

COMMON ROCKY INTERTIDAL INVERTEBRATES OF BAJA CALIFORNIA SUR
SURMAR Field Guide July 2013, updated Dec. 2017

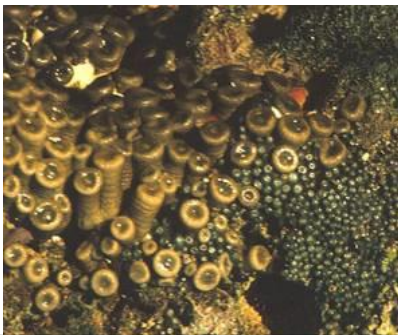
Phylum CNIDARIA (incl. anemones, corals, zoanthids)

ANEMONES



Bunodosoma californica (?) Common tidepool anemone.
There are several similar-looking species: ***Anthopleura dowii***, ***Isoaulactinia hespervolita***
(*hespervolita* means Western Flyer)

ZOANTHIDS



Zoanthus danae
Colonial, on rocks in low intertidal. Blue or blue-green oral disk.



Palythoa ignota
Colonial, intertidal on rocks in tidepools. Often brown or olive-green.

Phylum ANNELIDA (worms)



Spirobranchus giganteus
Calcareous tube with sharp pointy horn on rocks or coral in low intertidal. Color is variable -- blue, yellow, white or red.



Eurythoe complanata
A large amphinomid fireworm, common on sandy substrate under rocks anywhere in intertidal. Sheds irritating spines when handled.

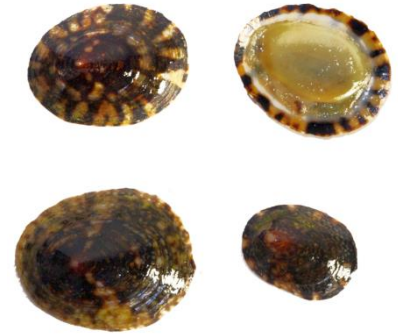
Phylum MOLLUSCA (incl. limpets, snails, bivalves, cephalopods)

GASTROPODS --- Limpets and limpet-like forms



Lottia atrata

A large limpet that can be abundant. Has a pigmented shell pattern and rough edge (more rough than *Siphonaria*). Cleared feeding areas are common.

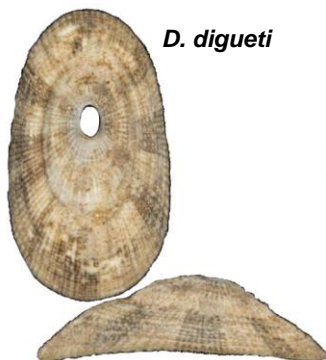


Unidentified limpets
(*Lottia stanfordiana*?)

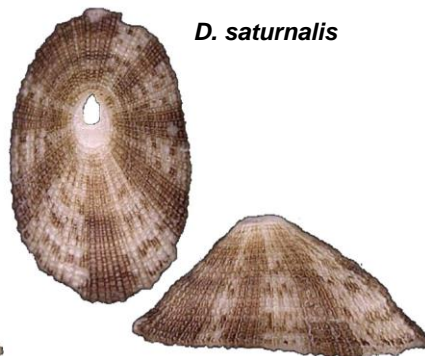


Siphonaria maura

This pulmonate lacks gills and has a lung on the right side, visible from beneath. Asymmetry on one side in larger individuals is common. Ridges and edge of shell are smoother and more delicate than in *L. atrata*. Smaller individuals are often abundant in lower intertidal; largest individuals are in higher intertidal, often with *L. atrata*.



D. digueti

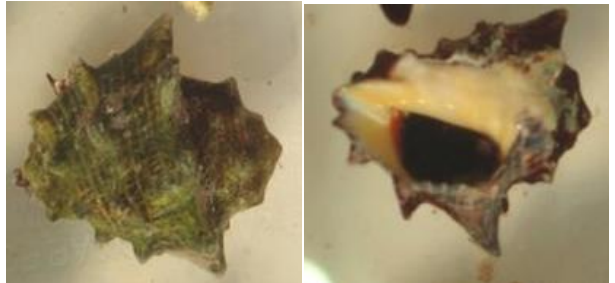


D. saturnalis

***Diodora* spp.**

Keyhole limpets, on rocks in low to mid intertidal.

