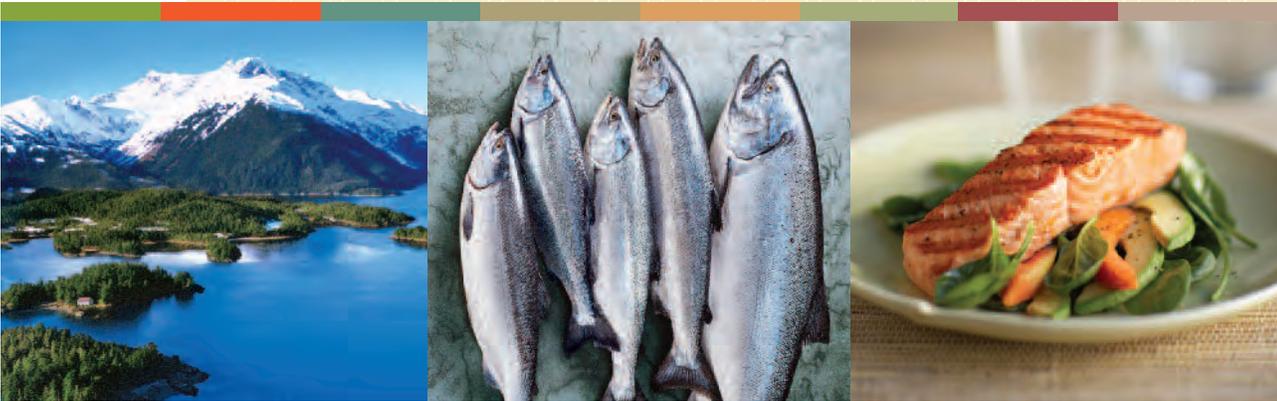


ALASKA SALMON BUYER'S GUIDE



KING

SOCKEYE

COHO

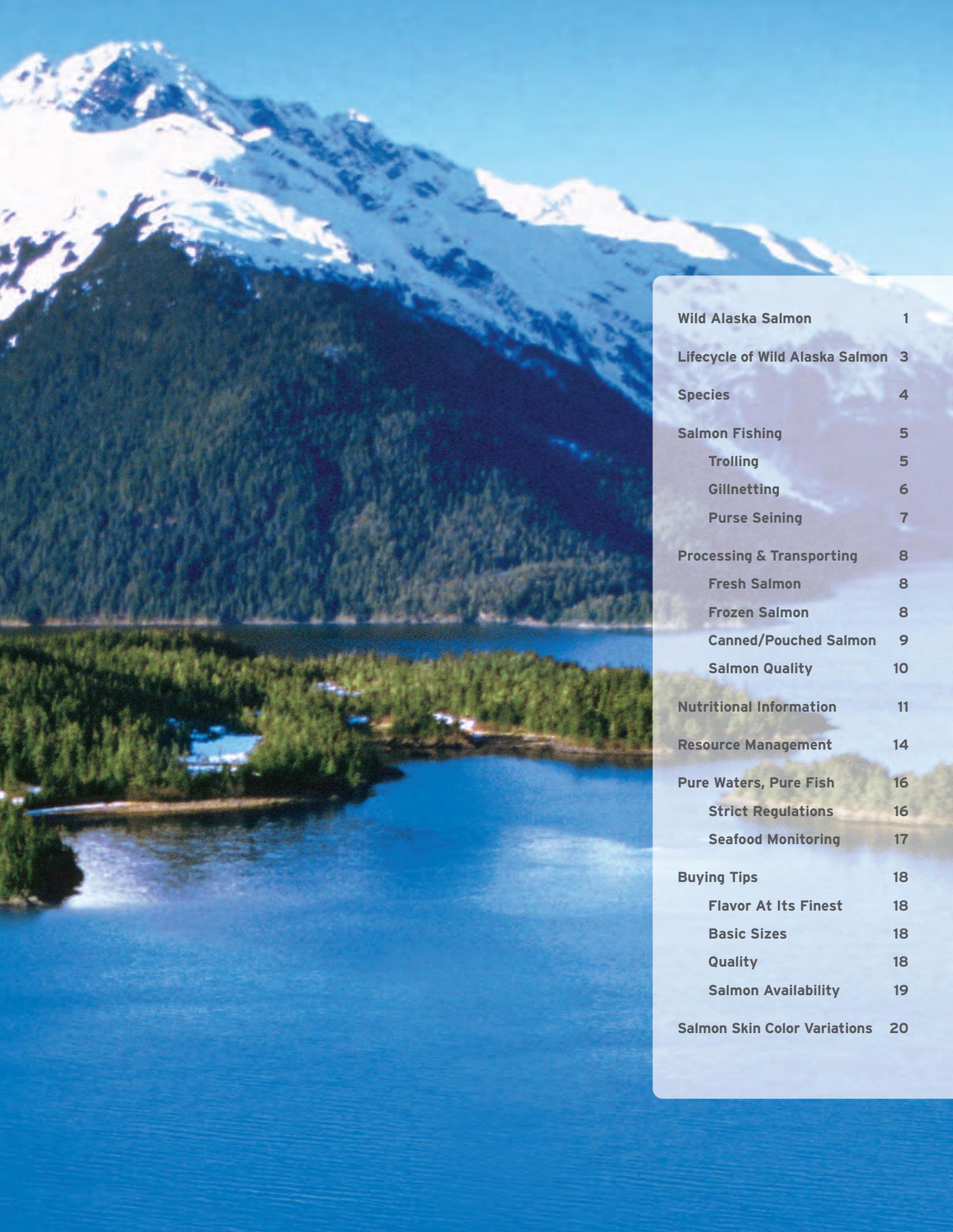
KETA

PINK



Wild, Natural & Sustainable®





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WILD ALASKA SALMON



KING

COHO

KETA

PINK

SOCKEYE

THE FIVE SPECIES OF ALASKA SALMON are members of a large family of (Salmonidae) which are abundant throughout the temperate zones of the Northern and Southern Hemispheres. Salmon and their Salmonidae relatives including Atlantic salmon, are active and aggressive predators who demand the high levels of oxygen most commonly found in cold, rushing streams, estuaries, and the upper levels of the ocean.

