

Wild, Natural & Sustainable<sup>®</sup>

# SHELLFISH

## BUYER'S GUIDE

KING CRAB

SNOW CRAB

DUNGENESS CRAB

SHRIMP

WEATHERVANE SCALLOP

GEODUCK CLAM

PACIFIC RAZOR CLAM

PACIFIC OYSTER

SEA URCHIN

SEA CUCUMBER







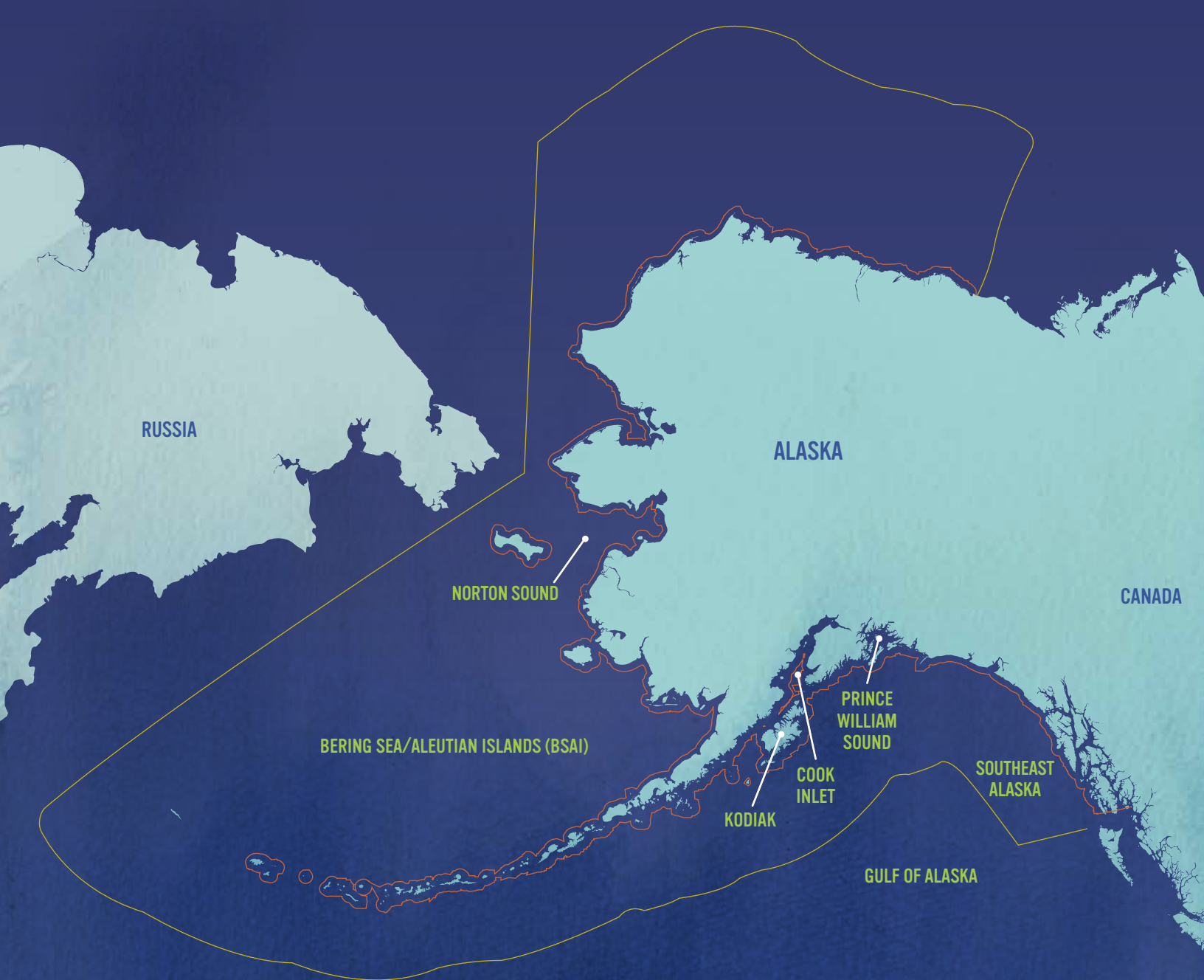


# ALASKA SHELLFISH

THE COLD, CLEAN WATERS OFF ALASKA support large, sustainable populations of shellfish, many of which are in high demand in seafood markets worldwide. While there are many species of shellfish in Alaska, this Buyer's Guide produced by the Alaska Seafood Marketing Institute, describes the shellfish species of greatest interest to the seafood trade. Included in this guide are important considerations for buyers of Alaska shellfish including product forms, packaging, quality and nutritional aspects of the seafood product. The term "shellfish" includes crustaceans such as crab and shrimp, mollusks such as clams, and echinoderms such as sea cucumber and sea urchin.

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## HARVEST AREAS

Alaska's shellfish harvesting areas support some of the most productive fisheries in the world. All shellfish from Alaska are caught within the United States Exclusive Economic Zone, an area outlined by the United Nations Convention on the Law of the Sea where a state has rights in regards to the exploration of the use of marine resources.

