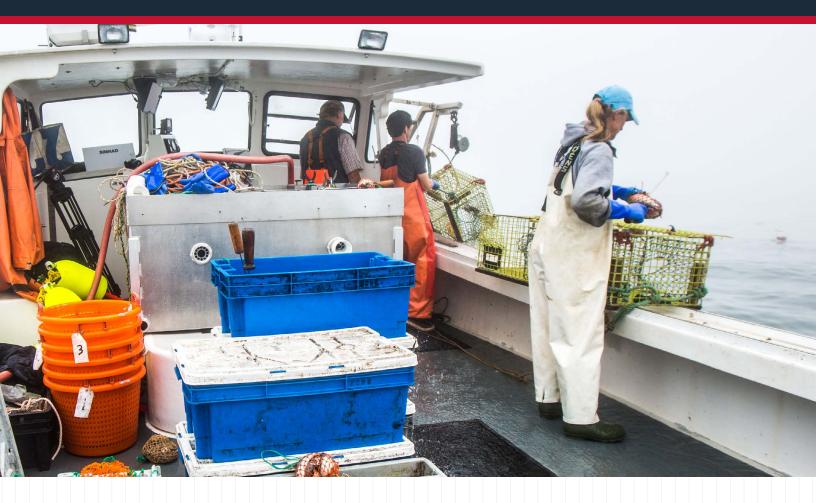


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INTRODUCTION TO US JONAH CRAB



The wild caught Jonah crab has long been considered a bycatch for Northeast lobster fishermen. Prior to the 1990s, there was little effort to market the product.

Lobstermen either threw crabs back overboard, took their catch home or sold to small fish markets.

Jonah crab is landed primarily in Massachusetts and Rhode Island, with the peak catch season from January to March. There is little biological data about Jonah crab growth, mortality and reproduction. Most of the catch is male crab. Research is underway to learn more.

The Jonah crab is similar in body structure, meat appearance, and meat texture to the brown, or edible, crab (Cancer pagurus) found in Europe's North Sea.

Crabmeat and whole crab claws are the primary products of the edible crab. Jonah crab can be more expensive than the brown or edible crab during certain times of the year but offers a greater versatility in terms of claw choices. The meat is whiter than that of the edible crab.

Jonah crab is also considered to be the "Atlantic Dungeness" similar to the West Coast Dungeness crab only smaller and less meaty. Jonah crab flavor profile is very similar to Dungeness only sweeter. While the marketing focus for Dungeness crab is on the whole crab and meat, Jonah crab focus products are the claws and meat.

US JONAH CRAB

A brief history



In the 1990s, fishermen started catching Jonah crab along with lobster, sending their catch to regional processors. While a few processors set up production dedicated strictly to crab processing year-round, most of the production in the Northeast is now done by lobster processors during the winter months after the lobster processing season has ended, typically from December-April.

With a decline in lobster landings in Southern New England and an increase in price of Dungeness and stone crab, fishermen in that area have focused on Jonah crab harvesting. Landings have increased significantly over the past fifteen years in the Northeast as crabs move northward in response to climate change. An increase of 650% in the catch occurred from 2003 to 2018. Jonah crabs are harvested in baited traps as a bycatch to the lobster fishery or in traps specifically designed for crabs (primarily in the offshore fishery). Fishermen catching Jonah crab must hold a lobster license.

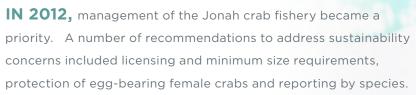
Jonah crab are now landed year-round both inshore and offshore. As with the lobster fishery, there is a molting time for the crab, thought to be during the spring and fall months when crabs shed their shells and grow new shells. In the summer and early fall, the crabs move offshore. Optimum catch season is typically from December-April.

Jonah crab feed on mussels, arthropods, and snails in addition to the finfish used as lobster bait. They prefer water temperatures ranging between 8-12°C (46-54°F). They dwell in rocky areas closer to the coastline and on silt to clay bottoms further offshore.

