

# FISH RAP

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

Vol. 28 No. 2  
December 2010

## Strong Prices

*Contribute to Another  
Successful Season:  
NSRAA Fish Are Worth  
\$14 Million Ex-Vessel  
Value to the Fleet*



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## High Salmon Prices Make For A Successful Season

The commercial value of NSRAA's salmon returns this year totaled more than \$14 million – the fourth highest commercial value in its history – despite below average fish returns.

Commercial fishermen harvested an estimated 2.4 million of NSRAA's returning fish this season, ranking this year as only the 13th best of the past 20 years by sheer volume. But a substantial increase in fish prices translated lackluster returns into a very good season.

"Pretty much across the board, we had below average returns," said Chip Blair, NSRAA's Data Analyst. "If we had had even one or two projects at average or above, the value would have skyrocketed. Given the relatively poor returns this year, it was pretty impressive that we did so well."

This year's high commercial value at NSRAA reflects trends statewide.

According to the November 23rd Fish Radio show with Laine Welch, Alaska's total catch of nearly 169 million salmon was the 11th largest on record and similar to last season's. But the high demand for salmon was reflected in higher prices – with a more than 28 percent increase overall since last year.

Statewide, salmon were worth nearly \$534 million at the docks, Laine reports. Fishermen saw the highest increase in chum and pinks – up nearly 35 percent from last year – with a combined (Chinook, coho, sockeye, chum and pink) increase of nearly 16 percent.

NSRAA's General Manager, Steve Reifenstuhel, couldn't be happier.

"The enhancement program in Southeast Alaska did exactly what the originators in the '70's expected of it – that is, to supplement returns," he says, explaining that the total commercial catch, for all gear groups combined, in Southeast Alaska totaled just under \$100 million. "Of that, about 36 percent was from enhanced salmon."

"The vision of the program was to supplement, not replace, wild stock fisheries," Steve continues. "The program did that and it did it in spades this year."

The successful year comes when much of the country is still struggling economically.

"The beauty of it is it also has a tremendous impact on the coastal communities," he says. "In a national climate of economic downturn, Southeast is a bit of a bright spot because salmon prices are up in the past several years. For fishermen, things are looking up."

The commercial value of NSRAA's returning fish alone represented approximately 14 percent of Southeast's total commercial salmon catch

this year.

NSRAA's Cost Recovery (CR) revenues totaled \$4.5 million this season, with a total of 498,856 fish harvested. That was the third lowest number of fish harvested for CR in 20 years at NSRAA, but the second highest CR revenue.

"With higher prices, we needed fewer chum to meet CR goals," says Chip.

In addition, NSRAA was able to sell its broodstock carcasses for the first time in its history. Those sales, totaling \$300,000, went toward CR revenues – meaning less fish harvested for CR and more fish available for commercial catch.

All together, it made for a successful season at NSRAA and in Southeast Alaska.

## Sitka Sound Science Center's Future Looks Bright

The building that houses Sitka Sound Science Center (SSSC) may be dingy, but the organization's future just got brighter.

The Sitka-based nonprofit formed when Sheldon Jackson College (SJC) shut down in 2007. It has been renting the Sage building, the former SJC marine science facility that houses the SJC hatchery and aquarium.

The nonprofit's mission is to increase the understanding and awareness of the Gulf of Alaska's terrestrial and aquatic ecosystems through education and research.

In November, SSSC purchased the building from SJC.

"That's our big news," says Lisa Busch, Director. "We're really excited that we own it and can improve it to attract more researchers."

"We know the hatchery needs a lot of work," adds Jim Seeland, Vice Chairman of the board and University of Alaska Southeast assistant professor of Fisheries Technologies. "It still functions, but it suffers from years of very little maintenance."

SSSC works with NSRAA through a collaborative agreement that allows 9 million of its eggs to be released at Deep Inlet, in addition to NSRAA's allotment.

*cont. on back page*

## General Manager's Notes

For those who may not know me, I have worked at NSRAA since 1979 and have been involved with the development of just about every program at NSRAA, from stream side incubation boxes to construction of our newest hatchery at Sawmill Cove in Sitka. It has been a rewarding ride and I am honored that fishermen and the board have placed their confidence in me to help guide and continue the great success of NSRAA. For over twenty years Pete Esquiro and I worked closely together and I can assure you NSRAA will continue to provide value to the fisheries that you have come to expect.



I am fortunate to have known and worked with the visionary fishermen in those early years when enhancement was just a hope for the future...no guarantees. Fishermen took a risk, you invested, and 15 years later it began to pay off. The Alaska enhancement program has become more successful than many thought possible in those early years; this year about 36% of the southeast Alaska harvest value was enhanced salmon – that's \$36 million. In a large sense, enhanced salmon is helping maintain the economic health of coastal communities throughout the North Pacific arch. Hard working men and women bringing in the catch are the backbone of these communities.

And yet we have our critics. As good as the economic argument may be it is not enough. Much of the criticism is not based on science but supposition, speculation, and specious argument. As unpleasant as it is, we must face our critics and provide answers based on good science where we can, and where there are no answers, support research that seeks to shed light.

Fishermen know in a fundamental way that wild stocks are the core of a healthy ecosystem. ADF&G records demonstrate that wild stocks are robust, whether you look at escapements or the record harvests through the past fifteen years. The pristine habitat in Southeast is fundamental; maintain it in concert with good management, and the salmon will take care of the rest.

A final note is the staff here at NSRAA constantly attempt to improve what we do and this coming year we will make several program modifications. The upshot for smolt species is to increase the Chinook program at Green Lake by a million, increase coho rearing at Deer Lake by a million, and increase coho at Hidden Falls by a half million. Once the adults return we expect to see a net increase in value of \$2 million above current levels. On the chum salmon front we have been permitted to release an additional nine million chum fry at Hidden Falls.