Pacific salmon occur from California north along the Pacific coast throughout the Pacific Ocean, Bering Sea and Arctic Ocean waters adjacent to Alaska. Alaska's wild salmon resource is the greatest in the world.

Alaska salmon belong to the genus *Oncorhynchus*, a name formed by combining two Greek words, "onco" meaning hook or barb, and "rhyno," meaning nose. The scientific names for each of the five species were given during the exploration of Siberia, and reflect the native vernacular names for the fish. Thus, we have:

SCIENTIFIC NAME	COMMON NAME	OTHER NAMES
<i>Oncorhynchus tshawytscha</i>	King	Chinook
<i>Oncorhynchus nerka</i>	Sockeye	Red
<i>Oncorhynchus kisutch</i>	Coho	Silver
<i>Oncorhynchus keta</i>	Keta	Chum
<i>Oncorhynchus gorbusha</i>	Pink	Humpy

Alaska salmon are anadromous, that is, they spawn in fresh water and the young migrate to the sea where they mature. The timing of spawning and migration varies among the five species, but they all need abundant, pure, fresh water for spawning.

Although the spawning characteristics of each of the five species of Alaska salmon differ, each maintains the same timing year after year, and, with few exceptions, the mature adults return to their natal stream.

Salmon, which will spawn in the headwaters of a river or lake system (king, coho and sockeye), arrive earlier than do the pink and keta which spawn closer to tidewater. Because salmon do not eat after they have entered fresh water, they leave the ocean heavy with the fats and nutrients on which they will subsist during their freshwater phase. The longer and more rigorous the freshwater trip, the more fat the fish will carry leaving the ocean. A Yukon River king headed for spawning grounds 2,400 miles (4,000 kilometers) away and 2,200 feet (670 meters) above sea level near Lake Teslin will enter the river an unusually rich, vigorous fish.



How salmon return so unerringly from mid-ocean to a stream, which may be only a trickle hundreds of miles from tidewater, is not fully understood by biologists. Except where humans have interfered, salmon returning to the various river systems and streams of Alaska are unique stocks. They may mingle in the ocean and even in the estuary, but then separate and return faithfully to the gravel of their various streams from which they emerged two-to-six years earlier. Fish that enter fresh water early in the season are more brightly colored than those that arrive later, but all salmon turn darker as the time to spawn approaches. Pronounced morphological changes take place, particularly in the spawning male. The female selects a suitable patch of gravel and excavates the nest. When she is ready, she allows the male to fertilize her eggs as she deposits them in the gravel.

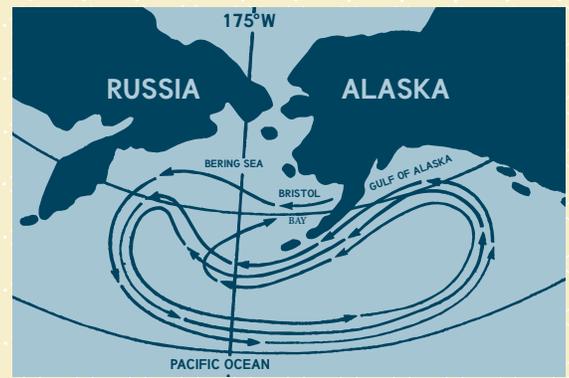


Five-to-seven months after spawning, the young salmon fry emerge from the gravel where the spawning pair deposited and fertilized the eggs the fall before. (See Lifecycle chart on the opposite page.) Some of the fry will go to sea almost immediately. Others, such as sockeye, king and coho will remain in streams and lakes for a year or more.



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When the fry migrate toward the sea they undergo certain changes which prepare them for life in salt water. During this stage of life they are called smolts. In the estuary, where salt and fresh water mix and food is abundant, a smolt may double or even triple its weight before venturing into the Gulf of Alaska or Bering Sea. Depending on the species, the salmon may go within a few miles of the Kamchatka Peninsula which extends southward from Siberia toward the western tip of the Aleutian Islands.



