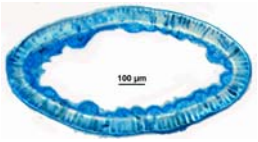
SOUTHERN AUSTRALIAN SPECIES OF *ULVA/ENTEROMORPHA* AT A GLANCE

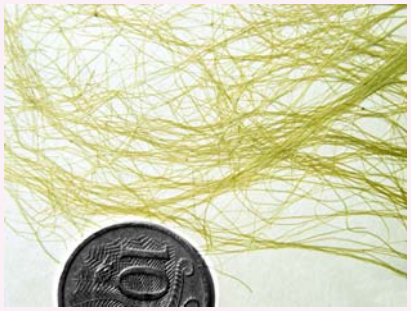
Molecular studies show that separation of *Enteromorpha* from *Ulva* on the basis of a hollow thallus is unwarranted. For ease of identification the separation into hollow species (*Enteromorpha*) and species in which the 2 sheets of cells are firmly adherent (*Ulva*) has been retained.
Images stained blue below show microscope details of specimens. Pressed specimens shown below may be darker and browner than fresh ones.
The 10c piece used as a scale is 24mm across or almost 1 inch in diameter

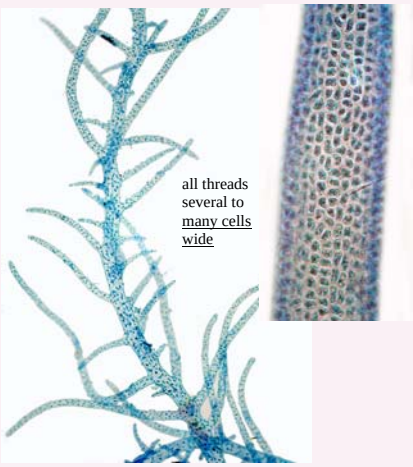
I. *Enteromorpha* — ribbon- or thread-like, some parts hollow



cross section of a blade viewed microscopically

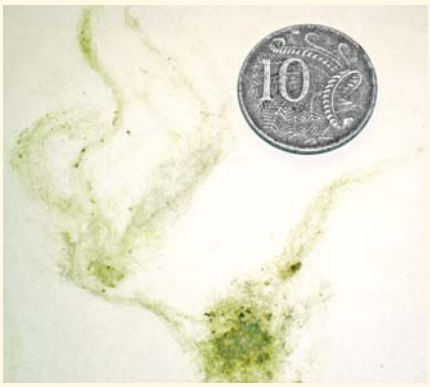
Ia. Plants thread-like

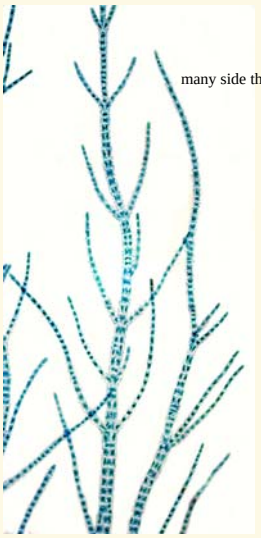




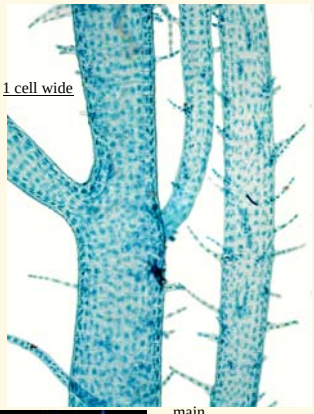
all threads several to many cells wide

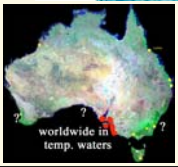
Enteromorpha (Ulva) clathrata





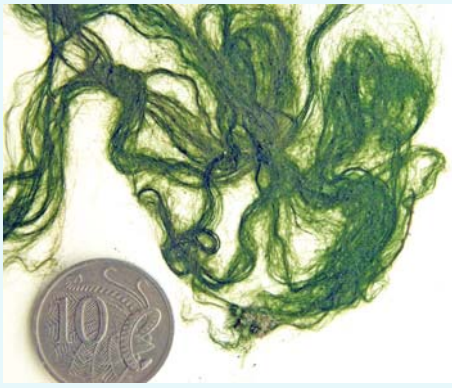
many side threads 1 cell wide



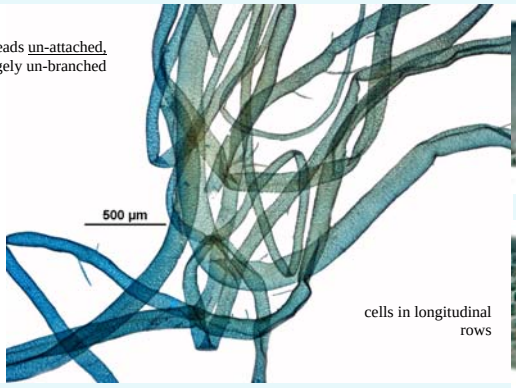


main branches hollow, many-cells wide

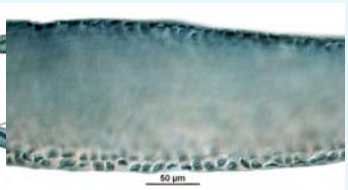
Enteromorpha (Ulva) paradoxa



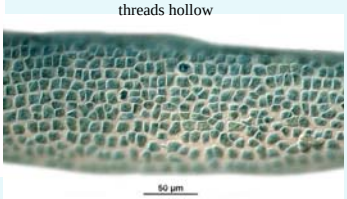
threads un-attached, largely un-branched



