

FLATFISH (FLOUNDER) CARE
SOP # = Ostei3

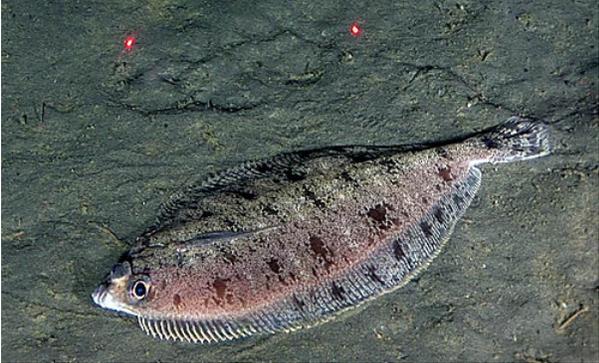
PURPOSE: To describe methods of care for flounders.

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.

IDENTIFICATION:

Common Name	Scientific Name	Identifying Characteristics
Pacific sanddab	<i>Citharichthys sordidus</i>	<ul style="list-style-type: none">- Left-eye flounders- Brownish-gray mottled pattern- A high bony ridge over the lower eye- They have long pectoral fins each reach to the middle of the eye when projected forward 

<p>Rex sole</p>	<p><i>Glyptocephalus zachirus</i></p>	<ul style="list-style-type: none"> - Right-eyed flounder - Has a tiny mouth - A long, blackish pectoral fin on the eyed side of the body - On females, the lateral line is almost straight and the tail fin is rounded. The body is slender and thin 
<p>Flathead sole</p>	<p><i>Hippoglossoides elassodon</i></p>	<ul style="list-style-type: none"> - Right-eyed flounder - They have thin, brownish bodies - Their tail fin is straight or just slightly rounded - There is no accessory branch to the lateral line - The mouth is moderately large, reaching to about the middle of the lower eye -Single row of teeth in the upper jaw 

Rock sole	<i>Lepidopsetta bilineata</i>	<ul style="list-style-type: none">- Right-eyed flounder- Have roundish rusty-brown bodies with rough scales on the eyed side of the body- There is a prominent arch in the lateral line and a short accessory branch. 
Slender sole	<i>Lyopsetta exilis</i>	<ul style="list-style-type: none">- These right-eyed slender sole have slender, pale brown bodies- The rounded tail is large and thin with easily removable scales- They have moderately large mouths that extend back to about the middle of the lower eye 

<p>Dover sole</p>	<p><i>Microstomus pacificus</i></p>	<ul style="list-style-type: none"> - Right-eyed flounder - Have thick bodies - Nearly straight lateral lines - They have bulging eyes - Tiny gill openings - They also have tiny mouths with very fat lips - Exude great quantities of slime <div data-bbox="829 464 1308 821" data-label="Image"> </div>
<p>English sole</p>	<p><i>Parophrys vetulus</i></p>	<ul style="list-style-type: none"> - Right-eyed flounder - Have somewhat slender bodies - Small scales - The lateral line does not have a high arch but does have a long accessory branch - The upper eye is only partially visible from the blind side - Pointed snout with a small mouth <div data-bbox="789 1157 1385 1602" data-label="Image"> </div>

<p>Starry flounder</p>	<p><i>Platyichthys stellatus</i></p>	<ul style="list-style-type: none"> - These fish are large in size, up to 90cm long - Considered right-eyed flounder, but are often found left-eyed - Are easily distinguished by the prominent, dark bands on the dorsal tail and anal fins - They also have rough, star-shaped plates on the body 
<p>C-O sole</p>	<p><i>Pleuronichthys coenosus</i></p>	<ul style="list-style-type: none"> - These fish are up to 36 cm long - They may be indistinct, but there are 'C' and 'O' markings on the tail - Colour may vary depending on habitat but unlike many other sole the body has very contrasting light and dark patterns 

CAPTURE:

Location	- All are bottom dwelling flatfishes, lying on soft muddy substrates at great depths.
Methods	- Flatfish are usually caught in trawl nets or sometimes in dredging gear, and occasionally by longline. - They usually suffer from hemorrhaging when caught in trawl nets. - Bringing the trawl up slowly from depth reduces the amount of injury to the fish.

ANIMAL CARE:

Holding Requirements	- These fish should be held in continually flowing seawater -Water should be aerated - Lids are necessary - Mud or sand will help reduce stress levels
Feeding	- Flatfish feed on marine worms, shrimp, squid, clams and pieces of fish - Frozen fish must be chopped up quite small as most flatfish have small mouths
Tank Cleaning	- Once every 3 weeks the fish should be removed from the tank and placed into a holding bucket with water aerated - The tanks should be drained and the sides and bottom should be scrubbed and rinsed with warm freshwater - The tanks should then be rinsed with cold seawater and allowed to refill, and the fish replaced.
Daily Activities	-Ensure water is flowing into the tank at a reasonable rate. -Ensure the standpipe is in place and not blocked. -Check for and remove dead animals. -Check for and remove any uneaten prey organisms. -Check for and remove foreign organisms.
Animal Return	-Animals should be returned to the site of their collection - Be sure to have well oxygenated water in bucket that they are being returned in - If any anesthetic chemical has been used on the fish during its holding at BMSC, the animal must not be released before the drug withdrawal time. Withdrawal time should be on the label of an anesthetic in degree-days or 'ATUs' (degree-days are the accumulated thermal units for a given day. One day at 10C is 10 degree-days)