### MAP KEY

- INTERNAL WATERS:** From the shoreline to 3 nautical miles offshore, the State of Alaska has fisheries management authority.
- FEDERAL WATERS:** Between 3 and 200 nautical miles offshore, termed the Exclusive Economic Zone, the U.S. has sovereign rights to the management of the resources.
- COMMERCIAL SHELLFISH HARVESTING AREAS:** Locations of prominent shellfish harvesting areas.



# ALASKA SHELLFISH

## CRUSTACEANS



**RED KING CRAB**  
*Paralithodes camtschatica*



**BLUE KING CRAB**  
*Paralithodes platypus*



**GOLDEN KING CRAB**  
FORMERLY KNOWN AS BROWN KING CRAB  
*Lithodes aequispina*



**OPILIO SNOW CRAB**  
*Chionoecetes opilio*



**BAIRDI SNOW (TANNER) CRAB**  
*Chionoecetes bairdi*



**DUNGENESS CRAB**  
*Metacarcinus magister*



**COONSTRIPE SHRIMP**  
*Pandalus hypsinotis*



**SPOT SHRIMP**  
*Pandalus platyceros*

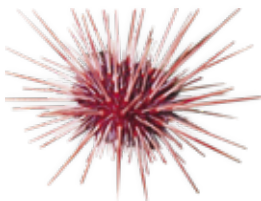


**NORTHERN SHRIMP**  
*Pandalus borealis*



**SIDESTRIPE SHRIMP**  
*Pandalopsis dispar*

## ECHINODERMS



**SEA URCHIN (RED)**  
*Strongylocentrotus franciscanus*



**SEA CUCUMBER (RED)**  
*Parastichopus californicus*

## MOLLUSKS



**WEATHERVANE SCALLOPS**  
*Patinopecten caurinus*



**PACIFIC RAZOR CLAM**  
*Siliqua patula*



**GEODUCK**  
*Panopea generosa*



**PACIFIC OYSTER**  
*Crassostrea gigas* or *Magallana gigas*



# HARVESTING ALASKA'S SHELLFISH

Alaska shellfish harvesters are dedicated to responsible catch methods and have participated in scientific studies to avoid incidental catch of non-target species. Harvesters cooperate with researchers to develop modified gear and harvesting techniques that reduce bycatch, improve quality and preserve the marine habitat.



## HARVEST TIMELINE

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RED KING CRAB	POT	(Norton Sound)					(Norton Sound)				POT	
	POT										POT	
BLUE KING CRAB	POT										POT	
GOLDEN KING CRAB	POT						POT					
		POT										
SNOW CRAB	POT										POT	
TANNER (SNOW) CRAB											POT	
DUNGENESS CRAB					POT							
					POT							
SHRIMP	POT/BEAM TRAWL*											
	POT				POT/BEAM TRAWL							
WEATHERVANE SCALLOPS	DREDGE					DREDGE						
	DREDGE					DREDGE						
GEODUCK												
RAZOR CLAM	DIVE											
	SHOVEL											
SEA URCHIN (RED)	DIVE										DIVE	
	DIVE											
SEA CUCUMBER (RED)	DIVE										DIVE	
	DIVE										DIVE	
PACIFIC OYSTER	DIVE											
	DIVE											

### BERING SEA

includes Aleutian Islands, Bristol Bay and Arctic-Yukon-Kuskokwim areas

### GULF OF ALASKA

includes Yakutat, Cook Inlet, Kodiak, Chignik and the Alaska Peninsula areas

### SOUTHEAST ALASKA

includes the island archipelago of many fishing communities in Alaska

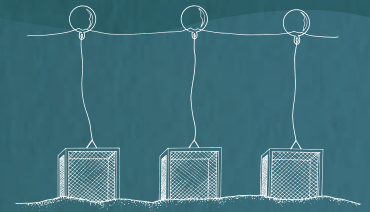


# HARVESTING TYPES

## POTS

Pots are steel framed cages covered in mesh with escape rings to allow undersized crab to leave the pot. Crab pots are required to have biodegradable panels that will release all crab after a certain time in the water. Pots are baited and released by crew over the side of the vessel where they are allowed to 'soak' for a period of time depending on the fishery. They have lines attached to surface buoys for retrieval with the vessel's hydraulic gear. Harvesters can fish pots individually or in a string of multiple pots linked with a groundline.

*Crab, shrimp, geoduck*



## DIVE

Shellfish are hand-selected by harvesters diving off boats and swimming down to the ocean floor. The divers are equipped with a 'hookah' air tube which continuously pumps air down to them while they search for shellfish. Divers use a water jet or a rake to retrieve the shellfish from their seabed habitat. Divers collect harvested shellfish in a mesh bag tied to their waist and swim them back up to the surface to the awaiting vessel.

