ALASKA SHELLFISH
BUYER’S GUIDE

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SNOW CRAB
DUNGENESS CRAB
SHRIMP
WEATHERVANE
SCALLOPS
OYSTERS
GEODUCK
SEA URCHIN
SEA CUCUMBER
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ALASKA SHELLFISH VARIETIES

KING CRAB

WEATHERVANE SCALLOPS

DUNGENESS CRAB

SNOW CRAB

SEA CUCUMBER

SHRIMP

GEODUCK

OYSTERS

SEA URCHIN

Photos not to scale
**THE COLD, CLEAN WATERS OFF ALASKA** support huge stocks of shellfish, many of which are in high demand in seafood markets worldwide. The term “shellfish” includes crustaceans such as crab and shrimp, molluscs such as clams and oysters, and other species such as sea cucumber and sea urchin.

The Bering Sea and the Gulf of Alaska are huge bodies of water (see the chart at right depicting the 200-nautical-mile limit of the EEZ). All of this region lies within the Food & Agriculture Organization (FAO) of the United Nations’ statistical area 67.

These two bodies of water are among the most productive on the planet because of the upwelling of nutrient-rich water from deep regions along the continental shelf edge toward the surface. The combination of nutrients and sunlight supports very large populations of phytoplankton (microscopic drifting plants such as diatoms), which are eaten by zooplankton (small drifting animals such as krill).

The phytoplankton and zooplankton are in turn eaten by small finfish and shellfish, which are eaten by bigger finfish and shellfish, marine mammals, and seabirds. For decades this rich ecosystem has supported abundant and sustainable fisheries.

### Here are some important statistics about Alaska:

- Alaska has 34,000 miles of coastline, more than all of the other 49 states put together
- Alaska has over 795,000 square miles of continental shelf, 70% of the U.S. total
- The 200-mile Exclusive Economic Zone (EEZ) off Alaska is 28% of the U.S. total
- More than half of all seafood harvested from American waters originates in Alaska

Alaska shellfish spend all of their lives in the ocean; they never enter fresh water. In the deep, clean, cold waters of the Gulf of Alaska and the Bering Sea, Alaska shellfish are a natural part of the ecosystem. At different stages in their lives, they eat plankton, other crustaceans, other molluscs, finfishes, and other marine organisms. In turn, they themselves are food for bigger predators.

This Shellfish Buyer’s Guide provides basic information on Alaska’s most important shellfish species. The species are presented based on the type of fishery that produces them—the traditional commercial fishery, the dive fishery, and mariculture.
TRADITIONAL COMMERCIAL FISHERIES

Alaska waters support thriving commercial fisheries for king crab, snow crab, Dungeness crab, shrimp, and scallops.

KING CRAB
There are three species of Alaska king crab:

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red king crab</td>
<td><em>Paralithodes camtschatica</em></td>
</tr>
<tr>
<td>Blue king crab</td>
<td><em>Paralithodes platypus</em></td>
</tr>
<tr>
<td>Golden (or brown) king crab</td>
<td><em>Lithodes aequispina</em></td>
</tr>
</tbody>
</table>

King crab are large, averaging 6-10 pounds and ranging up to 24 pounds per crab. They are found throughout Alaska waters, but are most abundant in the Bering Sea where they can live to more than 20 years of age.

Adult females brood thousands of embryos underneath their tail flap for about one year, and then they are released to the currents. Planktonic king crab larvae do not look like tiny king crabs, but after several months, and several changes in body shape, they attain their familiar shape and settle to the seabed.

King crab are well known for their long walking legs, which bear spike-shaped protrusions. Their shells are their skeletons, which are made mostly of chitin, a polysaccharide. They molt their old shells as they grow. Once they reach sexual maturity they molt once per year or less. Adult male red king crab can travel as quickly as one mile per day.

King crab eat a variety of marine life including worms, clams, mussels, snails, brittle stars, sea stars, sea urchins, sand dollars, barnacles, crabs, other crustaceans, fish parts, sponges, and algae. They are eaten by many species of finfish (including cod and halibut), octopuses, sea otters, and other king crab (they are cannibalistic).

King crab are fished using “pots” or traps, which are large mesh-covered steel frameworks baited with chopped herring and other bait. The pots are set in long rows on the ocean floor where they soak for 1-3 days. The boat’s crew retrieves the pots by using hydraulic lifting equipment, and the legal-sized crab (males only) are held alive in seawater tanks (holds) onboard the fishing boats.

