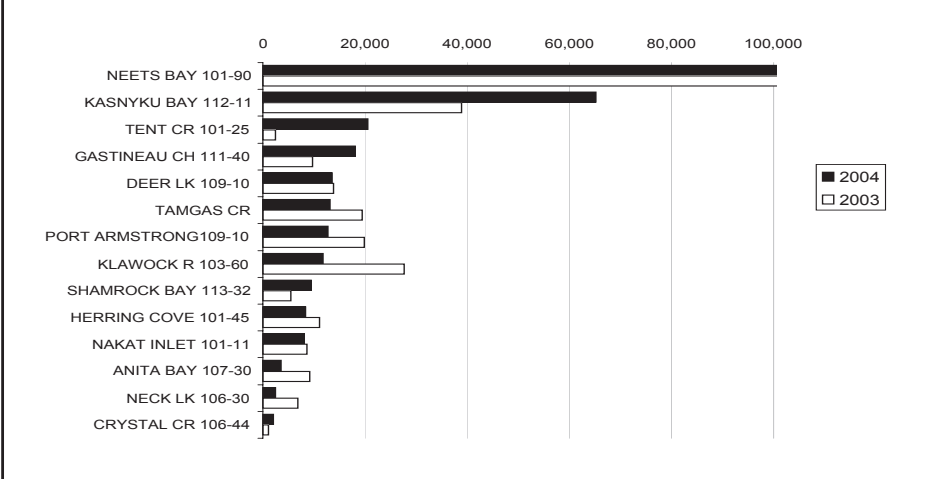
Bacterial infections in the brood year 02 chinook resulted in a disappointing final release number of 922,407 chinook, 23.2 percent less than the program’s goal of 1.2 million. Extra effort invested into the care of these chinook began to pay off in May, when mortalities decreased and the survivors began to feed aggressively.

“All fish looked excellent at the time of release and quickly left Kasnyku Bay,” reported fish culturist Chris Holmes.

Numerous modifications to the BY 03 chinook program were implemented in order to avoid problems experienced by the BY 02 chinook. All the chinook were vaccinated against Vibrio, and in-

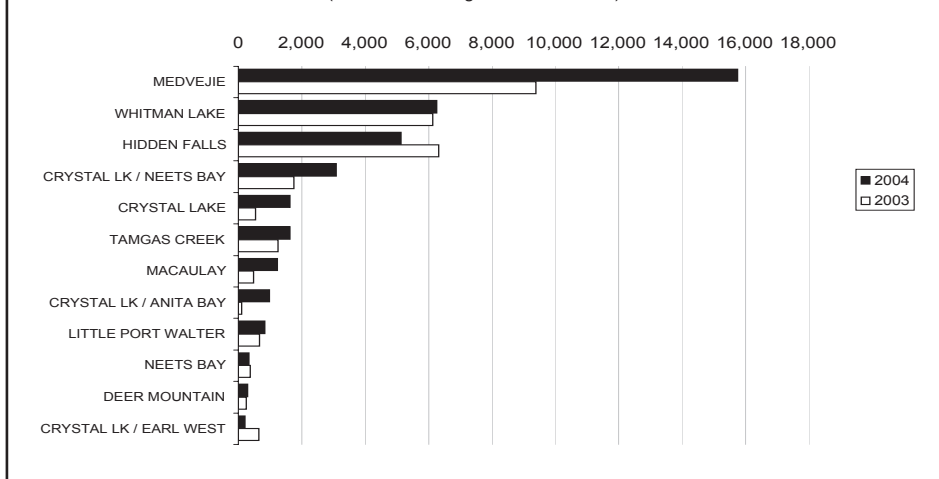
Alaska Hatchery Contributions to S.E. Troll Fisheries 2003-2004 Coho Troll Contribution

(Sites Contributing 1,000 or More Fish)



Alaska Hatchery Contributions to S.E. Troll Fisheries 2003-2004 Chinook Troll Contribution

(Sites Contributing 100 or More Fish)