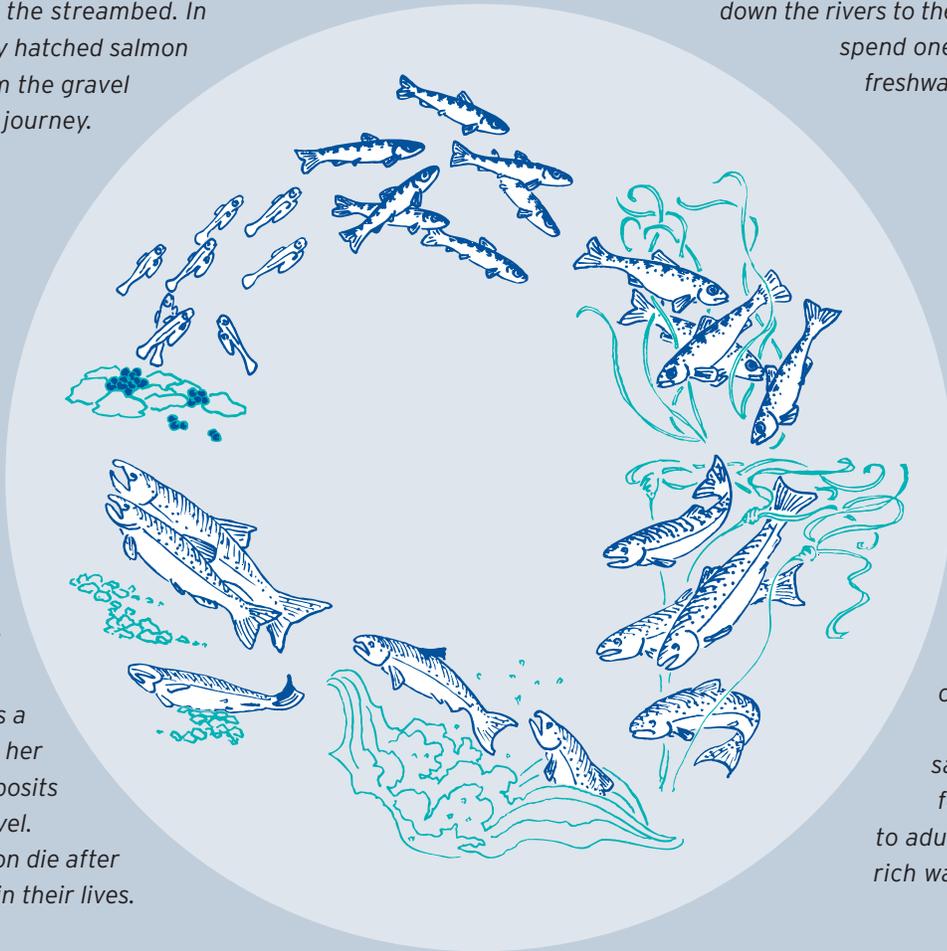
Wild Alaska salmon grow to maturity as they swim along their ancestral migration paths in the North Pacific Ocean.

Growth rates in the ocean are no less astonishing than those in the estuary. A two-inch pink salmon which leaves the estuary and moves offshore in early-to-mid summer can return slightly more than a year later as a two-foot, five-pound adult. Pink salmon spend a year in ocean waters; other species may spend four, five or even six years in the ocean pastures growing to prodigious size. A 126-pound king salmon landed in Southeastern Alaska is thought to have spent seven years in the ocean.

LIFECYCLE OF WILD ALASKA SALMON

The salmon eggs incubate and hatch in the gravel of the streambed. In spring the newly hatched salmon fry emerge from the gravel and begin their journey.

Some species of salmon migrate directly down the rivers to the sea, while others spend one to three years in freshwater rivers or lakes.



The female salmon digs a nest in the cleanest part of the streambed, and then selects a male to fertilize her eggs, as she deposits them in the gravel. All Alaska salmon die after spawning once in their lives.

In the ocean the young salmon eat plankton and smaller fishes, while evading predators like birds, seals, whales and other fishes.

Alaska salmon travel thousands of miles. Depending on the species, salmon take two to four years to grow to adulthood in the cold rich waters of the North Pacific Ocean.

In summer the instincts of the salmon lead their migration back to the Alaska streams in which they were hatched.

Illustration: © Morgan Humphreys Davis

SPECIES

KING (Chinook)

Skin color grades:
"brite," "blush,"
"redskin"

In terms of size, flavor and texture, Alaska king salmon deserve their royal status and superior price. These magnificent fish are prized for their flesh color, high oil content, delicate texture and succulent flesh. King salmon are most often served in upscale, white tablecloth restaurants. They are also commonly used for smoking. They are generally marketed in whole steak, smoked and fillet forms.



SOCKEYE (Red)

Skin color grades:
"brite," "blush,"
"redskin"

Sockeye are the second most abundant species of Alaska salmon. Many sockeye go to Japan where they are highly prized for their distinctive deep red flesh color. However, an increasing percentage now goes to the EU or remains in the U.S., as the domestic market discovers the superior attributes of sockeye. Like king salmon, the levels of polyunsaturated oils in sockeye give it a succulent texture and rich flavor. Sockeye are marketed as whole fish, steaks, fillets and canned.



COHO (Silver)

Skin color grades:
"brite," "blush,"
"redskin"

Coho are similar to king salmon in taste, color and texture. Coho are distinguished by their orange-red meat color and firm texture. Coho tend to be more uniform in meat color and firmness than some other species. Coho make excellent steaks and fillets. Their size, relatively high fat content and excellent color retention properties make them popular in both fresh-frozen and smoked forms. They are well suited to an upscale customer, such as a restaurant. Coho are most often marketed as whole fish, steaks and fillets.



KETA (Chum)

Skin color grades:
"brite," "semi-brite,"
"dark"

Keta are popular because they combine economy, excellent texture, attractive meat color and delicate flavor. Keta are highly desired for steaking or hot-smoking because of their size and price. Most steakers prefer a 6/9-pound size for an average 8-ounce portion at 1-inch thickness. Keta meat color is quite variable depending on location of harvest and stage of maturity. The fish can be cut in the tail region to verify meat color; most salmon turn pale from the tail forward. Keta salmon often have a lower oil content than other salmon. They are available as whole fish, steaks, fillets, smoked and canned.



PINK (Humpy)

Skin color grades:
"brite," "watermarked,"
"dark"

Pink salmon are the most abundant species of Alaska salmon and are distinguished by their light, rosy pink-colored flesh, tender texture and delicate flavor. Their great abundance brings them a lower price. Because of their size and price, pink salmon are excellent for retail sales. They are also becoming increasingly popular as a small, economical salmon for a variety of menu applications, from whole grilled to pastas, seafood salads, and chowders. Pink salmon have a lower to moderate oil content. Pink salmon are marketed as canned, smoked or whole sides.