All king crab must be delivered live to the processing plants, where they are sectioned into clusters of legs+claws, and promptly cooked. In recent years, an increasing amount of king crab are shipped live, via air cargo.
**SNOW CRAB**

There are two main species of Alaska snow crab:

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snow crab</td>
<td><em>Chionoecetes opilio</em></td>
</tr>
<tr>
<td>Tanner (snow) crab</td>
<td><em>Chionoecetes bairdi</em></td>
</tr>
</tbody>
</table>

Snow crab bear some resemblance to king crab, since they have long legs. But snow crab are smaller than kings (1-2 pounds for opilio and 2-4 pounds for bairdi), with smoother, more slender legs.

Female snow crab carry their fertilized eggs under their tail flap for about a year, and the eggs hatch at about the same time as the spring plankton bloom, which provides food for the young, planktonic snow crab larvae. Like king crab, juvenile snow crab undergo several metamorphoses before they settle to the ocean floor.

Snow crab also eat a variety of marine life including worms, clams, mussels, snails, crabs, other crustaceans, and fish parts. They are fed upon by finfish.

As in the king crab fisheries, only male snow crab of legal size may be sold. All females and undersized males are returned alive to the sea, directly from the fishing boat as each pot is brought aboard.

All snow crab must be delivered alive to the processing plants, where they are sectioned into clusters of legs+claws and promptly cooked.

*Snow crab harvesting in pots*
DUNGENESS CRAB

Dungeness crab (Cancer magister) are popular crustaceans which inhabit bays, estuaries, and the nearshore coast of Alaska— in generally shallower water than that preferred by their larger cousins, king and snow crab.

The legs of Dungeness crab are proportionally much shorter than those of king and snow crab, and Dungeness have only a few spines on their shell.

As do the other species, female Dungeness crab carry the fertilized eggs (as many as 2.5 million) under the abdomen. The larvae are planktonic and undergo several changes in body style and shape until they settle to the seabed.

A Dungeness crab of 4–5 years in age can be 6.5 inches in shell width, with a weight of 2-3 pounds, while a large male over 8 years old can exceed 10 inches in width.

Dungeness crab are carnivores, feeding on shrimp, small crabs, mussels, clams, and worms. In turn, they are preyed upon by larger finfish, octopuses, and sea otters.

They are harvested by the use of pot gear, but these pots are much smaller than those used in the king and snow crab fisheries—usually about 40 inches in diameter and 14 inches high.

Dungeness crab must be delivered alive (sub-legal-size crabs are returned alive to the sea directly from the boat), and are shipped alive or promptly cooked.

Ghost Gear

- Alaska Department of Fish & Game (ADFG) requires escape rings in all king, snow, and Dungeness crab pots. They also require a cotton mesh strip that will degrade within 30 days, as further assurance to allow escape of all crabs and finfish in the event a pot is lost. These provisions minimize the impact of “ghost gear” (lost fishing gear).

At-Sea Observers

- Bering Sea crab catcher boats have onboard scientific observers monitoring catches 20-30% of the fishing time, and the catcher-processors have observers 100% of the time. Scallop catcher-processors have 100% onboard observer coverage.
SHRIMP
There are five species of shrimp from the Pandalid family found in Alaska. Of these, the three most popular species are:

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
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<tr>
<td>Coonstripe shrimp</td>
<td>Pandalus hypsinotis</td>
</tr>
<tr>
<td>Spot shrimp</td>
<td>Pandalus platyceros</td>
</tr>
<tr>
<td>Sidestripe shrimp</td>
<td>Pandalopis dispar</td>
</tr>
</tbody>
</table>

Coonstripes are robust, with large heads and a series of dark bands on both legs and body. They favor smooth mud and sand bottoms but can also be found on harder bottoms.

Spot shrimp are large and stout, and are light brown to orange in color, with obvious pairs of white spots located just behind the carapace (head) and just in front of the tail. They are generally associated with rock piles, coral, and debris-covered ocean bottoms.

Sidestripes are slender, pinkish-orange in color, with white stripes running lengthwise on the body. Sidestripe shrimp also have extremely long antennae (1.5 times body length) compared to other Alaska shrimp species. They prefer soft, muddy ocean bottoms.

Pandalid shrimp are among the relatively few animals that exhibit “protandrous hermaphroditism,” in which each shrimp spends the early mature part of its life as a male, and later transforms permanently into a female.