Have a warm, happy Holiday Season with your family and friends, and prosperous New Year.

Steve Reifenstuhl

## NSRAA's Projects Benefit From A Return To Normal Conditions

Record snowfall and cold water temperatures have made fish rearing at NSRAA's hatcheries challenging the past few years. So this year's return to normal conditions was a relief and brought with it some expected successes – improved fish growth, health and survival, for example.

But each season arrives with its own set of surprises, and this year was no exception. Among the setbacks and disappointments were a couple incidents of high accidental mortality and some below average fish returns.

Nonetheless, NSRAA staff persevered and considers the season, overall, a success.

### Medvejie's Season a Mix of Success and Disappointment

This season was marked by high productivity and a return to normal fish growth at NSRAA's Medvejie hatchery. But any joy from this season's successes was offset by bitter disappointment when an accidental water shut-off caused the loss of half the hatchery's yearling Chinook.

### Chinook


Chinook rearing was challenging this season. NSRAA transferred zero-check Chinook to Green Lake at an average weight of 1.9 grams. The fish grew to 8.5 grams in three months. Staff vaccinated them for Vibrio (a bacteria that can cause disease) in hopes they would build immunity prior to entering saltwater.

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*The American Patriot positions the new Deep Inlet barge for chum rearing. (February 2010).*



*Medvejie Report continued*

Transfers from Green Lake to saltwater went exceptionally well. The fish were almost 4 grams larger than last year. Unfortunately, the fish contracted *Vibrio* after a week in saltwater, despite the vaccination, and losses quickly escalated. Staff was able to halt mortality after putting the fish on medicated feed, but the overall mortality was 1.7 percent.

NSRAA released 897,996 traditional Chinook yearlings from Medvejie this spring, at an average of 75.54 grams. This group was fed a transition diet prior to entering saltwater and staff manipulated the photoperiod to enhance their growth.

In addition, staff released 939,905 Green Lake Chinook yearlings, at an average of 75.2 grams, and 802,790 Medvejie zero-check Chinook, at 20.12 grams.

Medvejie's Chinook eggtakes went well and supplied the hatchery with 4.5 million eggs. Hidden Falls supplied an additional 730,000 Chinook eggs.

**Chum**

NSRAA released a total of 60.6 million chum fry into Sitka Sound last spring. Fish benefited from the return to mild conditions, and responded with normal growth and below average mortality.

This was the second year in a row that chum returns to Medvejie were late and slow to build. By the end of August, NSRAA estimated only 25,000 fish in Bear Cove – insufficient for eggtakes.

To compensate, staff towed 30,000 adult chum from Deep Inlet for broodstock. Staff was then easily able to reach the eggtake goal of 41 million.

**Coho**

By this fall, Medvejie was raising 217,740 Salmon Lake coho for its Sawmill Cove hatchery. Of those, 50,000 will be released from Medvejie for broodstock. The remainder will be released at a remote location.

Crews at the Salmon Lake weir collected 58 pairs for potential broodstock and 150,000 eggs. The eggtake goal was 300,000.

**Pinks**

NSRAA released 271,000 pink salmon for mitigation this spring. Staff collected 320,000 eggs this fall and left 200 pairs to spawn in the North Fork stream.

**Maintenance**

This has been an extremely productive year at Medvejie.

The new Deep Inlet barge arrived in February and staff readied it for chum transfers. Staff repaired and painted the old Deep Inlet house and moved it to Green Lake for use with that project.

Employees sanded and repainted the bridge crane rails in the old chum building and cleaned silt and organic matter from the North Fork pit intake.

"It is a privilege to work with a crew that has as much knowledge and dedication as the Medvejie crew has," says Bill Coltharp, Medvejie Manager.

**Hidden Falls Saw Record Growth This Season**

Last winter may not have brought a lot of snow, but it was the wettest on record at Hidden Falls, with 108 inches of precipitation and only 49 of that as snow.

This winter's mild weather also contributed to record fish sizes at the hatchery – a refreshing change after the past few years of cold water temperatures and slow fish growth.

**Chum**

Brood year 09 (BY09) was a successful rearing season for Hidden Falls and Takatz. NSRAA exceeded goals for release sizes for both groups, releasing a total of 79.3 million fry combined.

NSRAA met its eggtake goals at Hidden Falls for BY10 chum, with a total of 114 million eggs. Staff collected an additional 5 million eggs for Gunnuk Creek hatchery.



*Hidden Falls shots: Putting in supplies (left). One never knows when the next flight might get in this time of year. Right: Ben on the beach. Sometimes there is a fine line between work and recreation.*

**Chinook**

Hidden Falls is currently rearing 1.1 million Chinook in saltwater. It was the first season in five that the fish met NSRAA's desired size for saltwater entry in the fall.

Overall, it was a very good season for Chinook size and growth.

NSRAA released 980,000 Chinook yearling smolts from Hidden Falls this spring. The fish weighed an average of 69.8 grams – the largest produced from the hatchery since the start of its Chinook program in 1981.

In addition, Hidden Falls staff released 290,000 of the largest zero-check Chinook (13.32 grams) ever produced there.

NSRAA met eggtakes goals for its Chinook program at Hidden Falls and collected an additional 730,000 for the zero program at Medvejie.

**Coho**

Staff is rearing more than 3 million coho at Hidden Falls, in freshwater and saltwater combined. This is the largest number of coho ever scheduled for release from the hatchery.