SALMON FISHING

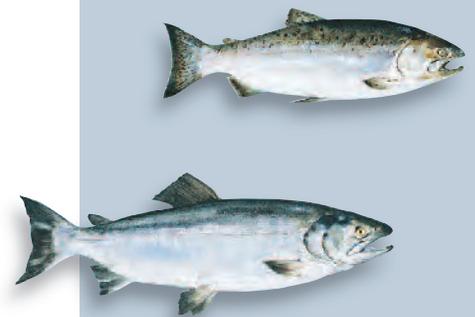
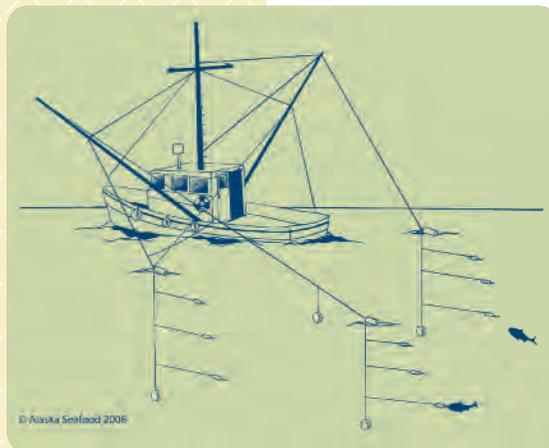
Salmon return to their natal stream to spawn, passing through enclosed bays and shallow water on their way to upriver spawning grounds. Alaska's fishery managers take advantage of the anadromous behavior of salmon. They observe and count the fish to ensure that sufficient numbers of adult spawners escape the fishery and swim up the rivers to spawn. Salmon also school tightly, and do not mix very much with other species of fishes. This means that commercial salmon fishing has virtually no incidental catch, or bycatch, of non-salmon fishes.

Alaska salmon are caught only in specific, tightly regulated areas within state waters up to three nautical miles offshore. They are harvested by thousands of Alaska fishermen and their families. Most are owner-operators, meaning they are independent businesses operating their own boats.

TROLLING

In Southeastern Alaska, the first commercial fishermen to encounter salmon are members of the troll fleet. Trollers are small fishing vessels operated by one or two people who fish with a number of lines with baited hooks or artificial lures. Of all the commercial salmon fishing methods, trolling may be the least efficient from the standpoint of intercepting fish. Trollers must search for fish in the open ocean. Net fishermen by contrast wait in areas where salmon are known to school in the migratory route. Trollers are allowed to fish beyond the inshore limits set for net fishermen, and generally have more days of fishing time and a much lower catch rate.

Troll-caught fish are usually "ocean-caught" or "brights," that is, they are caught before maturity when they move inshore and mature into the spawning stage. They are attractive fish in full vigor of their ocean period. Only coho, king and pink salmon are taken in significant numbers by the troll fleet, and all three species, when delivered by a competent fisherman, command a premium price. The volume of troll-caught fish is much smaller than that for net-caught fish. Troll-caught salmon generally make up less than five percent of the total Alaska catch of all species of salmon. What they lack in quantity, troll-caught salmon make up in quality.

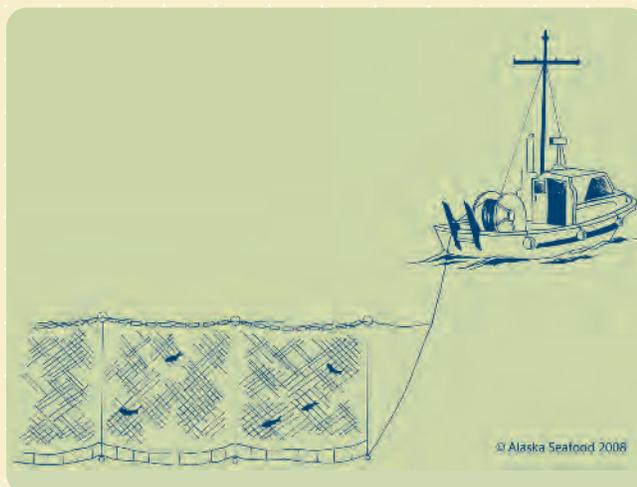


No fish is treated with more care from the time it leaves the water until it is delivered to the retailer's door. A sharp rap on the head quiets the fish before the hook is removed; a thrashing fish could bruise itself or dislodge scales. The fish is promptly bled, gilled and gutted. Ice is carefully packed in the body and head cavity, and the fish are packed in layers of flake ice. The ice is arranged so that contact with other fish is minimized. If the vessel has freezing capability, the fish is blast-frozen much the way it is ashore. Almost all troll-caught fish go into the fresh, frozen or smoked market. The smaller number of fish represented in the troll catch, combined with their uniform attractiveness, make them the most valuable of Alaska salmon.



