

## ***Didemnum vexillum* Identification Guide**

The NZMIC Ltd wishes to thank Ashley Coutts, Cawthron Institute, for the time and resources contributed to preparing this guide on *Didemnum vexillum*.

### **What is *Didemnum vexillum*?**

- Commonly known as the Whangamata sea squirt.
- Also referred to as a colonial, compound ascidian and/or tunicate.
- Filter feeding animal.
- Sponge-like appearance.
- Yellow/orange in colour.
- Its surface has darkish leaf-like veins with pores.
- Colonies often droop when living under surfaces (refer to preceding photographs).

**Origin:** It is not currently known, could be either native or introduced (i.e. cryptogenic).

### **Known Distribution:**

- Whangamata Harbour
- Tauranga Harbour
- Waimahara wharf pylons, Port Shakespeare, Marlborough Sounds

### **Dispersal mechanisms:**

- *Natural dispersal* - Colonies can reproduce sexually by releasing tailed larvae which can be dispersed via water currents. Alternatively, colonies can reproduce asexually by budding, hence fragments can break off and grow into new colonies.
- *Artificial dispersal* – Infected hulls of vessels, aquaculture equipment and fragments in ballast water.

### **Biosecurity threat:**

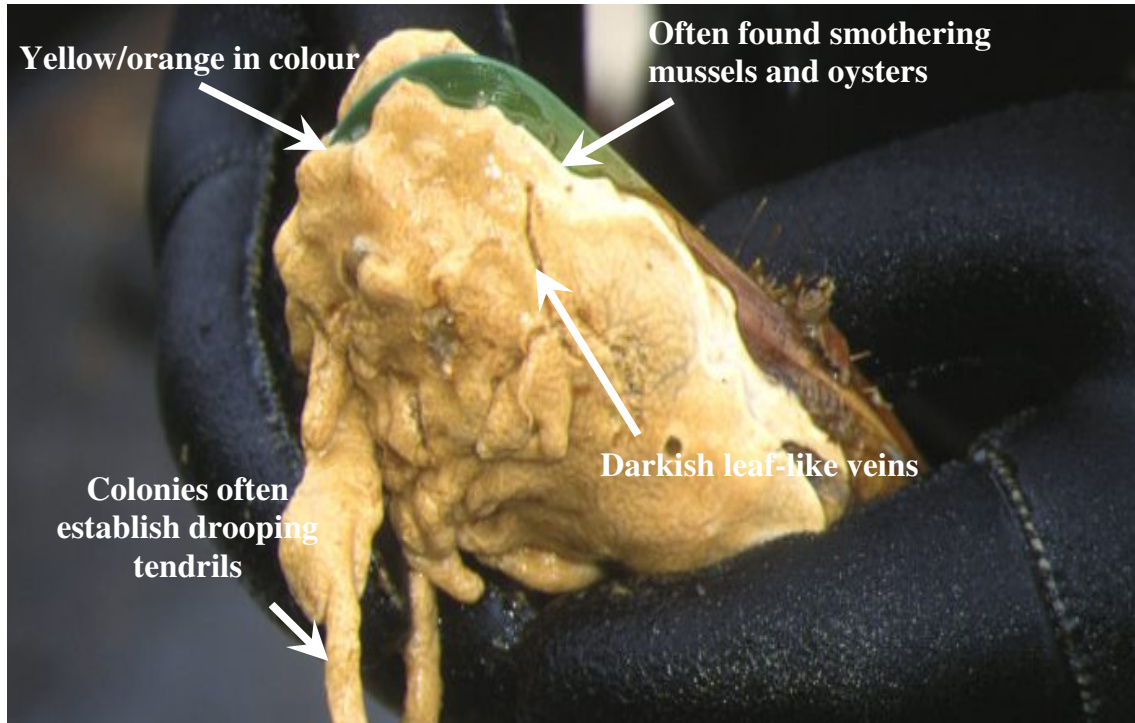
- Threat to the marine farming industry because of the species smothering capabilities and preference and/or greater survival rate on artificial structures i.e. wharf pylons, mooring lines, vessel hulls.

### **What can you do to help?**

- Try to minimise the movement of excessively fouled structures from one location to another.
- Maintain fouling free hulls by regularly applying correctly formulated antifouling paints.
- Regularly clean hulls in a facility with collection and land-based disposal of fouling material.
- Support regional initiatives to control marine pests.
- If you think you have sighted this species according to the attached identification guide, please contact – **Ashley Coutts, Cawthron Institute, 98 Halifax Street East, Private Bag 2, Nelson. Phone (03) 548 2319, Fax (03) 546 9464, email [ashley.coutts@cawthron.org.nz](mailto:ashley.coutts@cawthron.org.nz)**