GASTROPODS --- Predatory snails



Thais speciosa is to *T. biserialis* but has more prominent bumps on shell and lacks the stripes/spots along the yellow aperture.

Thais biserialis
 Predatory snail often found in crevices or nestled next to anemones in the mid to lower intertidal. Sharp white/brown striations or dots along yellow-orange aperture. Groups of snails often emerge from cracks onto barnacle beds with incoming tide. Two distinguishable forms are present in Santa Rosalia (Pta. Prieta)



Hexaplex erythrostomus
 Pink murex. A large predatory snail of the low intertidal, also in pools. It is now uncommon and harvested for food and shell trade.



Neorapana tuberculata
 Similar to *T. speciosa*, but aperture is pink-orange with black splotches and small tooth on outer edge (arrow).



Plicopurpura pansa
 A predatory muricid gastropod, found high in intertidal on rocks, usually in cracks. Knob-like protrusions in whorls on shell. When disturbed it produces a yellow-white milky sulfurous fluid that turns purple after brief exposure to air.



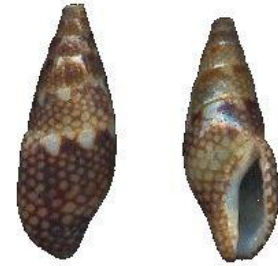
Morula ferruginosa

Smaller predator on sessile inverts, e.g. *Brachidontes*. Mid to lower intertidal.



Mitra (Neotirara) fultoni

Pitted mitre shell, with white foot and soft parts, same habitat at *Mitrella*.



Mitrella ocellata guttata

Small carnivorous collumbelid snail found in mid intertidal pools.



Conus nux

Found in mid to low intertidal, often around green algal turf. Active in daytime and feeds on worms. The most common intertidal *Conus*.



Conus princeps

Found in mid to low intertidal, usually in cracks or under rocks. Feeds on worms.



Conus brunneus

Found under or near rocks on sandy substrate in lower intertidal. Feeds on fireworms, fond of *Eurythoe*.

GASTROPODS --- Grazing snails



Littorina modesta
 On rocks in high intertidal. Typically white and lacks distinct banding. Co-occurs with *L. aspera*.



Littorina aspera
 Common in high intertidal on rocks and in crevices and edges of pools. Shell pattern can have a variety of forms.



Littorina and related genera
 Other species of small littorine snails are also common, often living in dead barnacles – *Echinolittorina albicarinata* above were identified by DNA.



Nerita spp.
 Two species of these nearly ubiquitous grazing snails co-occur in the mid to high intertidal, though they show only a narrow zone of overlap. Common in cracks, under rocks, at edges of pools. Both species have a variety of shell colors and patterns.



Nerita scabricosta
 Baby-tooth shell: area of shell next to aperture looks like baby teeth or ridges on a comb. Smallest individuals show no sign of teeth nor pimples (as in *N. funiculata*). Found in the high intertidal; largest individuals in similar habitat to *Plicopurpura*.



Nerita funiculata.
 Smaller and lower in the intertidal than *N. scabricosta*. Area of shell next to aperture has pimple-like protrusions rather than teeth. These can still be resolved on the smallest individuals. Can be extremely abundant.

GASTROPODS – Vermetids (tube-dwelling snails)



Serpulorbis margaritaceus

A common solitary form which lacks an operculum and has dark and light banding on the soft mantle edge (visible on right).

White ribbed vermitid.

Shell similar to *S. margaritaceus* but mantle and foot dark.



Brown ridged vermitid

Abundant on high to middle intertidal rocks. Dark to light tan in color and often densely clumped. Several strong ridges run along shell.

Smooth purple vermitid.

Seems to have larger and smoother shell than ribbed form.