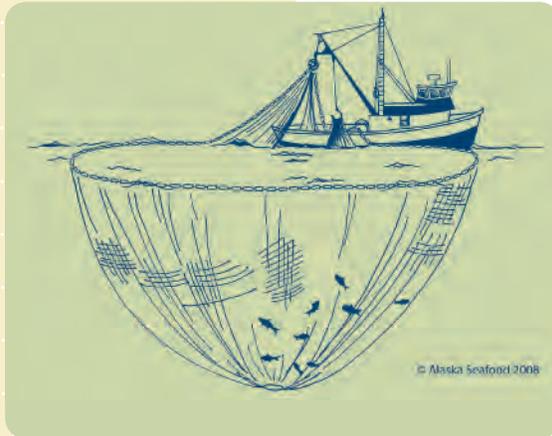
GILLNETTING

Most of the sockeye harvest and a substantial portion of keta and coho are caught in gillnets of one type or another. Most gillnetting is done from boats (driftnetting), but a number of gillnetters operate from shore (setnetting). Either type of gillnetting involves laying a net wall in the water in the path of the fish and waiting for the fish to swim into the mesh. When it does, the gills become entangled in the webbing and prevent the fish from escaping. Most gillnet vessels are small one- and two-person boats. State law dictates that gillnetters in Bristol Bay be no longer than 32 feet. Most gillnetters outside of Bristol Bay are in the 32-to 42-foot range. A gillnetter uses a net from 900 to 1800 feet long, with specific length dictated by the state of Alaska for fisheries management reasons. Most gillnetters are equipped to carry their fish in slush ice, or even in Refrigerated Seawater (RSW). In areas like Bristol Bay, where fishing can be extremely heavy, a gillnetter may need to deliver every few hours simply because the small vessel will not hold the quantity of fish caught in a day. Most gillnetters' holds are usually divided into several bins, and each bin is lined with a fabric "brailer bag." When the gillnetter comes alongside the tender vessel, the brailer bags are gently lifted aboard, emptied and returned to the catcher vessel. The brailer bag system reduces handling of the fish, and has contributed significantly to improving the quality of the catch.



PURSE SEINING

Large numbers of salmon are caught with seines in Southeastern Alaska, Central Alaska and Western Alaska up to the tip of the Alaska Peninsula. No purse seining is allowed west of the Alaska Peninsula on the north side. Purse seiners are generally larger than gillnetters, but by Alaska law may be no longer than 58 feet. Seiners are larger than gillnetters, so that they can operate in the sometimes stormy fjords and channels found in some parts of the state. A purse seine is a net which is set in a circle and can be drawn closed at the bottom. Because salmon migrate in tight schools, it is not unusual for an Alaskan seiner to catch 250 to 1,500 fish or more with one set. In addition, the salmon's tendency to swim and jump on the surface reveals the school's location as it moves through the water. When not actually engaged in setting or retrieving the net, every person on a purse seiner is watching the water for a sign of fish.



PROCESSING & TRANSPORTING

Most Alaska salmon are transferred from the fishing vessel to a tender vessel which carries the catches of several harvesters from a remote fishing spot to a processing plant. Tender vessels chill the fish with either ice or refrigerated seawater. The tender system allows fishing vessels to fish while support vessels transit back and forth between the plant and the fishing grounds. The system also permits the plant manager to schedule and stagger the fish deliveries so that he can employ his plant personnel effectively and assure a smooth flow of fish throughout the plant, thus optimizing the quality of the product.

One of the challenges inherent in the Alaska salmon industry is the fact that the fish in most river systems return in astounding numbers during a brief period of time. It is not uncommon for more than 50 million fish to go through Bristol Bay in a little more than three weeks time. The greater challenge, then, is not so much catching the fish, but timely processing and distribution to appropriate markets.

After salmon are unloaded from the tender, they are immediately iced in large self-draining storage bins called totes. As they are brought to the processing line, they are sorted by species, then eviscerated and headed. Some fish destined for the fresh market may be sold with their heads still on. After being headed and gutted, the fish are graded by size and quality, and sent to the processing plant's canning or freezing lines.

FRESH AND FROZEN SALMON

During the fresh season, salmon are flown to markets in the USA, Europe and Japan. Frozen Alaska salmon are frozen on the grounds by floating processors, which may move with the fish from one area to another, and by shore-based plants which are usually equipped to both freeze and can product. No matter whether it is caught by a troller, gillnetter, or seiner, a salmon is a valuable product, and processors make every effort to treat it as such.

After grading, the fish are individually quick frozen and glazed. Quick frozen is modern technology (e.g. blast freezing, plate freezing) that very quickly brings the temperature of salmon down and helps to preserve quality. Glazing, a thin coat of fresh water ice, is achieved by dipping the frozen fish several times in cold water, sealing air away from the fish and helping prolong shelf life. Fish may also be vacuum packed before freezing. In still-air cold storage at -10° to -20° F,



Spawning salmon — Lake Clark National Park

National Park Service



salmon will remain top quality for many months. However, most prudent processors will reglaze fish that have been in storage for five or six months. Salmon are typically graded again when they are taken out of cold storage for sale to a wholesaler or retailer.

CANNED AND POUCHED SALMON

Salmon canneries once dominated the Alaska seafood industry and still account for over one-third of salmon production. A cannery converts an enormous amount of fish into a tasty and wholesome product in a very short period of time, an important consideration in Alaska's intense fishing season. Although freezing allows the processor a great deal more flexibility in the way he can handle and market his product, freezers cannot handle the same volume of product as canneries. Canned salmon is a traditional product that is quite popular in regions of the United States, and in certain countries such as the United Kingdom. In addition, a variety of pouched shelf-stable products are available at most retailers.



SALMON QUALITY

The establishment of a value or level of preference depends on the size, external and internal color characteristics, fat content, degree of maturity, method of capture, freshness and state of preservation. Thus “quality” relates to the characteristics of the fish itself as well as its handling history, state of freshness and preservation. Intended use, market conditions and availability also affect value.

Salmon are presented to the consumer in many forms. But no matter which form the customer chooses, the quality of the end-product reflects the quality of the raw material used in its preparation. It is impossible to produce top-quality seafood products using second-rate raw materials. The initial capture, handling, and storage of the fish, together with the primary processing operations prior to packaging, are major factors influencing the quality of the final product.