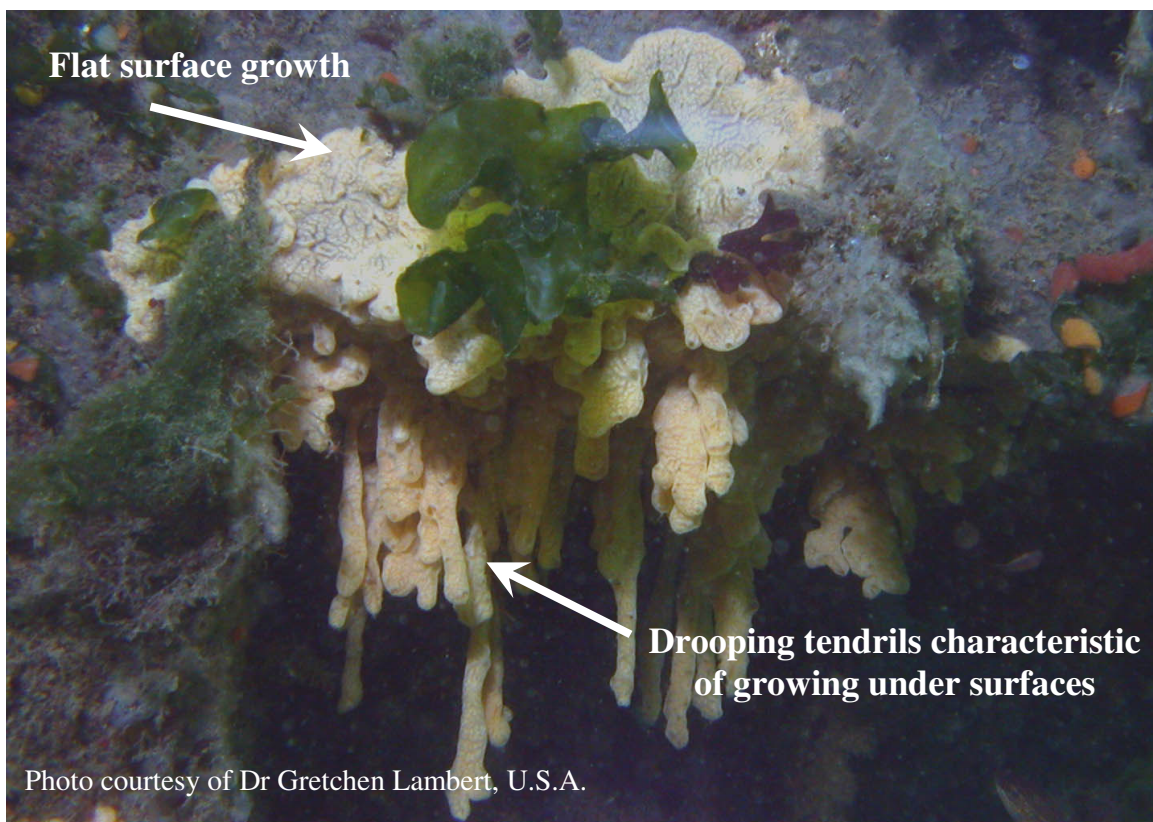
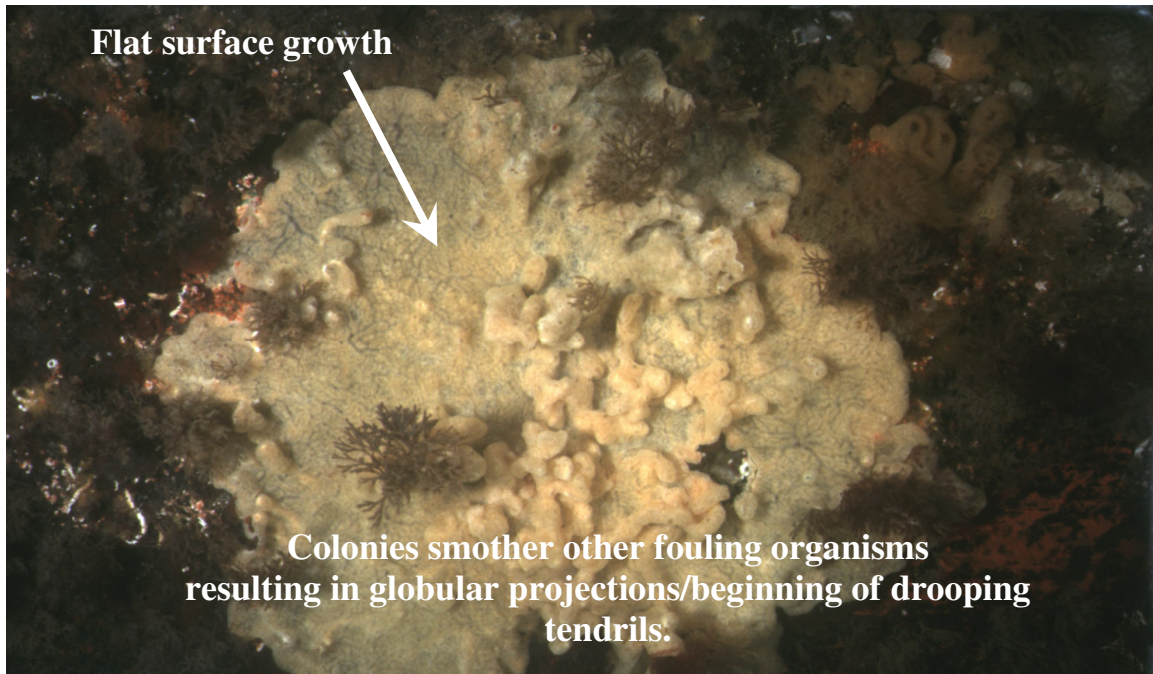
# *Didemnum vexillum* Identification Guide