NSRAA Contribution to Southeast Alaska Commercial Fisheries Number of Fish : 2003 - 2004								
	Gillnet		Seine		Troll		All Gear	
	2003	2004	2003	2004	2003	2004	2003	2004
Chinook	937	2,586	5,624	8,346	15,271	20,900	21,832	31,832
Chum	331,448	622,168	1,870,542	2,177,738	96,709	154,440	2,298,699	2,954,346
Coho	197	1,182	10,324	37,179	58,976	88,511	69,497	126,872
Sockeye	-	-	-	-	-	-	-	-
All	332,582	625,936	1,886,490	2,223,263	170,956	263,851	2,390,028	3,113,050

creased feeding frequency in the early months should improve this brood year's chances of success.

The BY 04 chinook eggtake resulted in the successful seeding of 1.4 million healthy eggs in October.

Coho

"The new coho round ponds in the new building finally have fish in them and are working well," Garrison reported. "It's great to have the extra space and separation from the chum incubation."

A record 2,251,020 coho smolts (BY02) were released in two groups, one in early June and one in mid-June.

BY 03 coho are healthy and happy. 2.28 million fry were ponded on April 30, and 381,000 of these were moved into new round ponds in September, and will make up the early entry component of Hidden Fall's coho production.

3 million BY 04 eggs were taken for Hidden Falls, along with 2.4 million eggs for Deer Lake.

The new coho expansion building along with the round ponds and plumbing was completed this year, as well as many various improvements in freshwater lines, work skiffs, the bunkhouse, and work areas.

"It's a much quieter fall here now than the past couple of years and I think we are all breathing a sigh of relief," Garrison said. "I look forward to working on new projects with the SeaReady smolt program, increasing our coho production, and continuing to make improvements to the facility."

NSRAA Chum Returns 2004

Despite the return of 2.16 million chum to Deep Inlet this year, the highest number in four years, management of the Deep Inlet and Hidden Falls chum harvest was particularly difficult in 2004.

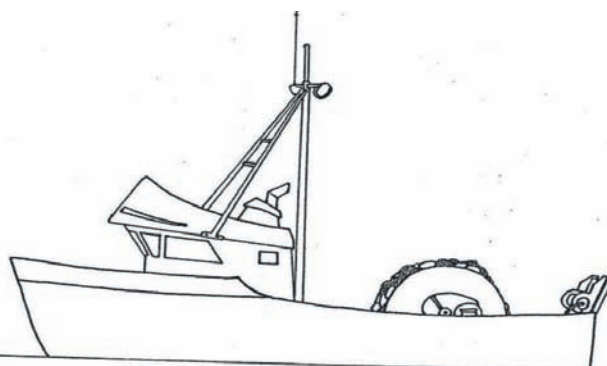
One factor is that only 60 percent of the Hidden Falls return of 1.91 million fish was available to the common property fishery, with 33 percent of the return going to NSRAA's cost recovery and 7 percent for broodstock. Such a high percentage for cost recovery was necessary due to low chum prices, only slightly higher than in 2003, and a return that came in at 76 percent of the forecast.

Smaller numbers of fish made the harvest stressful for everyone. 80 percent going to the common property fishery is the long term average, and nobody, neither NSRAA staff or the fishermen themselves, likes to see the number dip so low.

"We had to cancel several of the mid week openings at Hidden Falls to stay on target with our cost recovery harvest," said NSRAA operations manager Steve Reifentstahl. "We were behind the entire season, right up until the fifth week of cost recovery harvest, and it took about ten days longer than normal to reach the goal."

Another complication was strange fish behavior, both at Hidden Falls and Deep Inlet.

"Probably the warmest, driest, calmest summer on record affected fish behavior, return, and catch patterns," said NSRAA data analyst Chip Blair. "The fish held out in deep, cooler water, too deep for seining."



The fish were there, but only came to the surface for short periods in the evening. When they did come up at Hidden Falls, mostly in the third week of July, many fish were dark and of poor quality. Fish were larger than in 2003 but still smaller than the historic average of near 8 lbs. each.

