## Cabezon (Scorpaeinichthys marmoratus)

## by Susan McDougall

With its bulging eyes, big head, mottled body, and large flapping fins, it is understandable if some people place the Cabezon in the "ugly fish" category. Considered delicious and large enough to make fishing for it rewarding, this fish fails to match the physical appeal of a silvery salmon or a school of swirling herring. And, in fact, as the Cabezon matures, it tends to retreat from the social life of the young to become somewhat of a loner, visiting the deep waters, and seeking others only when necessary to reproduce. Resting on the bottom of the sea, there the solitary Cabezon lies in wait for a tasty morsel, hopefully as large as its great mouth can hold. Within its veins, blue blood flows — just another variation in a very unconventional fish.

In Spanish, the common name "Cabezon" means "large head." Other names include "bullhead," "sculpin," and "scorpion fish," a translation of the scientific genus name, *Scorpaeinichthys*. The species designation, "marmoratus," acknowledges the marbled skin of a fish that can range in color from brown to red (supposedly a more common color for the male), with dark blotches. One of the first known historical references to the Cabezon was from a southern California mission priest writing in 1822: he coined the name and declared the fish quite tasty. In the past, Native Americans along the coast fished for this large sculpin relative, an excellent addition to a sea-oriented diet.

Lacking scales and a swim bladder as well, the Cabezon is a member of the Cottidae Family — the sculpins. Amongst the largest of the family, this fish can reach a length of 39 inches (99 cm), and a weight of 25.2 pounds, although the average is 4 pounds. The Cabezon ranges from Sitka, Alaska, to central Baja California. An intertidal fish, it also inhabits waters to 240 feet (73 m), with a maximum observed of 758 feet (231 m). Brown, red, green, mottled, a skin flap on the snout and branched flaps over the eyes contribute to the Cabezon's strange appearance.

Juvenile Cabezon drift in the plankton for 3-4 months, settling to the bottom, while adults more commonly inhabit deep waters. Sometimes found in rocky or muddy habitat, Cabezon apparently do not undertake long migrations, although they do move offshore in autumn and winter.

Cabezons can live to 19 years and are known to spawn throughout the year. The larger females



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sometimes mature at two years, although they are typically older. They lay 57,000-152,000 eggs in large masses, attaching them to rock surfaces and crevices in shallow water to depths of 65 feet (20 m). Males often guard the nest.

Whether the male's vigilance is necessary poses an interesting question, as Cabezon eggs are toxic to avian predators, as well as mammals. Potential consumers, including humans, may discover this through intentional experimentation or error, but the outcome is the same. Eating Cabezon eggs will result in gastro-intestinal problems sufficiently intense to suggest permanent avoidance. Caviar is not a likely product from a Cabezon fishery.

For their part, mature Cabezon like to eat fishes, octopus, squid, fish eggs, and whatever else can fit into their mouths. The big fish tend to lie immobile on the sea floor until a meal comes their way. Then the action is swift as the Cabezon propels itself forward with a push from its large pectoral fins.

Other fish, sea mammals, and birds do find the whole fish quite appealing: the list includes a range of species, such as sharks, steelhead, and river and sea otters. And, of course, except for the eggs, humans happily consume this nutritious, tasty saltwater denizen. That is, if the angler can get past an unexpected, startling color.

In fact, landing a fish with a gaping blue mouth is without a doubt a little off-putting, at least the first time, as Cabezon are cloaked in a blue-colored skin, underlain with similarly colored muscle, and the blood serum is blue-green or purplish. The cause is a bile pigment (biliverdin), and it is possible that at least in part the chemical is obtained from the Cabezon's diet. Fortunately for the human consumer, the flesh turns white when cooked, and the fish can be prepared in a variety of ways, such as pan-frying and broiling. The head and tail are known to make a fine soup.

In part, its large bony head may have contributed to the Cabezon's entry into the "live-fish" market. Although Cabezon commercial fishing began in California in 1916, prior to the 1980s most of the take in both Oregon and California was recreational. Before 1982 regulations were absent altogether in California, while in Oregon the inclusion of Cabezon in recreational fish management began in 1976. In time, such regulations would include seasonal limits, and a change in classification of the Cabezon as something than "other fish" would help researchers determine the status of the population.

But it was the beginning of the live-fish industry that changed the dynamics of the Cabezon fishery. By the 1990s, what had been mostly a recreational fishery had transformed quickly to a commercial one, with regulations put into place: such measures were necessary for management of a fish that had primarily been bycatch in so-called "other-directed" fisheries. Live fish taking was possible with a big fish that withstood transport well, and the method was more lucrative than the "dead fish" fishery. Popular in Asia and North America alike, within a few years the catch had increased to 44-66 tons per year. The northern California fishery was particularly attractive to commercial operators. In Oregon live fish landings also increased dramatically and, by 2001, 95 percent of the total of 105,000 pounds taken was live. Not surprisingly, as the population began its alarming decline, more regulations were implemented, with both federal and state management involved in the process. Considered a "groundfish," in Oregon recreational closure occurred in 2016 and 2017.

Meanwhile, off the Washington coast, Cabezon was not as intensely fished as in Oregon and California. In 1995, the closure of "fixed gear" and the subsequent elimination of trawling in 1999 was indicative of the decline in the Cabezon catch, which was always much lower than the other Pacific coast states. The live-fish industry never developed in the state, and beginning in 2019, only a single fish could be taken each day. Four tribes are involved with the fishery off the coast and are subject to different rules. The take is in general low, at least by comparison to Oregon and California.

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In the Strait, as in the past, the Cabezon is a recreational fish, sometimes taken from boats, or caught from piers. Designated as a bottomfish, in the eastern Strait the season is open from May 1-November 30, with a minimum allowed size of 18 inches and a daily limit of one fish. As with other bottomfish, fishing is prohibited deeper than 120 feet, except during seasons open for fish such as halibut and Pacific Cod. Along the coast, the season is longer, with no size limit. The intent of these regulations is to ensure a healthy Cabezon population in the future. Much is at stake with the Cabezon, as with so many other species.

Considered as a "bycatch" by recreational anglers more interested in cod or rockfish, there is a certain amount of irony here, as a large head that might be desirable in the commercial live-fish trade is not a bonus in the recreational fishery. If the goal is large fillets, a four-pound Cabezon may not meet expectations. But they are apparently easy to catch, at least in the best rocky habitats, and sometimes big fish are taken, the state record being 23 pounds.

What to do with the mouthy Cabezon once you have it? A search for recipes reveals many options, from slow roasting amidst a bed of peppers and onions, to a sandwich with marinated fish cooked in a sauce of many ingredients, to poaching or grilling. Delicious when cooked to a white tenderness, for most people the live, strange looking fish with the blue flesh will itself remain invisible, hidden in the depths of the sea.