The staff at Hidden Falls continues to refine its saltwater overwintering program. This spring, the saltwater overwinter group was released at 21.58 grams – the second largest size at release.

NSRAA's data indicates that coho released from Hidden Falls at 20 grams or more has, on average, a 5 percent higher marine survival than those released below that weight. Staff continues to work toward achieving this goal annually.

Staff met eggtake goals of 6.1 million for BY10 coho.

**Site Projects**

The Hidden Falls staff continues to tackle the backlog of maintenance issues and capital projects.

This spring, it replaced the backup generator – improving reliability and efficiency at the hatchery. The new generator is large enough to cover the site and hatchery in the event of an emergency.

Staff has also updated the central alarm system to include all incubation, hydro/generator and vacuum compressor buildings, as well as the majority of the round ponds. The new system provides staff with unprecedented monitoring and alerting capabilities.

Other maintenance projects completed include a new roof on the duplex building and continued work toward stabilizing the hatchery's infrastructure.



*Hidden Falls: settling in for the winter*



## Market Report:

### Broodstock carcasses create new market opportunity

NSRAA received \$300,000 for its broodstock carcasses this year – an added revenue stream for NSRAA, which means more fish for commercial fleets to catch next season.

In the past, there has been no use for the fish once they were used for broodstock. Staff would grind the carcasses or dump them whole into the ocean.

Three years ago, Steve Reifentstahl, NSRAA's General Manager, began working toward selling the carcasses. The first two years provided modest success in sales, but nothing in revenue.

But as the worldwide demand for protein continues to increase, Steve decided to go out to bid on the carcasses this year. NSRAA signed a contract with Sitka's Silver Bay Seafoods and Trident Seafoods' Petersburg plant.

Combined, NSRAA made \$300,000 from the fish it sold.

While that is not a huge revenue stream for NSRAA, it is significant because it means the organization needs \$300,000 less (or about 40,000 fewer chum) in Cost Recovery revenue next season. In other words, there will be about 40,000 more chum for fishermen to catch than there would have otherwise.

In the past, pale meat fish (or PMCs) had little value because they were soft and thought to have little protein content. Processors bought them primarily for their roe. While roe prices have fluctuated lately, the flesh prices have continued to strengthen. The meat may be pale, but it still retains a good quality protein.

"They used to have a negative value as flesh and only worked because of the roe we would get from round fish purchases," says Dave Ohmer, Plant Manager at Trident Seafoods. "But with the higher demand for wild Alaskan salmon, the flesh value has risen to a point that buying the PMCs without roe works."

Most of us are accustomed to ocean-bright fish and have never tried pale meat fish before.

"It is really a surprise how good these can eat," Dave says. "With a strong flesh sampling and QA (quality assurance) program, this is a very good product."

Selling the carcasses required NSRAA develop a new protocol to hold the fish at the hatcheries before pickup.

"We wanted to maintain high quality," Steve says. "We kept them cool until the tender or truck arrived. We worked closely with the processors to make sure this worked for them, too. It's all about quality."

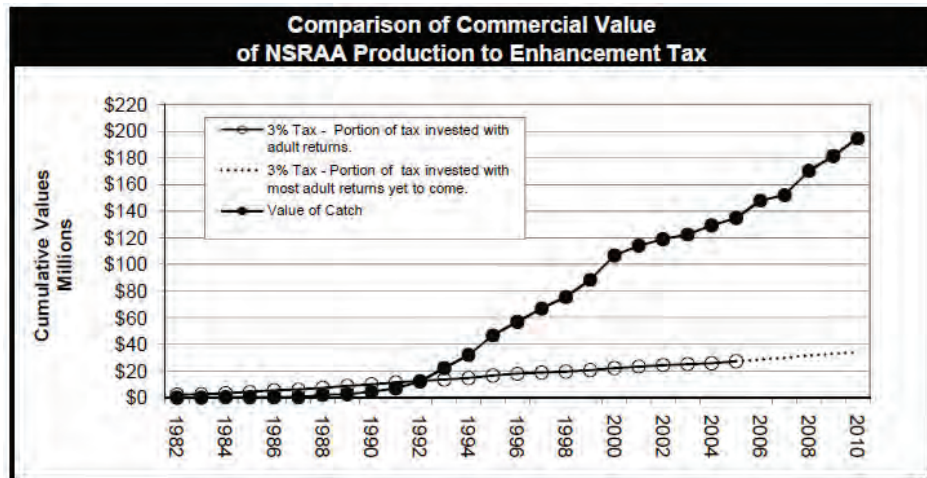
And while pale meat fish may be considered lower quality than ocean bright, "for people who want Alaska salmon, but at a lower price, this is a good alternative," Dave says.

Meanwhile, both Steve and Dave say they are pleased with the partnership and the added revenues that came from it.

