



Directions

1. This site is within the Natural Bridges State Marine Reserve and is fully protected; no collecting or fishing is allowed. Wilder Ranch State Park rangers patrol; prior notification is advised, contact 831-423-9703.
2. From Santa Cruz, take Highway 1 north.
3. Park along the highway at 2101 Coast Road, between the entrance to Wilder Ranch State Park and Dimeo Lane, which leads to the city's landfill. There is also a frontage road on the coast side of the road where you can park, but leave enough room for farm vehicles to pass. DO NOT drive down the dirt road across the farm fields, it is often muddy from irrigation and a car can easily get stuck.
4. Walk toward the ocean on the dirt road, once at the cliff, turn right. Follow the cliff until the first well worn path to the beach, this will lead to Strawberry Cove Beach.
6. Once on the beach turn right and cross a large sand-scoured rock and a small sandy cove. Climb up the narrow, sloping platform that is bare at the top, has a mussel bed in the middle and small surfgrass bed near the bottom.
7. There are no public rest rooms at this site, the closest are Wilder Ranch State Park.



Figure 1. Wilder Ranch is along Highway 1 north of Santa Cruz.



Figure 2. Wilder Ranch site from the cliffs above; the transect marks the vertical transect.

Sampling procedures

Three sampling methods are used at Wilder Ranch: 1) Vertical transect, 2) Total organism counts in a permanent area, 3) Size measurements in a permanent area.

Vertical Transect

Once on the platform look for the 0m marker with the GPS location of: N 36° 57.353' W 122° 06.198'. Two other bolts are at 13m and 24m, their GPS locations are, respectively, N 36° 57.345' W 122° 06.196' and N 36° 57.341' W 122° 06.193'.

1. Center the quadrats over the transect tape every 3m at: 0m, 3m, 6m, 9m, 12m, 15m, 18m, 21m, 24m, 27m.
2. Record the species abundance within each quadrat as instructed on the data sheet. For algae, only the square(s) that contain the holdfast should be counted. Count only live organisms, this may require some close investigation.



Figure 3. Ochre sea star, owl limpet closeup, giant green anemone.



Total Organism Counts in a Permanent Area

Species counted are ochre sea stars and sea anemones. Teams of 2 or 3 students should tackle total counts for one species at a time.

1. Ochre sea stars (*Pisaster ochraceus*): Both sea star color phases (orange and brown/purple) are counted. The orange color phase will be easy to spot, while the purple/brown phase will require close inspection of cracks, overhangs, crevices and under algae. Sea stars are counted on the entire top of the platform, and along the vertical cliff face to the east from the 13m mark and shoreward. See red area in Figure 4.

2. Giant green (*Anthopleura xanthogrammica*) and sunburst (*Anthopleura sola*) anemones: Count any solitary anemones that are larger than 5 cm (2.5 inches) in diameter, and any that are large and solitary but closed. These large, solitary sea anemones occur mainly in pools, and are counted on the top of the main platform, between 8.5m and 21.5m on the vertical transect, see blue area in Figure 4.

Size Measurements in a Permanent Area for Owl Limpets

Smaller owl limpets (*Lottia gigantea*) are sometimes difficult to distinguish from other species of limpets, therefore we only count owl limpets equal to and above 2.5 cm in shell length. The length of each limpet is measured with a flexible ruler and recorded. Owl limpets are counted on the eastern side of the platform shoreward of the 13m eyebolt, as well as all sides of the smaller platform just to the east of the main platform. See the green area in Figure 4.

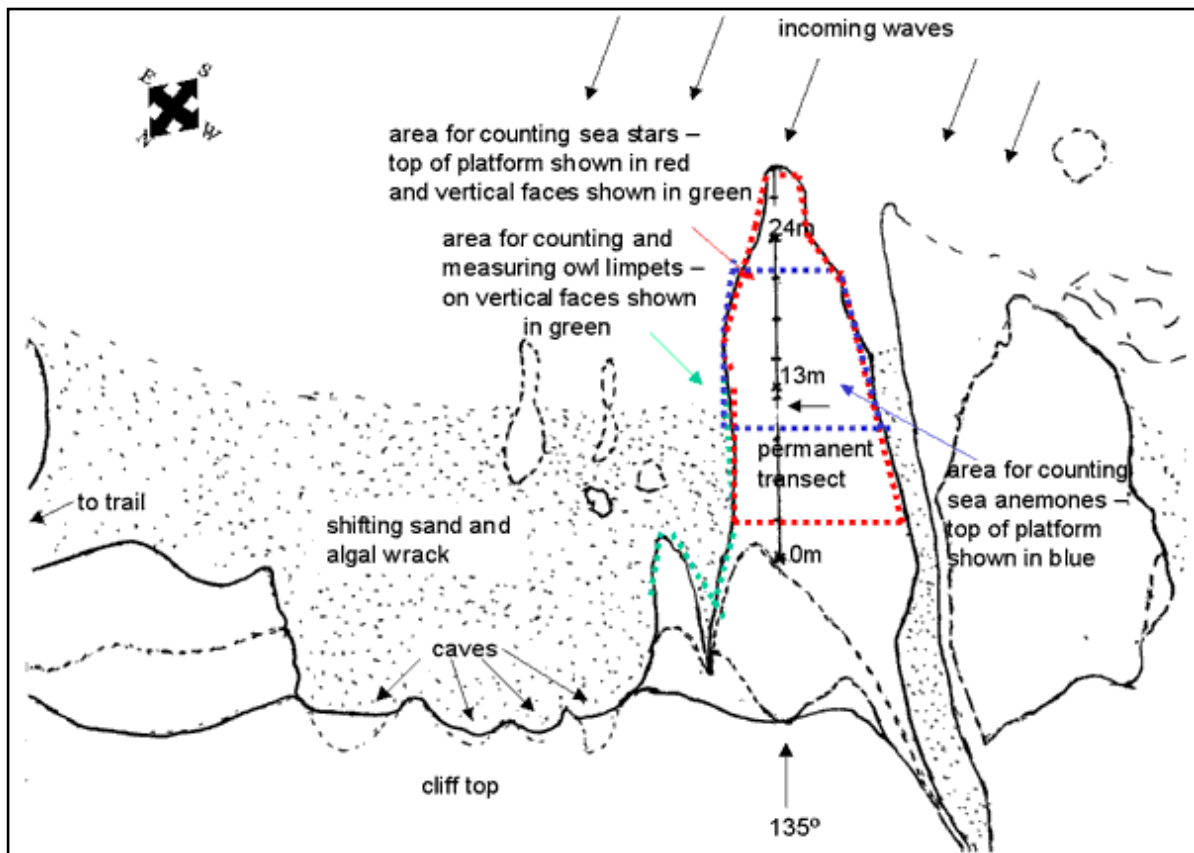


Figure 4. Hand drawn map of the monitoring area.