*Geoduck, sea urchin, sea cucumber*



## DREDGE

Scallops are harvested by a dredge, a rectangular metal frame approximately 12 feet wide with a scoop net made of a chain mesh attached. Usually vessels tow two separate dredges slowly for up to an hour over scallop beds before being retrieved.

*Scallop*



## SHOVEL/RAKE

Harvesters walk the beach or ride in a skiff to areas where clams are collected with shovels and rakes and transported in buckets.

*Razor clam*



*\*Pacific oysters are grown in trays or nets which are suspended in the water column from longlines or rafts and are harvested by hand.*



# SHELLFISH SPECIES

## ALL CRAB

### PHYSICAL DESCRIPTION

Their shells are their skeletons and are made of chitin. The exoskeleton does not grow with the crab body and must be shed periodically for a new, larger one which is called molting. Crab sex is determined by looking at the underside of the crab; the abdominal is rounded for females and triangle-shaped for males.

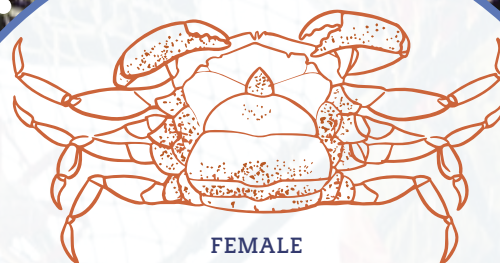
### REPRODUCTION

Crab mate during the molt (an act of shedding the shell to grow) and female crabs carry fertilized eggs under their tail. When the embryos are developed, they hatch as swimming larvae and are free in the currents until they eventually mature into small non-swimming crab larvae and settle on the ocean floor.

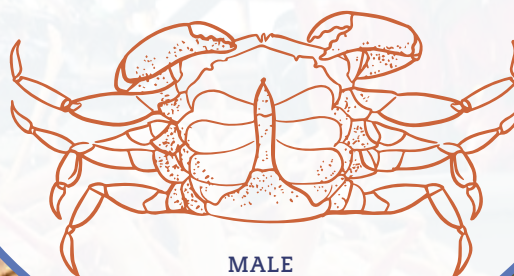
### HARVEST

Only male crabs above a certain size are kept in the commercial fishery. Crabs are measured by the shoulder width or carapace width in order to determine size. The legal size of harvest is set so crab can be sexually mature and reproduce before they are harvested in the fishery. Harvest size requirements vary by species and by harvest location.