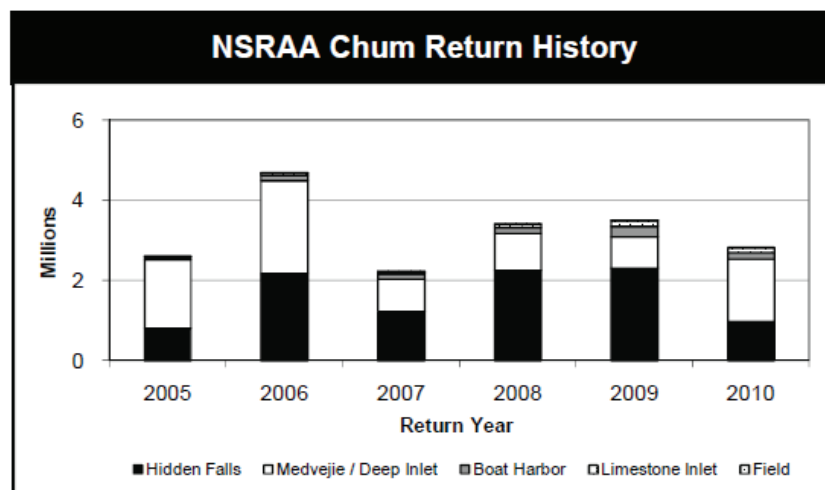
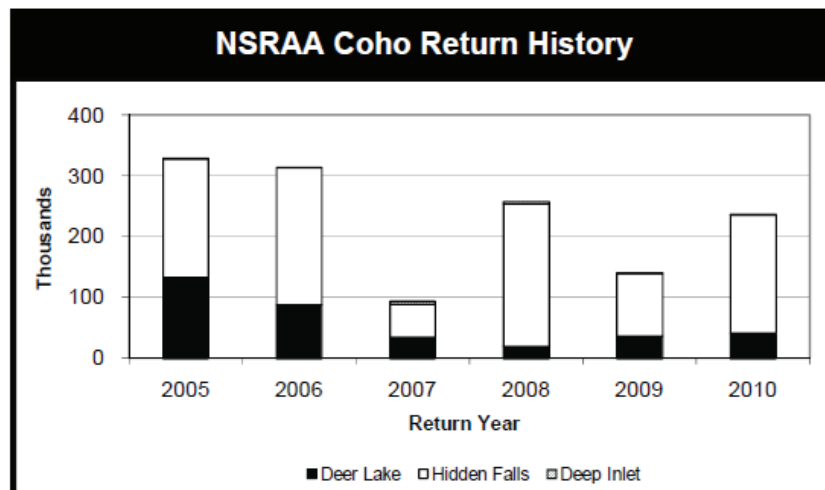
"It's a beautiful thing that happens," Steve says. "It represents where we've been wanting to go since the late 1990s. It's a full utilization of the salmon resource from start to finish."



*A new market: After spawning, carcasses are iced in totes and later transferred to a tender or trucked to town.*



*Whales bubble-feeding near Hidden Falls dock in the spring of 2009.*



NSRAA Contribution to Southeast Alaska Commercial Fisheries Number of Fish : 2009 - 2010								
	Gillnet		Seine		Troll		All Gear	
	2009	2010	2009	2010	2009	2010	2009	2010
Chinook	3,726	4,876	5,024	6,113	7,781	7,687	16,531	18,676
Chum	535,561	534,937	2,165,803	1,469,262	98,636	102,094	2,800,000	2,106,293
Coho	879	1,496	3,945	4,276	56,455	82,454	61,279	88,226
Sockeye	-	-	-	-	-	-	-	-
All	540,000	541,000	2,175,000	1,480,000	163,000	192,000	2,878,000	2,213,000

## Humpback Whales Target Salmon Releases

A study this spring confirms what NSRAA already feared: there are humpback whales directly targeting its releases.

The presence of humpback whales near salmon enhancement facilities (SEFs) is not unusual. In fact, an increasing number have been seen each spring as they return from their winter breeding areas.

In recent years, however, the staff at several SEFs have observed whales that appeared to be feeding on newly released salmon.

This spring, the Sitka Sound Science Center (SSSC) and University of Alaska Southeast, collaborated with NSRAA, NOAA and Armstrong-Keta, Inc. to determine whether humpback whales were, indeed, targeting salmon releases along the eastern shore of Baranof Island in Chatham Strait.

Staff recorded data at five release sites: NSRAA's Hidden Falls, Takatz Bay and Mist Cove, NOAA's Little Port Walter Marine Station and Armstrong-Keta, Inc.'s Port Armstrong. Observation data collected included tidal conditions, whale behavior, feeding barriers, vessel presence and salmon releases.

Whales were reported at all five release sites, with the staff at Hidden Falls reporting whale sightings almost daily once they began releasing fish.

"We think they are directly targeting facility-released fish at four of five facilities," said Ellen Chenoweth, SSSC Research Assistant.

At Mist Cove, whales did not display any obvious feeding behavior.

At the other four sites, though, whales used common feeding behaviors, using bubbles and shorelines as barriers to capture prey, and also utilized manmade barriers, such as docks and net pens.

Ellen points to the behavior of one whale, ID 2227, as particularly significant. The report states that this particular whale was seen "directly feeding on new releases at Hidden Falls on three different occasions." The same whale was also documented feeding there in 2008.

The fact that the same whale was seen feeding at Hidden Falls in multiple years indicates that targeting facility releases is a "learned and remembered behavior. Whether this behavior is learned opportunistically or culturally transmitted, this learning, combined with an increasing humpback whale population in southeastern Alaska, will likely lead to increased whale presence at SEFs."

While it is not known exactly how much a whale consumes, a formula relating body size to stomach volume in baleen whales indicates that "an adult humpback whale could consume 1,190 kg per day, comparable to half a million of 2-gram chum fry."

For NSRAA and other SEF's, the amount consumed by whales represents a loss of return.

"This study has some major implications and potential effect on our programs at Hidden Falls and Mist Cove," says Lon Garrison, NSRAA Operations Manager, adding that NSRAA is working to minimize the predators' impact.

