

Yukon salmon crisis – could hatcheries help?

PACIFIC FISHING

www.pacificfishing.com

THE BUSINESS MAGAZINE FOR FISHERMEN ■ MAY 2023

Guardians of the Pacific



- **Trident trawler fire**
- **Alaska salmon forecast**



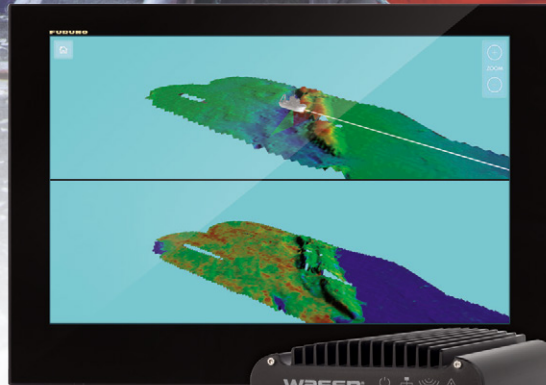
FURUNO
When you're serious about fishing

GET PAID.

With all this power, you'll find, pinpoint & increase your catch like never before.



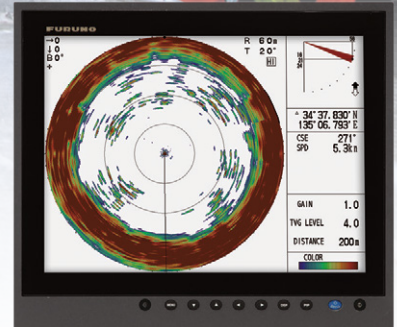
FCV1900 TruEcho CHIRP™ Fish Finder



Top Picture: Elevation
Bottom Picture: Hardness



WASSP Gen 3 3D Multi Beam Sonar



CH500/600 Searchlight Sonar



Maximize your time at sea & hit your quota by targeting your catch with Furuno.

FCV1900 delivers 1-3 kW output power at 15-200 kHz freq. range

FCV1900G tracks fish size using CHIRP™*

3rd gen WASSP specifically designed for fishing operations

WASSP 120° swath displays water column, bottom contour, and hardness

CH500/600 series offers fast scan speed and high-res images

*FCV1900G with TruEcho CHIRP™
Compatible transducer



wassp
MULTIBEAM

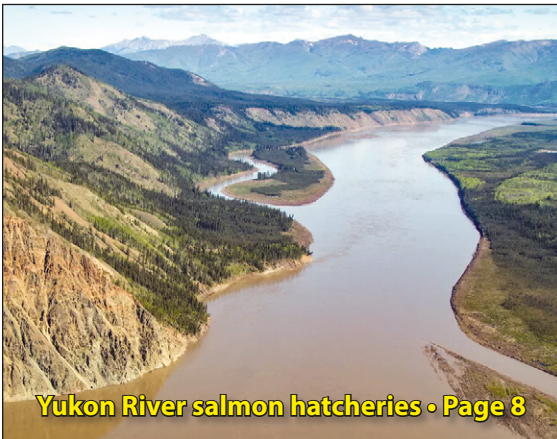
SEE IT ALL



Get the whole story at furunousa.com

PACIFIC FISHING[®]

THE BUSINESS MAGAZINE FOR FISHERMEN



Yukon River salmon hatcheries • Page 8



Alaska salmon forecast • Page 9



West Coast salmon closures • Page 17



Trident trawler fire • Page 7



Guardians of the Pacific • Page 10

VOLUME XLIV, NO. 5 • MAY 2023

Pacific Fishing (ISSN 0195-6515) is published monthly by Pacific Fishing Magazine, 941 Powell Ave. SW, Ste. 120, Renton, WA 98057. Periodicals postage paid at Renton, WA and at additional mailing offices. POSTMASTER: Send address changes to *Pacific Fishing*, 941 Powell Ave. SW, Ste. 120, Renton, WA 98057. Subscriptions: One-year rate for U.S. \$18.75, two-year \$30.75, three-year \$39.75; Canadian subscriptions paid in U.S. funds \$84 per year. Foreign airmail is \$120 per year.

Copyright © 2023 by *Pacific Fishing* Magazine. Contents may not be reproduced without permission.

ON THE COVER: A team from the U.S. Coast Guard cutter Alex Haley boards a fishing vessel in the Aleutian chain to inspect safety equipment, fishing gear, and quota credentials, April 10, 2023. Petty Officer First Class Jasen Newman photo

BRISTOL BAY
FISHERMEN'S ASSOCIATION

CORDOVA DISTRICT
FISHERMEN UNITED

OREGON DUNGENESS
CRAB COMMISSION

UNITED FISHERMEN
OF ALASKA

WASHINGTON DUNGENESS
CRAB FISHERMEN'S ASSOC.

WASHINGTON REEF NET
OWNERS ASSOC.

WESTERN FISHBOAT
OWNERS ASSOC.

Fish Wrap

It's FREE!*

It's the best commercial fishing news digest available in the North Pacific. Here's some of what you missed by not reading Fish Wrap.

'This lawsuit is ridiculous': U.S. Sen. Dan Sullivan vows to oppose the bid to shut down Southeast Alaska's king salmon troll fishery. – kstk.org

California's salmon situation: Commercial salmon fishing may be barred for the first time since 2009. – sfchronicle.com

Mounting resistance: Support builds for Southeast Alaska's embattled king salmon troll fishery as the state awaits a federal judge's potentially ruinous ruling. – alaskabeacon.com

Cook Inlet conservation: Months before the season begins, the Alaska Department of Fish and Game closes the king salmon sport fishery and the eastside commercial setnet fishery. – kdll.org

Washington salmon outlook: Forecasts include a predicted increase in coho returns across the state. – wdfw.wa.gov

Chinook salmon restrictions: The state announces a raft of expected management actions for commercial troll and net fisheries aimed at conserving wild Chinook returning to Southeast Alaska. – adfg.alaska.gov

Seagoing drones: NOAA Fisheries is evaluating cutting-edge technology with the potential to improve acoustic trawl surveys of walleye pollock, the largest U.S. fishery. – fisheries.noaa.gov

West Coast salmon outlook: The Pacific Fishery Management Council has adopted three alternatives for 2023 ocean salmon fisheries off Washington, Oregon, and California. – pcouncil.org

Bristol Bay's king salmon conundrum: The Alaska Board of Fisheries is weighing conservation measures for struggling Nushagak king salmon runs, but what would the cost be to the lucrative sockeye harvest? – kdlg.org

Conserving Bristol Bay kings: The Alaska Board of Fisheries has approved an action plan to help conserve Nushagak River king salmon runs, which have declined sharply in recent years even as sockeye returns have broken records. – kdlg.org

Sitka herring watch: Aerial surveys have begun ahead of the spring sac roe fishery. – kcaw.org

Fish farmers fight back: In a new campaign, Puget Sound aquaculture workers are speaking out on "the pain they and their families have endured" as the result of Washington state's fish farming ban. – nwaquaculturealliance.org

The Alaska situation: "Crisis" is the appropriate word for struggles seen recently in the state's fisheries, U.S. Sen. Lisa Murkowski says. – kmxt.org

Alaska's salmon struggles: State Fish and Game Commissioner Doug Vincent-Lang says preservation is the priority. – kmxt.org

Sitka herring watch: The seine fleet goes on two-hour notice effective at 8 a.m. Thursday. – deckboss.blogspot.com

No Togiak herring fishery: Despite the huge quota available, processors have indicated they don't intend to harvest this year, the Alaska Department of Fish and Game says. – deckboss.blogspot.com

The start of Klamath dam removal: "We have broken ground on the world's biggest salmon restoration project to date," says Craig Tucker, natural resources policy advocate for the Karuk Tribe. – times-standard.com

Oregon salmon outlook: Ocean Chinook salmon fishing is likely to be canceled for much of Oregon this summer. – opb.org

No Togiak herring fishery this spring: As the market for roe has dwindled, the remote fishery has become financially unfeasible. – kdlg.org

Off and running at Sitka: After days of anticipation, the herring sac roe fishery gets underway. – deckboss.blogspot.com

Bristol Bay's long-term prospects: The outlook is bright for Bristol Bay sockeye runs, a salmon expert says. – alaskabeacon.com

California crab closure: The commercial Dungeness crab fishery from the Sonoma-Mendocino county line to the Mexico border will close on April 15 due to the risk of whale entanglement. – wildlife.ca.gov

Cook Inlet conundrum: The North Pacific Fishery Management Council is set to again take up the salmon management issue. – kdll.org

*You can subscribe to **Fish Wrap** by sending an email to circulation@nwpublishingcenter.com. Write your first name, your last name, and the words "Fish Wrap." Do it now, before you go another month without **Fish Wrap**!