Like crab larvae, shrimp larvae are planktonic and free-swimming, with little resemblance to adult shrimp. After several molts, the young shrimp settle to the seabed.

Pandalid shrimp are opportunistic bottom feeders—they eat almost anything—worms, diatoms, detritus (dead organic material), algae, and many invertebrates. Shrimp themselves are often eaten by large predator fish such as Pacific cod, walleye pollock, flatfish, and salmon.

Coonstripe and spot shrimp are harvested in “pots,” or traps, baited and set on the ocean floor. This fishing method explains the colloquial name—“pot shrimp”—which distinguishes them from other shrimp (e.g. sidestripe shrimp) caught by other gear types, such as trawls.
WEATHERVANE SCALLOPS

Weathervane scallops (*Patriopecten aurinus*) are the only scallop species harvested in Alaska. They are bivalve molluscs, meaning that they possess two hinged shells. Shell lengths may reach 8 inches or larger at maturity. Weathervane scallops are sexually mature at age 3 or 4, and are of commercially harvestable size at 6 to 8 years. They live in “beds” (aggregations) on sand, gravel, and rock sea bottoms, where they feed by filtering plankton from the water.

Spawning occurs in May, June, and July, when the spermatozoa and ova are released into the water. Fertilized ova settle to the ocean floor. Hatching occurs in approximately one month, and the larvae drift with the tides and currents. After two or three weeks the larvae will have gained shell weight, settled to the bottom, and attached to seaweed. Within 4-8 weeks after settling, the juveniles will develop the ability to swim for locomotion. At this time, a juvenile scallop is approximately 3/8-inch in diameter and will take on the adult form. Growth is very rapid in the first few years, and is much slower after age 10. Scallops may live to age 18.

Scallop are the only bivalves that are capable of swimming, which is accomplished by the rapid ejection of water from the interior of the shell in a jet-like action. Swimming can be maintained for 15-20 seconds and rarely exceeds 20 feet.

Scallop fishing gear is a dredge made of a rectangular metal frame approximately 12 feet wide. Steel rings connected by chain links and webbing along the top form a net. Generally, a vessel will fish two such dredges, which may weigh around a ton each, and are towed through the scallop beds.

Like all Alaska state managed fisheries, scallops are required by the Alaska State Constitution (Article 8, Section 4) to be managed on the sustainable yield basis.

Scallop dredge
SUSTAINABLE FISHERIES MANAGEMENT

Alaska Department of Fish & Game (ADFG) conducts scientific research on king crab, snow crab, Dungeness crab, shrimp, and scallops and sets biologically based limits on harvests. These limits are termed Guideline Harvest Levels (GHLs), or Total Allowable Catches (TACs), depending on the fishery. The GHLs and TACs are small fractions of the available biomass, and are firm limits on the harvests.

Most king and snow crab fisheries in the Bering Sea and Aleutian Islands (BSAI) are now “rationalized crab fisheries.” These well-known fisheries are managed under the Crab Rationalization Program, which allocates BSAI crab resources among harvesters, processors, and coastal communities. The North Pacific Fishery Management Council (NPFMC) developed the Program over a 6-year period to accommodate the specific dynamics and needs of the BSAI crab fisheries. The Program builds on the NPFMC’s experiences with the halibut and black cod Individual Fishing Quota (IFQ) program and the American Fisheries Act (AFA) cooperative program for Bering Sea pollock. It is a limited access system which balances the interests of harvesters and processors who depend on these fisheries with the needs of the eco-system.

The Program, which is managed by the National Marine Fisheries Services (NMFS) and overseen by NPFMC, addresses conservation and management issues associated with the previous “derby” fishery, reduces bycatch and associated discard mortality, and increases the safety of crab fishermen by ending the “race for fish.”

Share allocations to harvesters and processors, together with incentives to participate in fishery cooperatives, increase efficiencies, provide economic stability, and facilitate compensated reduction of excess capacities in the harvesting and processing sectors. Community interests are protected by Community Development Quota (CDQ) allocations and regional landing and processing requirements, as well as by several community protection measures.

ADFG manages the rest of Alaska's crab fisheries, including Norton Sound red king crab, Dungeness crab, shrimp, and scallops. The first of these – Norton Sound red king crab – offers another good example of sustainable fisheries management. This fishery is one of the few remaining “open access” fisheries in Alaska – this means that anyone may enter the fishery and participate in harvests. But it also is subject to “Super-Exclusive Registration,” which means that any vessel that participates is prohibited from participating in any other Alaska king crab fishery. This restriction, plus others such as a limited number of pots and a limited amount of bait, ensures that this small, local fishery is sustained.