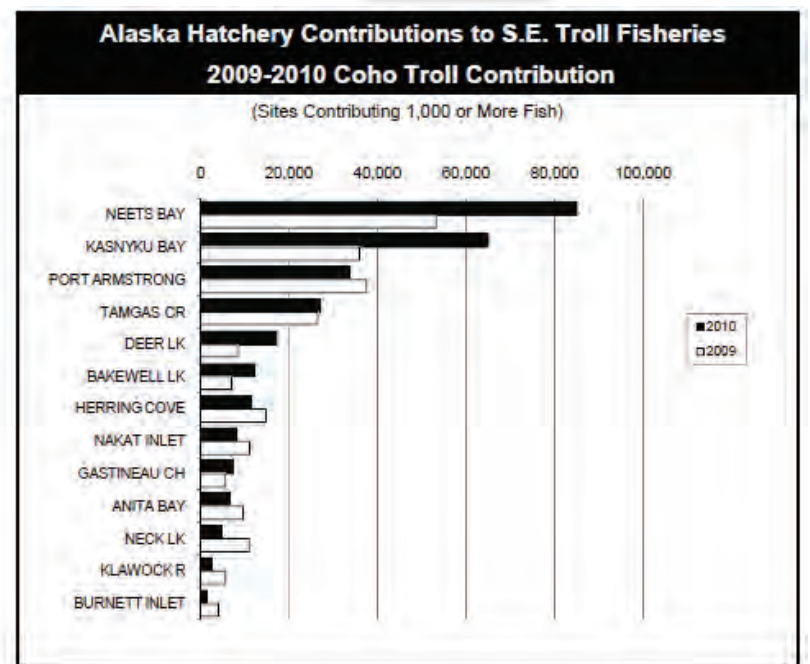
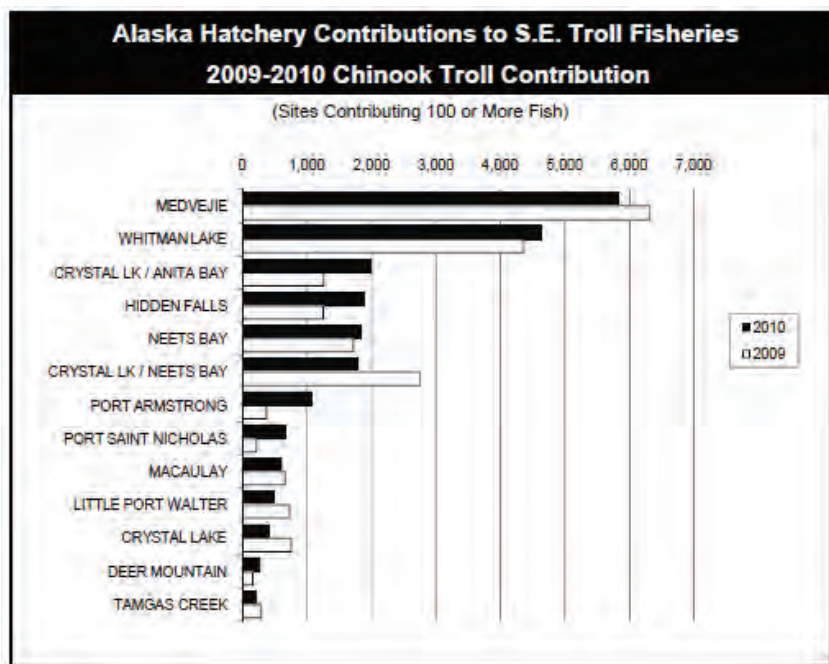
But the salmon loss is not the only concern.

"We don't want whales to depend on hatcheries as a food source," says Ellen, explaining that if the whales look at the releases as a reliable food source, "that's a concern for both the whales and the fish."

The SSSC hopes to secure funding for further research, to estimate mortality of released fish due to whale predation and identify cues that may alert whales to fish being released.

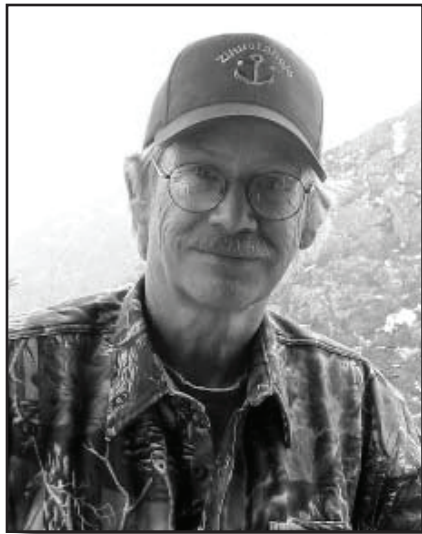
"This was a great beginning, but I hope we can continue this into the future," says Lon. "With humpback whale populations increasing at a rate of about 7 percent each year, it's imperative we develop strategies to meet this challenge."

*"(One Whale) was seen directly feeding on new releases at Hidden Falls on three different occasions."*





## NSRAA Remembers Mike Saunders



NSRAA lost a dedicated and passionate board member when Mike Saunders passed away unexpectedly in June.

Mike, who was the Haines Gillnet representative, had served on the board since 1996. He was 57 when he died from heart disease.

"It was definitely a huge blow," says Cheyne Blough, a close friend and NSRAA board member, who admitted he thought the board meeting this fall seemed quiet and sort of boring without Mike.

"He had a boisterous personality," Cheyne says. "He brought a lot

of fun to the board meetings for everybody – I don't think anyone would deny that."

"He very much enjoyed it," says his wife, Kate, of Mike's time on the board. "He was very concerned with NSRAA projects."

Funny, devoted, passionate, serious, opinionated – these are the words Kate and Cheyne use as they describe Mike.

"He was very passionate of some things, fishing in particular," Kate says. "He was very much into fish politics."

"There were things we didn't see eye to eye on," says Cheyne, laughing. "But Mike spoke his mind, with no apology, and I respected that."

"He was always an interesting character to be around," adds Kate. "He was fun. There was never a dull moment around Mike. Life was an adventure."

