DIPAC NETwork NEWS

Winter 1999

Snettisham Reds Get Green Light

In August, DIPAC celebrated the approval of a $1.9 million grant for the Snettisham sockeye hatchery. The money came from the U.S. Department of Commerce's Economic Development Administration (EDA) as part of a plan earmarking money for regional development. The importance of the sockeye enhancement program to the region gave DIPAC an edge in competing for the funding says Executive Director Jon Carter.

A bird's eye view of the Snettisham sockeye salmon hatchery 30 miles south of Juneau.

But it was the support of Alaska Senator Ted Stevens and his staff that really made the difference for DIPAC in working with the EDA. Carter says, "special thanks needs to be given to the Senator and to the people in his office for their effort in assisting DIPAC with the process." Additional help came from United Southeast Alaska Gillnetters Association Juneau Chapter President Jim Becker and Juneau fisherman Jev Shelton who spoke on the corporation's behalf during fisheries lobbying visits to D.C.

The grant comes after two years of pursuing funding. A new requirement allowing non-profit organizations to provide a one to two percent match of the federal money rather than the previously required 25-50 percent makes the arrangement realistic for the corporation. The EDA grant will be administered in the form of a reimbursement program, which means that there will be an extensive series of reporting procedures to follow. The administration of the grant will require significant in-house reporting to the project manager at the EDA regional office in Seattle.

Production

DIPAC took over operations of the Snettisham hatchery from the Alaska Department of Fish and Game (ADF&G) in July 1996. Since then the corporation has spent more than $700,000 on renovations and repairs for the facility. The grant allows additional upgrades that have been identified as essential, even prior to program takeover.

This green light will move Snettisham forward on changes required to bring the facility up to the standards necessary for sockeye culture. According to Eric Prestegard, Snettisham Program Manager, "This is such an exciting program and we can now go forward with the needed work that should secure the program for the long haul." Improved production of red salmon and the opportunity to increase production over time benefits all user groups. Up to a million adult sockeye salmon will eventually be returning to the area for commercial catches, cost recovery and sport/personal use fisheries. Prestegard estimates that in the year 2000, 225,000 fish will come back and that number will go to 500,000 in the year 2001.

The increased harvests will make a difference for Southeast fishermen and the

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What's Inside

DIPAC DIRECTORY

Jon Carter, *Executive Director*
Rick Focht, *Operations Manager*
Eric Prestegard, *Remote Program Manager*
Sam Rabung, *Gastineau Hatchery Manager*
Steve Reid, *Snettisham Hatchery Manager*
Kelly Stevens, *Tourism Manager*

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1999 Season Wrap Up

DIPAC enhanced salmon were abundant in Southeast Alaska this year. All five species came close to or exceeded pre-season projections. Catches were good for commercial fishermen, sport anglers and the hatchery. Estimates show that 2.34 million DIPAC chum, pink, chinook and coho salmon were caught in 1999. More than 79,000 sockeye returned as well. DIPAC enhancement programs provided 740,000 chum, pink, king and coho salmon to commercial and sport fisheries while DIPAC harvested about 928,000 fish for cost recovery. An additional 163,000 adult salmon were captured for broodstock during the season.

Chum Salmon Experience Strong Returns

Rick Focht, Operations Manager for DIPAC reported that, "Chum returns to DIPAC release sites were very good and the total chum return came in very close to the pre-season forecast." The total catch was 1.7 million chums compared to the pre-season projection of 1.83 million fish based on a model using age composition and sibling return relationships. The overall survival rate for chums was about 1.67 percent. The reported commercial harvest was 43 percent and cost recovery efforts accounted for the 57 percent balance of the total harvest.

The commercial gillnet catch equaled 676,000 fish, with Lynn Canal taking 270,000 and Taku District harvesting 406,000 chums. Of the total summer chum catch DIPAC contributed 91 percent of the Lynn Canal and 96 percent of the Taku area harvests.

Cost recovery efforts were better than expected, resulting in 870,000 total fish, or 8.05 million pounds. Of that, 723,000 fish (6.66 million pounds) were caught at Amalga Harbor and 146,000 fish (1.4 million pounds) were caught in the Gastineau Channel. The net revenue achieved for the hatchery was $1.64 million. Focht said that a more conservative management approach to the Gastineau Channel harvest this year ensured an adequate brood stock escapement to Gastineau and Sheep Creek hatcheries.