To subscribe:

www.pacificfishing.com

Ph: (206) 324-5644

circulation@pacificfishing.com

Main Office

14240 INTERURBAN AVE S. SUITE 190

TUKWILA, WA 98168

PH: (206) 324-5644

Chairman/CEO/Publisher

MIKE DAIGLE

miked@nwpublishingcenter.com

Associate Publisher

CHRISTIE DAIGLE

christied@nwpublishingcenter.com

EDITORIAL CONTENT:

Editor

WESLEY LOY

wloy61@gmail.com

Ph: (907) 351-1881

West Coast Field Editor

DANIEL MINTZ

PRODUCTION OPERATIONS:

Art Director, Design & Layout

PATRICIA WOODS

patriciaw@nwpublishingcenter.com

SALES & MARKETING:

JOHN NORDAHL

Ph: (206) 775-6286

johnn@pacificfishing.com

Ad Support

CANDICE NORTON

Ph: (206) 324-5644

candice@nwpublishingcenter.com

Cool Chain... Logistics for the Seafood Industry!



From Sea to Serve

Lynden's Cool Chain service manages your seafood supply chain from start to finish. Fresh or frozen seafood is transported at just the right speed and temperature to meet your particular needs and to maintain quality. With the ability to deliver via air, highway, or sea or use our temperature-controlled storage facilities, Lynden's Cool Chain service has the solution to your seafood supply challenges.



www.lynden.com | 1-888-596-3361

Alaska's seafood industry is a vital component of our economy

Editor's note: This commentary originally appeared April 24 on the Anchorage Daily News website.

A cornerstone for the future of Alaska rests in the opportunities that Alaskans have as they enter the workforce. As the acting commissioner of Alaska's Department of Labor and Workforce Development, it is my priority to ensure there are diverse career pathways for young Alaskans. For many job seekers, Alaska's commercial seafood industry offers exactly that.

Growing up in a family-owned seafood business, I worked on fishing boats and in processing facilities. It's hard work, but it's reliable, sustainable, and deeply important to Alaska communities and our state as a whole. As a small business owner, I have a deep appreciation for the opportunities that the commercial fishing industry provides for Alaskans and their families. Every Alaska fishing boat is a small business, which makes commercial fishing operations the largest category of small businesses in our state.

A career in the commercial fishing industry involves more than fishing and cannery jobs – it means everything from construction workers to cooks, foremen to forklift drivers, pipefitters to processors, marketing to maintenance to mechanics, truck drivers to roe techs, and beyond. While the fishing industry and its shore-based processors are quite visible to those living in coastal Alaska, there are less visible companies – yet vitally important ones – that contribute heavily to some of our most populous areas in South-central Alaska. Consider, for example, Copper River Seafoods' Anchorage-based processing facilities that provide 200 year-round jobs to an entirely local Anchorage workforce. That's just one example within a huge sector comprising hundreds of different direct and support industry jobs.

According to the most recent available data, Alaska's seafood industry employs more than 60,000 workers, earning over \$1.7 billion in wages each year. People living across coastal Alaska and beyond have the chance to take advantage of year-round careers in the seafood industry. A robust seafood industry also creates jobs in other sectors as ripple effects throughout the state, from restaurants and hotels to outfitters, construction, trade, and accountants. The commercial fishing industry provides foundational economic opportunities that rural communities in particular can depend on. Simply put: Alaska's seafood industry directly provides more jobs than any other private sector industry in the state.



Gillnet fishing vessels at Bristol Bay. Wesley Loy photo

As a fourth-generation Alaskan, parent, owner of a small business, state legislator, and now as acting commissioner, I've made workforce development a key priority throughout my career in public service. The Department of Labor and Workforce Development hosts several resources for Alaskans interested in careers in the seafood industry, including career streams presentations that give job seekers a sense of what a career in the seafood industry might entail, a central hub for job postings along with orientation videos, and information about some of the specific jobs and employers in the industry.

When it comes down to it, the seafood industry provides hundreds of career path options. So, whether you are starting your career or moving on to the next phase, there's a chance all of us have played a part in Alaska's seafood industry in one way or another, and there are near-countless opportunities for careers across the industry. The world's appetite for seafood is growing. Preparing the next generation of fishermen, processors, scientists, and more ensures that this sector remains a mainstay of Alaska's economy for generations to come. ↓

Acting Commissioner Cathy Muñoz leads the Alaska Department of Labor and Workforce Development.

PUGET SOUND HYDRAULICS, INC.

**RELIABLE
MOBILE
SERVICE**



**DESIGN
REPAIRS
INSTALLATION**

A COMPLETE QUALITY LINE OF SERVICE AND EQUIPMENT

4400 23rd Ave. West • Seattle, WA 98199 • Fax Number (206) 283-1026

(206) 283-0966

Fire ravages moored Trident factory trawler

Fire swept through the factory trawler Kodiak Enterprise while the vessel was moored at Tacoma.

The U.S. Coast Guard and the National Transportation Safety Board were investigating.

Shortly before 4 a.m. on April 8, a fire was reported in the galley, the NTSB said.

The blaze was intense, and firefighters cooled the hull with water. Flames appeared over much of the vessel and devastated the wheelhouse. A large volume of Freon was released. With smoke billowing, a shelter in place order was issued for nearby neighborhoods.

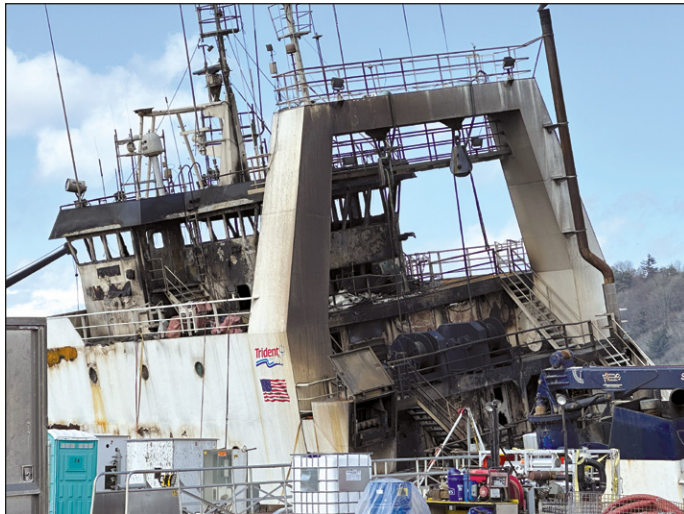
During the firefighting, the vessel took a hard list to port. It wasn't until April 14 that responders tweeted "the fire is out on the F/V Kodiak Enterprise." No injuries were reported.

"This was a dangerous operation that could have resulted in loss of life, harm to the marine environment from the fuel on board, or capsizing of the vessel," said Cmdr. Kira Moody, the Coast Guard incident commander.

The vessel appeared to be a complete loss. The Insurer reported: "The marine insurance market's exposure to losses from the recent Kodiak Enter-



The Kodiak Enterprise lists to port during firefighting operations. Photos taken from the Washington Department of Ecology photostream



The burned bridge of the Kodiak Enterprise

prise casualty could top \$150 million."

The 262-foot vessel belonged to Seattle-based Trident Seafoods Corp., and primarily fished Bering Sea pollock.

"We are grateful for the support and collaboration of all the agencies and parties in fighting the fire and stabilizing the vessel," said Trident CEO Joe Bundrant said. "We also appreciate the patience of the surrounding Tacoma community throughout the incident response. The Kodiak Enterprise is more than just a fishing vessel to the Trident family, especially to her crew."

No one was saying much about the cause of the fire. The Coast Guard was leading the investigation, with the NTSB looking to establish the probable cause.

This was the second major fire involving a Trident vessel moored at Tacoma. The 233-foot fish processor Aleutian Falcon was lost after fire broke out on Feb. 17, 2021. The NTSB determined the fire stemmed from maintenance and repair "hot work." The Washington Department of Ecology fined Trident \$25,000 for a hydraulic oil spill. ⚓

- Wesley Loy

Made in the USA



TRILOGY CRAB POTS, INC.



#1 in Technology

#1 in New Ideas and Design

#1 Superior Quality

#1 On The Water Experience: 90 Years Combined

THE CRAB POT GURUS THAT GOT YOUR BACK

SHOP, OFFICE & FAX: 360-650-0770 • 1180 Marine Drive • Bellingham, WA 98225

Hatcheries, long seen as last resort, get new look amid Yukon River salmon crisis

Editor's note: This story by Nathaniel Herz originally was published in the Northern Journal newsletter and is republished here with permission.