Mike lived in Haines with Kate and their 9-year-old daughter, Elena. He'd lived there since the mid-1980s.

Originally from a farming family in Eugene, Oregon, Mike went to

Alaska hoping to get on the pipeline. Instead, he spent his first year in Anchorage putting hot tar on roofs. Afterwards, he started a painting company.

"Whenever he came up to Anchorage, he went through Haines and fell in love with Haines," Kate says. "He decided to become a fisherman."

Cheyne met Mike on a halibut boat, where they were both crewmembers. Cheyne was 17 and Mike was in his early 30s.

"He was just like an older brother to me," Cheyne says. "We spent a lot of time together, hunting and fishing. My dad always gave me a hard time when I was a teenager, because all of my sentences would start with 'Mike and I.'"

Mike bought his first boat in 1987: a ferrocement. Then one day he hit a reef and cracked the hull. The Coast Guard came to rescue him and tried desperately to save the boat, which was sinking fast. It wasn't until Mike explained his boat would take them all down that they finally gave up.

When Mike wasn't fishing, he was the stay-at-home dad. Kate was a full-time teacher.

"He was very devoted," Kate says of Mike as a father. "He was at ballet lessons, swim lessons, hanging out with all the moms, just watching the kids."

Mike was a writer, too, and his favorite topic was fishing. One of his fishing poems was published in *Fishermen's Journal* and he'd published one of his books, "The Legend of the Albino Mosquito."

"He had always hoped to get back to more writing," Kate says.

Mike was always full of stories, says Cheyne.

"When I think of Mike, a smile comes to my face and everybody around," he says. "What better thing could you leave your friends? You talk to anyone that knew him; the first thing they do is crack a smile. I think that is a wonderful thing."

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## Deer Lake: Record Fish Growth & A Surprise Escape

Mild weather, added experience and optimal rearing conditions this year combined for fish growth that surpassed that of any season since NSRAA began pen rearing at Deer Lake five years ago.

Winter maintenance and spring set-up seemed particularly efficient, due to the lack of snow. The crew made three trips to Deer Lake during the winter to monitor the site and check on the net pens.

On one trip, the staff discovered that one of the pens had broken and collapsed. Fortunately, it was able to fix it quickly and avoid any significant mortality. There appeared to be no other problems.

It wasn't until the staff raised the net pens in April that it discovered the pens were empty, excepting a small percentage of sickly or dead fish.

This was the third year NSRAA held fingerlings in net pens over the winter. After losing some fish the first season, the crew had covered the pens with nets last year – creating fish-tight containers – and believed the problem was solved.

The crew dove to check on the pens during the winter, but everything seemed fine at the time. A thorough examination of the nets afterwards showed only a few holes, so staff believes the fish escaped through loosened seams.

NSRAA staff met in March to discuss the problem and concluded that, due to the very mild winter and lack of ice, the fish were much more active than usual and continually worked to escape the pens to feed. In hindsight, this was a blessing in disguise.

The staff set traps throughout the lake to estimate survival of the

escaped fish and measure them for length and weight. The sampling indicated that a large population remained in the lake and grew well. In fact, a majority of the fry survived to smolt and emigrated in the spring.

"Looking at our trapping data from this fall, next year's emigration of age-2 smolts looks promising and could boost our emigration significantly," says Josh Homer, Project Leader.

NSRAA updated its winter equipment and procedures at Deer Lake to prevent a reoccurrence of this year's escaped fish. Those include new zippered net covers, feeding of the fish until lake ice-up and monthly trips to monitor the site once the lake has frozen.

Emigration peaked a week earlier than normal and five weeks earlier than 2009. It was the largest emigration since 1999, with more than 1 million age-1 and almost 13,500 age-2 fish.

NSRAA completed its transfer of 2.1 million fry from Hidden Falls to Deer Lake early this year, to offset the slow growth experienced in past seasons. The fish were smaller than normal, but transferred well and increased quickly in size.

Warm water temperatures led to phenomenal growth this season. By mid-October, the fingerlings were 21 grams and among the largest ever produced at Deer Lake.

"Going into the winter, these fish look great," Josh says. "Not only are they very large and healthy, but we are continuing to feed them, so they will hopefully lose very little weight between now and spring. We may even be able to get them larger by release in May."

## Haines' Chum Projects A Success This Season

The Haines chum projects were a success this season, despite some setbacks and disappointments.

Overwinter incubation survivals were excellent at the Herman Creek channel and the 17-mile site. Fry survival was compromised at the 31-mile site, however, due to some water flow interruptions, bringing the survival rate there down to 76 percent.

Still, the incubation boxes produced more than 2.6 million fry this season – a 90 percent overall survival rate.

Assuming a 1 percent marine survival, the potential adult production from these projects could total as many as 26,500 adults, which would be the third highest production from this project in 31 years.

Chum returns to the Klehini River and Herman Creek area this fall were very weak. In fact, overall returns to the Herman Creek spawning channels were among the lowest in recent history.

Alaska Department of Fish and Game (ADF&G) fish wheel catches were down significantly, indicating poor returns. Crews were able to meet chum eggtake goals at the Herman Creek and 17-mile boxes, but there were not enough chum at either Herman Creek or Klehini River to seed the boxes at the 31-mile site this year.

The inability to seed the 31-mile site was extremely disappointing for the crew, but compensated somewhat by a success at the 17-mile site; this was the first year NSRAA was able to meet its goal of 2.4 million eggs there.

Meanwhile, eggtakes on the Chilkat River were better than expected, with a moderate number of adults returning to the 17-mile site.