Egg take operations used 158,000 chums for brood stock to reach the goal

The seiner Pacific Bell off-loads chum salmon at Amalga Harbor.

of 111 million eggs.

Focht added an interesting observation of the chum run this year. Although the majority of the fish were four-year-olds, "We had a fairly significant return of three-year-old chums, which can be an early indicator of the next year's return," he said. "The high return rate of this age class could suggest that next year's chum return may be quite strong", he added.

Pink Salmon Return at Record Rate

The 1999 pink salmon season at DIPAC brought a surprising terminal area return rate of 5.8 percent, the highest percentage return rate the hatchery has ever experienced. In comparison, the 1998 return was considered high at 2.9 percent. According to Focht, this year was the third highest return on record and the third straight year of above average ocean survival rates. In total, 508,000 pink salmon returned to DIPAC operations.

The large number of pinks returning to the hatchery provided an additional challenge to hatchery crews who were still conducting the chum egg take. As soon as the pinks arrived, chum egg take numbers dropped from daily numbers of 6 million or more to about half that amount. Under directive by the DIPAC Board of Directors, the 1999 pink egg take goal was reduced from 6.0 million to 1.8 million eggs. This will ensure future pink returns, regardless of ocean survival, will have limited or no impact on chum egg takes.

Coho Salmon Come Back Smaller in Size, Larger in Number

DIPAC experienced a good return of cohos in 1999. All told, the total run was just under 120,000 fish, representing a 14.5 percent marine survival rate. This is up from the pre-season forecast of 107,000 fish. Commercial fishermen harvested 47,000 DIPAC cohos; 38,500 by trollers, 5,000 fish by gillnetters and 3,500 cohos were caught by seiners.

A total 3,200 cohos were caught in the marine sport fishery and 7,400 from DIPAC's urban fishing dock. During the 1999 Golden North Salmon Derby an estimated 1,451 hatchery coho were hooked, a contribution by DIPAC of 33 percent of the total derby coho catch.

Cost recovery activities netted a little over 58,000 cohos, producing 323,000 pounds of fish with a net value of $208,000. Focht reported one notable observation of the coho harvest this year – significantly smaller fish than average. (This was the case with both cohos and pinks in general in Southeast Alaska.) Coho averaged about 5.5 pounds in 1999 compared to the 7.2 pound average last year. However, as Focht put it, "what we lost in size we made up in numbers." The catch exceeded the pre-season cost recovery goal by about 80,000 pounds.

The egg take process was just completed at the end of October, with an ultimate goal of 900,000 eggs. DIPAC captured 2,900 cohos this year for brood stock.

Strong returns of chum salmon this year kept fishermen busy.

Chinook Salmon Hold Steady

The summer of 1999 brought a fair return of Chinook salmon to DIPAC according to Focht. "The return came close to what we were expecting," he said. Of the 3,600 fish caught, 1,500 were caught in marine sport fishery, 240 from the DIPAC dock, about 900 fish in commercial fisheries and just under 900 kings returned to the hatchery to be collected as brood stock. DIPAC currently has 660,000 Chinook salmon in incubation for brood stock.

DIPAC operations contributed more than 25% of all kings caught in the Golden North Salmon Derby in 1999 as 129 DIPAC Chinooks were turned in to officials.

Sockeye Production Growing

The Snettisham Hatchery sockeye salmon returns totaled over 79,000 fish in 1999. The harvest was split between the US (with 28,000 fish) and Canada (with 11,000 sockeye). DIPAC caught 6,200 adults and 22,000 jacks for cost recovery. Broodstock and Lake escapement was adequate.

Sweetheart Deal for Northern Southeast Alaska

At Sweetheart Creek in Port Snettisham, a unique enhancement program has developed which benefits both "personal use" and "commercial" fishermen.

The Sweetheart Lake sockeye enhancement project was originally developed in 1989 and became the successful program it is through the combined efforts of the Alaska Department of Fish & Game, DIPAC and the US Forest Service. The first sockeye were stocked in 1990 by ADF&G and the first adult salmon returned to Sweetheart Creek in 1993.