The salmon crisis in Western Alaska is prompting new discussions in the United States and Canada about an idea that would have been a nonstarter a decade ago: building hatcheries to stem the steep fish declines on the Yukon River.

Indigenous culture along the Yukon, in both countries, is centered on wild salmon runs. Historically, those runs supported both commercial fisheries that rural residents depended on for cash income, and subsistence fisheries that kept freezers and dinner plates full through the winter in a roadless region where groceries can be unaffordable.

But crashes in both Yukon chinook and chum salmon stocks have led U.S. and Canadian managers to completely shut down those fisheries in recent years – precipitating new talks about whether

hatcheries could help reverse that trend.

Hatcheries incubate fish eggs and release them into the wild as juveniles, though the ones already in Alaska are designed to enhance or supplement natural populations – not to restore depleted stocks. There's already one small hatchery on the Yukon, in the territorial capital of Whitehorse, that's designed to compensate for migrating juvenile salmon that are killed when they pass through the turbines of a local hydroelectric project.

Alaska Gov. Mike Dunleavy's administration recently put money for a restoration hatchery and related studies on a preliminary wish list of earmarks to U.S. Sen. Lisa Murkowski. And at a meeting of U.S. and Canadian officials in Whitehorse, a representative of a First Nations group said that members have expressed surprising openness to the idea.

"There were real concerns that if we have a hatchery, our salmon would no longer be wild," said Elizabeth MacDonald, manager of fisheries at the Yukon First Nations Salmon Stewardship Alliance. "There was also this kind of confession that maybe hatchery salmon are better than no salmon."

Officials involved in hatchery discussions include Alaska Fish and Game Commissioner Doug Vincent-Lang, who described the hatchery conversation as in its early stages and acknowledged that the subject is polarizing. Critics argue that putting more juvenile salmon in the Yukon won't solve the larger problems they cite as driving the salmon population crashes, like bycatch and warming waters in the Bering Sea.

There's also deep anxiety about tinkering with the natural river system, which some hope could ultimately repair itself.

"You want to say goodbye to Yukon River kings? Put a hatchery in," said Stephanie Quinn-Davidson, fisheries and communities program director at the Alaska Venture Fund, a philanthropic group that advocates for sustainable development. "Where have hatcheries ever worked?"

But the dire state of Yukon River salmon populations is prompting new openness to the hatchery idea.

Runs in recent years have hit record lows. In 2021, managers counted 154,000 summer chum salmon, compared to a historical median of 1.6 million. Last year, the summer chum count was 464,000.

Chinook counts had already been on the decline for more than a decade, but last year they dropped off a cliff. Managers predicted that between 41,000 and 62,000 Chinook would return to Canada last year, but the actual run size was estimated at just 13,000 – less than 10 percent of the returns two decades ago.

Those numbers have forced managers to completely close both subsistence and commercial salmon fishing on the Yukon – an outcome that residents along the river describe as an existential threat.

"I've always said I want a wild river with wild salmon. But I think we're at a point where we have to have a discussion about, what are we going to do?" Brandy Mayes, the land operations manager at the Whitehorse-based Kwanlin Dun First Nation Government, said at the recent Yukon Territory meeting. "It's just to know that we have salmon in our ecosystem, providing nutrients to the land, the trees, the air."

There appears to be more openness, at least initially, in Canada, which is higher up on the Yukon and naturally sees lower fish returns than Alaska. At a January workshop hosted by the First

ON THE HORIZON

Pacific Fishing magazine's monthly digest of upcoming management meetings and other notable events.

- North Pacific Anadromous Fish Commission annual meeting, May 15-19, Busan, South Korea.
- North Pacific Fishery Management Council meeting, June 5-11, Sitka.
- Pacific Fishery Management Council meeting, June 21-27, Vancouver, Wash.



- Pacific Fishery Management Council meeting, Sept. 7-14, Spokane.
- Association of Genuine Alaska Pollock Producers annual meeting, Sept. 28, Seattle. *More information at bit.ly/3Vs9Mfx.*
- North Pacific Fishery Management Council meeting, Oct. 2-10, Anchorage.
- Bellingham SeaFeast, Oct. 14-15, Bellingham, Wash. *More information at bellinghamseafeast.org.*

Nations salmon alliance, the Yukon indigenous group, most participants in an informal survey said they agreed that hatcheries should be a viable proposal to rebuild salmon stocks.

"I was really surprised by these results - I had expected a lot more 'no's' judging from the previous conversations that have been held," said MacDonald, who presented the survey's results at the Whitehorse meeting. "I think people are just feeling like if they don't do something, we're going to lose our salmon."

The results, MacDonald added, are "not a 'yes' to hatcheries." She described the alliance's January workshop as a starting point for discussion and community engagement.

That's also how officials from GOP Gov. Mike Dunleavy's administration are framing their position. Vincent-Lang, Alaska's fish and game commissioner, was also at the Whitehorse meeting, where he said he discussed the use of hatcheries as a "restoration tool" with the Yukon's environment minister.

"I think there are some people that are ready to build one right now. But we just want to start that discussion," he said in a phone interview. "And we recognize that it's a sensitive discussion."

Dunleavy's office has made an earmark request to Murkowski for up to \$50 million for "depleted fish stock studies" and a "potential Interior hatchery," according to an email released in response to a public records request.

Officials at the meeting in Whitehorse said that any hatchery proposals would have to comply with relevant sections of the U.S.-Canada treaty that governs international salmon management. And before any such hatchery could be authorized, Vincent-Lang said, the state would also have to revise a regulatory document for the Yukon River called a comprehensive salmon plan.

Vincent-Lang also stressed that any push on hatchery construc-

tion would not be a substitute for work on other issues that could be driving salmon declines.

"When you're putting a fire out, you don't just rely on an ax. You bring as many tools as you can," he said. "It doesn't mean we're not going to do anything about bycatch or we're not going to do anything about intercept fisheries. We're doing things. But does that mean we shouldn't bring yet another tool into that crisis that we're facing, and try to use as many tools as we can to preserve culture? I think we should."

Murkowski's office, in an emailed statement, did not directly answer a question about her openness to the hatchery idea. But spokeswoman Hannah Ray said the senator "continues to work on ideas and priorities for this year's bills" and has been listening to constituents' testimony on fisheries.

"Sen. Murkowski is gravely concerned by the salmon declines in Alaska, including in the Yukon," Ray said. "She is also keeping in close touch with the Alaskans affected by this crisis."

Vincent-Lang said residents and groups along the Yukon have wide-ranging opinions about hatcheries; some are open to the idea, while others have "no interest."

Ragnar Alstrom, who leads an economic development group called the Yukon Delta Fisheries Development Association, said that "everyone" along the river is opposed to hatcheries aimed at boosting stocks above natural levels. But, he said, he's open to discussion about the potential for hatcheries to restore diminished salmon populations.

"I'd like to hear what the Canadians are proposing, and what they're thinking about as far as restoration hatcheries - just to listen to see what they are," Alstrom said in a phone interview. "Very controversial on both sides. But at least we should listen." ↓

Larger Alaska salmon harvest expected

Powered by pinks, Alaska can expect a larger commercial salmon harvest this year.

That's the upshot of the Alaska Department of Fish and Game forecast released April 5.

The statewide, all-species harvest projection is 189.4 million salmon. This includes about 122 million pinks, 48 million sockeye, and 16 million chums.

Last year's catch tallied 163.2 million salmon, including 69.5 million pinks and 75.5 million sockeye.

Sockeye is the salmon industry's main money fish, and the big drop-off expected this season is attributable mainly to Bristol Bay.

The bay last year produced a record catch of more than 60 million sockeye. The forecast for this year is 36.7 million.

The enormous 2022 catch is a source of anxiety for this season as processors work to move inventory. The worry is last season's haul could drag down ex-vessel prices for fishermen this year.

The Bristol Bay Regional Seafood Development Association, which represents driftnetters, wrote in its May newsletter it had "learned that at least one major processor has announced to its fleet that their pack is sold, which is good news."

The association added: "The bad news is wholesale prices have declined sharply, which is a big headwind coming into the season. We recommend talking to processors about market prospects for this upcoming season." ↓

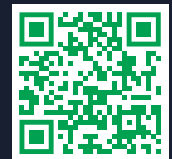
- Wesley Loy



Meet Our "Fish Bankers"

Our experienced lenders have specialized knowledge of the commercial maritime industry. Let us help you navigate your financing options.

Scan the code to learn more.