### SEX IDENTIFICATION



FEMALE



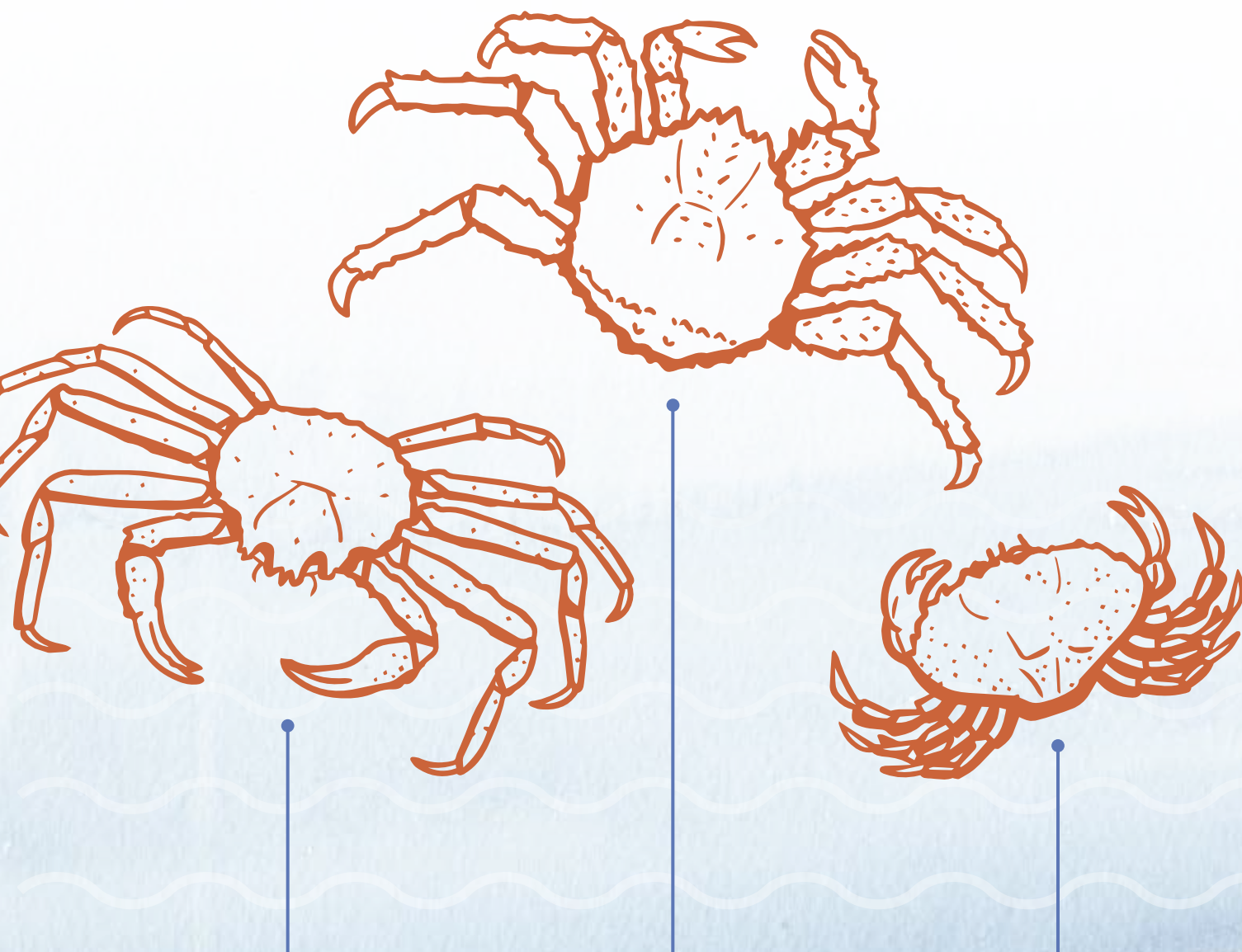
MALE

### CARAPACE



CARAPACE  
MEASUREMENT





## SNOW CRAB

### DESCRIPTION

There are two species of crab that are marketed as snow crab. *Chionectes bairdi* and *Chionectes opilio* are both brachyuran crabs, or short-tailed crabs. *C. bairdi* is also recognized under the common name, Tanner crab. They have five pairs of legs with the first pair being pincers.

### SIZE

*C. opilio* average 1-2 lbs. and *C. bairdi* average 2-4 lbs.

### AGE

7-11 years

## KING CRAB

### DESCRIPTION

There are three species of Alaska king crab. King crab have red, blue and golden shells with spike-shaped protrusions. They have 5 pairs of legs. The first pair are the large claws, the middle three are the walking legs, and the fifth pair are the small legs tucked under the rear of the carapace. The right claw is usually the largest on adults. Red king crab have a unique fan shaped piece of meat under the rear of the shell called a 'tail.'

### SIZE

King crab average 6-10 lbs. with a max of 24 lbs. and can reach a leg span of 6 ft. Male king crab are larger than female king crab.

### AGE

20-30 years

## DUNGENESS CRAB

### DESCRIPTION

Dungeness crab have 5 pairs of legs; four pairs of walking legs and one set of claws. Dungeness legs are smaller and shorter than other Alaska commercially harvested crab species. The carapace of Dungeness is smooth and spineless.

### SIZE

Dungeness average 2-3 lbs.

### AGE

8-13 years

## SHELLFISH SPECIES

### ALL SHRIMP

#### PHYSICAL DESCRIPTION

There are four major species of wild shrimp that are harvested in Alaska. Spot, northern (pink), coonstripe, and sidestripe shrimp with spot shrimp (*Pandalus platyceros*) being the most abundant and valuable commercial species. Shrimp in Alaska can grow to be 23 cm in length and can live anywhere from 4-11 years.

#### REPRODUCTION

Most shrimp are protandric hermaphroditic and begin life as males, but then transform to females. A shrimp female can carry between 200-4,000 eggs. Eggs are found on females from October to March.

#### HARVEST

Harvest of shrimp in Alaska is predominately in Southeast Alaska and to a lesser extent in Prince William Sound.