The Sweetheart Lake system is a barriered system that was barren when the Fish & Game Department first looked at enhancement opportunities with the potential for sockeye. After a considerable amount of research to properly assess lake productivity, the current stocking level of 500,000 fry was determined to be the optimum sustainable level. With this volume, fish have a stable food source without taxing the lakes nutrient levels.

Bob Dewey, of Juneau, sees the Sweetheart Lake project from a variety of perspectives – hatchery, sport fish and biological. He is President of the DIPAC Board and 30-year member of Territorial Sportsmen. Dewey's background is in salmon biology, working with sockeye in Bristol Bay and Southeast Alaska as well as with the US Forest Service managing anadromous fish habitat improvement for Alaska.

Dewey says Sweetheart Lake provides a unique opportunity for a personal use sockeye salmon fishery. "Personal use sockeye fisheries are few in the Juneau area and demand far exceeds resource availability," he said. Unlike other sockeye areas, Sweetheart can be easily and safely accessed from the community by boat, even skiff. "There is so much potential for benefit to the local folks with this program," Dewey adds.

When DIPAC took over the sockeye enhancement operations at Port Snettisham in 1996, the Sweetheart program was in jeopardy because of its cost. New permits allowing hatchery fry to stock the lake significantly reduced the cost and workload by eliminating the need for remote egg take. This made the program affordable and has allowed DIPAC to incorporate Sweetheart into its operation for the long haul.

Although the personal use fishery gets most of the attention at Sweetheart Creek, the production really contributes to commercial use in the common harvest areas. According to Eric Prestegard, DIPAC Remote Program Manager, 50-60 percent of the return is intercepted by commercial fishermen before the remaining adult sockeye return to the personal use harvest area.

In 1999, over 3,000 sockeye returned to Sweetheart Lake. Because it is a "dead end" fishery, every fish that comes back could be harvested. There is no wild reproduction in the system and the lake is planted annually.

Though it sounds like an almost perfect enhancement project, some concerns do exist. Popularity is increasing dramatically and DIPAC will need to work with the Department to learn how to manage for the greatest benefit. The number of permits issued to Juneau residents for Taku River/Sweetheart Creek personal use salmon fishery increased from the about 75 to 625 over ten years.

"As participation increases, the available sockeye will need to be allocated among a greater number of users. Bag limits may need to be lowered and access limits may eventually be necessary," predicts Dewey. There is also an issue of bear/human interaction, which must be managed so it doesn't turn into a problem. It may eventually be useful to launch an educational program for participants in the fishery to avoid potential problems. Dewey also sees the need to work with the Forest Service as land managers to minimize stream bank erosion in the area.

Barring any unforeseen setbacks, Sweetheart should be an exciting "personal use" fishing opportunity for Southeast Alaskans. DIPAC is excited to have a project that enjoys financial and biological stability and one that avoids the pitfalls experienced in other sockeye lake stocking programs.

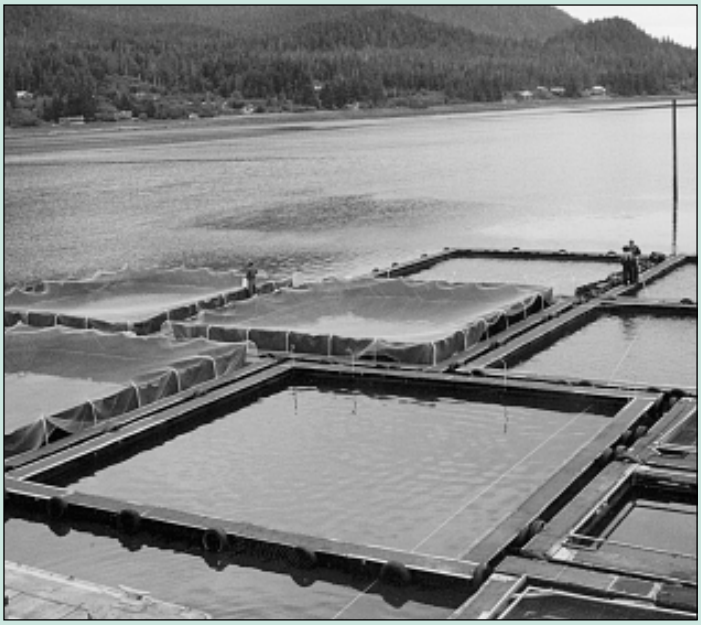
Sweetheart Lake is one way DIPAC is working to support personal use fishermen, common property fisheries both commercial and sport, and of course, the bear population can't complain either.