 **First Fed** Member FDIC 

ourfirstfed.com/maritime | 800-800-1577



U.S. Coast Guard cutter Stratton crewmembers in class at the North Pacific Regional Fisheries Training Center in Kodiak, March 5, 2021, prior to a Bering Sea deployment. Petty Officer 3rd Class Janessa Warschkow photo

Guardians of the Pacific

How the U.S. Coast Guard carries out its living marine resources mission in Alaska

Editor's note: The following is adapted from a U.S. Coast Guard article posted to its website on April 20.

Alaska supports some of the most abundant and diverse marine ecosystems in the world.

With more than 46,000 miles of shoreline – more than all of the Lower 48 states combined – the ocean is an integral part of Alaska's ecosystems, economy, history, and culture.

Alaska produces more than half the fish caught in waters off the U.S. coast, provides jobs and a stable food supply for the nation, and supports a traditional way of life for Alaska Natives and local

fishing communities. Protection of the state's \$5.7 billion domestic fishery has never been more crucial.

The living marine resources (LMR) mission is one of two missions focused on protecting fisheries in and outside U.S. waters. The U.S. Coast Guard is responsible for enforcing LMR regulations on domestic, commercial, recreational, and charter fishing vessels.

Tasked with enforcing applicable fisheries laws in partnership with NOAA Fisheries, the Coast Guard's goal is to provide the at-sea law enforcement presence necessary to reach national goals for LMR conservation and management. Vessel boardings are a

critical component to accomplishing this mission, providing an opportunity for teams to inspect a vessel's catch, gear, and other items to ensure regulatory compliance as well as safety.

"The 17th Coast Guard District's LMR mission is to promote a level playing field in Alaska's extremely valuable commercial fisheries, protect resources, and ensure safety of life at sea," said Lt. Cmdr. Jedediah Raskie, D17's domestic fisheries enforcement chief. "The LMR enforcement mission is a complex operation requiring in-depth planning, multilateral partnerships, and interagency collaboration. A continued at-sea presence is crucial, and this is only accomplished through dedication and teamwork with our enforcement partners."

Those partners include:

- Coast Guard cutters from Alaska, Washington, Hawaii, and California



An instructor at the North Pacific Regional Fisheries Training Center in Kodiak. USCG photo

Gannet Nets and Cadilhe & Santos bring you the **NEWEST** **INNOVATION** in GILLNETS

- ◆ Highest quality German BASF nylon
- ◆ Japanese strength and quality standards, at an affordable price
- ◆ 'U' Knot security

Color cards available!

Email Mike at mike@gannetnets.com or call (206) 334-7118.



Color cards available!
Visit gannetnets.com/gillnets





Petty Officer 3rd Class Nathaniel Cassar measures a tunnel opening on a fish pot to verify the opening meets regulations, allowing undersized or juvenile marine life to escape. Lt. Heather Bacon-Shone photo

- Sector Anchorage, Sector Juneau, the North Pacific Regional Fisheries Training Center, and Maritime Safety and Security Teams

- The Alaska State Troopers, the Alaska Department of Fish and Game, and local law enforcement

- NOAA's Office of Law Enforcement, the Department of State, the U.S. Drug Enforcement Administration, and Customs and Border Protection.

Collectively in 2022, D17 patrolled 10,723 nautical miles and conducted 654 federal LMR enforcement boardings (11 on foreign-flagged vessels), detecting 30 violations on 26 vessels and seizing catch on three fishing vessels.

The top five fisheries violations include logbook discrepancies, no individual fishing quota (IFQ) permit on board, expired or no federal fisheries permit (FFP) on board, seabird avoidance gear not on board or improperly constructed, and improperly marked



Family and friends welcome home the cutter Alex Haley in Kodiak on Jan. 12 following extended drydock maintenance in Seattle. Petty Officer 3rd Class Ian Gray photo

buoys on fishing gear.

“Right now, our teams are heavily involved with enforcement surrounding the opening of Pacific halibut and sablefish season,” Raskie said. “The Pacific halibut and sablefish IFQ program is the largest catch share program in the U.S. and comprises 90 percent of D17’s total fisheries boardings.”

With the IFQ program, each fisherman has a catch quota that can be used during the season from March to November. The North Pacific Fishery Management Council developed this program to address issues associated with the race for fish that had resulted from open access.

Top IFQ violations include not having an official logbook on board, no IFQ permit and/or FFP on board, illegally retaining and/or mutilating halibut, and failure to retain and/or log retaining Pacific cod and rockfish.

Some background: The Magnuson-Stevens Fishery Conservation and Management Act is the primary law governing fisheries in U.S. federal waters. The act’s key objectives are to prevent overfishing, rebuild overfished stocks, increase long-term social and economic benefits, and ensure a safe and sustainable supply of seafood.

Prior to Magnuson, waters beyond 12 nautical miles were international waters and fished by fleets from other countries.

This 1976 law created eight regional fishery management councils. The councils are charged with conserving and managing fishery resources from 3 to 200 miles off the coast while the state of Alaska manages fisheries that occur within 3 nautical miles from shore.

The North Pacific Council manages more than 140 species within 47 stocks and stock complexes, primarily groundfish in the Gulf of Alaska, Bering Sea, and Aleutian Islands. Cod, pollock, flatfish, mackerel, sablefish, and rockfish species are harvested by trawl, longline, jig, and pot gear. The council also makes allocation decisions for halibut in concert with the International Pacific Halibut Commission, which manages the resource in U.S. and Canadian waters.

Other fisheries for salmon, crab, and scallops are managed jointly with the state of Alaska.

School of fish: To better enforce the fishery council’s management plans, the Coast Guard determined that region-specific training was necessary to ensure boarding officers received adequate instruction in enforcing the increasingly complex laws that govern our nation’s living marine resources.

The Coast Guard’s five fisheries training centers are dedicated to providing training in LMR and protected species law enforcement.

The North Pacific Regional Fisheries Training Center in Kodiak trains students operating across the vast and harsh environments of the 17th Coast Guard District, to

include the Arctic Ocean, Bering Sea, Aleutian Islands archipelago, Gulf of Alaska, and the Inside Passage, an area encompassing 3,853,500 square nautical miles of sea and more than 47,300 miles of coastline.

The training center also teaches the enforcement of Conservation and Management Measures on behalf of four international fisheries commissions and 62 signatory nations across North and South America, Asia, Oceania, Europe, and Africa, covering over 80 percent of the Pacific Ocean. Training center personnel provide instruction to surface and aviation law enforcement crews, command personnel and supporting staff, and deployable specialized forces units. Upon completion of the training, boarding officers are then charged with carrying out the LMR mission by performing at-sea boardings to ensure compliance. ↴

VALVES PIPE & FITTINGS PUMPS HYDRAULICS HARDWARE IMS REPLACEMENT PARTS

SUPPLIES * SUPPORT * SOLUTIONS

MARINE REFRIGERATION & PLUMBING SUPPLIES

EVERYTHING YOU NEED TO DO THE JOB RIGHT



A DIVISION OF IMS

800.562.1945

10821 47th Ave. W., Mukilteo, WA 98275

www.wescold.com sales@wescold.com

How 3D imagery is giving us better fish surveys

Alaska seas are vast, remote, and deep. Ships, money, and time are limited. Collecting the biological and environmental information managers need to maintain productive, climate-resilient fisheries is challenging.

The Alaska Fisheries Science Center is advancing the use of remote sensing technologies to meet that challenge.

The center uses innovative tools including drones, remotely operated vehicles, eDNA analysis, and stereo camera systems to complement traditional ship surveys. These new tools increase sampling coverage while minimizing the environmental impact and cost of fisheries monitoring and research.

The stereo camera system, developed at the science center, offers additional, unique capabilities.

“Stereo camera imagery reconstructs a 3D environment. The image quality is high enough to identify species. Together, these allow us to collect a great deal of information from each sample,” said NOAA Fisheries biologist Kresimir Williams, who developed the stereo camera system with colleague Rick Towler.

High-quality 3D stereo imagery enables scientists to count the number of animals per unit area. It lets them measure the size of animals and their height off the seafloor. It reveals how individual animals associate with other species and with seafloor features. It provides a powerful, versatile tool to collect essential data to inform ecosystem-based fisheries management.



Kresimir Williams and Rick Towler prepare the “pea pod” camera to launch within a trawl net.

Origin of stereo camera sampling: The development of the stereo camera system was driven by the need to make sure that fish sampled in survey trawls represented the population.

“One way to find out was to put a camera in the net,” Williams said.

Towler and Williams determined that 3D imagery would provide the information they needed. It would allow them to see how fish behaved in the trawl – how they were herded and how small fish escaped.