That fish harvested in Kasnyku Bay after two to three weeks of no fishing were bright and of exceptional quality, whereas the day before chum harvested at Takatz Bay were dark and poor quality, is perplexing.

"I just can't explain it," Reifentstahl said.

"There's nothing we could have done, management-wise."

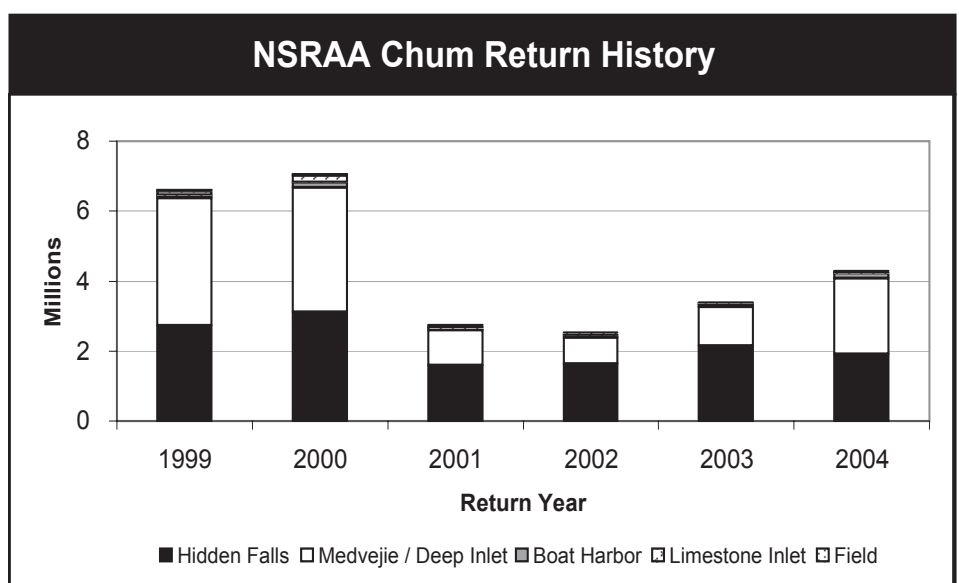
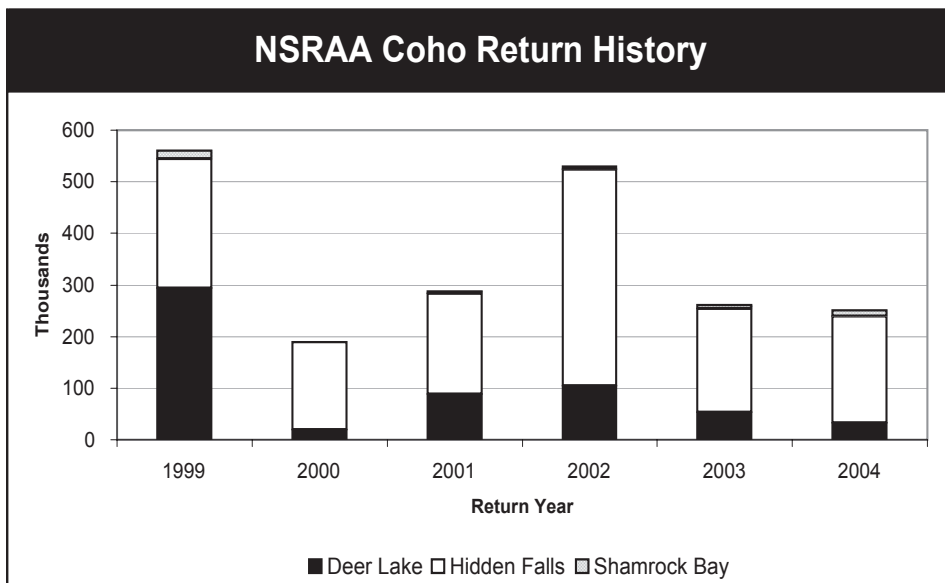
Chum cost recovery at Hidden Falls was contracted with Southeast Alaska Seiners Association (SEAS), who coordinated purse seine boats and skippers to harvest the fish. Prior to the season, seiners Sven Strooma and Jim Zuanich developed a tentative fishing schedule for the volunteer boats. They also monitored catches to meet daily harvest goals and tender limits.