The Alaska Seafood Marketing Institute’s (ASMI’s) Seafood Technical Program works to enhance and maintain the quality and safety of all Alaska seafood products. A 14-member Seafood Technical Committee, comprised of corporate quality assurance experts, commercial fishermen and university food technologists, directs the activities of the Seafood Technical Program. This program produces a wide variety of publications and materials, designed to educate and assist every segment of the industry and its customers, from salmon fishermen and seafood processors, to buyers, restaurateurs, distributors, and retailers.



In Alaska, ASMI and the University of Alaska’s Marine Advisory Program (MAP, also known as “Sea Grant”) combined efforts to provide Hazard Analysis and Critical Control Point (HACCP) training to the Alaska seafood industry. HACCP is a state-of-the-art food safety system that is preventive, rather than reactive. ASMI and MAP have trained hundreds of Alaska seafood industry personnel.

ASMI’s Seafood Technical Program provides a wide range of services to the Alaska fishing and seafood industry, the customers of our constituents, and the consumers of Alaska seafood.

NUTRITIONAL INFORMATION

Few single foods bring so much nutritional wealth to the table as Alaska salmon. These fish provide high quality, easily digested protein containing all the essential amino acids. Salmon contains generous amounts of vitamin D — a vitamin seldom found in food — and the B vitamins B6, B12, niacin and riboflavin. Salmon is one of the richest sources of selenium, an element that helps detoxify mercury and has antioxidant properties. Canned Alaska salmon also provides useful amounts of calcium when the soft bones are consumed. Best of all, salmon are a premier source of long-chain omega-3 fatty acids (omega-3s), unique polyunsaturated fatty acids with an array of health benefits.

Many epidemiological and intervention studies have reported that people who consume fish regularly are healthier than those who do not. In particular, the omega-3s in salmon reduce the chance of dying from heart disease, especially from sudden cardiac death. They are linked to a lower chance of having a first heart attack and they may cut in half the chance of having another. Long-chain omega-3s improve the functioning of the heart by stabilizing its electrical rhythms, improving its electrical properties, increasing the function of the blood vessels and reducing inflammation. They also improve blood flow, make blood clot formation less likely, slow the progress of atherosclerosis that narrows the arteries and they improve the profile of different types of lipids in the blood. Although they do not lower LDL or “bad” cholesterol levels, they usually increase those of HDL or “good” cholesterol.

Many scientists attribute the excellent heart health of the Japanese to their robust fish consumption, as often as eight times/week. Japan has the lowest rate of cardiovascular mortality in the world — half that in the U.S. — and its people are much less likely to develop the disease in the first place.

Omega-3s exert their healthful effects throughout the body. For example, Docosahexaenoic acid (DHA), one of the two main long-chain omega-3s in fish, is highly concentrated in brain cell membranes where it contributes to the structure and function of neurons. It participates in the communication between brain cells, responses to hormones and regulatory substances and the growth and repair of neurons.



Athabascan woman teaches her granddaughter family methods for preparing salmon.

AK Dept. Fish & Game



Long-chain omega-3s are critical nutrients for the mother during pregnancy and nursing and for the infant during fetal development and the early years of life. DHA is transferred from the mother to the fetus in the last trimester where it is used for rapid brain growth and maturation. Infants whose mothers do not eat fish or who have low DHA stores have less DHA in their brains than those whose mothers have plenty of DHA in their tissues and diet. Many recent studies have reported superior cognitive and behavioral development in children whose mothers ate plenty of fish during pregnancy and lactation.

Considering its importance in brain structure and function, and in reducing inflammation, it may not be surprising that long-chain omega-3s may be important in a variety of mood disorders and psychiatric conditions. Patients with depression and bipolar disorder, for example, have lower tissue levels of these fatty acids compared with individuals free of these diagnoses. Several small studies have reported significant improvements in the clinical symptoms associated with these disorders, but larger controlled trials are needed before these promising results can be confirmed.

Another important aspect of long-chain omega-3s is their ability to counterbalance the inflammatory effects of the predominant polyunsaturated fatty acids in the diet, the omega-6s. Omega-3s do this in various ways that result in the lower production of inflammatory mediators, the generation of omega-3-derived anti-inflammatory substances (resolvins and neuroprotectins), and in some tissues they result in compounds that act quickly to halt and resolve tissue inflammation (resolvins). Scientists believe these properties are important in preserving the survival of neurons in such conditions as stroke, oxidative stress, neuronal injury and Alzheimer disease.

In other immune/inflammatory conditions, such as rheumatoid arthritis, asthma and ulcerative colitis, omega-3s have been reported to reduce the severity of the clinical symptoms and reduce the need for other treatment medications. Individual responses, however, vary with the person, the dose, the condition and other treatments. There is also a possibility, although data remain inconsistent, the increased consumption of long-chain omega-3s during pregnancy may delay or reduce the development of allergic conditions. What is more consistent is that individuals who consume plenty of fish have less severe symptoms. Omega-3s have not been shown to prevent any of these diseases.

DHA is also important in the retina of the eye, where it reaches its highest concentration in the body. It functions in the translation of light energy to visual signals and maintaining the integrity of the retinal pigment epithelial cells. It is also becoming clear that having sufficient DHA in the retina is associated with a significantly reduced likelihood of age-related macular degeneration that often develops with aging. Recent studies suggest it may reduce the progression of this condition to the more destructive advanced stages. This might prevent many cases of blindness.



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Salmon are an extremely important to Alaska Native people, both nutritionally and culturally.

