

Salmon Roe Caviar

Annual Alaska salmon harvests yield more than steaks for the grill or fillets for the smoker; they may also provide abundant salmon eggs, or roe. Some fishermen will keep these eggs for future use as bait and many will simply toss them out with the entrails and other trimmings. However, careful handling of the eggs and a few preparation steps will yield a nutritionally valuable, seasonal delicacy — salmon roe caviar.

The roe from any of Alaska's five species of salmon can be used for salmon roe caviar, each with a characteristic egg size, color and flavor. Chum salmon eggs produce large, pale, reddish-orange caviar. Coho and king salmon also yield large, red-pink, mild-flavored eggs. Pink salmon eggs are orange, slightly smaller and with a flavor described as a mild and sweet. Sockeye salmon eggs are the smallest — about half the size of chum eggs and bright red. In contrast to pink salmon roe, the flavor of sockeye salmon caviar is described as slightly bitter.

Nutritional Value

Just like Alaska salmon, salmon roe is an excellent dietary source of protein and the beneficial omega-3 fats, EPA and DHA. Per 1-ounce serving, roe contains slightly higher levels of EPA, DHA and protein than fish. Roe also provides small amounts of B vitamins, vitamin D, vitamin A and vitamin C. The orange-red color of salmon and salmon eggs comes from astaxanthin, an antioxidant carotenoid similar to lutein, lycopene and beta-carotene. Limited current research indicates that astaxanthin has beneficial effects similar to other carotenoids for the skin, eyes, cardiovascular system and the immune system.

Preserving

Salmon roe and the roe of many other fish species have been prized food sources throughout recorded history. In Alaska, salmon roe is an important traditional food. Traditional roe preservation methods include freezing, drying and fermenting, although freezing is the only recommended modern preservation method for salmon roe caviar. While freezing caviar is generally thought to diminish quality, salmon roe has a slightly thicker membrane many other types of roe and will retain its quality



if handled well. Salmon caviar is best for only about two months of freezer storage since it deteriorates relatively rapidly due to oxidation of the fats.

Making Salmon Roe Caviar

Caviar is a lightly salted product of discrete individual eggs. Eggs should be shiny and clear-colored with a mild fish flavor and a “crunch” or “pop” when eaten.

Salmon eggs can be easily processed into caviar. For high-quality products, the entire egg sacs, or skeins, should be carefully removed from the fish as soon as it is caught, put into plastic bags and packed in ice. Process these eggs within 24 hours. Although parasite contamination of skeins is relatively uncommon, skeins holding the roe can contain worms. Therefore it is important to remove all of the skein membrane from the eggs and rinse the eggs thoroughly before eating them. Eggs may smell “oily,” but if there is any odor of spoilage, do not use them.

The following steps can be used to easily remove fish eggs from skeins and produce salmon roe caviar:

1. Soak whole skeins of eggs in a saturated salt solution* for 5 minutes — this will firm the eggs slightly, making them easier to separate from the skein.

*For a “saturated” salt solution, add 3 pounds of non-iodized salt to 1 gallon of water or 12 ounces of salt to 1 quart of water and dissolve.

2. Remove the eggs from the salt solution and place them in a clean sieve (some suggest using the face of tennis racket instead of a sieve). Gently manipulate the eggs to remove them from the skein, removing any blood, bits of skin, salmon or parasites.
3. Make a brine solution by dissolving ½ cup of salt in 2 cups of water. Place up to 2 cups of separated eggs into the brine and swirl gently. Allow the eggs to rest for 5 to 30 more minutes in the brine (additional brining will add saltiness and change the texture).
4. Pour the eggs into a colander, rinse well with clean, cold water and remove any remaining bits of the skein membrane.
5. Store salmon roe caviar tightly covered in the refrigerator for two to three weeks and in the freezer for up to two months. Use glass, ceramic or plastic freezer containers.

Roe prepared in this manner does not require cooking.

There are no safe, tested methods for canning salmon roe caviar at home.

Using Salmon Roe Caviar

In rural Alaska communities, preserved salmon roe is often used as an addition to salmon soup. Salmon roe caviar can also be used in small quantities as a garnish for smoked fish canapés, seafood crepes or sushi and for pasta dishes, omelets or seafood salads. Salmon roe caviar may be enjoyed by itself on mild-flavored crackers or melba toast and is often served with sour cream, minced onion or lemon.

Sources:

Brian Himelbloom, Associate Professor of Seafood Microbiology, University of Alaska Fairbanks, School of Fisheries and Ocean Sciences, Fishery Industrial Technology Center.

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