For information and available resources on Alaska's fisheries management, go to http://sustainability.alaskaseafood.org
DIVER-HARVESTED SHELLFISH

There are three main species of Alaska shellfish which are harvested by hand by divers, rather than by fishing gear such as pots. For this reason, geoducks, sea urchins, and sea cucumbers are presented together in this section. As in the traditional commercial fisheries, diver-harvested shellfish are managed for long-term sustainability.

GEODUCK

Geoduck clams (*Panopea generosa*) are the largest burrowing clam in the world. Although their name is pronounced “gooey-duck,” they are not gooey and they are not ducks. They live in sandy or soft mud bottoms, into which they have burrowed 18 inches to 4 feet deep. They are sedentary filter-feeders, consuming phytoplankton which they take in through their “siphon” from the seawater near their location.

Geoducks reproduce in spring, by “broadcast spawning” in which the males and females release their sperm and eggs directly into the water, where fertilization occurs. The larvae drift for several weeks before settling to the seafloor. When the larvae settle, they burrow into the substrate and remain at that location for the rest of their lives. Young geoducks are very susceptible to predators—shrimp, crabs, flounders, sea stars, and snails. But once the clam buries itself deeper than about 2 feet, it is safe from most predators.

Geoducks reach adulthood at about the age of 3 years (at which time they weigh about 1.5 pounds), and may live to well over 100 years. In the commercial harvest, geoducks average about 2 pounds in weight, but very large geoducks can grow to over 10 pounds.

The geoduck’s siphon is its distinguishing feature. The siphon is so large that it cannot be withdrawn into the clam’s shell. The siphon and the “breast” (mantle) are the portions of the clam that are consumed by people.

Geoducks are harvested from the waters of Southeast Alaska during the fall and winter. Divers are supplied with air via “hookah” apparatus, which continuously pumps air down to them. To retrieve the clams, the divers use hand-held water jets with long probes known as “stingers” to flush away the mud and sand.
SEA URCHIN
Sea urchins are members of the phylum Echinodermata, which is the same biological group to which sea cucumbers and sea stars belong. They have a shell (called a “test”), which resembles a slightly flattened globe or ball, and their distinguishing characteristic is that their shell is covered with many brittle spines.

The sea urchin species of greatest interest to Alaska harvesters is the red sea urchin, *Strongylocentrotus franciscanus*. Red sea urchins are found throughout Southeast Alaska waters. Sea urchins live on (but not in) the ocean floor. Red sea urchins are motile and are known to aggregate in areas of high food availability. They feed by grazing on many species of algae, but they prefer the giant kelp *Macrocystis* species. Sea urchins are preyed upon by sea otters.

Red sea urchins are broadcast spawners, releasing their eggs and sperm into the water. Their larvae are free-swimming, and pass through several developmental stages before maturing and settling to the seabed.

Red sea urchins are harvested for their roe, which undergoes cycles of ripeness related to the quality and availability of food (algae), which is generally related to seasons, sunlight, and water temperature. The urchins are harvested just as their roe reaches the peak of ripeness.

Urchins are harvested by hookah-equipped divers, using short hand-held rakes. The urchins are held alive until processing, when the roe is extracted. The roe is usually sold fresh, and sometimes the urchins themselves are sold live.

SEA CUCUMBER
Sea cucumbers are also echinoderms, in the same group as sea urchins and sea stars. They are long and soft-bodied, reaching up to 24 inches in length, but because they can contract dramatically, they are impossible to measure with any precision. Also, they can take up large quantities of seawater, which makes accurate weights difficult.

Sea cucumbers are known as “epibenthic detritivores” which means that they crawl slowly (as far as 13 feet per day) along the seabed, eating organic detritus and small organisms in the sediments. Sea cucumbers have no known predators. Like their “cousins” the sea urchins, sea cucumbers are broadcast spawners.

