
Loxorhynchus crispatus

Masking Crab, Decorator Crab, Moss Crab

Phylum: Arthropoda
Class: Malacostraca
Order: Decapoda
Family: Epialtidae

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Taxonomy

Both the genus and species were originally described by Stimpson in 1857. The name has not changed since. (WoRMS 2020).

Description

Size: Average carapace width for females is 68 mm and for males is 88 mm. Max carapace width is 100 mm. (Chase & Knowlton 2007).

Color: Legs are red/pink with white patches and carapace is brown or green (McKittrick 2020). Color is obscured by attachments (Figure 1).

General Morphology:

Body: Pear-shaped body, with a narrow anterior end. One anterior pair of claws (chela) and four pairs of legs. (Chase & Knowlton 2007).

Mouthparts: Row of tactile setae above and below the mouth (Garth & Abbott 1980).

Eyes: Two forward-facing compound eyes at the most anterior position of the body (Chase & Knowlton 2007).

Other species-specific parts: A sharp spine above and next to each eye and rows of hooked setae all over the carapace (Wicksten 1978).

Sexual Dimorphism: Males have a longer carapace and larger chela (Garth & Abbott 1980).

Possible Misidentifications

Loxorhynchus crispatus is often confused with *L. grandis*, *Scyra acutifrons* and *Chorilia longipes* (McKittrick 2020). The legs in *L. crispatus* are much hairier than in *S. acutifrons* and shorter and broader than in *C. longipes*. The congener *L. grandis* reaches a maximum size close to double that of *L. crispatus*.

Ecological Information

Range: Eastern Pacific; Alaska to Baja California (temperate zone) (Hendrickx and Cervantes 2003, McKittrick 2020).

Local Distribution: In kelp forests and rocky areas or under man-made structures (Hines 1982).

Habitat: Prefers kelp and cover to hide (Hendrickx and Cervantes 2003).

Temperature: On average, between 5-15°C (Levy 2020).

Depth: 0-183 m (McKittrick 2020).

Associates: Algae, bryozoans, and sponges are attached to and live on the crab (Wicksten 1978).

Abundance: Exhibits seasonal variation with the greatest abundance in spring (Hines 1982b).

Life-History Information

Reproduction: *Loxorhynchus crispatus* copulates with throughout the year, with multiple partners. Females brood for about 2 months at a time and carry their fertilized eggs on their pleopodal setae until they hatch. (Hines 1982a). The brood size of a larger congener, *L. grandis*, is about 125,000-500,000 eggs (Chase and Knowlton 2007).

Larva: Protozoa for 30 days, develops into three free-swimming planktonic zoeae stages over 18 days, and metamorphoses into a megalopa for several molts (Hines 1986).

Juvenile: Starts with a 1.5 mm wide carapace and molts until sexual maturity (Hines 1982). Juveniles occupy the same regions as adults (Hendrickx & Cervantes 2003).

Longevity: Unknown for this species.

Growth Rate: Unknown for this species.

Food: Generalist scavenger on invertebrates and kelp (Hines 1982).

Predators: Various fish (sculpins, lingcod, rockfish, etc.), sea otters, and octopuses (Hines 1982).

Behavior: Generally slow moving. Attaches other organisms to its setae, though this behavior decreases with each successional molt (Wicksten 1979).

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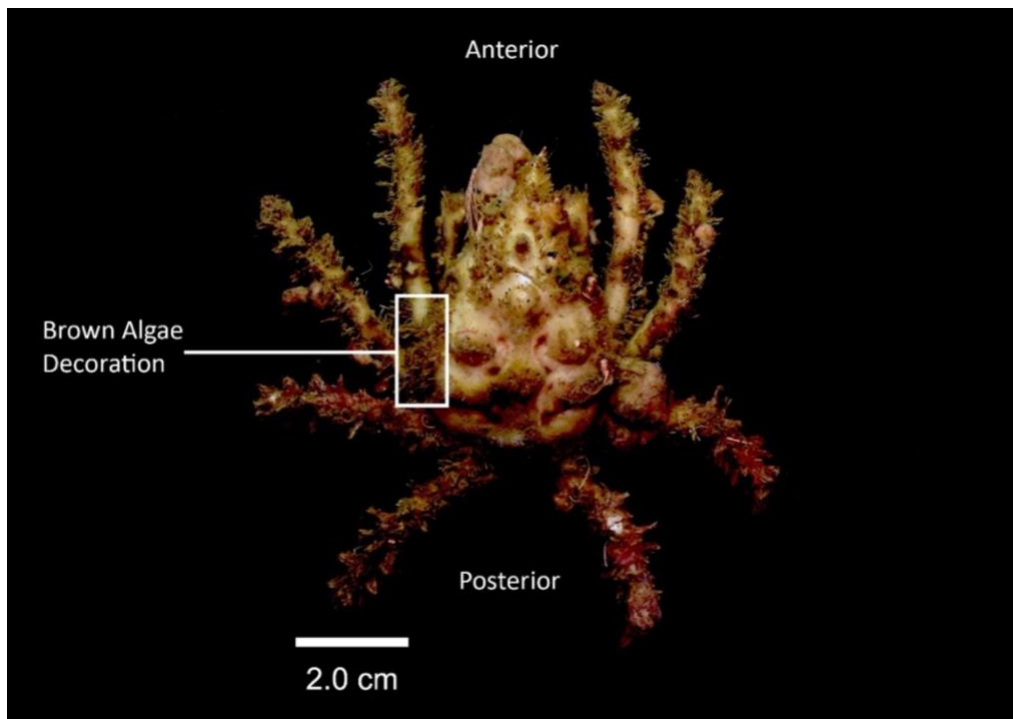


Figure 1. *Loxorhynchus crispatus* with light algal cover. A brown algae cluster is highlighted as one of the many decorations on this crab. Photo taken by MacKenna Hainey. Individual collected from 120 m depth near Stonewall Bank off Oregon in September, 2019.