

BRITTLE STAR CARE

SOP# = ECH11

PURPOSE: To describe methods of care for brittle stars.

POLICY: To provide optimum care for all animals.

RESPONSIBILITY: Collector and user of the animals. If these are not the same person, the user takes over responsibility of the animals as soon as the animals have arrived on station.

PROCEDURE: At present there are 4 species of brittle stars commonly held at BMSC.

Species:

Rocky shore brittle star	<i>Ophiopholis aculeata</i>
Small brittle star	<i>Amphiphols sp.</i>
Sand brittle star	<i>Amphiodia occidentalis</i>
Gray Brittle Star	<i>Ophiura lutkeni</i>

Identification:

Refer to Eugene N. Kozloff's book, "Seashore Life of the Northern Pacific Coast" for in depth descriptions of individual specimens. All brittle stars have 5 rays.

Ophiopholis aculeata: Exhibit a bold color range from brown to bright red. Spines are prominent down the arms. The maximum diameter of this species is 8 cm.

Amphipholis sp.: May reach a diameter of 3 cm. The color is generally an uninteresting gray or whitish. These brittle stars burrow in mud or sand and excavate mucus-lined burrows with tube-like channels to the.

Amphiodia occidentalis: These brittle stars burrow in the sand and are only exposed when rocks under which they are buried are lifted up. These stars possess exceptionally long rays and may reach 12 cm in diameter.

Ophiura lutkeni: The differentiating characteristic of these brittle stars are the band of white spots on their arms. These stars reach up to 18cm across.

Sites:

Intertidal and subtidal sites are found on the shores of the Deer Group Islands, Dixon I., Scott's Bay, off the Blowhole, along Grappler Inlet, and at the Harbor mouth across from Aguilar Pt.

Collection Methods:

Brittle stars can be collected either by hand or scuba/skin diving.

Hand: small buckets with handles

Scuba: plastic bags to hold water and animal grab/collection bag to hold plastic bags green bucket with lid to hold during transport to station

Holding:

These animals should be held in continually flowing seawater. In flow must be adequate and directed to provide a current. Lids are unnecessary. Some rocks or hiding places help decrease the level of stress of the animals.

Feeding:

All species feed on diatoms and detritus. Since the seawater supply to tanks is unfiltered, active feeding of brittle stars is unnecessary. On occasion, fish food flakes or bits of decaying seaweed can be introduced to the substrate for brittle stars to feed on.

Tank Cleaning:

Once every two weeks the brittle stars should be removed from the tank and placed into a holding bucket. The tanks should be drained and the sides and bottom should be scrubbed and rinsed first with warm freshwater then with seawater and allowed to refill. Place the brittle stars back in the tank once refilling has begun.

DAILY ACTIVITIES:

1. Ensure water is flowing into the tank at a reasonable rate.
2. Ensure the standpipe is in place and not blocked.
3. Check for and remove and dead animals.
4. Check for and remove and foreign organisms.

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