The earliest attempt debuted in 2007. Dubbed the “pea pod,” it consisted of a set of green floats with cameras in the middle.

“At that point it was a clunky, low-budget operation. We put commercial cameras in containers, like a ship in the bottle. There were wires everywhere,” Williams said. “But we got good data.”

From there sprung the idea for the CamTrawl, Williams said,



The CamTrawl net-mounted stereo camera. The middle housing contains the two cameras. The four outer cylinders are LED strobe lights that flash when the cameras fire. NOAA Fisheries photos

“and our big-time leap into stereo camera sampling.”

Sampling without catching: The idea behind the CamTrawl was to use cameras to observe fish going through an open-ended net – without catching them.

“Alaska pollock will swim away from the camera if you just drop it into the water,” Williams explained. “The net provides a closed situation. They have to pass the camera.”

Towler and Williams worked together over six years to perfect the CamTrawl system. Williams was the idea guy, and handled funding, optics, deployment, and analysis. Towler was the expert on electronics, embedded systems, and software development.

As they developed the camera system, they partnered with experts at the University of Washington to develop artificial intelligence to automate image processing. This saved an enormous amount of tedious human labor and cost.

CamTrawl has been routinely used in surveys since 2012. Towler and Williams continue to refine the system, introducing new technologies to improve performance and extend capabilities. They built a second system as a backup, which they lend to other NOAA Fisheries science centers and other agencies across the nation. They also helped scientists at the Northwest Fisheries Science Center build a CamTrawl which they use during their West Coast hake surveys.

“We can’t make them for everyone, but we made the recipe available so they can make their own,” Williams said.

Untrawlable habitat surveys: The stereo camera system has since been adapted to meet an increasing array of research needs beyond the CamTrawl – from surveying untrawlable fish habitat to discovering deep-sea coral habitat on unexplored seamounts.

“Each camera system is more technical and more customized,” Williams said. “We’re able to create these adaptations because we’ve already developed the software. Rick developed a robust system that makes everything else possible.”

The stereo camera system is able to sample steep, rocky areas that nets cannot. These “untrawlable” areas are important habitats for rockfish and other bottom-dwelling species. Unlike pollock in midwater that swim from the camera, most rockfish stay in their territory when the camera is dropped. 3D imagery provides the capability to estimate the number and size of fish in these habitats

for more accurate stock assessments.

The stereo camera played a key role in exploring and mapping deep-sea coral habitat on seamounts last summer. Stereo 3D images allow scientists to identify species, measure sizes, distances between animals, height from bottom, and how close other animals are to particular species of coral or sponge.

"The idea is to not just collect images, but to collect images you can collect data from," Williams said.

The team has also designed eight small stereo camera units that have been deployed for a variety of research. They include observations of cod spawning grounds, sand lance behavior, and juvenile cod nursery grounds.

Picturing the future: Williams and Towler are continuing to develop innovative versions of the stereo camera system to expand fisheries research capabilities in Alaska and beyond.

Among these is a camera trap, based on those used to sample rarely encountered terrestrial species.

"We want to expand the camera trap concept into the midwater realm," Williams said. "For that we need a camera that's not lighting up, but waiting for fish to come to it."

The team is developing small, ruggedized, next-generation CamTrawl devices for collaborative research with the fishing industry.

Also under development is a drop camera that will be used concurrently with a bottom trawl on groundfish assessment surveys.

"When they get to untrawable grounds, they will now, starting this summer, drop a camera," Williams said.

A great deal of knowledge will potentially be gained through



CamTrawl image of pollock in a trawl net

these innovations. But new information may also be gleaned from existing stereo imagery.

"Photo datasets can be revisited many times with a different objective," Williams said. "I recently went back to an old dataset to see how fish reacted to the approaching camera."

In all of these endeavors, 3D imagery will provide valuable information. It also offers humans an experience that no other sampling technique can match.

"The camera lets us interact in a more personal way with this place where we don't belong," Williams said. "It's a way to immerse ourselves in it. It's powerful stuff." ↴

- NOAA Fisheries

Port Townsend Shipwrights



Serving the Pacific Fishing Fleet and beyond since 1981

360-385-6138 www.ptshipwrights.com

© Dobra Elizabeth Swanson

Seattle judge gaffs Alaska troll fishery

Chinook closure: A Seattle federal judge on May 2 delivered a crushing blow to the Southeast Alaska troll fleet, issuing an order that would effectively close down the key summer Chinook fishing season.

The order from U.S. District Judge Richard A. Jones also would shutter the winter season.

The order stems from a lawsuit brought by the Wild Fish Conservancy, a Seattle-area nonprofit that argues the troll fishery catches salmon endangered Southern Resident killer whales need for food.

The organization hailed “a landmark order halting the overharvest of Chinook salmon in Southeast Alaska that has persisted for decades, jeopardizing the survival of federally protected Southern Resident killer whales and wild Chinook populations coastwide.”

Commercial fishermen, Alaska elected officials, and other panned the judge’s action, and the Alaska Department of Fish and Game immediately filed a notice of appeal to the 9th U.S. Circuit Court of Appeals.

They said the Wild Fish Conservancy lawsuit was unfairly singling out the troll fishery.

“Alaska will not tolerate the suspension of its fisheries while other West Coast fisheries equally or more impactful to killer whales ... are allowed to proceed,” said Alaska Fish and Game Commissioner Doug Vincent-Lang.

The Alaska Trollers Association has raised hundreds of thousands of dollars from Southeast Alaska cities and others who say a shutdown of the troll fishery would be economically devastating to the region.

Aside from continued legal tussling in the 9th Circuit, the National Marine Fisheries Service will be working to remedy certain violations the court found under the Endangered Species Act and the National Environmental Policy Act.

If NMFS is able to do this to the court’s satisfaction, the troll fishery court resume.

The summer troll season ordinarily begins on July 1.

In a bit of good news for the fleet, the Alaska Trollers Association said it had received confirmation from Fish and Game that the troll coho and chum fisheries would occur this year as normal, although without Chinook retention.

↓ ↓ ↓ ↓

Tribal trouble for trawlers: Alaska’s groundfish trawl industry has come under rising criticism for bycatch of Western Alaska salmon, Bering Sea crab, and halibut – all stocks that have struggled in recent years.

Now, the criticism is turning into court action.

On April 7, two prominent Alaska tribal organizations sued the federal government in a challenge to the Bering Sea and Aleutian Islands groundfish fisheries. The suit in Alaska federal court names NMFS and Commerce Secretary Gina Raimondo as defendants.

NMFS manages the groundfish fisheries.

The two tribal plaintiffs, the Association of Village Council Presidents and Tanana Chiefs Conference, are represented by Earthjustice. They said in a press release:

“Alaska is facing a historic salmon crisis which is crushing the people and tribes of Western Alaska. Subsistence fishing in the Yukon and Kuskokwim regions of the state has been severely restricted for over a decade while the pollock trawl fishery continues to catch thousands of Chinook and chum salmon as bycatch each year. Meanwhile, radical ecosystem changes have negatively

affected conditions for Chinook and chum salmon rearing in the ocean. The federal government’s current fisheries management decisions prioritize maximizing groundfish catch over protecting the subsistence rights of Alaska Native peoples who are deeply impacted by those decisions.”

NMFS had not yet answered the lawsuit as of press time.

↓ ↓ ↓ ↓

Sitka herring wrap: The Sitka Sound sac roe herring season ran from March 28 to April 11, with the seine fleet harvesting about 10,200 tons of herring with an average mature roe percentage of 10.8 percent, the Department of Fish and Game reported.

The harvest was far short of the preseason quota of 30,124 tons.

Fish and Game mapped 83.8 nautical miles of shoreline with herring spawn this year, which is higher than the 2013-22 average of 66.7 miles.

The department included no details in its season summary regarding herring ex-vessel prices.

↓ ↓ ↓ ↓

Cook Inlet takeover: For lack of a better alternative, NMFS is moving to assume management of salmon fisheries in the federal waters of Upper Cook Inlet.

It’s the latest twist in a long and contorted legal battle over Cook Inlet salmon management.

Normally, the state manages Alaska salmon fisheries, not the feds.

The NMFS action comes as the agency hustles to meet a court deadline. It also follows the North Pacific Fishery Management Council’s failure at its April meeting to adopt any recommendation on Cook Inlet salmon management.

↓ ↓ ↓ ↓

Trident’s megaproject: We’re slowly learning more about Trident’s plans for Unalaska.

The Seattle-based company “is investing \$400 million to build a new seafood processing plant” at the end of Captains Bay Road, according to a brochure posted on the City of Unalaska’s website.