SPOT SHRIMP



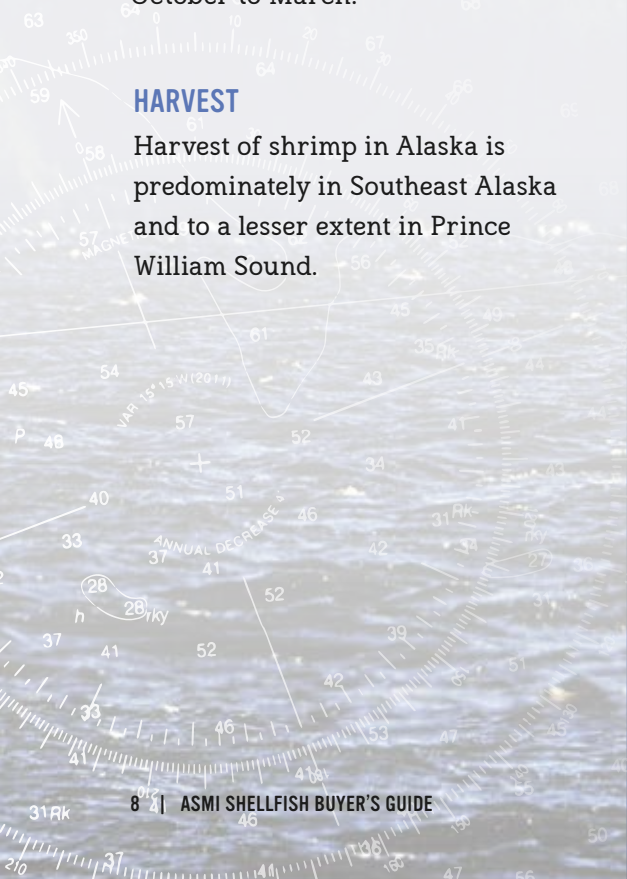
NORTHERN SHRIMP



COONSTRIPE SHRIMP



SIDESTRIPE SHRIMP







## RED SEA CUCUMBER

### DESCRIPTION

Alaska's wild harvested red sea cucumber is known for their large size and high nutritional value. Red sea cucumber is harvested for the skin and muscle bands.

### REPRODUCTION

Sea cucumbers have individual sexes of males and females and broadcast spawn in the summer months in Alaska.

### HARVEST

Red sea cucumber is harvested in Southeast Alaska and in the waters off Kodiak Island. Biomass surveys are conducted by state biologist divers prior to fishery openings in each management area, with areas opening on a 3-year rotational basis such that about one-third of approximately 46 areas are open each year, beginning in October.

## SEA URCHIN

### DESCRIPTION

Urchins are harvested for their gonads, commonly called roe or uni, with no distinction made between males or females. The red sea urchin is the largest of the sea urchins, with a maximum "test", or outer skeleton, diameter of more than 18 cm and a maximum spine length of 8 cm.

### REPRODUCTION

Reproduction occurs between March and September in Southeast Alaska. Urchins are broadcast spawners with external fertilization and aggregate during spawning. Female urchins may produce 100,000 to 2,000,000 eggs into the sea where they are fertilized. Some research suggests that urchins can live over 100 years.

### HARVEST

Sea urchins are only harvested in Southeast Alaska. Annual guideline harvest levels are set at 6% of the biomass estimate.



## SHELLFISH SPECIES

### ALL MOLLUSKS

Scallops, clams and oysters are all bivalve mollusks and have two shells that are joined by a muscular hinge. Bivalve mollusks are aged by counting the rings on their shells.

### BIVALVE MOLLUSKS



### WEATHERVANE SCALLOP

#### DESCRIPTION

Weathervane scallops are only found in the northeastern Pacific Ocean. The Weathervane scallop is the largest scallop found in Alaska. They can grow to a shell diameter of 8 inches or more. Unlike clams and mussels, scallops cannot burrow in the ocean floor to avoid predators, but instead are capable of evading predators by 'swimming' or ejecting water from their shells. This action requires scallops to have a large hinge muscle to open and close its shell. It is the hinge muscle from these bivalves that is harvested for consumption and is what we think of as a scallop.

#### REPRODUCTION

Male and female scallops broadcast spawn in May and June. Weathervane scallops can live to 28 years.

#### HARVEST

Weathervane scallops are measured by shell height from the base of the hinge to the edge of the scallop shell. Only scallops that are larger than 4 inches can be harvested in the commercial fishery.



## GEODUCK CLAM

### DESCRIPTION

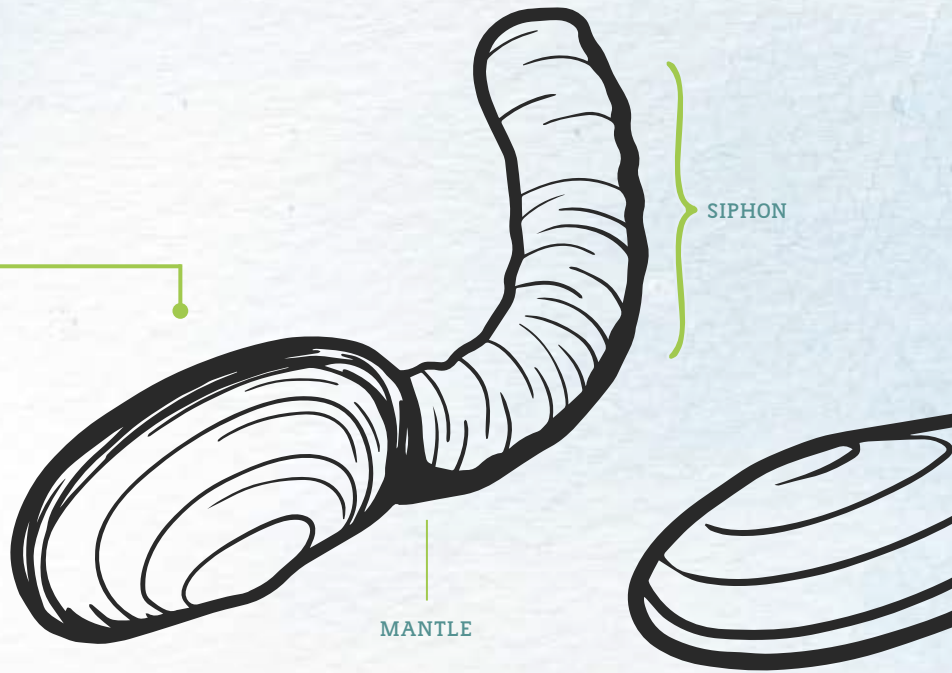
Geoduck clams can live to 160 years and are the largest burrowing clam in the world. The breast (mantle) and the neck (siphon) are the body parts of the geoduck that are consumed.