Sockeye salmon fry get a free ride to Sweetheart Lake.

Dredging Up the Past

This winter, DIPAC will be conducting maintenance dredging of the Gastineau Hatchery broodstock holding area, immediately in front of the fish ladder. The 160 x 200-foot area of Gastineau Channel is the basin area previously dredged during hatchery construction. The basin holds the net pens used for imprinting the salmon fry before release each spring. The dredging, conducted under a U.S. Army Corp of Engineers permit, will remove 10 years' worth of silt which has gradually filled in the area beneath the net pens. The net pens were beginning to touch bottom on very low tides, creating an unhealthy situation for the fish.

The dredging will be conducted during the winter months to insure there is no threat to spring fish populations in the area. The work will be completed well in advance of fry ponding which normally takes place in late February or early March.



The Gastineau Hatchery net pen complex.

SNETTISHAM, *continued*

Southeast allocation plan. Snettisham sockeyes primarily go to the commercial gillnet fleet and the releases have been growing each year. From initial releases of .75 to 2 million, DIPAC let more than five million smolts go in 1998 and 1999. The facility improvements should increase this number to 8 to 9 million.

The Snettisham program consists of domestic production which produces sockeye smolts that are released in Port Snettisham and fry into Sweetheart Lake. The Transboundary River Program with Canada is related to the Pacific Salmon Treaty. Sockeye eggs are taken at lakes in Canada reared at Snettisham and are then returned as fry to those lakes for release. The fish naturally migrate out to the ocean and return via the Taku and Stikine rivers.

Improvements

The primary focus of the new funds is to more effectively deal with the IHN virus. Managing around this virus has been the key for DIPAC because sockeye salmon are very susceptible, making it difficult to raise them in captivity. The virus can be controlled through isolation; keeping fish in small compartments, using separate incubators with their own rearing areas and holding fish in separate outside raceways.

The ADF&G requires the destruction of all salmon in compartments where IHN is detected. So is it important to segregate the fish as much as possible. New smaller incubators/start tanks will hold up to 275,000 eggs/fry. Covered/sealed raceways will hold no more than 750,000 smolt. These improvements will help DIPAC minimize the inevitable loss that comes with raising the species.

Other upgrades are now possible. The installation of a pumping and filtration system will add small amounts of salt water to the soft fresh water used inside the hatchery to help improve water quality. The raceways will also be resealed with an epoxy-like plastic coating giving the raceways a longer life. Permanent structures designed to accommodate massive snowfalls and protect the stocks from contamination by predators like birds and rodents will enclose the large outdoor raceways. A new alarm system, upgrades to the incubation system and increase in incubation capacity are all on the list for construction.

Construction

Work will be done over the next two years, completing phases in between production times so the hatchery can remain operational. The timeline looks like this: design work will continue through December and January and then during January or early February the project will go out to bid. The bid period will close at the end of March and preparation work will begin in April and May as the contractor mobilizes on site. The construction will take place from June through September of 1999 and 2000. This timeframe will allow testing to be done on all aspects of the expansion. "We can't just build a new system and go into full production immediately," explains Prestegard. "It will be crucial that we test equipment to make sure everything is right so we don't experience any failures," he adds.

For more information on the grant, project or construction please contact Eric Prestegard at DIPAC in Juneau 907-463-5114 or dipace@pobox.alaska.net.

For your information . . .

A glimpse at two of the items up for discussion

■ Proposal #358

New Regulation for the Production of Hatchery Chum Salmon proposed by the Bering Sea Fishermen's Association.

Suggests that limits be placed on DIPAC, Northern Southeast Regional Aquaculture Association (NSRAA), Prince William Sound Aquaculture Association, and Southern Southeast Regional Aquaculture Association. According to the proposal, DIPAC would be held to a 50 million chum salmon fry release level annually. Limits are for the said purpose of stabilizing chum salmon production at more economically efficient levels, balancing the production of chum between regions, allowing market time to absorb the large amount hatchery salmon and protecting wild chum stocks who have to compete with hatchery chum for food.