cells in longitudinal rows

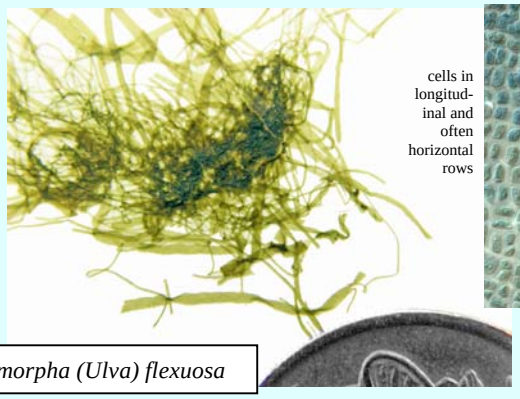


threads hollow

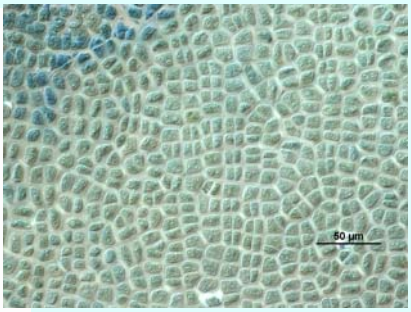


Enteromorpha (Ulva) ralfsii

Ib. Plants ribbon-like



cells in longitud-inal and often horizontal rows

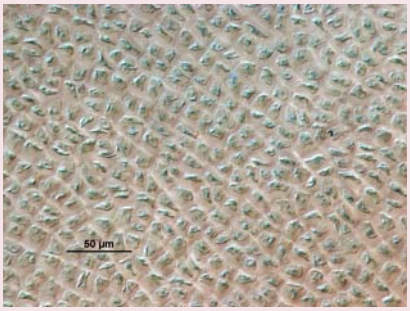


Enteromorpha (Ulva) flexuosa

broad blade form with ruffled edges

can be confused with *Enteromorpha linza*

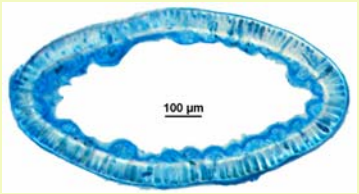
narrow bladed form, branching at the base

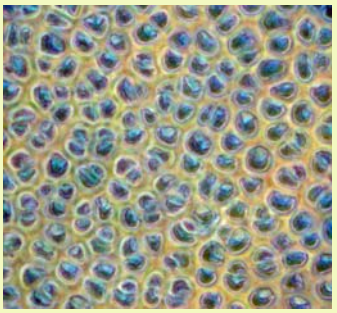


cells unordered

Enteromorpha (Ulva) compressa
2 forms

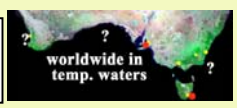
cross section



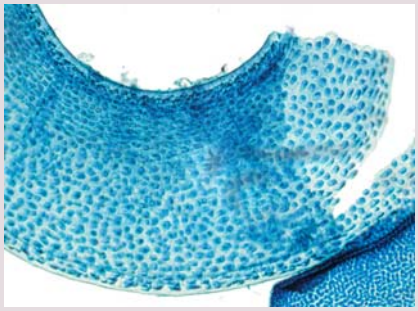


cells rounded or polygonal and un-ordered

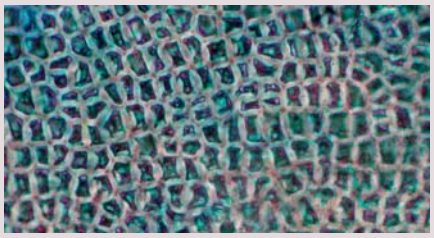
Enteromorpha (Ulva) intestinalis



Ib. Plants ribbon-like (continued)



microscope view of a ribbon, torn to show its hollow nature construction



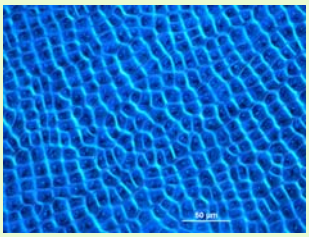
cells squarish and in longitudinal rows

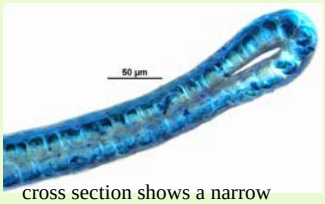
Enteromorpha (Ulva)

