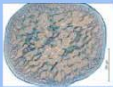


SOUTHERN AUSTRALIAN SPECIES OF GRACILARIACEAE AT A GLANCE

(microscope views are in blue; the coin scale is 24mm or almost 1" wide)

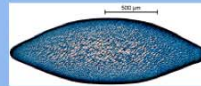
I. TIPS WITH A THICK AND DARK CAP – GENUS *MELANTHALIA*

Melanthalia concinna



branches <1mm wide, mainly circular in cross section

Melanthalia obtusata



branches 2-3mm wide, flattened in cross section

Melanthalia abscissa



branches 1mm wide, oval in cross section

2 species cohabiting at Port Elliot, S Australia compared



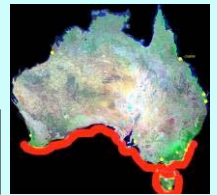
II. TIPS WITHOUT A THICK AND DARK CAP

IIA. PLANTS THICK, LEATHERY AND LEAFY (FOLIOSE) (GENUS: *CURDIEA*)



plants *upright*, female reproductive organs on blade *edges*

Curdiea angustata



plants lie *flat*; female reproductive organs on blade *surfaces*



old blades 1.0-1.5mm thick



underside covered with *sponges*



Curdiea obesa



old blades 3-4mm thick



underside covered with *hydroids*

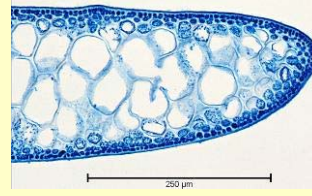
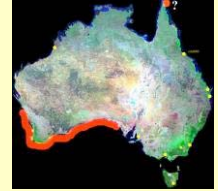


Curdiea crassa

IIB. BRANCHES COMPRESSED, PLANTS FLAT-BRANCHED



Gracilaria preissiana



cross section of branch

IIC. BRANCHES CYLINDRICAL

SMALLER BRANCHES OFTEN ON ONE SIDE (SECUND)



Gracilaria secundata



side branches one-sided



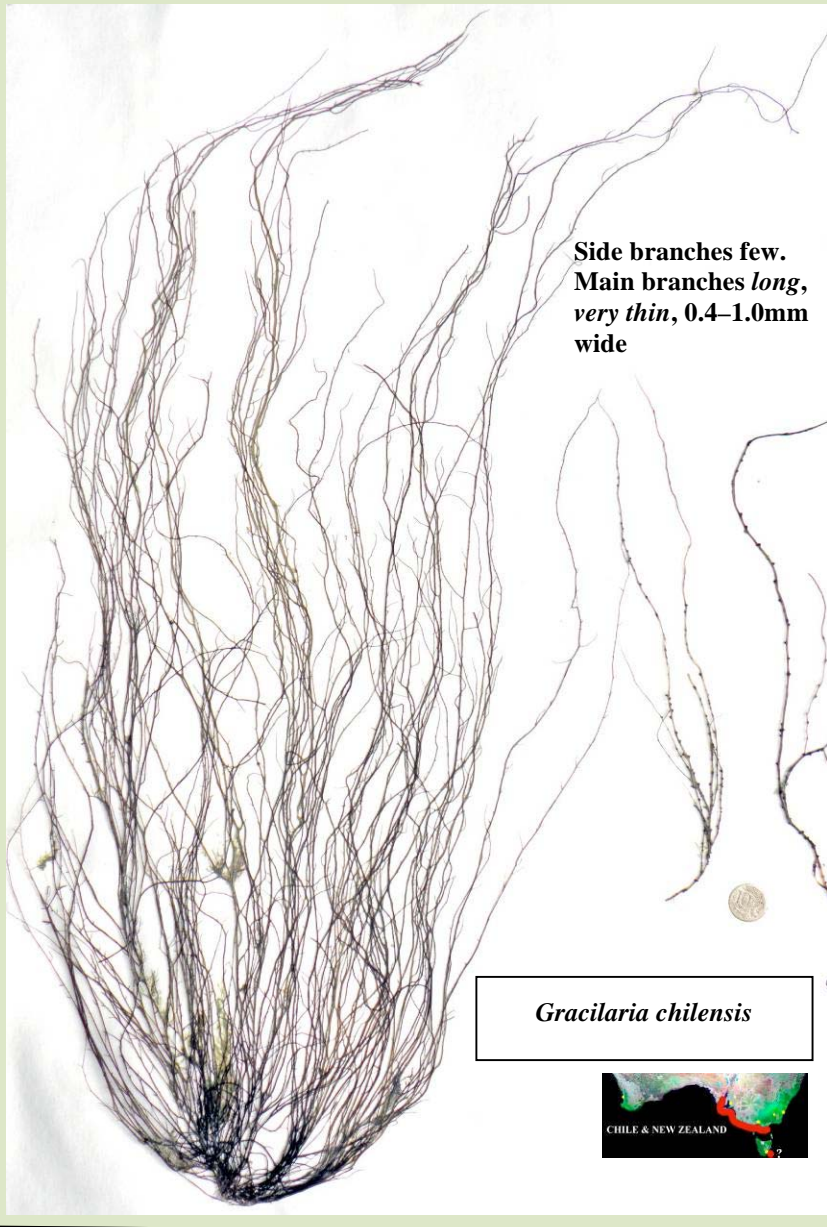
BRANCHING TUFTED, FORKED (DICHOTOMOUS)



Gracilaria cliftoni (ramulosa)

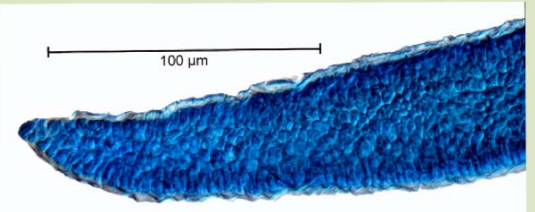


BRANCHING WHIP- OR HAIR-LIKE

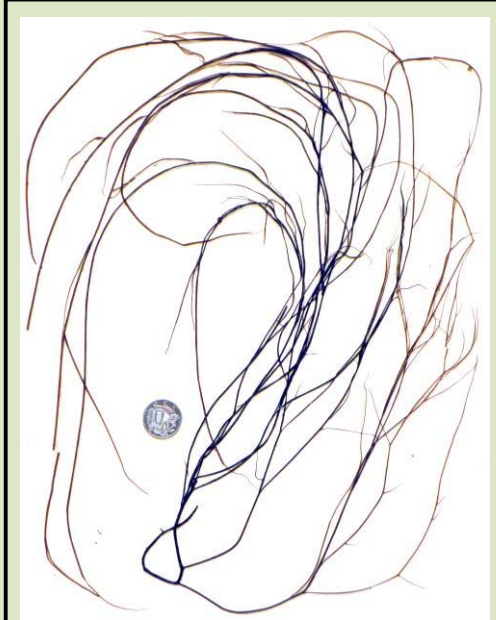


Side branches few.
Main branches long,
very thin, 0.4–1.0mm
wide

Gracilaria chilensis

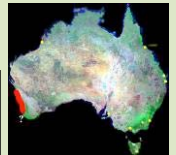


Single apical cell visible under the microscope



Branches whiplike, 1.0-3.5mm wide

Gracilaria flagelliformis



Side branches short.
Main branches long, 1.3–1.8 mm
wide

Gracilaria sp



Main branches hair-like,
0.7–1.4mm wide.
Microscopic male and female
features separate
Gracilariopsis
from
Gracilaria



Gracilariopsis lemaneiformis