### REPRODUCTION

Male and female geoducks broadcast spawn every year in June and July.

### HARVEST

Geoduck is only harvested in Southeast Alaska and are processed for a live market. The average geoduck weighs 2 lbs., but can grow to be more than 10 lbs. There is a harvest rate of 2% to ensure sustainable fisheries.



## PACIFIC OYSTER

### DESCRIPTION

Pacific oysters are not native to Alaska and are the only non-indigenous species allowed in Alaska. Pacific oysters take 18-30 months to develop to the market size of 70-100g (shell on) live weight. Pacific oyster growth depends on water temperature and salinity.

### REPRODUCTION

Alaska's cold waters prevent grown oyster population from breeding and reproducing. Pacific oyster spat is acquired from hatchery and certified in-water and out of state production.

### HARVEST

All Alaska oyster-grower's operations are located in areas that the growers lease from the State of Alaska. Every facility must maintain an operating permit from ADFG. For more information on oyster growing and harvesting in Alaska, please see the Alaska Department of Fish and Game website:

<http://www.adfg.alaska.gov/index.cfm?adfg=fishingaquaticfarming.main>



## PACIFIC RAZOR CLAM

### DESCRIPTION

Razor clams can live to 11 years and can grow to over 12 inches in length.

### REPRODUCTION

Male and female razor clams broadcast spawn in the summer coinciding with rising water temperatures. Female razor clams can produce hundreds of thousands to millions of eggs depending on size and fertilization occurs by chance once eggs are discharged onto wet sand and into sea water.

### HARVEST

The commercial fishery has occurred since 1916. The primary commercial harvest area for razor clams are from beaches in Cook Inlet.









## DECK TO DISH

### CRUSTACEANS

All crab is harvested and kept live in cold water tanks or totes on vessels until offloaded at processing facilities. At the processing facilities, most crab is separated into pieces, cooked, and blast or brine frozen before packaged for shipment. An increasing amount of crab is shipped live via air cargo. Shrimp is harvested and directly placed in chilled seawater totes on board vessels. Some shrimp harvesters freeze shrimp head on or off while at sea while other harvesters transfer shrimp to tenders and onshore processors.

### ECHINODERMS

Sea cucumbers are harvested and drained on board the vessel. The sea cucumber skin is salted and dried and the meat is extracted in the processing facility. After harvested, sea urchin roe is extracted and packaged for shipment.

### MOLLUSKS

Immediately after harvest, scallops are shucked, cleaned, size sorted, boxed and frozen at sea to preserve the quality of the meat. After geoducks are harvested, they are kept live and wrapped in a rubber band to mimic the sediment pressure and reduce stress. Razor clams are harvested and immediately flown across an inlet to the processing facility where they are shucked, cleaned and vacuum sealed and/or blast frozen to preserve freshness. Oysters are harvested from the grow site and placed in containers. The tags on each container are a measure of traceability and must be retained for 90 days after sale by any wholesaler, distributor, or retailer.



## PRODUCT TYPES

Product packaging of Alaska seafood varies by supplier. General product forms and packaging options for Alaska shellfish are found below.

### KING CRAB

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
Fresh & Frozen	Broiler Claws	6/3 lbs. case
	Tails	1/25 lbs.
	Legs (pre-scored and regular)	1/10 and 1/20 lbs.
	Clusters/Sections	1/25 and 1/40 lbs.
	Legs and Claws (split & regular)	1/10 and 1/20 lbs. case (1/25 lbs.-split)
Fresh	LIVE	
Leg counts per 10 lbs. case: 9-12, 12-14, 14-16, 16-20, and 20-up count		

### SNOW CRAB

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
Fresh & Frozen	Cocktail Claws	3 lbs. bags/18 lbs. master
	Meat (fancy and IQF merus)	5 lbs. blocks
	Legs (pre-scored and regular)	10-25 lbs. cartons
	Clusters/Sections	20, 25, 30, 40 lbs. cartons
	Whole	Packed individually or 20-50 lbs. cartons
Cluster/sections graded: 5 oz., 5-8 oz., 8 oz. up		

### DUNGENESS CRAB

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
Fresh	LIVE	
Fresh & Frozen	Clusters/Sections	20, 25, 30, 40 lbs. cartons
	Whole	30 lbs. cartons
Frozen	Picked meat/leg meat	
Whole crab graded: <2 lbs., 2-2.5 lbs., 2.5-3 lbs., 3 lbs. up		