Alaska sea cucumber fishers concentrate on the red sea cucumber, *Parastichopus californicus*. The harvesting method is similar to that for sea urchins – hookah-equipped divers use short rakes to lift the cucumbers into mesh bags.
All three of these dive fisheries are conducted in Southeast Alaska by members of SARDFA – Southeast Alaska Regional Dive Fisheries Association – under a unique and innovative fishery management system. SARDFA is a private non-profit, economic development organization representing the harvest divers, processors, and communities of Southeast Alaska. It promotes biologically and economically sustainable development of fisheries resources which partners industry, government and communities for the most effective and efficient use of resources. In 1998, SARDFA persuaded the Alaska Legislature to pass laws (AS 43.76.150-210), which levy assessments on the harvests of dive-caught species. These funds are used by ADFG to conduct biological assessments of the resources and to manage the commercial dive fisheries.

SARDFA works cooperatively with ADFG in developing its Annual Operating Plan, which determines how the dive assessments are spent. ADFG scientists set the annual Guideline Harvests Levels (GHLs) and select which fishing grounds are open and at what times. The divers participate in the fisheries within the limits (time, area, and quantity) determined by ADFG.
MARICULTURE SHELLFISH

OYSTERS
The vast majority of Alaska shellfish are “wild caught” – harvested from nature. But Alaska also produces Pacific oysters (Crassostrea gigas) raised by humans.

Oysters are not native to Alaska, and our cold water temperatures prevent them from breeding in the wild. In fact, Pacific oysters are the only non-indigenous species allowed in Alaska.

Juvenile oysters are produced at shellfish hatcheries in Seward, Alaska or in other facilities outside Alaska that are approved by ADFG. The seed oysters are tested for disease and parasites, and each shipment must be specifically permitted by ADFG. In fact, each movement of juvenile oysters, from one site to another, requires a Transport Permit issued by ADFG.

They typically are transferred to regional nurseries when they are in the 3-5mm size range. Many nurseries use a FLUPSY (Floating Upwelling System) to increase the amount of seawater that passes over the oysters, thus increasing their natural food supply. Then, when the young oysters are about 20-25mm, growers “plant” them in trays or nets which are suspended in the water column from longlines or rafts.

All Alaska oyster-growing operations are located in areas that the growers lease from the State of Alaska, Department of Natural Resources (ADNR). Every facility must maintain an operating permit from ADFG. The waters in which the oysters are grown are certified for excellent water quality, and the growing facilities are inspected twice every year.

The FDA and the Alaska Department of Environmental Conservation (ADEC) regulate the heath and safety of the Alaska oyster supply under the strict federal standards of the Interstate Shellfish Sanitation Commission. There is complete traceability of every oyster back to the grower. There are tags in every container, and all tags must be retained for 90 days after sale by any wholesaler, distributor, or retailer.
NUTRITION INFORMATION

Alaska shellfish, like all Alaska seafood, offers excellent nutritional value, especially in its high content of healthful omega-3s. For more information, please visit the Alaska Seafood Marketing Institute’s website at www.alaskaseafood.org.

<table>
<thead>
<tr>
<th></th>
<th>Calories</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Saturated Fat (g)</th>
<th>Sodium (mg)</th>
<th>Cholesterol (mg)</th>
<th>Omega-3s (EPA + DHA) (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KING CRAB</td>
<td>100</td>
<td>19</td>
<td>1.5</td>
<td>&lt;0.5</td>
<td>1100</td>
<td>55</td>
<td>400</td>
</tr>
<tr>
<td>SNOW CRAB</td>
<td>115</td>
<td>24</td>
<td>1.5</td>
<td>&lt;0.5</td>
<td>690</td>
<td>70</td>
<td>500</td>
</tr>
<tr>
<td>DUNGENESS CRAB</td>
<td>110</td>
<td>22</td>
<td>1</td>
<td>&lt;0.5</td>
<td>380</td>
<td>75</td>
<td>400</td>
</tr>
<tr>
<td>SHRIMP</td>
<td>100</td>
<td>21</td>
<td>1</td>
<td>&lt;0.5</td>
<td>220</td>
<td>195</td>
<td>310</td>
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<tr>
<td>WEATHERVANE SCALLOPS</td>
<td>110</td>
<td>23</td>
<td>1</td>
<td>&lt;0.5</td>
<td>265</td>
<td>55</td>
<td>370</td>
</tr>
<tr>
<td>OYSTERS</td>
<td>165</td>
<td>19</td>
<td>5</td>
<td>1</td>
<td>210</td>
<td>100</td>
<td>1400</td>
</tr>
<tr>
<td>OYSTERS (raw)</td>
<td>80</td>
<td>10</td>
<td>2.5</td>
<td>0.5</td>
<td>110</td>
<td>50</td>
<td>690</td>
</tr>
<tr>
<td>SEA URCHIN (roe)</td>
<td>145</td>
<td>17</td>
<td>8.3</td>
<td>1.7</td>
<td>73</td>
<td>310</td>
<td>---</td>
</tr>
<tr>
<td>SEA CUCUMBER (raw)¹</td>
<td>56</td>
<td>13</td>
<td>0.4</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>GEDUCK (raw edible meat)²</td>
<td>80</td>
<td>17</td>
<td>0.5</td>
<td>0.2</td>
<td>300</td>
<td>30</td>
<td>---</td>
</tr>
</tbody>
</table>