## IDENTIFICATION CHARACTERISTICS



# *Didemnum vexillum* Identification Guide

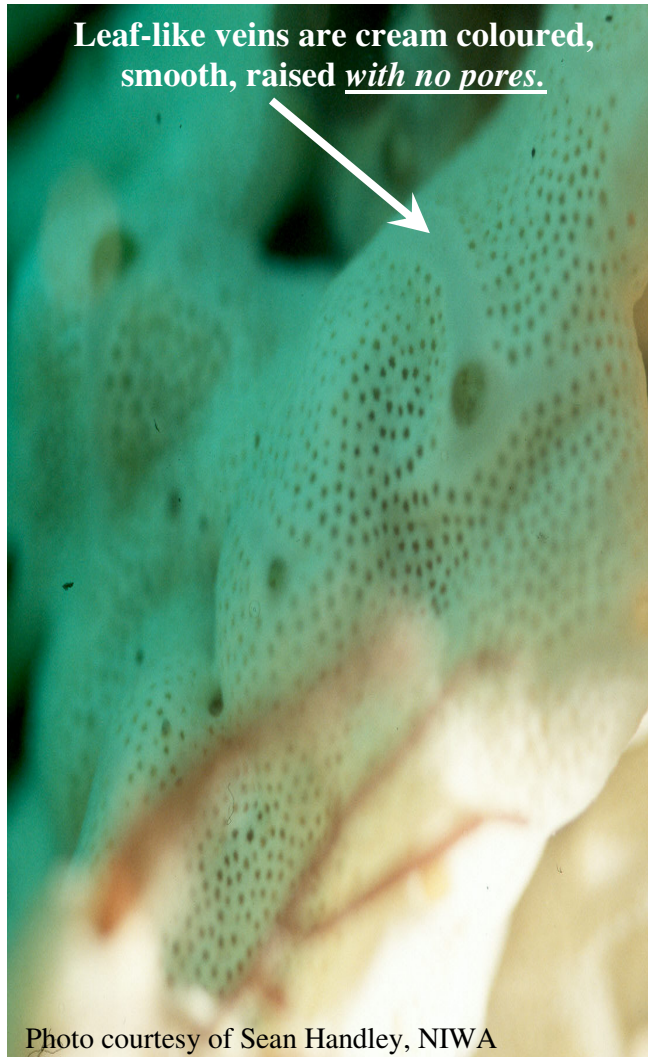
## IDENTIFICATION CHARACTERISTICS





## *Didemnum vexillum* Identification Guide

*Didemnum incanum* – A NEW ZEALAND NATIVE, NOT *D. vexillum*



### Distinguishing characteristics

- *D. incanum* is cream in colour, not yellow/orange like *D. vexillum*.
- *D. Incanum* has cream coloured, smooth, raised leaf-like veins without pores.

## ***Didemnum vexillum* Identification Guide**

### PROCEDURES FOR COLLECTING AND PRESERVING SAMPLES FOR IDENTIFICATION

- 1). If possible, photograph *D. vexillum* in its natural environment i.e. do not attempt to remove *D. vexillum* if smothering other organisms. This aids with the species identification.
- 2). Place each *D. vexillum* sample (including other attached specimens) inside separate screw top containers (no bigger than 1000 ml) with enough sea water to just cover specimens.
- 3). Sprinkle menthol crystals on top of sample (enough to cover entire surface). Place lid on tightly. Gently tip sample upside-down to ensure mixing. Menthol crystals help relax *D. vexillum* to assist with the identification procedure.
- 4). After approximately > 2 hours, retrieve menthol crystals for future use and fix specimen in 5% formalin 95% sea water mix. *Please note – In the absence of menthol crystals and formalin, place specimens inside a plastic bag and freeze for 24 hrs, label and courier samples using the following procedure.*
  - Place screw lid back on the container tightly and seal lid with electrical tape. Also place frozen samples within plastic bags inside a sealed container and seal lid with electrical tape.
  - Label outside of the container with the following details –  
Your name, date, location of sample i.e. bay, mussel farm licence or permit no. (please specify), line no., depth, comments e.g. covers 10% of droppers.
  - Place container inside a suitable postage or courier package. Address sample to –  
Ashley Coutts, Cawthron Institute, 98 Halifax Street East, Private Bag 2,  
Nelson. Phone (03) 548 2319; Fax (03) 546 9464; email:  
ashley.coutts@cawthron.org.nz