■ Proposal #364

Modify Cost Recovery Programs for Southeast Alaska Hatchery Programs proposed by the Bering Sea Fishermen's Association.

A proposal to manage fisheries so the share of cost recovery chums in each of the three regions in Southeast doesn't exceed ten percent of the total chum harvest. Manage the harvest of enhanced salmon in each region so no more than 20 percent of total chum salmon harvest is taken for cost recovery.

Board of Fisheries Update

Production and Cost Recovery Limits Slated for Discussion

DIPAC wants to alert all those concerned about salmon enhancement in Southeast Alaska, to a number of proposals put before the Board of Fisheries for the February 14-25, 2000 meeting in Sitka. The current list of proposals contains 13 requests (#355-368, and #377) relating to Salmon Special Harvest Areas/Terminal Harvest Areas and Hatcheries. Among them are actions which if adopted, would reduce hatchery production to less than half and ham string cost recovery to the point some hatcheries would be forced to close.

Ultimately, this type of regulatory change would put the future of enhancement programs and commercial fish allocations in jeopardy. It also introduces the idea of penalizing one region of the State in the hope of aiding another. The sponsor of the two listed at left, the Bering Sea Fishermen's Association, has an interest in wild chum stocks in the AYK, Bristol Bay and Area M regions of the state. The proposals target the Southeast and Prince William Sound regions. This marks the first time the Board of Fish will consider allocating resources between regions, and would set a dangerous precedent.

What is proposed, in effect, is punitive action toward enhancement efforts in some regions because of problems in others. Enhancement programs were designed to support declining natural runs and have successfully created a stable supply of product.

It also opens up an interesting discussion about competition and economics. The bottom line is the marketability and value of salmon. World markets, not individual regional harvests in Alaska, control both items . The reality is that chums sold from Alaska make up only 17% of the world market. What is harvested in Hokkaido, Japan and Russia has a great deal more to do with chum prices than anything done in Alaska. This was dramatically demonstrated this season when chum prices remained relatively flat until the Hokkaido return came in under forecast and then prices started to climb.

The proposal to place limits on cost recovery across the board ignores the fact that all hatcheries were not created or financed equally. For example, some hatcheries were fortunate to receive fully operational hatcheries, grants and 3% fishermen support while others had to rely almost exclusively on loans during construction and the first few years of operations. Regional corporations receive 3% assessment moneys from fishermen in their area: others, like DIPAC, receive no 3% money. In fact the enhancement tax paid by fishermen on fish produced by DIPAC is actually given to NSRAA.

Although DIPAC continues to look for ways to cut its budget and reduce debt, dramatically reducing cost recovery would probably be the end of DIPAC and it's salmon enhancement programs. Cost recovery equals enhancement of fisheries and without it steady levels of production can not be achieved.

An additional flaw to these proposals is the imbalance it would create between each gear group's harvest of enhanced salmon. The enhancement program in Southeast has developed in a manner that has the effect of dedicating a given hatchery's return to benefit a particular gear group. If you reduce production at DIPAC for example, you reduce the benefit to gillnetters. To maintain a balance of enhanced catches, an equal reduction at a seine hatchery would be required. This issue was obviously not considered in the Bering Sea proposals.

These proposals will be discussed at the Southeast Region meeting in February and the Board of Fisheries will consider actions at the statewide meeting in March. For more information on these or other Board of Fisheries proposals you can visit the Alaska Department of Fish and Game website at http://www.state.ak.us/local/akpages/FISH.GAME/boards/fishinfo/fishinfo.htm.

Lynn Canal Management Proves Successful

For the Alaska Department of Fish and Game (ADF&G) and the gillnet fleet in lower Lynn Canal, a management approach has evolved that is proving effective in protecting the Chilkoot sockeye while providing the fleet opportunities to catch chums.

Traditionally, sockeye and wild chum salmon were harvested from the Chilkoot and Chilkat Lake systems along the east and west sides of Lynn Canal. Unfortunately, by the mid-1990's, the Chilkoot sockeye runs on the east side declined to the point it was necessary to close fishing to protect the stocks. At the same time, natural runs from the Chilkat system were growing and enhancement programs were beginning to provide larger returns of chum salmon to the Amalga and Boat Harbor release sites.

