

Macroalgae (Brown) - *Undaria pinnatifida*

DESCRIPTION	brown kelp with long blades, a midrib and 'ruffled' reproductive structure or sporophyll at base, attaches by a root-like holdfast. No swim bladders and stipe (stem) is short relative to the rest of the plant.
RANGE	Islas de Todos, Mexico (Baja) to San Francisco Bay, Ca. Native to Japan, first record on the west coast from Long Beach and Los Angeles, California, 2000.
SIZE	Body from 1-3 m long, but typically up to 1.5 m
STATUS	Invasive, see complete record at http://undaria.nisbase.org
COLOR	appears yellow green to dark brown colored when you remove from the water
HABITAT	Often found growing on hard surfaces, both natural and man-made structures such as docks and boat hulls. Can form dense kelp forests in sheltered areas.
TIDAL HEIGHT	low intertidal to 25 m, but most common at 1-3 m
SALINITY	20-38 ppt, but grows best above 27ppt
TEMPERATURE	0-27C, but grows best below 12C
SIMILAR SPECIES	Can be confused with other kelps such as <i>Alaria fistulosa</i> (see picture), <i>Egregia menziesii</i> (has swim bladders and small paddle like blades unlike <i>Undaria</i>) and several native <i>Laminarias</i> , but the midrib and distinctive ruffled sporophyte distinguishes the species.



© Chela Zabin sporophyte



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mature *Undaria* with sporophyte



©Chela Zabin *Alaria fistulosa*



©Chela Zabin juvenile *Undaria pinnatifida*