Barnacles in the Upper to Mid-Intertidal Zone (ITZ) (above +6-7 ft).

**OVERVIEW:** *Chthamalus dalli* (Brown Barnacle) or *Balanus glandula* (Acorn Barnacle). These species may overlap in vertical distribution but will be generally separate with *C. dalli* above *B. glandula* due to competition for space.

If barnacle is in mid or lower ITZ, go to Page 2.

*Chthamalus dalli* Brown Barnacle:
Operculum: a cross; outside plates smooth;
Size: small, diameter, at base not more than 1 cm;
Color: gray or brownish gray;
Does not form dense crowded populations.

*Balanus glandula* Acorn Barnacle:
Operculum: distinctive sinuous pattern;
Outer plates with deep, wide grooves if not crowded,
Size: often more than 1 cm when not crowded; tall and thin when barnacles are crowded;
Zone note: vertically adjacent to and relatively lower in ITZ than *C. dalli* but still in upper to mid-ITZ.
**Barnacles in mid to lower ITZ (below +5-6 ft).**

**OVERVIEW:** *Semibalanus cariosus* (Thatched Barnacle), more common; or *Balanus crenatus* (Smooth Acorn Barnacle), uncommon and mostly occurs in the lowest ITZ. *B. glandula* (Page 1) may extend into the upper part of this zone.

*Semibalanus cariosus* Thatched Barnacle:
Operculum: wavy line
Outer plates: rough with vertical threads, resembles a pile of hay or sticks
Size: relatively small
Can form dense crowded populations.

*Balanus crenatus* Smooth Acorn Barnacle:
Operculum: joint with sharp angles
Outer plates: smooth, very white, plate boundaries clearly visible
Populations usually not crowded
Zone note: usually in lowest ITZ, but may be higher where suitable substrate is available.