"This arrangement worked, but just barely," Reifentstahl said. "Sitka Sound Seafoods did an exceptionally good job rotating tenders this year, but unfortunately, there were numerous days when volunteer seine boats failed to show up." After July 20, NSRAA contracted with several seine boats to finish the cost recovery harvest.

The chum return is not all bad news, however. Despite the record cost recovery harvest of 503,000 fish at Deep Inlet, 74 percent of the return was harvested by the common property fishery. The return was nearly double the 2003 return, and next year should be similar.

Reifentstahl is hopeful that fish prices will improve next year.

"If that comes to pass, we won't need to take as many fish for cost recovery, and that will remove a lot of pressure," Reifentstahl said.



Field Reports

Deer Lake

In a year with many staffing changes at NSRAA, the Deer Lake coho lake rearing (CLR) project is no exception. Craig Chisam, who took over last winter as project leader when Dick Crone retired, will be leaving the organization (see related story on page 8). Todd Buxton, leader of the Haines projects, will add being project leader for the CLR program to his list of things to do.

Overall, Chisam thinks the Deer Lake project ran "exceptionally well" this year, due to an excellent crew and fine weather, although there were some problems with in-lake fish growth. The rearing coho failed to reach the appropriate size by the end of the growing season, which will result in undesirable numbers of coho that will holdover in the lake for an additional growing season.

Holdover fish make it difficult to stock new rearing fry, a problem that occurred at the lake most recently in 2002.

The Deer Lake crew set up at Mist Cove in mid-March, a process made easier by little accumulated snow. After getting conditions livable, they installed the pipelines and weir necessary to process the emigrating smolts.

"We experienced a tremendously successful emigration of age I smolts this season," Chisam said. "This was the first year over one million smolts have emigrated since 1999."

Chisam was also pleased with lake and ocean conditions just prior to and upon emigration. Smolts averaged 17 grams in weight and

124 mm in fork length, the highest condition factors in recent history.

In June, NSRAA staff planted 1.7 million coho fry into the lake at a bigger than average size, in hopes of improving their chances of survival.

Normally, 2.4 million fry would have been planted in Deer Lake, but due to egg mortality that occurred during incubation last winter, a smaller number of larger fry were flown up to the lake for stocking.

"While the fry grew extraordinarily well early on, the lake experienced a crash in its zooplankton population [on which the fry feed] in July, causing the rearing fry to remain undersized by season's end," Chisam said.

The zooplankton crash is likely due to the large population of voracious rainbow trout that eat both zooplankton and rearing coho fry. Phytoplankton, in contrast, grew well throughout the summer due to the regular application of fertilizer to the lake.

The adult return at Mist Cove was expected to be quite low this year due to only 144,840 age II smolts released in 2003. A moderate survival rate projection of 8 percent led to expectations of only 12,000 fish. But an exceptional marine survival rate of 22 percent led to a return of almost 32,000 adults.

The combined commercial fishery harvested about 45 percent of the return, with trollers taking the great majority of that harvest. The harvest generated about \$102,000 for the fleet, while cost recovery, conducted by Patrick O'Neil aboard the F/V *St. Janet*, netted \$42,000 for the project, de-



Installing the smolt pipeline at Mist Cove can sometimes be a balancing act as Tommy Sheridan demonstrates here.

spite low numbers of fish in the terminal area and hungry sea lions who camped out for the duration.

Haines

"All Haines chum eggtake goals were met this year for the first time ever," reported Haines project manager Todd Buxton. Overall, Haines project harvests and escapements were either significantly higher than last year or reached record values, Buxton said, with the exception of the sockeye smolt migration from Chilkat Lake.

"Refinements in the Haines program are producing increased benefit to cost ratios for sockeye and chum operations in the Chilkat Valley," Buxton said.