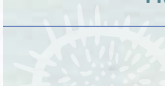
### SHRIMP

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
Frozen	Whole	~2 lbs. to 10 lbs.
	Tails	2 lbs. packs
Tails graded: jumbo U-15, large 15-25, medium 25-up		


**CRAB SHELL QUALITY** >> Shell color varies with the age of the crab. Shell color has no effect on meat quality.




## SEA URCHIN

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
 Frozen	Roe sac 'uni'	Unsorted/processed in plastic jug, sorted processed graded by color and tray-packed

## SEA CUCUMBER

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
 Frozen	Meat	2 lbs. vacuum-sealed pouches/foam trays, 24 lbs. boxes
	Skins	~26 lbs. carton

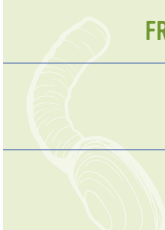
## SCALLOPS

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
 Frozen	IQF	6/5 lbs. bags, 30 lbs. master
	Block	6/5 lbs. bags, 30 lbs. master
Shucked meat graded: U-10, 10/20, 20/30, 30/40 count/lbs.		

## OYSTER

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
Frozen & Fresh	Shucked	Strapped wetlock boxes with liners and gel ice
Fresh	LIVE	
Shucked graded: large under 64, medium 65-96, small 97-14, extra small 144-up Shellstock (LIVE) graded: medium- 3.5"-5", small- 3"-4", and petite 2"-2.5"		

## GEODUCK

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
 Fresh	Neck	50 lbs. boxes, insulated, with absorbents and gel ice Rubber bands around shells
	Body	
Frozen	Neck	Plastic bags
	Body	Glazed

## RAZOR CLAMS

FRESH/FROZEN	PRODUCT FORMS	PACKAGING
 Fresh	Steaks	
Frozen	Steaks	





# SHELLFISH SEAFOOD SAFETY

As required by law, all shellfish are processed in facilities that are in full compliance with food safety regulations and practices overseen by the U.S. Food and Drug Administration (FDA) and the Alaska Department of Environmental Conservation (ADEC). All processing facilities operate with a FDA Hazard Analysis Critical Control Point (HACCP) plan and are subject to seafood safety audits by ADEC. Additionally, ADEC requires some species of shellfish to be monitored throughout the harvest season to ensure safe seafood harvesting. All harvesters processing shellfish onboard (freezing, shucking, extracting) must be inspected by the ADEC to ensure they are operating a clean and safe operation. For more information on specific seafood safety practices for shellfish, please see: [http://dec.alaska.gov/eh/fss/seafood/Shellfish\\_Home.html](http://dec.alaska.gov/eh/fss/seafood/Shellfish_Home.html)

ASMI's Seafood Technical Program works to enhance and maintain the quality and safety of all Alaska seafood products. The Seafood Technical Committee, comprised of corporate quality assurance experts, commercial fishermen and academic food technologists, directs the activities of the Seafood Technical Program.

## ENGINEERED BY NATURE

### PURE WATER, PURE SEAFOOD

	KING CRAB	SNOW CRAB	DUNGENESS CRAB	SHRIMP	SCALLOP	OYSTER	GEODUCK <sup>2</sup>	RAZOR CLAM	SEA URCHIN (ROE)	SEA CUCUMBER <sup>1</sup>
CALORIES	70	100	90	80	90	140	70	130	120	45
PROTEIN (G)	16	20	19	20	17	16	15	22	15	11
FAT (G)	1	1	1	0	1	4	0	2	7	0
SODIUM (MG)	911	572	321	94	567	180	257	1022	63	N/A
CHOLESTEROL (MG)	45	60	65	160	35	85	30	60	266	N/A
OMEGA-3s (MG)	351	405	501	260	149	117	N/A	141	N/A	N/A
VITAMIN B12 (µG)	9.8	8.8	8.9	N/A	1.8	24.5	N/A	84.1	N/A	N/A
VITAMIN A (IU)	10	40	30	N/A	2	120	N/A	145	N/A	260
VITAMIN D (IU)	24	230	51	183	N/A	N/A	N/A	N/A	N/A	N/A
SELENIUM (µG)	28	55	44	76	47	131	N/A	54	N/A	N/A
POTASSIUM (MG)	220	170	350	220	270	257	N/A	530	N/A	N/A
IRON (MG)	0.7	2.5	0.4	0.4	0.5	7.8	37.7	2.4	N/A	0.5
CALCIUM (MG)	50	30	50	60	8	14	70	80	N/A	30

Serving Size 3.0 oz/85 g  
Cooked, moist heat  
Rounded per FDA Nutrient Label Guidelines

<sup>1</sup> Axxya Systems  
<sup>2</sup> Underwater Harvesters Association  
Source: USDA National Nutrient Database for Standard Reference, Release 28





## SEAFOOD QUALITY

The quality of the product is ensured by each company's standard practice in accordance with the quality specifications for shellfish accepted by the industry. The producers and the customers work together to guarantee the highest quality possible. Many customers conduct their own inspections and audits of their suppliers. This practice is routine in the industry and includes a focus on the traceability of all products.