US JONAH CRAB MEANS SUPERIOR VALUE



- Jonah crab is high in protein and has many key nutrients including zinc and omega-3 fatty acids
- Processors of Jonah crab maintain stringent and consistent safety standards in holding, processing, transportation and storage
- Jonah crab has versatility of application
- Frozen Jonah crab products are available year-round
- Jonah crab is reasonably priced as compared with Dungeness or stone crab
- Jonah crab has a delicate, buttery flavor profile and a flaky texture



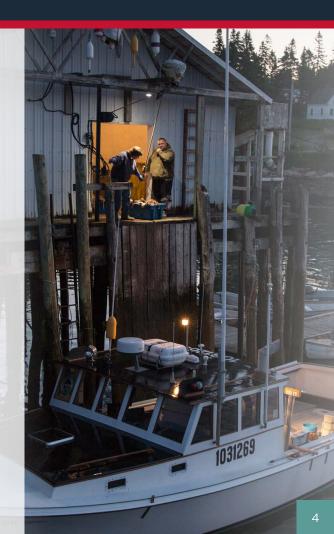
IN 2014, a fishery management plan for a stock assessment for Jonah crab was established. Collaborative research between harvesters and scientists began to learn more about the resource.

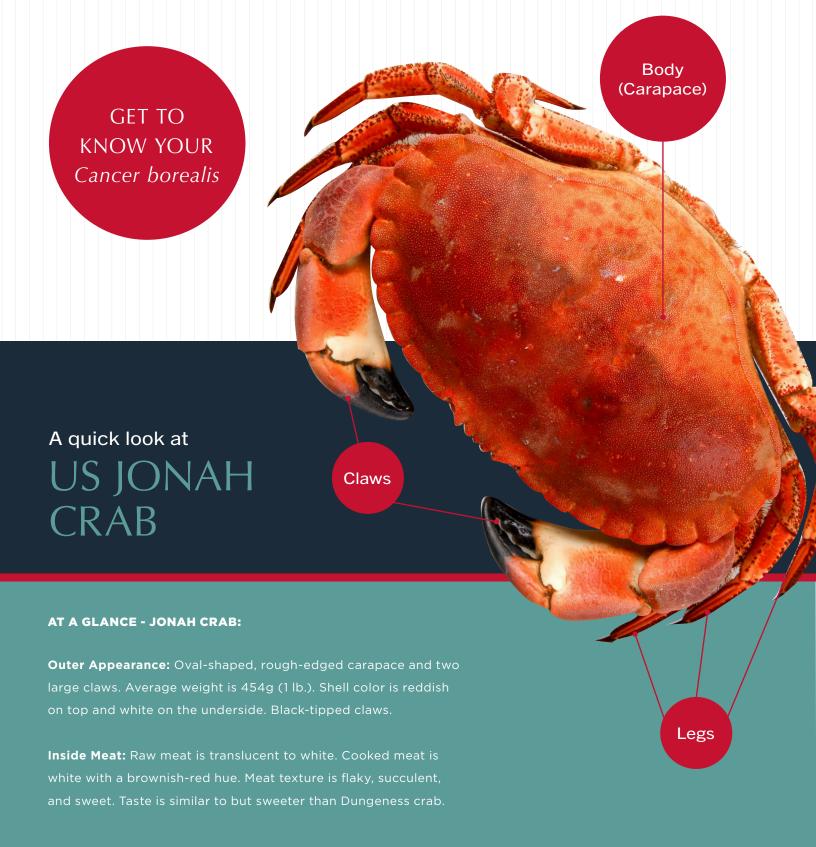


FISHERY HARVESTING & MANAGEMENT MEASURES

IN 2015, a number of sustainability measures were adopted: minimum carapace size restrictions of 12cm (4.75 inches), prohibition of harvesting female crabs, licensing and trap restrictions.