Sockeye

With fewer restrictions placed on Chilkoot sockeye in Lynn Canal, this year's "catch per unit effort" (CPUE) was higher this year than the average for the previous eleven years. The sockeye harvest of 151,242 fish was 60 percent higher than last year.

Both Chilkat and Chilkoot sockeye runs were earlier than in the past, thus catches were highest early in the season. Most of the harvest was Chilkoot sockeye, at 66,537, to 51,135 Chilkat sockeye.

"We projected this year's Chilkat Lake sockeye harvest would total 69,000, relatively close to the 51,000 that were caught," Buxton said. "Next year's sockeye return is projected to be 84,000. With a 40 percent interception rate, the projected Chilkat sockeye catch for next year is 34,000."

At Chilkat Lake, the Alaska

Department of Fish and Game has assumed operation of the adult sockeye weir and lake studies, leaving NSRAA with only the obligation to operate the sockeye smolt weir in the spring.

Two incubation boxes damaged by beaver at Spring Pond several years ago were put back into use last year to test their ability to rear eggs. The egg to fry survival rate exceeded 99 percent but eggtakes were not conducted at Spring Pond because eggtake criteria were not met.

Buxton estimates that when eggtakes do occur at Spring Pond, the program generates a 5:1 benefit to cost ratio.

The estimated number of smolt emigrating from the lake, 1,457,990, is a slight increase over last year's numbers.

Chilkoot sockeye composed 70 percent of this year's harvest, more than double last year's harvest, and sockeye escapement into Chilkoot Lake exceeded the historic average escapement by 13 percent.

"This is a step forward towards returning to Chilkoot Lake's glory years of producing large escapements for the Lynn Canal fishery," Buxton said.

Chum

The CPUE in Lynn Canal of 3,047 this year was the highest value ever recorded.

"The fleet has downsized in recent years and this year's chum catch was the second highest on record," Buxton said.

"The overwhelming majority of the chum catch was summer chum originating from hatchery programs in southern Lynn Canal."

Buxton credits improvements

Tommy Sheridan and Andy Trehwitt haul the new camp cooler up from salt-water to the Deer Lake treehouse this spring, a 400ft elevation gain.



in methods and gear for NSRAA's collection of 3.4 million eggs, which were seeded in streamside incubators in the Chilkat Valley.

"With these and estimated production from the spawning channels, we expect to produce 46,500 chum for commercial harvest," Buxton said.

Improvements to the Herman spawning channel should result in increased chum fry production at that location. Spawners did not use the 24-mile channel, which indicates that the channel is in need of rehabilitation, Buxton said.

Buxton assumed the lead position for the Deer Lake project as of Dec. 1, while continuing his Haines project duties. This arrangement will result in a reduction in the Haines operating budget by about half, while still maintaining the current levels of production.

Limestone Inlet / Boat Harbor

Limestone Inlet and Boat Harbor projects finished their first year under management of Douglas Island Pink and Chum (DIPAC). The decision was made at last spring's board meeting to award DIPAC the \$124,000 contract for the two projects. This arrangement worked well in terms of NSRAA staff time and project efficiency.

"The big news is that Boat Harbor had a huge return," said operations manager Steve Reifenstuhl.

The return of 399,000 chum salmon to Boat Harbor amounted to the biggest return ever at that

site, partially a result of the first returns from the 15 million fry release started in 2001. Fishermen caught most of the run since neither DIPAC nor NSRAA do any cost recovery harvesting at the site. The large return was due to excellent marine survival (~4%) for the Boat Harbor project's brood year 2000.

This year's chum rearing at Boat Harbor proceeded as usual. DIPAC has, however, added a "Late Large" component to operations there.

"DIPAC is footing the bill to raise 6 million fish as 'Late Large,' which means that in comparison to the traditional chum fry, these fry are kept about 3 weeks longer and allowed to double in size before release," explained Reifenstuhl.

DIPAC has achieved marine survival rates of four to five times higher with their "Late Large" chum. The first of this year's late release will return in 2006. That will be the soonest than anyone can gauge the success of the new program.

Limestone Inlet's chum return, unlike Boat Harbor's, was poorer than expected, Reifenstuhl said.