The Alaska Department of Environmental Conservation conducts a rigorous examination of environmental contaminants in Alaska seafood. This program is funded by the State of Alaska to ensure the health of its natural marine and freshwater resources. Alaska's shellfish species are tested annually and have never detected contaminant levels of concern. Results from the fish monitoring program can be viewed at:

<https://dec.alaska.gov/eh/vet/fish.htm>



# SHELLFISH MANAGEMENT

## MANAGEMENT ORGANIZATIONS

### STATE:

Alaska Department of Fish and Game (ADFG)

### FEDERAL:

National Marine Fisheries Services (NMFS) and North Pacific Fishery Management Council (NPFMC)

Norton Sound

Bering Sea/Aleutian Islands (BSAI)

## GENERAL SHELLFISH MANAGEMENT

Since most of the shellfish fisheries have oversight from the federal government, management must meet the standards for sustainability found in the state constitution as well as the NMFS sustainability measures as outlined in the U.S. Congress' Magnuson-Stevens Fishery Conservation and Management Act. ADFG conducts scientific research on shellfish and NMFS provides oversight for the management of most king and snow crab fisheries as well as the scallop fishery. For the dive fisheries, ADFG collaborates with the sea cucumber, geoduck and sea urchin fishery representative to set limits and select locations for harvest based on the biology of the species. The limits that are set by the collaborative management schemes 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 which are not exceeded by the fleets.

## ALASKA COMMUNITY SHARES

Share allocations to harvesters and processors, together with incentives to participate in fishery cooperatives, increases efficiencies, provides economic stability, and facilitates 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. The goal of the CDQ program is to provide communities in Western Alaska the opportunity to invest in fisheries in the Bering Sea and Aleutian Islands (BSAI). The BSAI crab fisheries allocates 10% of the annual crab harvest quota to 65 Bering Sea coastal communities.

## OBSERVERS

Part of the federal oversight is to provide at-sea observers to help monitor shellfish harvests as well as provide real time harvest estimates of Alaska's shellfish fisheries. Since 1988, the BSAI crab fleet has funded an onboard shellfish observer monitoring program under the mandate and direction of the State of Alaska. Observers document catch rates, size of crab harvested, numbers of juvenile and female crab released and other incidentally taken species.

## CRAB MANAGEMENT

### BERING SEA AND ALEUTIAN ISLANDS (BSAI)

The BSAI are home to seven different crab fisheries. Most king and snow crab fisheries in the 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 NPFMC developed the program over a 6-year period to accommodate the specific dynamics and needs of the BSAI crab fisheries. The program, which is managed by the NMFS and overseen by NPFMC, addresses conservation and management issues associated with the previous "derby" fishery and in turn reduces bycatch and associated discard mortality, and increases the safety of crab fishermen by ending the "race for fish". It is a limited access system which balances the interests of harvesters and processors who depend on these fisheries.

### NORTON SOUND

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 which 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, ensure that this small, local fishery is sustained for the benefit of small, local harvesters.





## THE SUSTAINABILITY STORY

In Alaska, the future of shellfish stocks and the environment are more important than immediate opportunities for commercial harvest. Managing for a continuing supply of seafood produced in Alaska's waters is mandated in the state's constitution. In 1959, the people of Alaska decided that

*'fish... be utilized, developed and maintained on the sustainable yield principle.'*

Alaska has a variety of comprehensive management methods in place for shellfish that are not widely practiced in the rest of the world. With every aspect of its shellfish fisheries strictly regulated, closely monitored and rigidly enforced for nearly four decades, Alaska's successful management practices are considered a model of sustainability for the entire world. The guiding principle of the management of Alaska's shellfish fisheries is solidly based in science and managers must take a precautionary conservative approach rather than risk damage to the resource. Scientists survey the shellfish stocks as well as the climatic, environmental and socio-economic factors that affect the fisheries. Within each fishery different entities are responsible for scientific research, regulatory enforcement, and policy/allocation. The sustainability of Alaska shellfish fisheries is independently certified by both the Alaska Responsible Fisheries Management program and the Marine Stewardship Council.





To enjoy Alaska's shellfish please check out our recipes at: <http://www.wildalaskaseafood.com/recipe-finder/>



>> Alaska Crab Mac & Cheese



>> Bacon-Wrapped Alaska Scallop Sliders



>> Citrus Spot Prawns with Sesame Cabbage Salad

## SHELLFISH PUBLICATIONS

To learn more about Alaska's shellfish consult alternate ASMI publications, 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**

These materials can be obtained by downloading or  
ordering them online from our website:

[www.alaskaseafood.org](http://www.alaskaseafood.org) or by calling 1-800-478-2903





*Wild, Natural & Sustainable*

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#### METRIC CONVERSIONS

POUNDS (LBS)	KILOGRAMS (KG)
5	2.3
10	4.5
50	22.7
100	45.4
1,000	453.6