SINCE 2015, under the Interstate Fishery Management Plan for Jonah crab, biological data is still being collected and the plan is amended, as needed. Jonah crab data parameters include carapace width, sex, female egg bearing and shell hardness. Bottom temperature is also monitored in order to further habitat analysis and migratory movement.





NUTRITIONAL VALUE



US JONAH CRAB PROCESSING



WHOLE Jonah crab and claws are typically steam cooked on a continuous belt and are sold in both fresh and frozen formats. Shelf life for fresh product is 4 days. Frozen product has a shelf life of 18 months from date of production if kept frozen at -18°C or colder. No additives or preservatives are used during processing. Jonah crab products are all natural.

FROZEN cooked whole crab and claws are flash frozen using liquid nitrogen. After freezing, claws are glazed with potable water to protect meat and allow crab to thaw quickly and evenly. In addition to whole claws, there are three easy-to-serve claw options.

SCORED CRAB CLAWS: the claw and arm are cut with a band saw to make meat extraction easy

COCKTAIL CLAWS: the base of claw is removed to expose meat

EMPRESS CLAWS: all claw meat

is exposed

CRABMEAT is picked from legs and bodies and is frozen in small

Several processors are researching the use of HPP (high pressure processing) to process raw crab claws and leg meat.

US JONAH CRAB PRODUCTS

Product description	Shelf Life	Pack Size	Best Uses	Foodservice	Retail
Whole cooked crab	18 Months	6.80kg	Grocery seafood counter/fish markets		
Whole claw and arm	18 Months	2.27kg	Restaurants/grocery seafood counter		
Scored claw and arm	18 Months	907g/2.27kg	Restaurants/grocery seafood counter/ frozen seafood section/ecommerce		
Cocktail claw	18 Months	907g	Restaurants/grocery seafood counter/ frozen seafood section/ecommerce		
Empress claw	18 Months	907g	Restaurants/ecommerce		
Leg meat	18 Months	454g/227g	Restaurants/grocery seafood counter		
Combo meat	18 Months	454g/227g	Restaurants/food processing ingredient		
Minced crabmeat	18 Months	2.27kg	Restaurants/food processing ingredient		



VALUE-ADDED PRODUCTS









Whole cooked Jonah crab, claws and crabmeat are marketed in grocery stores and specialty markets. Jonah crab products can be found ready-to-eat at deli counters and in branded retail packaging in a store's frozen seafood section. These products are easy to prepare—defrost and serve.

Whole crab can be defrosted and reheated for a whole plate experience.

Any of the crab claw preparations— whole, scored, cocktail or Empress—can be served cold with dipping sauces.

Crabmeat is used in a variety of applications including cakes, stuffing, salads and dips.

Crab claws and meat are also available on e-commerce platforms.











ON THE MOVE

Transportation of frozen products

US JONAH CRAB

- Harvested by hand
- Processed under strict controls
- Variety of product formats offering versatile applications
- Modern and convenient packaging
- For chefs and retail outlets across the globe



For international transport, there are several options:



By air: Packaged product is packed with dry ice and transported on insulated pallets or in airline containers.



By sea: Packaged product is packed at cold storage into refrigerated containers set at -18°C or colder and delivered to the dock where it is loaded into container ships for transport.



It is important holding temperature is maintained at all times. Many exporters use thermometers to track temperature. NO PREVIOUSLY FROZEN PRODUCT SHOULD BE REFROZEN.



ABOUT US

Food Export USA-Northeast is a nonprofit organization composed of ten northeastern state agricultural promotion agencies that use federal, state and industry resources to help companies increase product sales overseas. Food Export USA-Northeast administers many services through Market Access Program (MAP) funding from the Foreign Agricultural Service (FAS) of the USDA.

TO LEARN MORE ABOUT JONAH CRAB PRODUCTS

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