“It will open in 2025 and requires extension of water, sewer and electric utilities,” the brochure says.

The city is trying to round up \$68.5 million for a three-phase effort to extend utilities and improve the craggy road.

Trident’s Stefanie Moreland said the brochure hadn’t been “reviewed or approved by our team.”

Trident already operates one of Alaska’s largest fish plants at Akutan, about 35 miles to the east of Unalaska.

↓ ↓ ↓ ↓

Juneau watch: Two noteworthy bills were making their way through the Alaska Legislature.

Senate Bill 82 would establish a buyback program for eastside Cook Inlet salmon setnet permits. The bill isn’t so controversial.

The second piece of legislation, Senate Bill 128, is highly controversial. It would close Area M to commercial salmon fishing from June 10 through June 30 this year as a way to conserve chum salmon bound for Western and Interior Alaska, which is experiencing a salmon depression.

Wesley Loy is editor of **Pacific Fishing** magazine and producer of *Deckboss*, a blog on Alaska commercial fisheries.



Another disaster for California salmon

Statewide shutdown: The full closure of California’s commercial ocean salmon season is being met with efforts to secure federal disaster assistance.

In mid-April, the Pacific Fishery Management Council announced the total season closure. It’s due to drought impacts on Chinook salmon eggs and hatchlings seen three years ago.

Fall-run returns to the Klamath and Sacramento rivers are predicted to be alarmingly low, prompting the full closure.

As of press time, California elected officials were rallying for a disaster declaration.

Democratic U.S. Reps. Jared Huffman and Alex Padilla spearheaded an “urgent” request for quick approval of a federal disaster declaration.

California Gov. Gavin Newsom made a similar request with his letter to U.S. Secretary of Commerce Gina Raimondo, saying the closure will cause the total loss of about \$15 million in ex-vessel value.

It’s the first time a full closure has happened since the shut-downs in 2008 and 2009.

But a California Department of Fish and Wildlife press release noted that above average rainfall in 2010 and 2016-17 led to significant salmon rebounds and this year’s “ample precipitation” will boost returns three years from now.

Oregon’s Klamath Management Zone from the California border to the Humbug Mountain/Port Orford area is also closed. Otherwise, the state’s Chinook season is limited, with a late start on Sept. 1, continuing through October.

Oregon Gov. Tina Kotek requested the Commerce Department “make an expedited declaration of a federal fishery resource disaster.”

The northern Oregon/Washington Chinook spring and summer seasons have quotas and weekly limits as usual but they’re set higher this year, as the area isn’t in the range of the struggling Klamath and Sacramento salmon stocks.



K-9 Abbie takes a little break from Oregon Police Canine Association training at U.S. Coast Guard Station Coos Bay. Clackamas County Sheriff’s Office photo



Flow fight: With the fall-run Klamath Chinook crash as context, the Pacific Coast Federation of Fishermen’s Associations is teaming up with the Yurok Tribe and the Institute for Fisheries Resources in a lawsuit challenging federal flow allocations for Klamath River fish.

The suit was filed in March against the U.S. Bureau of Reclamation. “The lawsuit claims the Bureau of Reclamation failed to meet its obligation to protect salmon and orcas under the Endangered Species Act and seeks to stop water deliveries for irrigation until the agency complies with minimum water flow requirements for the river,” a March 27 press release said.

Glen Spain, director of fishermen’s group and the institute, calls the bureau’s water shares decision an “illegal water grab” that drops river flows to 16 percent below a minimum set by the National Marine Fisheries Service.

Around the same time the lawsuit was filed, the monumental Klamath River dam removal project began.

As announced by the Klamath River Renewal Corp., preliminary work includes constructing road access. The project will see the four dams of the Lower Klamath Hydropower Project removed by the end of 2024.



Fish farms invite: Washington state has banned ocean-based salmon farming, but is receptive to land-based farms.

On April 11, the state Department of Natural Resources announced a partnership with the Sustainable Blue aquaculture company to “identify opportunities” for land-based fish farming on state-owned lands.

Hilary Franz, Washington’s commissioner of public lands, said the agreement with the company “represents an important step toward restoring finfish aquaculture in a sustainable, healthy way that does not pit farmed fish against the native salmon we all work so hard to sustain.”

The press release announcing the partnership said the search for sites would begin later this spring.



Expediting wind energy: With offshore wind energy development ramping up off the California coast, fishing industry advocacy groups are asking for a careful and inclusive process.

A new law proposed by state Sen. Mike McGuire seeks to quicken the state’s permitting process, but McGuire said it won’t undercut environmental reviews.

Senate Bill 286, the Offshore Wind Expediting Act, consolidates efforts of the state’s Coastal Commission, Lands Commission, and federal agencies to streamline permitting and California Environmental Quality Act review.

That’s expected to shorten the process by three years. But McGuire said shorter doesn’t mean less thorough.

His bill calls for creation of the California Offshore Wind Energy Fisheries Working Group, which would bring just about every bureaucrat and wind energy entrepreneur together with fishing industry reps to develop “a statewide strategy” for addressing impacts that can be avoided and mitigating ones that can’t be.

Also part of the planning is compensation for fishermen for offshore wind’s economic impacts.

The bill was making its way through committees.

Daniel Mintz reports from Eureka, Calif.

Professional Services

**Gibbons & Associates, P.S.
MARITIME ATTORNEYS**

**Proctor in Admiralty
Over 35 years experience**

Trials, appeals, mediations, arbitrations

Injury and Wage Claims

Salvage

Collisions

Shipyard Claims

Liens

Contracts

Charter Parties

Joint Ventures

Fisheries

Tug and Barge

Marine Insurance Disputes

Coast Guard Licensed Master

Gibbons & Associates, P.S.

ph 206-381-3340; fax 206-381-3341

cell 206-507-9542

email svg@gibbonslawgroup.com

601 Union St 2600, Seattle, WA 98101

Online at www.ufafish.org



Our mission is to promote and protect the common interest of Alaska's commercial fishing industry, as a vital component of Alaska's social and economic well-being. Join today!

HOCKEMA GROUP
 NAVAL ARCHITECTS SEATTLE WA
 MARINE ENGINEERS BEND OR
 ELECTRICAL ENGINEERS 206-365-0919
 WWW.HOCKEMA.COM / MARKETING@HOCKEMA.COM

New Vessels
Conversions
Stability

SILVER HORDE®
 Fishing Lures & Supplies
 20910 63rd Ave. W., Lynnwood, WA 98036
 (425) 778-2640 • 24 Hr. FAX:
 (425) 774-7300 • (425) 774-7300

Permit Master

Permits, Boats and IFQ

**Serving fishermen from
Alaska and along the
West Coast since 1992.**

**A full service brokerage.
We look forward to
working for YOU!**

**info@permitmaster.com
(888) 588-1001 • permitmaster.com**

ADVERTISERS INDEX

AgWest Farm Credit	19
Alaska Boats and Permits	19
Alaskan Quota & Permits LLC	21
Dock Street Brokers	22
F/V Morgan/Jonathan Pavlik	19
First Fed Bank	9
Furuno U.S.A., Inc.	2
Gannet Nets	11
Gibbons & Associates, P.S.	18
Hockema Group	18
Homer Marine Trades Association	19
Innovative Manufacturing Inc.	23
Integrated Marine Systems Inc.	24
Lynden	5
Marine Engine & Gear	19
Permit Master	18
Port Townsend Shipwrights Co-op	15
Puget Sound Hydraulics	6
Silver Horde Fishing Supplies	18
Trilogy Crab Pots, Inc.	7
United Fishermen of Alaska	18
Wescold Systems, Inc.	13

The F/V MORGAN is ready to fish your IFQs!

The F/V Morgan is a 32' Delta, available to fish all classes of quota in all areas. It's a like-new, fully-equipped, clean, and comfortable boat. Professional crew with 15+ years experience in the fishery. Flexible schedule and competitive rates. No #2s, best prices.



For more information, contact Jonathan Pavlik • (907) 314-0714 Cell • (907) 784-3032 Home

Alaska
Boats & Permits, Inc.



Full Service Marine Brokerage

IFQs • LLPs • Permits • Vessels • Escrow
Marine Documentation • Estate Liquidation

907.235.4966
www.alaskaboat.com

Established 1997
Located in Homer, Alaska

Choose
Homer for
your boat
work!



New name. Same commitment to cash patronage.

Northwest FCS is now AgWest Farm Credit. And we're still committed to sharing profits with our customers.

Patronage continues to be a unique benefit of our cooperative structure, providing earnings from our association back to our customer-members.

This year, patronage dividends total \$366.5 million to eligible customers throughout the West. It pays to be an AgWest customer.

