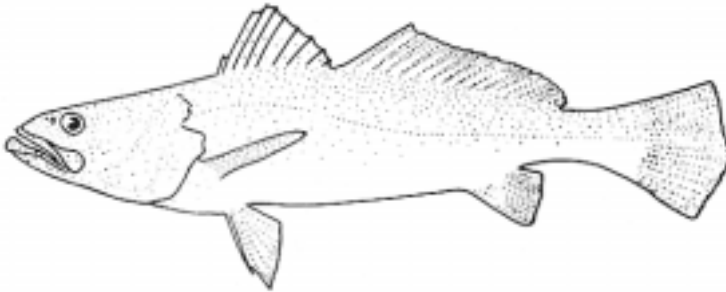
SALTON SEA FISHES

The Salton Sea is a huge inland lake with a salinity greater than sea water. It covers about 225,000 surface acres and is located about 50 miles southeast of Palm Springs, Riverside County. In the early 1950's the Department planted many different species of marine fishes from the Gulf of California into the Sea in an attempt to create a sport fishery. Three species, orangemouth corvina, bairdiella, and sargo have become established. Though these fish are not usually considered warmwater fishes, they support a popular inland fishery in southern California and so, for the sake of completeness, are included here.

One other fish has since been added to Salton Sea fishery. The Mozambique tilapia, discussed elsewhere in this booklet, was introduced into the agricultural drains around the Sea in the early 1970's. Since that time, it has become quite abundant in the Sea itself, particularly in the harbors and along the shoreline. It is now a popular sport fish and an important forage fish for the corvina; during some months, it is the major food organism of that fish. What effects tilapia will have on the other fish of the Sea are not yet known.

ORANGEMOUTH CORVINA

Cynoscion xanthulus



DISTINGUISHING CHARACTERISTICS

Back tan with flanks and belly silvery. Tail often yellow. Body long and narrow relative to body length. Mouth large reaching nearly to a vertical line from the back of the eye; lower jaw undershot. Center rays of tail longer making posterior edge of the tail >-shaped.

DISTRIBUTION IN CALIFORNIA

The orangemouth corvina is one of two croakers, family Sciaenidae, found in the Salton Sea. It is a close cousin to the white sea bass found off the Pacific Coast. The corvina was planted in the Sea several times between 1950 and 1955. It is not known exactly how many were introduced, but the number was not more than 272. It is now abundant in the Sea.

LIFE HISTORY NOTES

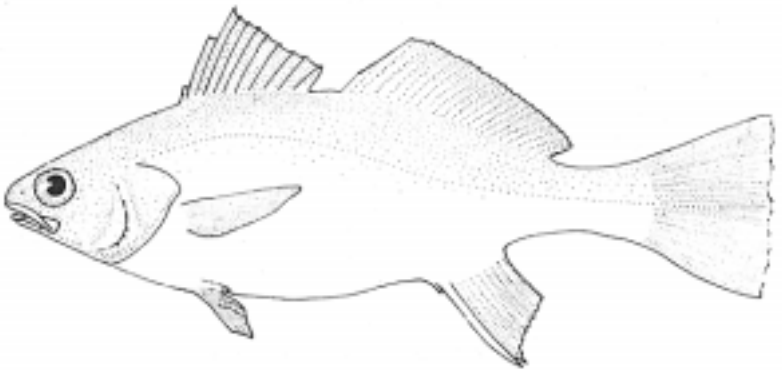
Orangemouth corvina are schooling, open-water fish that move inshore to feed. They are the largest fish in the Sea. Most fish caught are from 2 to 10 Ib, but larger fish are frequently caught. In 1980, a 36-lb, 8-oz fish was taken.

Little is known of their spawning behavior, though sampling suggests that during the late spring and the summer months they congregate to spawn near the mouths of rivers and agricultural drains emptying into the Salton Sea. Corvina are first seen as year-old fish around the shore of the Sea.

Fingerling corvina feed on copepods, immature barnacles, and other planktonic animals. They later include pile worms in their diets. At this time they compete with bairdiella for food. Year-old fish switch to fingerling fish when they become available. Tilapia and bairdiella are the most common food items of larger corvina. Longjaw mudsuckers and threadfin shad are also eaten.

BAIRDIELLA

Bairdiella icistia



DISTINGUISHING CHARACTERISTICS

Body silvery in color. Lower jaw does not extend beyond tip of snout. Easily distinguished from corvina by large second anal spine; when pushed flat against the belly, it extends well past the end of the anal fin. Posterior edge of tail squared.

DISTRIBUTION IN CALIFORNIA

Bairdiella, family Sciaenidae, are native to the Gulf of California. Sixty-seven fish, taken at San Felipe, Baja California, Mexico, were planted in the Salton Sea in 1950 and 1951.

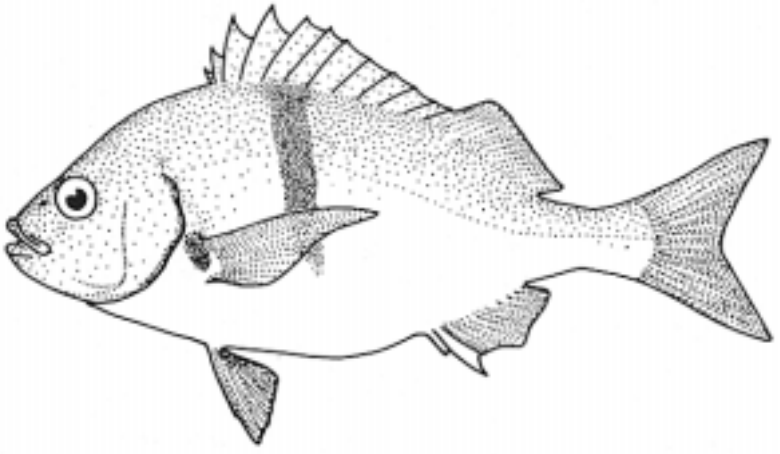
LIFE HISTORY NOTES

Bairdiella, or "'croaker" are schooling fish that spend summers in shallow, inshore waters and move offshore during the winter months. They spawn during the evening from April through June, with peak spawning in mid-May. The eggs are small and pelagic and tend to float just under the surface of the water. Hatching occurs about 24 h after spawning.

Young fish feed on immature copepods and barnacles until they are about 1½ in. long when they switch to a diet of pile worms. Young fish are also cannibalistic, feeding on eggs and larval bairdiella. Adults eat primarily pile worms. Although originally regarded only as a forage fish for corvina, bairdiella have become a popular sport fish in their own right. Sizes in the catch range from 8 to 15 in., though 8- to 10-in, fish are most common.

SARGO

Anisotremus davidsonii



DISTINGUISHING CHARACTERISTICS

This member of the grunt family, Haemulidae, has a dark vertical bar running down the body. The normal color is metallic, with a greenish tinge on the back and bronze below. The vertical bar appears when they are 2 or 3 in. long. Another common name is the China croaker.

DISTRIBUTION IN CALIFORNIA

Sixty-five sargo were introduced into the Salton Sea in 1951. They are now well established.

LIFE HISTORY NOTES

Little is known of the life history of this fish in the Salton Sea. They are usually found off jetties, and near submerged trees, brush, and buildings.

Spawning occurs in winter and early spring. Inch-long young appear in mid summer, schooling loosely in shallow water. At a length of 5 in. they join adult schools. Many sargo over 3 lb have been taken, but 2-lb fish are more common. Adults feed primarily on barnacles.