Nutritional data is gathered from the following sources:
USDA National Nutrient Database for Standard Reference using 3.5 oz./100g portions, cooked (except where noted), accessible at http://www.nal.usda.gov/fnic/foodcomp/search
¹ Axxya Systems
² Underwater Harvesters Association (UHA)
## PRODUCT FORMS & PACKAGING

### KING CRAB

| PRODUCT FORMS | FRESH: live  
|               | FRESH & FROZEN: legs & claws; clusters/sections;  
|               | split legs & claws; select portions; broiler claws; tails  
| GRADING       | Average 6 to 10 lbs. but can grow to 15 lbs.  
|               | Leg counts per 10 lbs. case:  
|               | 6/9; 9/12; 12/14; 14/17; 16/20; 20-up  
| PACKAGING     | Legs and Claws: 1/10, 1/20 lbs. case  
|               | Split Legs and Claws: 1/10 lbs. and 1/25 lbs. case  
|               | Select Portions: 1/10 lbs. and 1/15 lbs. case  
|               | Pre-scored legs: 1/20 lbs. case  
|               | Clusters/Sections: packed 1/25 lbs. and 1/40 lbs.  
|               | Tails: 1/25 lbs. case  
|               | Broiler Claws: 6/3 lbs. case  

### SNOW CRAB

| PRODUCT FORMS | FRESH: cooked whole or clusters/sections; legs;  
|               | meat; cocktail claws  
|               | FROZEN: raw or cooked whole; raw or cooked clusters/sections;  
|               | legs; fancy meat; IQF merus meat; cocktail claws  
| GRADING       | Clusters/sections typically graded: 5 oz. up, 5-8 oz.,  
|               | and 8 oz. up  
| PACKAGING     | Whole cooked crab brine frozen, packed individually or in 20 to  
|               | 50 lbs. cartons  
|               | Clusters bulk brine frozen in 20, 25, 30, and 40 lbs. cartons  
|               | Claws packed in 3 lbs. bags in an 18 lbs. master carton  
|               | Legs (regular and pre-scored) packed in 10 to 25 lbs. cartons  
|               | Meat (fancy and merus pack) packed in 5 lbs. blocks  

### DUNGENESS CRAB

| PRODUCT FORMS | FRESH: live; whole cooked or clusters/sections  
|               | FROZEN: whole cooked, clusters/sections, picked meat; leg meat  
| GRADING       | 2-3 lbs. average whole  
|               | Whole crab typically graded: U/2 lbs.;  
|               | 2/2.5 lbs.; 2.5/3 lbs.; 3 lbs./up  
| PACKAGING     | Whole cooked crab, brine frozen, and packed in 30 lbs. cartons  
|               | Clusters/sections bulk frozen in 20, 25, 30 and 40 lbs. cartons  

### SHRIMP

| PRODUCT FORMS | Whole  
|               | Tails  
| GRADING       | Tails graded:  
|               | jumbo U-15, large 15-25, medium 25-up  
| PACKAGING     | Tails frozen or chilled in 2 lbs. packs  

Alaska Shellfish Buyer’s Guide
## PRODUCT FORMS & PACKAGING

### WEATHERVANE SCALLOPS

<table>
<thead>
<tr>
<th>PRODUCT FORMS</th>
<th>Meats: frozen IQF or 5 lbs. blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADING</td>
<td>Shucked meats graded U/10; 10/20; 20/30; 30/40 count/lb.</td>
</tr>
<tr>
<td>PACKAGING</td>
<td>Block frozen meats packed 6/5 lbs. boxes, 30 lbs. master IQF meats packed 6/5 lbs. bags, 30 lbs. master</td>
</tr>
</tbody>
</table>