Grounded by tradition.
Inspired by possibility.

Contact your local branch or visit AgWestFC.com to learn more.



This institution is an equal opportunity provider and employer.

SUBSCRIBE to Pacific Fishing

Pacific Fishing magazine gives you valuable information you need to run an efficient, profitable and sustainable fishing operation with practical coverage of markets and politics; science and technology; shipyard and gear updates; and more!

Subscriptions start at only \$15 per year!



pacificfishing.com/subscribe.html



CATERPILLAR®

TWIN DISC MARINE TRANSMISSIONS, Caterpillar, and Cummins engines & parts. New and rebuilt, biggest selection of used engine & gear parts in the world available. Worldwide shipping. Best pricing. Call Steve from Marine Engine & Gear at (617) 448-0812 or him at email twindiscgears@aol.com.

Permit Information



Dock Street Brokers
 (206) 789-5101 (800) 683-0297
 www.dockstreetbrokers.com
For all the latest permit & IFQ listings please call or visit our website.

IFQ NEWS

Price differences reflect the range from small blocks of D or C class on the lower end to unblocked B class unless otherwise indicated.

HALIBUT

At the time of this writing, the IPHC has announced 2023 catch limits, with decreases across all areas, and most significantly in 3A and 4A. However, market activity has increased, with recent sales of 2C, 3A, and 3B. Unblocked remains available at reduced prices for all areas except 2C. We are hopeful that the increased market activity will continue through the start of the season. The latest is as follows:

AREA	ESTIMATED VALUES
2C - Only blocked available.	\$49.00/# - \$70.00/#
3A - High availability, motivated sellers.	\$36.00/# - \$43.00/#
3B - Recent sales, unblocked available.	\$30.00/# - \$36.00/#
4A - No recent offers.	\$8.00/# - \$12.00/#
4B - Unblocked available, prices reduced.	\$7.00/# - \$11.00/#
4C/4D - Blocked and unblocked available	\$10.00/# - \$16.00/#

SABLEFISH

Sablefish IFQ owners and harvesters are making preparations for the 2023 season. Pre-season sale activity is occurring in CG and SE, with markets taking shape. Availability of IFQ for sale remains steady. Demand remains relatively low due to soft ex-vessel prices and high borrowing costs. However, we expect early season activity to continue as harvesters add IFQ to their fish plans. The latest is as follows:

AREA	ESTIMATED VALUES
SE - Blocked and unblocked available.	\$9.00/# - \$13.00/#
WY - No recent activity, high availability.	\$9.00/# - \$13.00/#
CG - High availability, offers encouraged.	\$7.00/# - \$10.00/#
WG - Large blocks available.	\$6.00/# - \$9.00/#
AI - No recent activity.	\$1.00/# - \$4.00*/# (A class)
BS - B class, blocked QS available.	\$1.00/# - \$8.00*/# (A class)

See all our listings at www.dockstreetbrokers.com.

ALASKA PERMITS	ESTIMATED VALUES
Power Troll	\$26k
Area M Drift	\$175k
Area M Seine	\$160k
Bristol Bay Drift	\$180k
Bristol Bay Drift EMT	\$28k
Bristol Bay Setnet	\$82k
Cook Inlet Drift	\$32k
Kodiak Seine	\$36k
Kodiak Tanner <60'/<120'	\$67k/\$125k
PWS Drift	\$105k
PWS Seine	\$240k
SE Dungeness (75-300 pots)	Variable
Southeast Drift	\$70k
Southeast Herring Seine	\$185k
Southeast Salmon Seine	\$200k
SE Chatham Black Cod	\$420k

WEST COAST PERMITS	ESTIMATED VALUES
California Crab	Variable - Call for info
We recommend that all permit holders request that CDFW verify allowable length of their permit. The latest is as follows:	
- 175 pot:	\$30k-\$48k range.
- 250 pot:	\$45k-\$60k less than 40'. \$50k-\$90k for 40'+
- 300-350 pot:	\$70k-\$150k.
- 400-450 pot:	\$100k-\$275k. Value dependent on length.
- 500 pot:	\$190k-\$375k. Highest value in 58' and above.
California Deeper Nearshore	\$40k
CA Halibut Trawl	\$40k - \$75k
California Squid	Variable - Call for info
California Squid Light/Brail	Variable - Call for info
Oregon Pink Shrimp	\$55k - \$75k
Oregon Crab	Variable - Call for info
Low supply. Active buyers for 500 pot permits 60'+.	
- 200 pot:	\$45k-\$60k.
- 300 pot:	\$100k-\$200k.
- 500 pot:	\$200k-\$300k for <50' & \$7k-\$7.5k per foot >50'.
Puget Sound Crab	\$220k
Puget Sound Drift	\$10k
Puget Sound Seine	\$75k
Washington Crab	Variable - Call for info
Limited availability.	
- 300 pot:	\$90k - \$160k depending on length
- 500 pot:	\$300k - \$425k depending on length
Washington Pink Shrimp	\$55k
Washington Troll	\$23k
Longline - Unendorsed	\$80k - \$110k
- Increased demand for leases.	
Longline - Sablefish Endorsed	Variable
- Increased activity, call for more information.	
A-Trawl	Variable - Call for info

QUOTA BROKER

BUY • SELL • TRADE

PERMIT BROKER

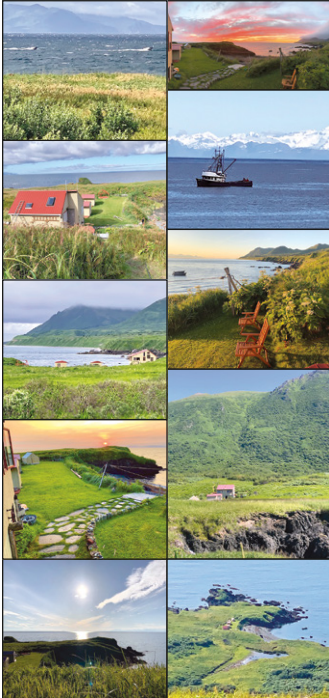
ALASKAN quota & permits

Olivia Olsen
907-772-7000
olivia@alaskabroker.com

COMMERCIAL FISHERMEN 

Marcie O. Hinde
907-772-4000
marcie@alaskabroker.com

WWW.ALASKABROKER.COM



FOR SALE

Kodiak Setnet. Uyak Bay/Shelikof Straight. Turnkey. Two permits. Two skiffs. Generators, nets, ice machines, pressure washers. An amazing life in a remarkably gorgeous location. \$375k OBO. Contact Leigh Gorman Thomet at (907) 654-4148.

FOR SALE

Brand new Isuzu UM6HK Marine Diesel engine and Twin Disc 5091 4:1 reduction gear with PTO. Still in crate, never run. 300 hp at 2,400 rpm. Isuzu extras: Walker AIRSEP, extra bolt on drive pulls for front of crank shaft. Located in Craig, AK. \$60,000. Contact Matt Peavey of F/V Anne Louise at (907) 401-0922.



FOR SALE

Delta purse seiner, fully rigged, all squid permits and pelagic permits for California. Proven producer and has Oregon squid permit also. Owner retiring and willing to train new owner or captain for three months. \$2.3 million. Call Don: (949) 279-9369.



FOR SALE

65-foot charter boat – totally refurbished and set up for overnight tuna trips. Call Don: (949) 279-9369. Priced to move: \$679,000.



FOR SALE

Beautiful lobster style MDI 45 foot boat located in Santa Barbara, CA. Boat is priced to sell at only \$229,000. Boat is a great sea boat currently fishing offshore for black cod. Boat would make a great lite boat or lobster boat also. Call Don: (949) 279-9369.



2' JC COMMERCIAL LOBSTER BOAT

Cummins 6 BTA 370 HP (2016) cruise 14-15 6 GPH. 2 sleeping bunks. Price: \$75K. Call (213) 361-9553.



FOR SALE

Purse seiner priced to sell. \$329,000. Call Don (949) 279-9369.



FOR SALE

Have a market light boat permit for sale for \$329,000 and a 125 ton market purse seine permit for California for \$1,799,999. Call Don (949) 279-9369. La Niña coming means squid catches going up next year.

FOR SALE

Have two California lobster permits for sale; \$130,000 today. Also looking for a Southern California rock crab permit; have buyer standing by. Call Don at (949) 279-9369.



F/V ANGIE

Unique Opportunity -

Direct marketing, catcher/processor

Suitable for a small group of trollers, gill netters, seiners, set netters, or use as a floating lodge. Rigged additionally as factory troller with Alaska permit. Complete tender, processing and transport with current direct Salmon markets established for those who want to sell their fish for more money. Excellent for remote locations and small villages. Completely self contained, with ice machine, water maker, blast freezing, cold storage, vacuum packing and onboard fillet machine. Over 2 million invested, come and inspect. Vessel and equipment excellent condition, available immediately. (206) 369-2486.



