Techniques needed, and shape

Classification
Phylum: Chlorophyta; Order: Cladophorales; Family: Cladophoraceae

*Descriptive name
loose-lying rough green threads (differing in touch to other softer thread-like green algae such as Cladophora); § Green tangleweeds

Features
plants occur as large, unattached tangled masses up too several metres across of green or yellow-green threads in sheltered waters

Special requirements
view the threads microscopically to find:
1. threads are unattached, fairly straight and 200-400μm wide
2. threads are the same width throughout their length
3. cells are oblong, with length to breadth (L/B) = 1.5-3.0
4. side walls are thick, and end walls are not cut off (incised) and may be thick

Occurrences
from Esperance, W Australia to Tasmania

Usual Habitat
in calm shallow water

Similar Species
other unattached Chaetomorpha spp with fine, hair-like threads, for example, Ch. indica, but in Ch. billardieri filaments are wider and cell walls often thicker.

Description in the Benthic Flora
Part I, pages 176, 177, 179

Details of Anatomy

1. Chaetomorpha billardieri (slide 6800), stained blue and viewed microscopically showing
   • box-shaped cells, L/B = 3
   • thick side walls and end walls thick (indicated by arrows)

2. drift plants of Chaetomorpha billardieri (A8639c) from Pelican lagoon, American River inlet, Kangaroo I., S Australia, in the lower intertidal