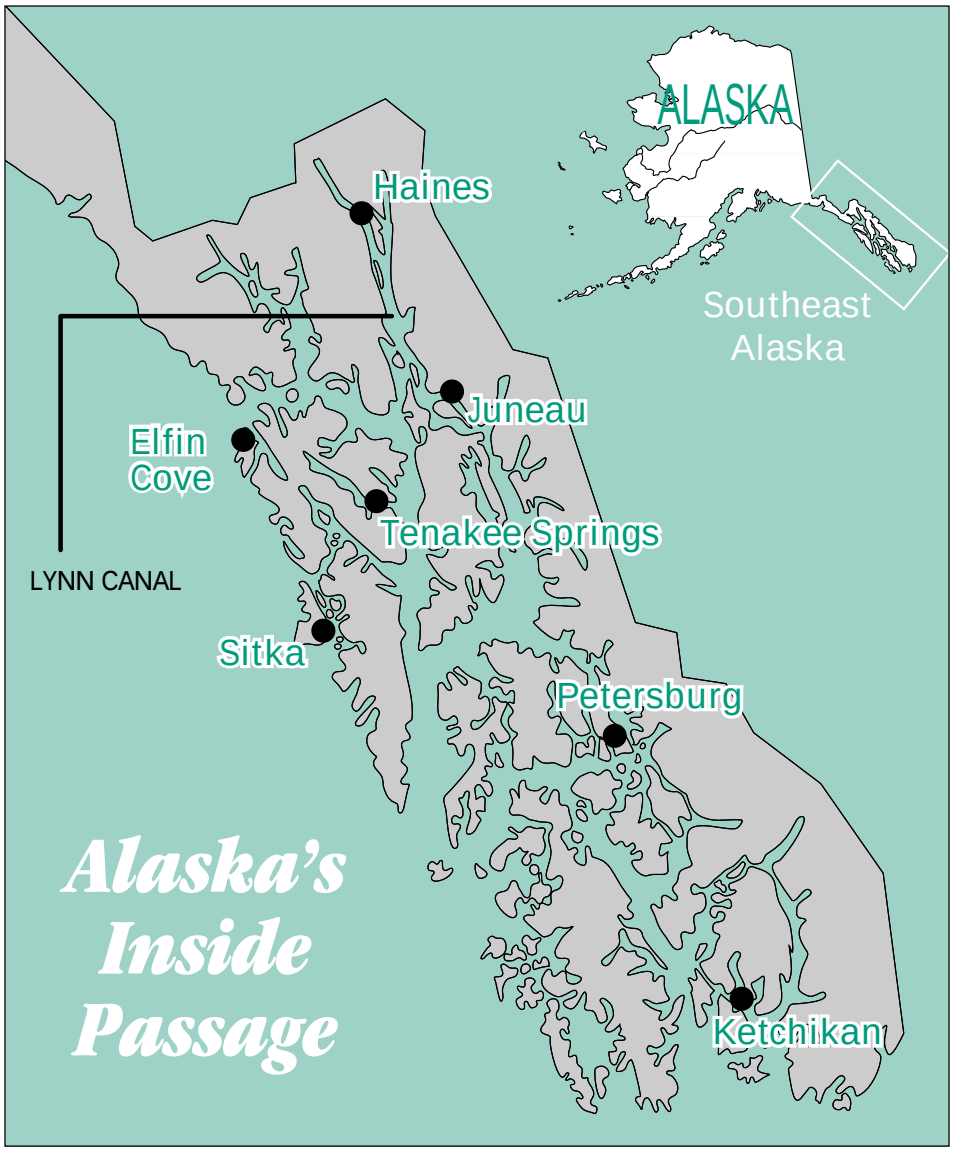
To effectively address the situation, the ADF&G came up with a creative management scheme for the Lynn Canal region. On the east side, access is limited to enhanced chums to minimize the catch of Chilkoot sockeye. At present, the east side of the area above Point Bridget is closed, but south of Point Bridget short openings are allowed with net mesh size restrictions for gillnetters.