"Even though we raise larger fry there because the water is warmer, they consistently don't perform as well as Boat Harbor. I expect it has something to do with the environment there," Reifenstuhl said. "Perhaps more predators are focused on those fish, but that's just speculation."

In addition to the regular chum program at Limestone Inlet, DIPAC is also paying for another 6 million "Late Large" fry.



Compressed air is delivered underwater and firehoses spray the surface of the lagoon at Hidden Falls to increase dissolved oxygen for chum broodstock during the hot and sunny August weather.

Board Member Profile

Fisherman Bryon Pfundt holds the Petersburg Seine seat on NSRAA's board of directors, since he was elected in 1997. He also serves on the executive committee.

Pfundt comes from a fishing background, and stayed with it since graduating from high school. "My family's been in the fishing business for many generations, out of the Hood Canal area near Puget Sound,"

Pfundt said. "My dad moved to Petersburg, and I started fishing with him back in 1976."

Pfundt is married, with four daughters and one son, ranging in age from 9 years to 8 months.

"The older two come with me on one opening a year, and they have a good time," he said.

Pfundt fishes on his boat, the F/V Kimber, often spending the month of July at Hidden Falls, seining chum.

He knows first hand, then, how hard it was to "read the run" this past season. Chum this year held down deep, probably due to high temperatures at the water's surface, and were difficult to catch with seine nets. Cost recovery was accomplished, but just barely, and only after several common property closures.

"It was an anomaly, I think, and the one thing I've been telling everybody, is that when you increase the number of cost recovery fish, there's no room for error," Pfundt said.

"If one thing goes wrong in the plan, you get off schedule. You've got to have the fish, you've got to have the boats there, the tender there. Then you've got to catch the fish. If any of the variables breaks down, it makes it tough."

Pfundt feels that NSRAA

is doing well despite decreases in the price per pound of fish, which has forced the organization to increase its cost recovery harvest in the past several years.

"The increase was inevitable with the drop in fish prices. I don't think you can just look at the last couple years, you have to look at the past fifteen years, their contribution has been phenomenal. It's neat

to be part of an organization that has that kind of track record," Pfundt said.

Pfundt feels the biggest decision the board will be considering this season

is whether or not to pursue the Sawmill Creek coho hatchery facility.

"It's preliminary to say, but I think the consensus is that if it is financially feasible, and it sounds like it is, with a 2.8 to 1 return, we should go for it, because more fish is good. The processing plant aspect of the plan is much more controversial," Pfundt said.

Pfundt also expects the difficult season at Hidden Falls to be a discussion topic, with board members focusing on ideas to relieve some of the pressure on NSRAA to meet cost recovery goals.

"There's some real concern amongst the seine fleet about the loss of openings at Hidden Falls," Pfundt said. "There's a real need for common property openings in July."

Difficult discussions aside, Pfundt enjoys his work on the board, and working with the staff at NSRAA. "It makes the job of a fisherman board member easy when the people running the day to day operations have integrity and do such a quality job," Pfundt said.

Turner Construction rebuilds the Herman Creek spawning channel 25 miles north of Haines



Board of Fisheries Charting a New Course?

NSRAA general manager Pete Esquiro is one of 16 members of a new Board of Fisheries panel, whose goal is fairly simple: to determine the best way to evaluate proposals from the public for restructuring the salmon industry in Alaska.

The committee has met twice, and has another meeting scheduled for December in Anchorage.

The goal might be simple, but getting there won't be.

"The board will be receiving proposals, some of which might be simple changes which are allowed under current laws, and some might be major restructuring ideas, which would involve a change in legislation. We're trying to develop criteria by which to judge these proposals," Esquiro said. "The main questions are, what kind of information should the board require from the applicant? And who will pay for gathering that information?"

Esquiro noted that the Chignik Co-operative, where the member fishermen designate a small number of boats to harvest the fish and profits are then distributed among the shareholders, is an example of a structural change in the industry that has far-reaching socioeconomic effects. Proposals of similar magnitude might merit a socioeconomic study so the board can consider them carefully, Esquiro said.

