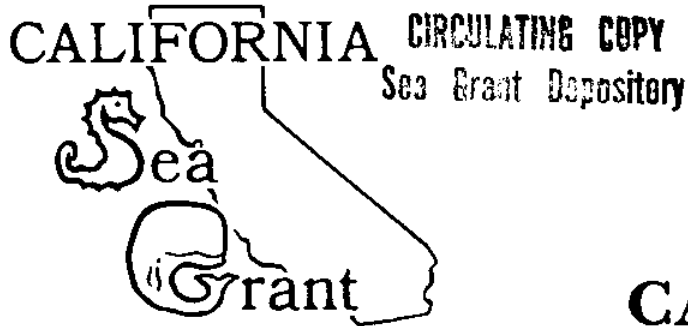


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Marine Advisory Publication

# FISH EGGS FOR CAVIAR AND BAIT

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Fish eggs can be easily processed into caviar or fish bait. For high-quality products, the egg sacs (skeins) should be carefully removed from the fish at the place of catch, put into plastic bags, and packed in ice.

## Caviar

Caviar can be made from the eggs of a number of fish including salmon, mullet, herring, sturgeon, steelhead, striped bass, and shad.

**WARNING:** *The eggs of cabezon are poisonous and should not be eaten.*

1. Use fresh eggs that are less than 24 hours old. A heavy oily aroma is natural, but if any odor of spoilage is present, do not use the eggs for caviar.
2. Gently remove individual eggs from the skein and place them in a bowl. You will probably get about 1½ cups of eggs from a ½-pound skein. As you pick out the eggs, remove and discard pieces of membrane, blood, and bits of intestine or black skin.
3. For each 1 or 2 cups of cleaned eggs, add ½ cup salt to 2 cups cold water in a large bowl and stir until salt is dissolved.
4. Pour eggs into brine. Swirl eggs and let stand 30 minutes to firm and absorb salt. Remove any membrane pieces found.

5. Pour caviar into a strainer. Rinse in cold water, and drain. Pick out remaining membrane.
6. Store caviar in a tightly covered container in the refrigerator. Caviar can be kept several weeks, or as long as the flavor is pleasant.

Serve caviar chilled. Nest the serving bowl in a larger bowl of crushed ice, and serve with unsalted crackers or toast spread with sweet butter or sour cream.

## Salmon eggs for bait

*Eggs processed into fish bait are NOT edible and must be used only for fish bait.*

Depending on the stage of maturity, salmon eggs may be in "loose" or "tight" skeins when taken from the fish. Eggs in loose skeins have reached the stage where they can be readily separated from the membrane without special treatment. These are excellent for preserving as single salmon eggs. Eggs in tight skeins can be used in preparing cluster egg baits.

Fish bait can be made from either fresh or frozen salmon eggs. Fast freezing at -10° to -30° F is important for maintaining the original appearance, texture, and odor of the eggs. To package eggs for freezing, double-wrap in plastic freezer wrap, or seal in plastic bags to exclude air. If eggs

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are exposed to air during frozen storage, dehydration and oxidation changes their color, consistency, and odor and eventually makes them unfit for bait. Thaw eggs at room temperature before processing them into bait.

### **PRESERVING EGG CLUSTERS**

West Coast winter steelhead fishermen commonly use powdered borax on salmon eggs to toughen them, preserve their appearance, and prevent the growth of bacteria. The toughened clusters stay on the hook longer than fresh ones.

Preparation of boraxed eggs is simple. It takes very little time to prepare soft or medium-soft clusters that crush easily in the water and readily "milk" (give off odors).

1. Spread out a large sheet of paper, and cover it with a thin layer of borax.
2. Either cut the skeins of eggs into bait-size pieces with scissors, or pull them apart with your fingers along the natural connective tissue cleavage lines. Use a sharp pair of scissors to snip off pieces from the dangling end of a skein.
3. Place egg clusters on the borax-covered paper. Thoroughly dust clusters with additional borax, and let them stand in a cool, dry place for 12 to 36 hours.
4. After the clusters have reached the desired firmness, pack them in wide-mouth jars with airtight seals for storage. Cluster egg bait may be refrigerated for a few weeks or frozen in jars for longer storage times.

Soft egg clusters stay on the hook better when tied in a piece of nylon stocking and are popular bait for trout and steelhead. These are easily prepared by simply tying clusters in discarded nylon stockings. They are then refrigerated or frozen in suitable containers.

### **PRESERVING SINGLE EGGS**

Single salmon eggs are used for bait by fishermen in all parts of the country. With a little time and effort, a suitable bait can be prepared: the only requirements are reasonably large salmon eggs and proper care before preparation.

You can separate eggs from the membrane in tight skeins by immersing them in water at a temperature of 115° to 120° F and hand-manipulating the egg mass. The membrane coagulates at this temperature, and the eggs may be separated easily without damage.

Materials needed to prepare single eggs include:

- Preservative bath: 1 part commercial (40 percent) formalin (available at most drug stores) to 20 parts water at about 90° F.
- Dye (if red eggs are desired): ¼ teaspoon of powdered Safranin-O (available at many drug stores) dissolved in 2 quarts of water.
- Neutralizing-fixing bath: 8 tablespoons of sodium bisulfite (available from photo supply stores and some drug stores) dissolved in 1 gallon of water at 60° F.
- Glycerine: add 6 drops 40 percent formalin per ounce of glycerine.
- Fish-attracting flavors: flavors, such as anise, may be added to glycerine.

Immerse single eggs in the preservative bath for 30 to 45 minutes. Because processing characteristics of eggs vary, these treatment times are guides. Process small batches until you obtain the correct treatment for the eggs. Remove single eggs from the formalin solution while they are still soft but have no trace of a liquid center when sliced in half. The fixing and glycerine treatments will have an additional firming effect. Eggs left in the bath too long are rubbery and undesirable for bait.

You may dye eggs at this point by dipping them in the dye solution for a few minutes. It is thought by some that fish are more readily attracted by brightly colored eggs. The degree of redness depends on the strength of the dye solution and length of immersion time. When the desired color is obtained, rinse the eggs with water.

Immerse eggs in the neutralizing-fixing bath for 20 to 30 minutes to neutralize any further action

of the formalin. This prevents undue hardening during storage.

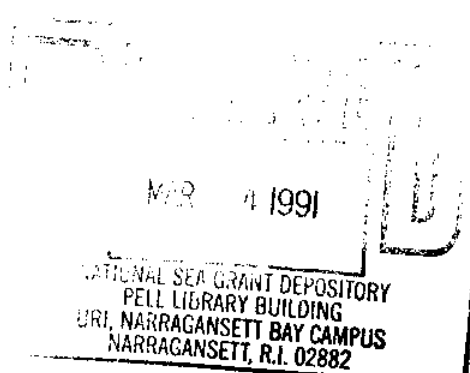
Drain and place in a screw-cap jar for storage. Do not rinse or allow the surface of the eggs to dry before sealing. Pour enough of the glycerine mixture (glycerine, formalin, and anise, if desired) into jar to moisten the eggs but not to cause a noticeable accumulation at the bottom of the jar. Eggs treated in this way will keep for weeks in a warm room and may be stored over a year in the refrigerator.

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

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