White ruffled vermitid

Not common; these found in shaded area.

POLYPLACOPHORANS – Chitons



Chiton virgulatus

Common, found under rocks.

PELECYPODS --- Bivalves



Brachidontes semilaevis
 A small mussel, can be extremely abundant in large sheets, dense clumps adjacent to mixed in barnacle beds.



Chama mexicana
 Rock clam. Lower valve cemented to the rocks in mid intertidal



Saccostrea palmita
 Rock oyster. Common on rocks and has flat upper valve and blue cast to shell.

Phylum ARTHROPODA – (incl. barnacles, crabs)



Tetraclita stalactifera confinis
 A large pink barnacle with 4 plates, generally solitary or in small groups. Mid to high intertidal in exposed areas.



Chthamalus anisopoma
 Most abundant and widespread barnacle in the Gulf. Seemingly variable, but Brusca treats as one species.



Grapsus grapsus
 Sally Lightfoot. Mid to high intertidal near cracks of exposed large rocks. Abundant and ubiquitous.



Lygia occidentalis
 Rock louse. A large isopod found in high intertidal often in crevices. Central CA to upper Gulf.



Clibanarius digueti
 Hermit crab. A common species in central Gulf.

Phylum ECHINODERMATA – (incl. sea stars, brittle stars, urchins, cucumbers)

ASTEROIDS (sea stars)



Pharia pyramidata
Single row of spines along the arms. Color variable, brown, yellow, tan.



Phataria unifascialis
Double row of spines on each side of ambulacral groove. Color variable, gray, reddish, blueish.



Heliaster kubiniji
Mid and low intertidal, preys on barnacles and *Brachidontes*, often hidden in cracks.

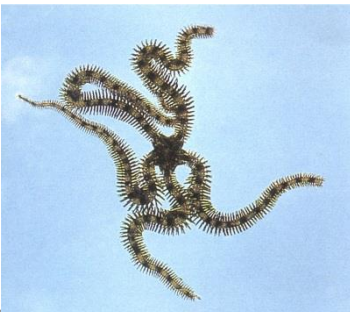


Acanthaster planci
Crown-of-Thorns. Well known for destructive predation on coral reefs.



Mithrodia bradleyi
Subtidal to low intertidal. Little known of habits.

OPHIUROIDS (brittle stars)



Ophiocoma alexandri
Long, slender arms. Common under rocks and in cracks. Banding on arms distinguishes this species from *O. aethiops*.



Ophiocoma aethiops
Dark, uniform color with robust arms, can be very large. Under rocks.



Ophionereis annulata
Slender, delicate arms with Commonly in crevices in tide pools, usually only the extended arms visible.

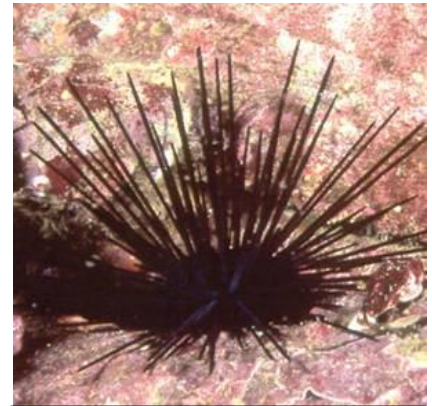
ECHINOIDS (urchins)



Echinometra vanbrunti
Most common urchin in Gulf, under rocks and often in holes. Similar in habitat and habits to *Strongylocentrotus purpuratus* in Pacific.



Eucidaris thouarsii
Slate-pencil urchin. Under rocks and in crevices, often wedged in with thick, blunt spines.



Diadema* or *Centrostephanus
Long spined urchin in tidepools. *Diadema* has dark-purple, barbed, toxic spines. *Centrostephanus* has non-toxic spines that are often banded light and dark.



Tripneustes depressus
Low intertidal, often extremely abundant in shallow subtidal.

HOLOTHUROIDS (cucumbers)



Holothuria lubrica
Common under rocks and in crevices, often with only branched tentacles visible.