FOR SALE

Squid lite boat and brail boat for squid. Boat freshly hauled out ready to fish for upcoming season. Priced to sell at \$399,000. Includes all equipment, boat, and California squid permit. Call Don: (949) 279-9369.

PACIFIC FISHING CLASSIFIEDS

Sell your vessel or permit faster! List with Pacific Fishing and be featured both in the magazine and on the website!

To place your classified ad, please contact CANDICE NORTON
206.324.5644
candice@nwpublishingcenter.com



Dock Street Brokers (206) 789-5101 (800) 683-0297

See all our listings at www.dockstreetbrokers.com

LC23-003 62'x18.3'x3' aluminum, jet propulsion landing craft, passenger, and freight vessel, built by Armstrong Marine in 2011. (3) Scania DI12 66M mains rated at 650 hp each, low hours. ZF 325-1 gears, Ultra Jet 410 jets w/new controls system. Makes 25 knots, light. Burns 20 gph, loaded, at 12 knots. 15 kW MER gen set. 900 gallons fuel capacity. Deck area of 32'x16' forward. 15' of deck space aft below house. Ramp with 10.5' clearance. Pullmaster PL-5 bow-down winch. (3) 12-person removable passenger modules. (2) 25-person life rafts. Electronics include (2) Garmin GPSmap 6212 units with radar, (2) VHF, Garmin sounder, and Com Nav autopilot. COI issued originally for 36 passengers and 3 crew, recent work towards reinstatement. Asking \$1,450,000.



BB21-022 32'x13' fiberglass Bristol Bay boat built in 1991 by Maritime Fab. Lugger 6140 main engine rated at 600 hp. Makes 16 knots. ZF 350 gear. Packs 12k# in (7) fish holds. IMS 7.5 ton RSW system. Maritime Fab drum with RR internal drive, Kinematics levelwind. Electronics include VHF, sounder, and autopilot. Lots of recent upgrades. Ready to fish 2023 BB season. Reduced to \$270,000.



TR22-008 44'x13.8'x10.5' fiberglass troller designed by C&M and built by First Cabin Marine in 1992. Lugger 6414 D rated at 120 hp w/ Twin Disc MG506 gear. Northern Lights TFII 18E 5kW genset. Single insulated fish hold packs 16k lbs in (8) bins. East Hope gurdies, Hydro Slave 10" crab block, hydraulic boom winch, step down cockpit, shelter, and skiff rack. Electronics include Garmin 7212 and 527 GPS, radar, (2) sounders, (2) VHF, inverter and autopilot w/ remote. Diesel stove, Red Dot, fridge, head, shower, (4) berths plus day bunk. Reduced to \$295,000.



HALIBUT IFQ

2C-C-B: 2,700 lbs.....asking \$55.00
2C-C-B: 1,850 lbs.....asking \$55.00
3A-B-U: 7,000 lbs.....asking \$45.00
3A-C-U: 5,300 lbs.....asking \$46.00
3A-C-B: 4,700 lbs.....asking \$43.00
3B-B-U: 5,300 lbs.....asking \$42.00
3B-B-B: 3,950 lbs.....asking \$34.00

SABLEFISH IFQ

BS-B-U: 10,500 lbs.....asking \$6.00
BS-B-B: 20,000 lbs.....asking \$3.00
CG-B-U: 50,000 lbs.....asking \$11.00
CG-B-U: 45,000 lbs.....asking \$9.00
SE-C-U: 5,100 lbs.....asking \$14.00
SE-C-U: 10,000 lbs.....asking \$12.00
WG-A-U: 5,500 lbs.....asking \$12.00
WY-B-U: 80,000 lbs.....asking \$17.00

SE23-001 56'x16.5'x 8' wood seiner built in 1946 by Grandy. Detroit 871 rated at 350 hp w/ Twin Disc gear. Burns 5 gph at 8.5 knots. Isuzu 40 kW auxiliary. Packs 65k lbs in (2) fiberglass fish holds. RSW w/ 18 ton compressor. Rowe deck winch w/ E-Stop, Marco 26" pwr block w/ gripper, Nordic anchor winch and SS hydraulic lines. Electronics include Furuno GPS, (3) VHF, (2) radars, sounder, autopilot and inverter. Diesel stove, fridge/freezer, head, shower, water heater, (2) state rooms, (6) berths and day bunk. Includes Marco skiff w/ V653 and seine. Asking \$350,000.



BB22-053 32'x13'x36' top house, Jumbo Wegley built in 1993. Detroit 6V92 rated at 525 hp w/ 6,100 hrs and Twin Disc 5091 gear. Startups and repairs by Johnson Diesel. PacWest 7.5 ton RSW system installed in 2019. Articulating drum, Twister drive, levelwind, Maritime Fab. roller and anchor winch. Packs 10k lbs floating, in (4) updated fish holds. On demand 6 and 3.5 cube hydraulic pumps. Electronics include (2) GPS, (2) sounders, (2) VHF and DVD player. Propane stove, fridge, head, shower, and (4) berths. Includes spare prop and associated fishing gear. Approx (16) 50 ftn, ready to fish, nets available to buyer. Complete package available \$400,000. Vessel only reduced to \$210,000.



PACIFIC FISHING Connect with Pacific Fishing to stay informed!



- **Fish Wrap** brings daily news to your inbox 5 days a week. Email circulation@pacificfishing.com to sign up for **free**.
- Follow us on **Facebook**; let us know what is happening out on the water; and check out our latest updates, photos, and more. facebook.com/PacificFishing
- **Subscribe** to *Pacific Fishing* for tips, features, and the news that shapes the fishing industry. pacificfishing.com/subscribe.html
- Visit our **website** at www.pacificfishing.com to stay up-to-date with news, upcoming events, and the latest classifieds listings.

Subscriptions are as low as \$1 per month!
Subscribe today: pacificfishing.com/subscribe.html

Pacific Fishing contact info: (206) 324-5644

Christie: christied@nwpublishingcenter.com

Candice: candice@nwpublishingcenter.com

Innovative Manufacturing Inc. is a North American manufacturer and marketer of corrosion protection systems, insulation solutions and sealing & pipe repair products.

In business since 1948, Innovative Manufacturing is dedicated to producing only the highest quality products engineered for maximum safety and protection under the most challenging environments anywhere.

NEVER COMPROMISE ON QUALITY, DEMAND ONLY THE BEST

Our Industry Solutions Include:

NOSPRAY ANTI-SPLASHING TAPE

PETROWRAP ANTI-CORROSION TAPE SYSTEM

EXOWRAP HIGH TEMPERATURE INSULATION ROLLS

STEAMKOTE HIGH TEMPERATURE PIPE DRESSING

CANFIX EMERGENCY PIPE REPAIR KITS

CANSEAL MARINE HATCH COVER TAPE

For Further information

Contact us at

Toll Free 1.888.467.7325

Email: sales@innovativemfg.ca



TradeNet

#85119



Vancouver, BC	Montreal, QC	Seattle, WA	New Orleans, LA	Pennsauken, NJ	Houston, TX
Rotterdam	Singapore	Dubai	Istanbul	Durban	Shanghai

www.marinetapes.com

MOST TRUSTED BRAND IN THE INDUSTRY

For more than 30 years, IMS has invested in your success.

IMS has a proven track record, so don't fall for imposters. Decades of research and engineering have led to our being the most reliable and well-built systems on the market. Whether you're just starting up, need help with installation, or troubleshooting, the IMS service staff and engineers are here to help.

PHOTO COURTESY OF LUCAS FERBER – www.wildsourcesalmon.com



Integrated Marine Systems INC *Manufacturers of Refrigeration*

800.562.1945 | www.IMSpacific.com | sales@IMSpacific.com | 10821 47th Ave. W., Mukilteo, WA 98275



5-Ton Hydraulic



8.5-Ton Split Diesel



10-Ton Hydraulic



35 HP Electric



50 HP Electric



Titanium Chillers

SELF-CONTAINED RSW SYSTEMS SPLIT RSW SYSTEMS CONDENSING UNITS FOR CHILLING AND/OR FREEZING
TITANIUM & COPPER NICKEL CHILLERS LIVE AQUATIC REFRIGERATION SYSTEMS
PARTS FOR ALL MAJOR BRANDS OF REFRIGERATION IN-HOUSE DESIGN, ENGINEERING & INSTALLATION SERVICES