"Where you used to have fifty boats and fifty crews working, now you only have two boats and two crews," Esquiro said. "It's experimental, but it's a fairly major change in the employment situation in that area. The board would like to be pre-

pared to evaluate other experimental ideas in an orderly and detailed way."

Another major change that would require legislative action and long scrutiny by the board would be the re-introduction of fish traps.

"Of course having fifty boats running around burning oil is not the most efficient way of harvesting fish, when you could just set up a strategically placed net," Esquiro said. "But then you have to consider the importance of the fishery is not just efficiency. Sometimes fishing is the only employment opportunity for young people. It's a simplistic example but you can see it's a huge subject we're delving into."

Esquiro said that the panel's job is made more difficult by the absence of a list of proposals that the board can expect to see.

"If we had a list of the scope of proposals we can anticipate, we could sit down and figure out the major questions surrounding them," Esquiro said. "But since we don't know how broad the proposals might be it is difficult to come up with criteria ahead of time to judge them."

One of the panel's main concerns is balancing the board's need for information with their desire to not stifle the development of new ideas.

"If I have a really good new idea but I've got to pay for a private consultant to do a socioeconomic study, and to have a biological study done to see how it will affect wild stocks, I probably won't put it forward because I can't afford to do it," Esquiro said.

Esquiro knows the panel has a long way to go, and



New Deer Lake fish technician, Ben Gilles, helping out with the Coho egg-take at Plotnikof this fall. About 130,000 Plotnikof eggs are in incubation at MCIF at the present time.

feels it is too early to tell how valuable their efforts will be.

"Hopefully we'll be of assistance to the Board of Fisheries, and to all the people of Alaska. We're working at it," Esquiro said.

cont. from pg. 1 Sawmill Cove Update
stock for the project will continue to be developed.

Plans for a Sawmill Cove value-added processing plant, discussed by the board during its spring 2004 meeting, have been scuttled.

"We've taken a look at the business plan done by a consultant hired by Norquest Seafoods, which shows the cost for equipment, what volume of fish would be necessary to make it a profitable venture," Esquiro said, "and it shows a very small profit,

not enough to justify doing the project, especially since it would cost \$4 million instead of \$3 million."

Esquiro also said that getting enough labor to staff the plant could be problematic and an additional expense. "Pretty soon you're looking at a bunkhouse and a cafeteria too."

Perhaps the final nail in the coffin is that NSRAA would have lost its freedom to obtain bids on its cost recovery harvest.

"We would have had to commit to selling our cost recovery to whoever is operating the plant, in order to reach the minimum number of pounds of product they'd require. So we're just not going to go down that road," Esquiro said. "Bidding is good for us."

Employee Changes

Coho lake rearing program (CLR) project leader Craig Chisam is leaving NSRAA in December, getting married, and heading to the Seattle area to live.

"I've spent five seasons working on the Deer Lake project and it definitely has a special place in my heart," Chisam said.

Todd Buxton, Haines biologist, will take over for Chisam, while continuing his duties with the Haines program.

"He's been out there with Craig and the crew, and will spend more time with Craig in December for initial budget development," said operations manager Steve Reifenstuhl. "Todd's also spent a little time with former project leader Dick

Crone, getting the detailed history of the project that only Dick can give."

Ben Gilles, who previously worked as a part-time seasonal employee at Green Lake and Medveje, is now a seasonal full-time employee for Deer Lake.

Tommy Sheridan formerly occupied the seasonal fishery technician position at Deer Lake, but accepted a fish culturist job at Hidden Falls and transferred there in July.

Also at Hidden Falls, Ken Merrill, who has served as the seasonal assistant to maintenance engineer Bill Kirby, will take over as head maintenance man when Kirby leaves December 1.

"Bill and Craig have both been with us five years, so they're going to be missed," Reifenstuhl said.



Forest Service employees Rich Diedrickson and Devon Green help collect coho broodstock fish this November in Indian River, near Tenekee, for the cooperative stream stocking project with USFS.