NUTRITIONAL INFORMATION

ALASKA FRESH / FROZEN SALMON

	Calories	Protein (g)	Fat (g)	Saturated fat (g)	Sodium (mg)	Cholesterol (mg)	Omega-3s (mg) EPA + DHA
KING (Chinook)	250	26	13	3	60	85	1700
SOCKEYE (Red)	220	27	11	2	65	85	1200
COHO (Silver)	140	23	4	1	60	55	1100
KETA (Chum)	155	25	5	1	65	95	800
PINK	150	37	4	1	85	65	1300

ALASKA CANNED SALMON

	Calories	Protein (g)	Fat (g)	Saturated fat (g)	Sodium (mg)	Cholesterol (mg)	Omega-3s (mg) EPA + DHA
SOCKEYE (Red)	165	23	7	2	360	45	1400
PINK	135	23	5	1	400	80	1100

References: Nutritional data is sourced from the USDA National Nutrient Database for Standard Reference using 3.5 oz./100g cooked (baked) portions, accessible at <http://www.nal.usda.gov/fnic/foodcomp/search> (accessed on 8/29/08).

The protective effect of long-chain omega-3s in visual function during aging has also been observed in cognitive function in older adults. Those with higher levels of long-chain omega-3s in their tissues and those who consume fish regularly are less likely to develop Alzheimer disease and may retain higher cognitive function longer. The neuroprotectins derived from DHA in the brain also combat the production of abnormal proteins associated with neurodegenerative diseases, such as Alzheimer disease.

Increasing the consumption of long-chain omega-3s, especially from concentrated sources such as salmon, appears to benefit other clinical conditions, such as type 2 diabetes, appetite control during weight loss, the reduction of inflammation associated with atherosclerosis and depression and in life-saving situations where total parenteral nutrition is needed.

The bottom line is that most people consume far too little long-chain omega-3s from seafood and, as a result, are missing an array of health benefits and superb dining pleasure.

RESOURCE MANAGEMENT

Every aspect of Alaska's salmon fisheries is strictly regulated, closely monitored, and rigidly enforced.

Alaska's fisheries management system is well-crafted and has served well for decades, as demonstrated by the sustainability of Alaska's salmon harvests. The Alaska Board of Fisheries sets harvest policies, regulations, and allocations, and the Alaska Department of Fish and Game (ADFG) conducts biological research, and enforces the board's decisions.

ADFG's dominant goal is the harvest policy known as "fixed escapement." This means that management's first priority is to ensure that sufficient numbers of adult spawning salmon escape capture in the fishery in the ocean and are allowed to spawn in the rivers, thus maintaining the long-term health of the stocks. Escapement goals can be reliably achieved for each species, each stock, every year. All human uses of salmon, especially commercial fishing, are subordinate to this guiding principle. Because of the natural variability of environmental conditions such as El Niño, the total number of adult fish returning to spawn in a given year may vary. In order to maintain escapement, it is the commercial harvest that fluctuates from year-to-year.

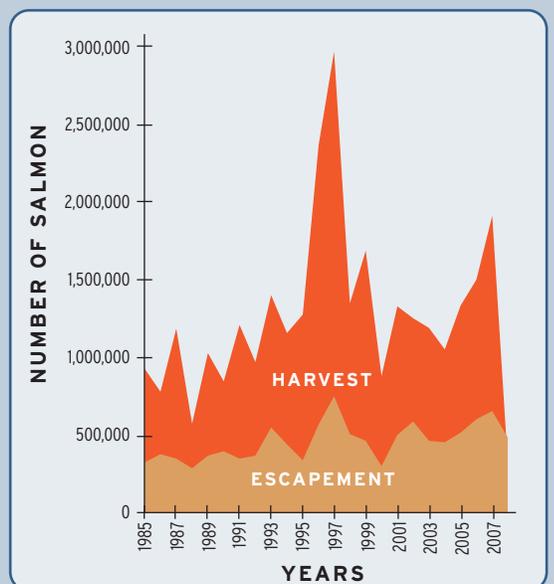
The salmon fisheries are tactically managed while they are actually taking place. Alaska has led the way with its in-season salmon management approach, which has become recognized among fisheries management agencies around the world. In addition, the in-season management decisions are made from a local office, by the biologists most knowledgeable in that fishery, rather than in some distant headquarters. This allows ADFG to account for the natural variability of the runs. ADFG manages over 15,000 salmon streams throughout the state.



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A fish biologist counts the migrating salmon passing a counting tower.

COPPER RIVER SOCKEYE



Escapement of spawning salmon is ADFG's first priority, and is steadily maintained from year-to-year. It is the human uses of this resource that are adjusted in response to natural variability.



John Hyde, AK Dept. Fish & Game

Alaska's abundant, well-managed commercial salmon fisheries support a thriving commercial fishing and seafood processing industry; by far the largest employment sector in the state. The overwhelming majority of Alaska's salmon are landed and processed at seafood plants in scores of small coastal communities all along Alaska's 34,000 miles of coastline. These long-established villages and towns depend on salmon as their economic base, and therefore have a strong incentive to support long-term, sustainable management of the fisheries.

Alaska's management of its fisheries is ecologically sound, in other important ways:

- Alaska salmon are wild; there are no salmon farms in Alaska. In order to protect Alaska's wild fisheries from potential problems, salmon farming was prohibited by the Alaska legislature in 1990 (Alaska Statute 16.40.210).
- Alaska salmon helps to support robust populations of bears, eagles, and a host of other species of birds and mammals. The abundance of these predator and scavenger salmon-eating species is testament to the success of Alaska's salmon management. Alaska salmon are an important and integral part of their natural ecosystem. Unlike stocks in other parts of the world, no Alaska salmon stocks are threatened or endangered.