NSRAA relied solely on the main stem Chilkat River for broodstock collection this fall, as the 24-mile spawning channel has not provided any. Staff was able to collect 2.6 million eggs.

### Lutak Inlet

In 2008, NSRAA entered into an agreement with ADF&G Sportfish Division to incubate, transport, rear and release 250,000 zero-check Chinook smolts from the Tahini River in Lutak Inlet, just north of Haines.

This season was the third – and, unfortunately, final – year of this agreement.

The large seine vessels normally used to transport NSRAA's Tahini River Chinook zero-check fry from Hidden Falls to Lutak Inlet were not



NSRAA staff work to fill the Herman Creek Incubation boxes (2009 photo).

available this year. NSRAA used another experienced fry transfer boat instead.

About eight hours into the trip, staff noticed lethargic fish rolling belly up to the surface. At that point, the boat was about half way to Lutak Inlet, so it did not make sense to turn around.

Initially, staff thought it was a water quality issue. But adding fresh saltwater did not help. Staff began to try to discharge the fish as soon as the boat reached the anchored net pen. Only then did it realize the liner net had become entangled on some bolts in the bait hold and ripped. Staff drained the hold and had to remove the fish by hand, using a dip net.

Only 80,600 of the 240,000 fry transferred survived – a huge disappointment for NSRAA.

Rearing of the surviving smolts went exceptionally well. They averaged 5.9 grams at the beginning of the saltwater rearing phase.

Unfortunately, ADF&G Sportfish Division cancelled its contract with NSRAA after the transfer mishap. NSRAA attempted to salvage the agreement but with no success. The Department took no eggs for this project this year.

## NSRAA Welcomes Two New Board Members

NSRAA welcomed two new members to its board this fall: Dan Pardee and Brad Badger.

Dan replaced Tim Grussendorf in one of the two At-Large Gillnet seats. He will be up for re-election in the spring. Tim was unable to finish his term due to a schedule conflict.

Dan, who lives in Juneau, has been fishing since he was nine. He grew up in Haines and left Alaska only briefly, to go to college in Colorado. He put himself through college using the money he made fishing.

“We’ve survived on hatchery fish for years now,” says Dan. “NSRAA’s got an excellent reputation for its hatchery programs. I’m interested in learning more about it.”

“As a board member, we have two responsibilities: to represent our gear group’s access to hatchery fish and the communities affected, and to make sure NSRAA is financially stable for future generations. Currently, NSRAA’s in great shape, but some remote facilities are 30 years old. We need to plan ahead for those challenges.”

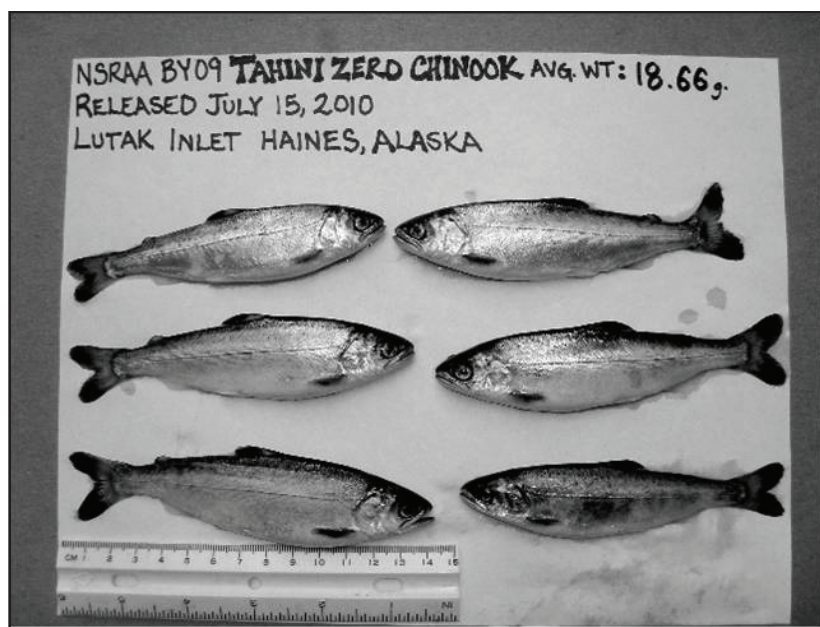
Brad lives in Haines and is replacing Mike Saunders as the Haines Gillnet representative. Mike passed away unexpectedly in June.

Brad’s seat is also up for re-election in the spring, but as of yet has no competition.

He has gillnetted for the past 14 years.

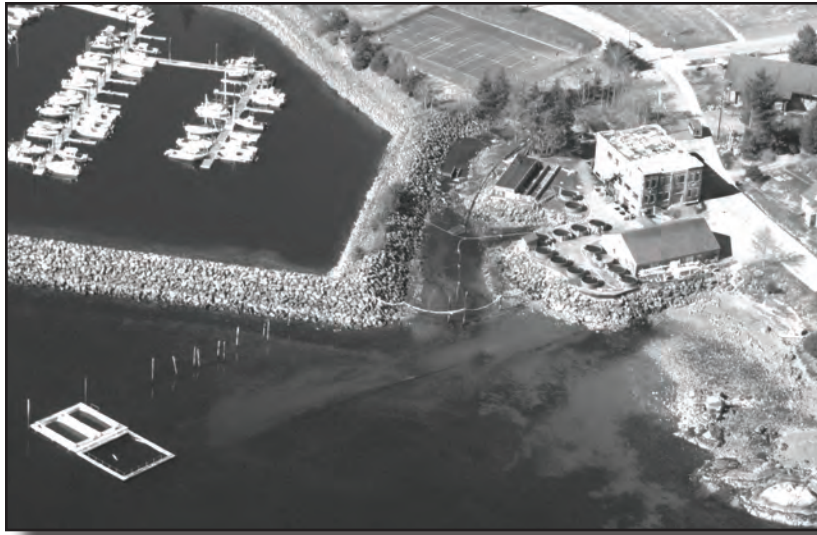
“A large amount of the money I’ve made over that time has been from hatchery fish,” he says. “It’s been a big part of my income, so that was one of the reasons for getting on the board – to keep our opportunities on these hatchery fish.”

