

It's a lonely life when your family consists of only you. Solitude seems inevitable, although perhaps a lack of relatives eases just a bit that feeling of isolation. And being alone can provide protection, particularly when a distantly related upright animal otherwise hardly worth noting comes digging near your domain. What could that strange creature know of life in the sand, where your tiny size enforces a daily routine of hiding, and your greatest concern is finding food while escaping detection. Only when reproductive urges demand an answer will you emerge and seek others of your kind.

Absent from Puget Sound but local in the Strait and the San Juan Islands, the Graveldiver (*Scytalina cerdale*) ranges from the western Aleutian Islands to Diablo Cove in central California. There it is an intertidal species, occurring only to a depth of approximately 23 feet (7 m) and sometimes present above the high tide line, buried in a sandy or small gravel substrate.

The common name — Graveldiver — is appropriate for a fish more likely to be encountered by a clam digger as by a beach walker, although these small fish do inhabit tide pools. A member of the Zoarcoidei suborder of fish, the Graveldiver's size, only 6 inches (15.2 cm) at the most, and secretive ways make it much less well known than the related gunnels, eelpouts, and ronquils. Only one of these families — the Pholidae (eelpouts) — is large, numbering more than 290 species, and the only family in the order to inhabit both the Antarctic and Arctic oceans. The other three families include 15 species at most, with the pricklefish (Zaproridae) consisting of a single genus and species, a feature it shares in common with the Graveldiver's family, the Scytalinidae.

The form of this solitary fish is also unique: the genus name *Scytalina* is Greek for "small viper." Flattened, the head does resemble that of a snake and is quite small in relation to the large mouth. "Cerdale" means "wary one," an appropriate name for a fish so hidden and tiny that knowledge of its lifestyle is limited.

Graveldivers have a long, compressed body, resembling the related gunnels. They lack scales, swim bladders, and a lateral line. Adding to a mixture of unusual traits, the skin is



Graveldiver (*Scytalina cerdale*)

loose and the anal fins lined with short spines. The dorsal fins are positioned towards the back half of the body. Pelvic fins are absent, and the pectoral fins are small. The teeth are canine-like, useful for preying on small invertebrates that share its sandy home. With a life span estimated at 8 or 9 years (although more typically three years or less), the Graveldiver is long-lived for a small fish. Little is known of its reproductive habits, and its eggs have not been observed. Presumably, the juveniles are most

common in the intertidal zone. In one survey undertaken in San Luis Obispo County, California, Graveldiver numbers increased as the water cooled, particularly during the spring.

Too small to attract anglers or commercial fishing, this obscure species has apparently escaped much notice throughout human history. It does not appear as a subject of visual art, nor apparently is any known literature or mythology attributed to this petite fish. Even its possible relationship to the order of fish that dwell in the cold waters of the Antarctic has been questioned; recent studies indicate a closer affinity to sculpins, snailfishes, and lumpsuckers.

Not surprisingly, the Graveldiver lacks popularity as a research subject, although some work has been done, at the very least revealing its familial affinities. Fossil evidence for the Zoarcoidei in general is sparse, although at least one eelpout fossil may date to over 3 million years ago.

Although the Graveldiver belongs to the smallest of fish families, it shares much in common with the few related species who reside in the Strait. Most are small and several are capable of breathing air for short periods of time. Many are eel-like in shape and solitary in habit. Only two families include sizable species. And nearly all are marine. They tend to be colored in muted tones, rather like the sea floor where they live, although a few who dwell near the surface are somewhat brighter. For the most part these are not flashy fish.

Described in 1880 from a collection made in Neah Bay, knowledge of the little Graveldiver has accumulated slowly. A solitary inhabitant of the sub-tidal and intertidal zones, this fish is picky about where it lives, burrowing in sand and gravel of a particular size and depth. It likes cold waters and is quite at home in the shallow waters of the Strait of Juan de Fuca. Perhaps a fortunate few beach explorers might encounter a solitary individual at the water's edge, but for the most part, obscurity seems to be the best strategy for this snakelike fish.