Ic. Plants broad, hollow parts only at edge of blades

surface silky

cells squarish, in longitudinal and often transverse rows





cross section shows a narrow cavity at the blade edge only

Enteromorpha (Ulva) linza

SOUTHERN AUSTRALIAN SPECIES OF *ULVA/ENTEROMORPHA* AT A GLANCE (continued)

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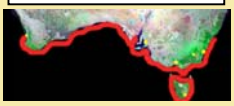
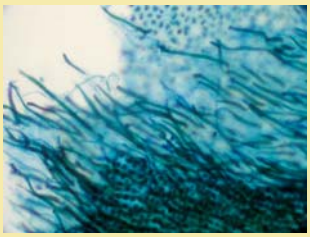
Images stained blue below show microscope details of specimens. Pressed specimens shown below may be darker and browner than fresh ones.
The 10c piece used as a scale is 24mm across or almost 1 inch in diameter

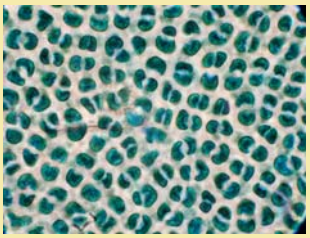
II. *Ulva* — <u>no</u> hollow parts in blades
IIa. blades broad


cross section of a blade viewed microscopically

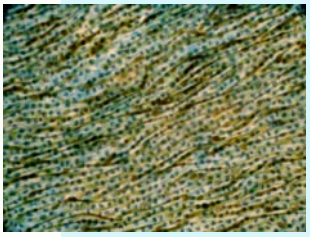
Ulva australis



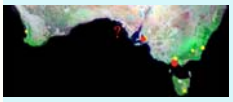

mass of rhizoids at base

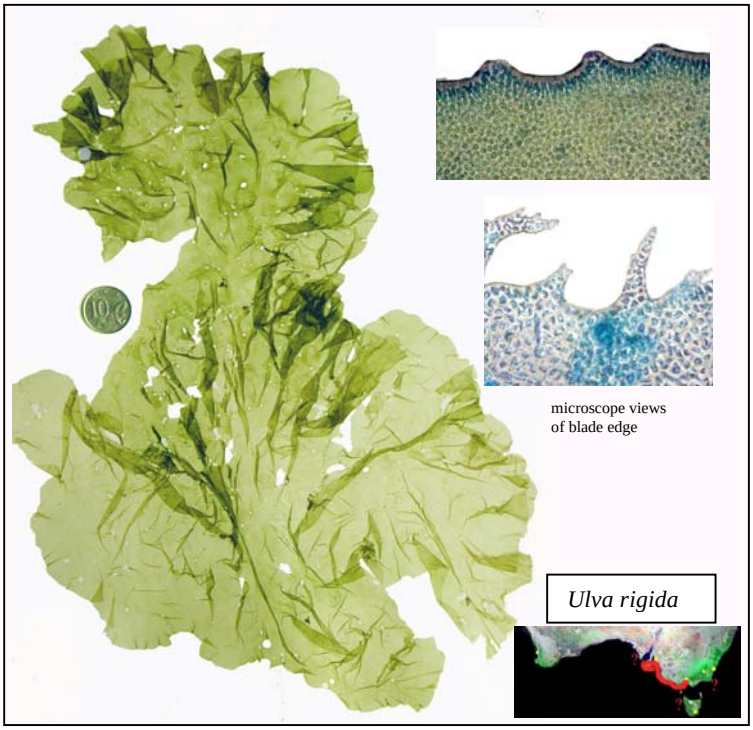

surface cells

mass of rhizoids at base



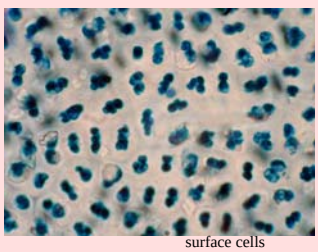
Ulva lactuca





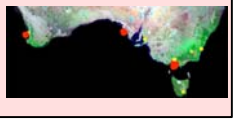
microscope views of blade edge

Ulva rigida



surface cells

Ulva spathulata



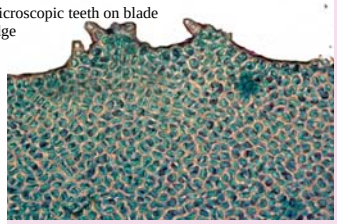
IIb. blades narrow

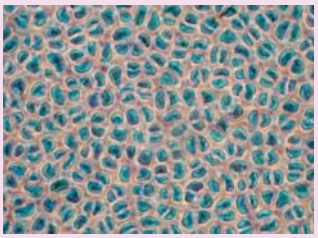
blade edge

surface cells

Ulva fasciata

microscopic teeth on blade edge





surface cells

Ulva taeniata