### OYSTERS

<table>
<thead>
<tr>
<th>PRODUCT FORMS</th>
<th>FRESH: live (shellstock); shucked FROZEN: shucked</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADING</td>
<td>Shucked oysters graded (per gallon): large 64 or less; medium 65-96; small 97-144; extra small more than 144 oysters Shellstock oysters graded: large above 5 in.; medium 4-5 in.; small 3-4 in.; extra small 2-3 in.; yearling up to 2 in. (measured from hinge to furthest distance from hinge)</td>
</tr>
<tr>
<td>PACKAGING</td>
<td>Strapped wetlock boxes with liners and gel ice</td>
</tr>
</tbody>
</table>

### GEODUCK

<table>
<thead>
<tr>
<th>PRODUCT FORMS</th>
<th>Live; neck meat; body meat</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACKAGING</td>
<td>Strapped insulated 50 lbs. boxes with liners, drain pads, absorbents, and gel ice Live geoducks have a rubber band around their shells to reduce shell breakage Neck meat frozen in plastic bags Body meat frozen and glazed</td>
</tr>
</tbody>
</table>

### SEA URCHIN

<table>
<thead>
<tr>
<th>PRODUCT FORMS</th>
<th>Roe sac (“uni”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACKAGING</td>
<td>Unsorted/unprocessed roe in plastic jugs Sorted/processed roe graded by color &amp; tray-packed</td>
</tr>
</tbody>
</table>

### SEA CUCUMBER

<table>
<thead>
<tr>
<th>PRODUCT FORMS</th>
<th>Meat Skins</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACKAGING</td>
<td>Meat frozen in 2 lbs. vacuum-sealed pouches or foam trays, &amp; boxed in 24 lbs. cartons Skins boiled, salted, dried, &amp; frozen, in 12 kg. cartons</td>
</tr>
</tbody>
</table>
SHELLFISH PUBLICATIONS

Readers are encouraged to consult other ASMI publications for more information on Alaska shellfish, including:

- Fact Sheets for Alaska King, Snow, and Dungeness Crab and Weathervane Scallops
- Alaska Crab Education Brochure
- Sustainable Alaska Scallops Brochure
- Premium Quality Specifications – Alaska King, Snow and Dungeness Crab
- Waitstaff Tip Cards - Alaska Crab and Scallops
- Alaska Crab Point-of-Sale and Foodservice and Consumer Recipes for Alaska Crab and Scallops

INFORMATIVE WEB SITES

- North Pacific Fisheries Management Council  
  www.fakr.noaa.gov/npfmc
- National Marine Fisheries Service, Alaska Region  
  www.fakr.noaa.gov
- Alaska Department of Fish and Game  
  www.adfg.state.ak.us
- Alaska Seafood Marketing Institute  
  www.alaskaseafood.org
HARVESTING AREAS & SEASONS

ALASKA

Bering Sea

Dutch Harbor

Gulf of Alaska

Barrow

Nome

Kotzebue

Fairbanks

Anchorage

Seward

Cordova

Juneau

Sitka

Petersburg

Ketchikan

Season lengths indicated in this summary are subject to closure by emergency order as guideline harvest objectives are met or as deemed necessary for conservation concerns.
1. NORTON SOUND
   King Crab
2. BRISTOL BAY
   King Crab
3. ALASKA PENINSULA
   Snow Crab, Dungeness Crab
4. ALEUTIAN ISLANDS
   King Crab, Snow Crab
5. KODIAK
   Dungeness Crab, Sea Cucumbers, Sea Urchins, Weathervane Scallops
6. COOK INLET
   Dungeness Crab, Oysters, Weathervane Scallops
7. PRINCE WILLIAM SOUND
   Oysters, Weathervane Scallops
8. YAKUTAT
   Oysters, Weathervane Scallops
9. SOUTHEAST ALASKA
   Dungeness Crab, Snow Crab, King Crab, Geoduck, Oysters, Sea Cucumbers, Sea Urchins, Shrimp
10. BERING SEA
    King Crab, Snow Crab

Much of this information was taken from the ADFG Wildlife Notebook Series, which includes descriptions of more than 100 species of Alaska’s wild fish and game (http://www.adfg.state.ak.us/pubs/notebook/notehome.php). The complete notebook series is available in printed form for US $12.50. To place an order, please call (907) 465-4790 or contact the Department of Wildlife Conservation Information Desk by email (dfg.dwc.hq-info@alaska.gov) and provide your address, phone number, and preference for check or credit card payment.