Alaska's salmon have been abundant for millennia, and they are managed to ensure their future abundance. In Alaska, the fish come first!

FOR MORE INFORMATION on Alaska seafood sustainability, go to www.alaskaseafood.org.



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PURE WATERS, PURE FISH

Alaska is thousands of miles away from large sources of pollution that can contaminate the human food supply in other parts of the world. These distances, combined with the earth's patterns of circulation of water and air, help to ensure that Alaska's own waters are among the cleanest in the world.

STRICT REGULATIONS

Alaska's human population density is the lowest of any in the United States, and lower than most places in the world. Alaska has strict regulations governing development activities, such as road building, mining, logging, and sewage treatment. The State of Alaska Department of Environmental Conservation (ADEC) has a regulatory section dealing specifically with water quality. Water discharges, such as sewage and other potential pollutants, are closely regulated to ensure high water quality. In addition, ADFG requires prior approval for any in-stream construction activities in Alaska's salmon streams through the authority of the Alaska statutes known as the "Anadromous Fish Act" (Alaska Statute 16.05.871). Alaska also has a Forest Practices Act requiring buffer zones from logging along salmon streams to prevent erosion and protect spawning and rearing habitat. Clean marine habitats produce pure seafood products.



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Swarm of sockeye smolts.



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SEAFOOD MONITORING AND PURITY

There has been world-wide concern about environmental contaminants in our food and water and new information is reported on a daily basis in the news. The State of Alaska is taking an active role in examining the effect on Alaskan resources. In 2001, the Alaska Department of Environmental Conservation (ADEC) developed the Fish Monitoring Program in order to conduct a more rigorous examination of contaminant levels in Alaskan fishes. The program involves a general survey of selected marine and freshwater finfish species from around the state and testing these fishes for certain environmental contaminants. The program has continued to evolve from its start in 2001.

In a collaborative effort with biologists from the Alaska Department of Fish and Game, the U.S. National Oceanic and Atmospheric Agency (NOAA), the International Pacific Halibut Commission (IPHC) and commercial and some native fishermen, samples of salmon (all five species), halibut, Alaska Pollock, black cod/ sablefish, Pacific cod, lingcod, rockfish and other species are being collected from throughout the state. Every year more samples are collected from additional species of fish from new geographic locations.

Salmon samples show extremely low levels of not only heavy metals, but also organochlorines. No salmon samples exceed FDA mercury action levels, and organic pollutants do not approach FDA levels of concern. Results of the monitoring program can be viewed at <http://www.dec.state.ak.us/eh/vet/FMP2007.htm>.

Alaska salmon remain pure with little to no traces of contaminants, and surpass products from other parts of the world. The health benefits of eating Alaska salmon are indisputable. In fact, the Alaska Department of Health and Social Services recommends that Alaska salmon can be safely eaten by anyone in unrestricted amounts.



AK Dept. Fish & Game

BUYING TIPS

Here are some general guidelines for purchasing wild Alaska salmon. Like any guidelines, they are flexible, so please feel free to modify them to suit your purposes.

FLAVOR AT ITS FINEST

The flavor of Alaska salmon depends upon its fat content and the environment in which it matured. Alaska's icy pure waters and the abundance of natural food give Alaska salmon unparalleled flavor. The fat content of salmon depends not only on the genetic make-up of each species, but also on its spawning cycle. The longer and more vigorous the freshwater trip, the more fat the fish will carry as it leaves the ocean.

BASIC SIZES

Most salmon are sold head-off, unless the customer specifically requests head-on. Size ranges are in pounds per piece: under/2, 2/4, 4/6, 6/9, and 9/up.

King



Sockeye



Coho



QUALITY

For general, recommended criteria for each grade, refer to ASMI's Quality Specifications and Grades of Wild Alaska Salmon. Often, individual suppliers develop their own criteria and specifications for grades. Discuss with your supplier their grades and your particular needs.

TECHNICAL KIT

Please contact the Alaska Seafood Marketing Institute for a copy of the Alaska Salmon Buyer's Technical Kit — a comprehensive set of information about Alaska salmon.

SALMON AVAILABILITY

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
KING	[Green bar]											
SOCKEYE					[Red bar]							
COHO						[Yellow bar]						
KETA						[Light Green bar]						
PINK						[Brown bar]						

Legend: Line = Key Harvesting Periods (Most Alaska seafood is available frozen year-round)

Keta



Pink



SALMON SKIN COLOR VARIATIONS

As wild Alaska salmon approach their ancestral spawning rivers, the skin color and sometimes shape of the fish changes. These changes are a natural part of the fish's preparation for spawning, and each shade of salmon has a place in the seafood market. Use the Alaska Seafood Marketing Institute's Skin Color Guide to assist your decision.

KING



COHO



KETA



PINK



SOCKEYE







FROM THE TIME OF THE GREAT CLIPPER SHIPS that set sail from San Francisco and Astoria to the Alaska fishing grounds, the story of Alaska salmon has been one of logistics and risk. The early salmon barons who watched their ships sail over the horizon in March did not know until October if the ship would return deeply laden with canned and mild-cured salmon, or had sunk three days out of port.

They knew what the term “risk capital” meant. The fishermen who braved the wild Alaska waters lived an independent life. Their rugged character shaped much of what Alaska is today. Sailing ships have been replaced by jumbo jets, and processors in Petersburg and Pederson Point can communicate with brokers in Buffalo or Brussels by satellite, but salmon is still a great food from the sea and is now available fresh, frozen, and canned or pouched, to more people than ever before.



Wild, Natural & Sustainable®

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