There are 25 members on the NSRAA board, with representatives from all three gear groups and other interested parties. The board meets twice a year: in the spring and the fall.



NSRAA released 80,600 Chinook zero-check smolt into Lutak Inlet this summer.





*Sitka Sound Science Center recently purchased the Sage Building and has taken over operations of Sheldon Jackson Hatchery.*

### **Sitka Sound Science Center** *Cont. from front page*

“NSRAA’s constituency really benefits from that increased production,” says Jim, “and the revenue stream is very important to SSSC.”

Now that SSSC owns the building, it has applied to be the official permit holder of the hatchery and expects to receive approval in early 2011.

But the hatchery work is only one component of its programs. SSSC partners with the University of Alaska’s online Fisheries Technologies program to provide students an opportunity for hands-on training – another reason the purchase and improvements are so important.

“We don’t need a large quantity of any one thing,” says Jim. “But we do need to have the variety that, on a small scale, reflects what the students will experience on a large scale, so they will be prepared when they enter the workforce.”

Another important part of the organization’s programs is research.

SSSC aims to provide locally relevant research to coastal communities dependent on marine resources. This spring, it collaborated with NSRAA and others to research humpback whales targeting salmon enhancement facility releases. Another project studied sperm whale predation on sablefish longline gear.

“We want to be facilitators,” says Jim. “I think a lot of people didn’t take us seriously in the past, but I think they will now.”



## **NSRAA Employee Changes**

Another season came and went with few changes among NSRAA employees.

Perhaps most notable was NSRAA General Manager, Pete Esquiro’s retirement last spring.

Long-time employee, Steve Reifentstahl, returned to NSRAA (after a brief hiatus at Silver Bay Seafoods) as the new General Manager. The two worked together for several months before Pete’s departure.

“The transition went well,” says Steve. “It’s been fun. It’s been challenging. There’s been good news. There’s been bad news. But all told, I’ve enjoyed being in the position. I love working with the board, with the community and the fishermen. And we have a great staff, so what more could I ask for”

Steve began as a fish biologist in 1980, working his way up to

## **A Challenging Year At Salmon Lake**

This was NSRAA’s fourth season managing the Salmon Lake Weir project – one that came with extreme weather and resulting difficulties for weir operations, recapture and broodstock collection.

NSRAA is required to operate the Salmon Lake Weir as a part of its agreement with the Alaska Department of Fish & Game (ADF&G) under the Sawmill Cove Hatchery’s Basic Management Plan. The study’s objective is to monitor for hatchery-produced coho and to estimate the number of wild fish returning to the lake.

NSRAA began operations at Salmon Lake Weir in August, a month later than usual, as there are very few, if any, coho in July. The shortened season would cut costs and increase efficiency.

Extreme weather conditions made for a challenging season. A prolonged dry spell in September delayed fish movement to the weir during typical peak times. Torrential rains ended the dry spell, but raised the stream and lake levels by almost four feet. When the fish came, crews broke daily and weekly coho passage records.

### **Broodstock**

The high lake levels made the recapture portion of the project difficult and ineffective. Initial estimates indicate the total coho escapement was around 1,500 – similar to last year.

In 2009, NSRAA was approved to switch its coho broodstock source from Plotnikof Lake to Salmon Lake, due to an unacceptably high rate of BKD (bacterial kidney disease) in the fish captured from Plotnikof Lake.

The staff transferred one of the old net pens from Deer Lake to Salmon Lake to increase the holding area for the broodstock it captured. This was in response to the unusual in-pen mortality experienced last year.

NSRAA hadn’t had problems with holding mortalities in the colder Plotnikof Lake. Salmon Lake is warmer, with a higher pathogen load, and the staff concluded it needed to decrease holding densities.

The added net pen increased the holding volume by 10 times. In addition, the crew built a holding box that can be used in a stream collection area, or as a broodstock sorting container or remote holding box.

“The new pens worked great and made working with the broodstock relatively easy this year,” says Josh Homer, Project Leader. “Mortalities decreased by 75 percent.”

Broodstock collection was also challenging, with the high waters and lack of catchable fish. Staff collected most of the fish by rod and reel.

“This year we were only able to catch about 130 fish for broodstock and we worked very, very hard to catch those fish,” Josh says. “Some days we would set the beach seine four to five times and only catch a few coho. In past years, we averaged as many as 21 coho per set.”

NSRAA’s permit stipulates a collection of 260 fish maximum for broodstock. Staff will examine alternative methods for collecting broodstock next year.

NSRAA’s Operations Manager before he left for Silver Bay Seafoods in 2009.

“I’ve been part of every single program that’s developed here,” he says. “I’m proud to be a part of this company, to work and serve fishermen and the communities of Southeast Alaska. I couldn’t be happier.”

Meanwhile, another long-time (though not quite as long as Steve) NSRAA employee has moved on.

Tommy Sheridan resigned in the spring, after eight years with NSRAA. Tommy, who started as a Student Conservation Intern, returned to school to pursue a Master’s Degree in Fisheries Management.

Tommy has since accepted a fishery biologist position with Alaska Department of Fish and Game in Cordova. He continues to work toward his degree online and is looking forward to starting a family with his wife.