Andy McGregor, Juneau Area Management Biologist, for Alaska Department of Fish and Game explains, "We started with a minimum mesh restriction of six inches and were successful in limiting the catch of Chilkoot sockeye." This allowed the harvest of the larger DIPAC fish and natural Berners Bay chum salmon while letting the smaller sockeye salmon escape the nets. According to McGregor, two to three day openings took place weekly from the third Sunday in June to the end of July.

On the west side of Lynn Canal, extended periods of fishing were allowed to harvest returns of enhanced chum salmon. Openings ran for seven days a week in Boat Harbor terminal harvest area for enhanced chum.

"I consider this strategy very successful. There has been a very low catch of sockeye and reasonably good catch of chum in lower Lynn Canal," said McGregor. Catch figures reported by fishermen show that 270,000 DIPAC chum were caught in Lynn Canal during the 1999 summer chum fishery. This represents about 91 percent of the total chum catch in the area.

Regarding the upcoming fishing season McGregor does not foresee major changes in management in lower Lynn Canal. "Strong runs of enhanced chum salmon and another poor return of Chilkoot sockeye are expected, so this very conservative style of management will continue," he said.



Letter from the Executive Director

As the season has wound down and more fishermen have had time to talk with me, I've become aware that some fishermen blame DIPAC for the fact that they were placed on limits this season by Wards Cove. For the record, I would like to correct this misconception.

On several occasions before the season began, I talked with management at Ward's Cove concerning the capacity issue and was assured adequate capacity was available. Over and above that assurance, I included a clause in the DIPAC/Ward's Cove cost recovery contract stipulating if fishermen were placed on limits, DIPAC would reduce its sales to Ward Cove by a parallel percentage. Any extra fish would then be sold to other buyers.

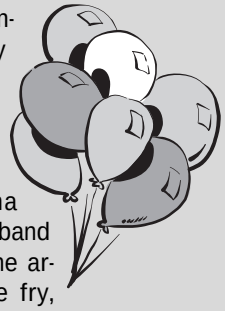
Approximately two weeks before Ward's Cove limited its fleets, I became concerned about the capacity at XIP and requested permission from Ward's Cove to sell a portion of the returning chums to other buyers. I was granted that request and immediately started selling portions of the daily harvest to other buyers. During the next two weeks I was able to sell 1.3 million pounds to alternate buyers.

By the end of those two weeks, I was notified that Ward's Cove was placing its fleets on limit. After discussion with Trident's management, I was able to obtain 300,000 pounds of their contract Taku Fisheries production from Trident. I immediately notified, via VHF radio, all fishermen I could contact that DIPAC would purchase from those fishermen on limits, up to 300,000 pounds of chum salmon. As it turned out, we purchased approximately 32,000 pounds because the chum run dramatically slowed during that week.

However, Ward's Cove fishermen remained on limits throughout the balance of the season. If it was DIPAC's fault fishermen were on limits, it should have ended during the week in which DIPAC offered to purchase chums. It should be obvious to all that, in fact, the limits resulted from the record pink return happening in Northern Southeast at the same time.

In closing, I am making every effort to sell next year's chum cost recovery harvest to more than one buyer and believe I will be successful. If successful, it should alleviate fishermen's concerns but I still felt it important to correct the record for this past season.

DIPAC announces 3 successful out-migrations



The DIPAC family has grown by three this winter.

On November 18th, at 1:22 pm, Otolith Lab Supervisor Diana Tersteeg and husband Jeff announced the arrival of their little fry, tagged Colton Louie, a perfect 5 lbs. 14 oz., 20-inch baby boy. Colton joins 8-year-old sister Shelby.

Former Tourism Manager, Alcia Smith and hubby Roger, were officially presented with the coveted DIPAC Lifetime Tour Guide Award upon the arrival of Justin Samuel on Dec. 1st, at 3 pm, weighing in at 8 lbs 1 oz. and 20.5 inches.

UAF Research Associate Ivan Wang and wife Jennifer are very thankful for their late-run odd brood year daughter, Elice Raimi. Born Thanksgiving evening at 11:52 pm, Elice wieghed 5 lbs. 10 oz. and was 18 inches long.

For more information visit our web site at www.alaska.net/~dipac

DIPAC NETwork NEWS

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