



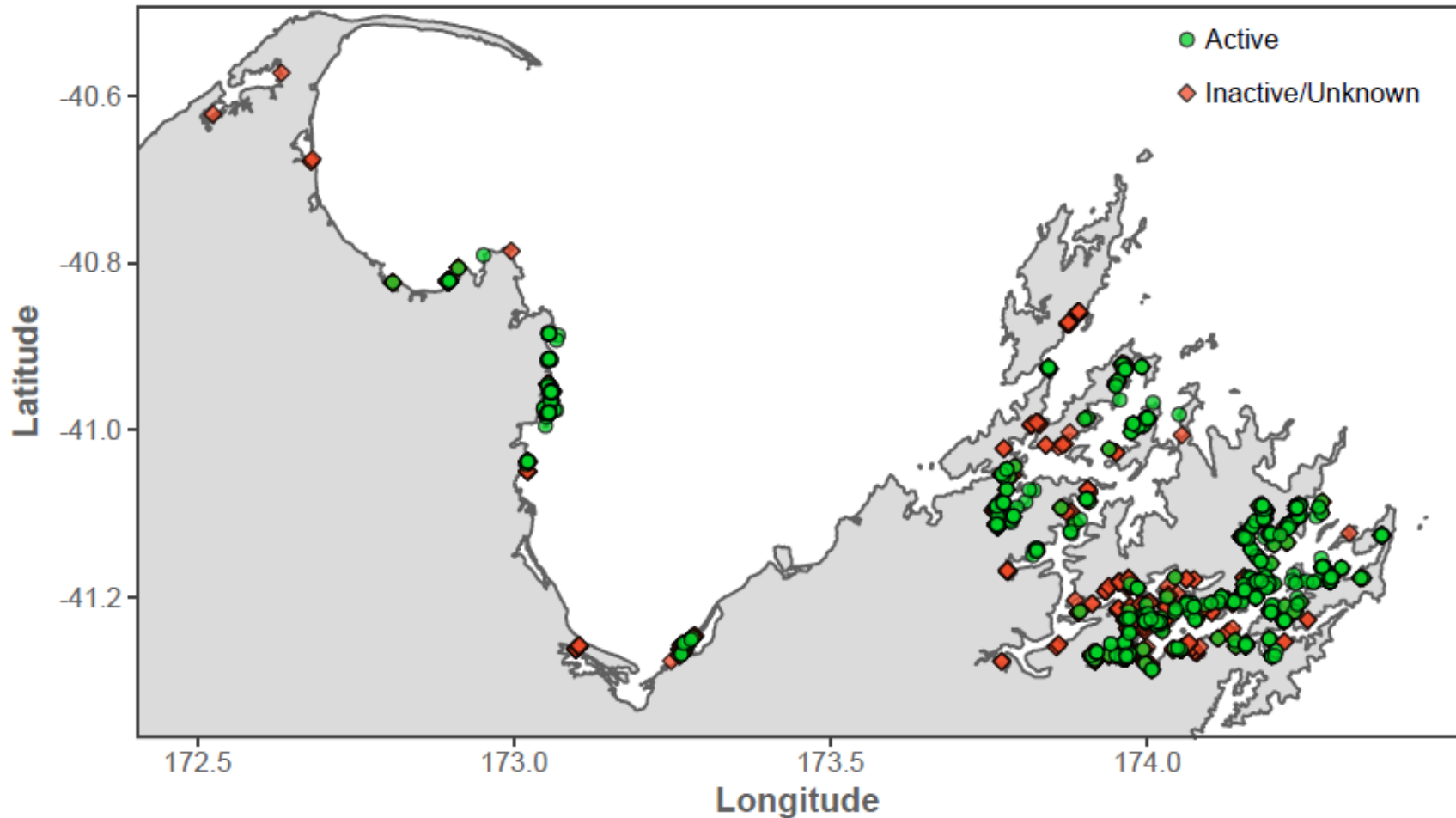
# Annual report



## Partnership Meeting 2019

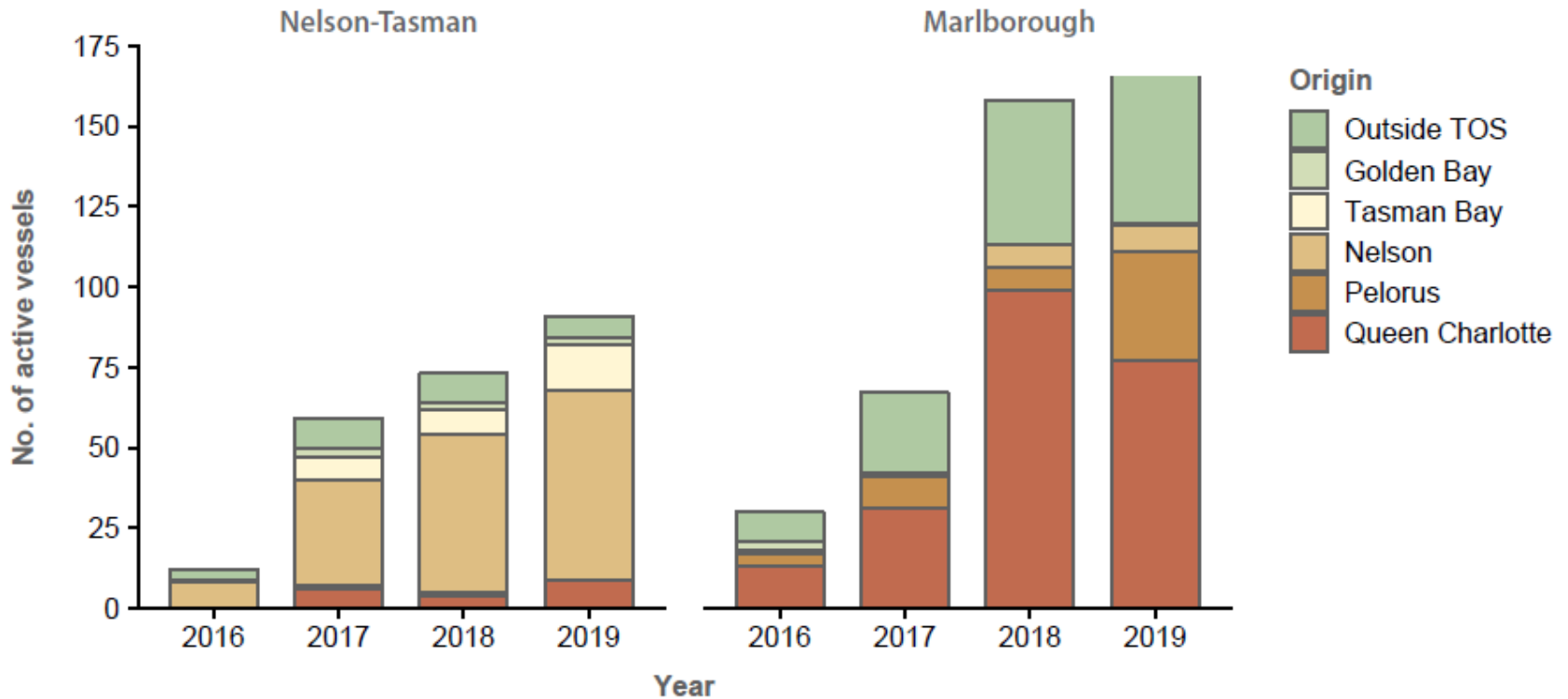
# Vessels surveyed this summer

a. Vessels



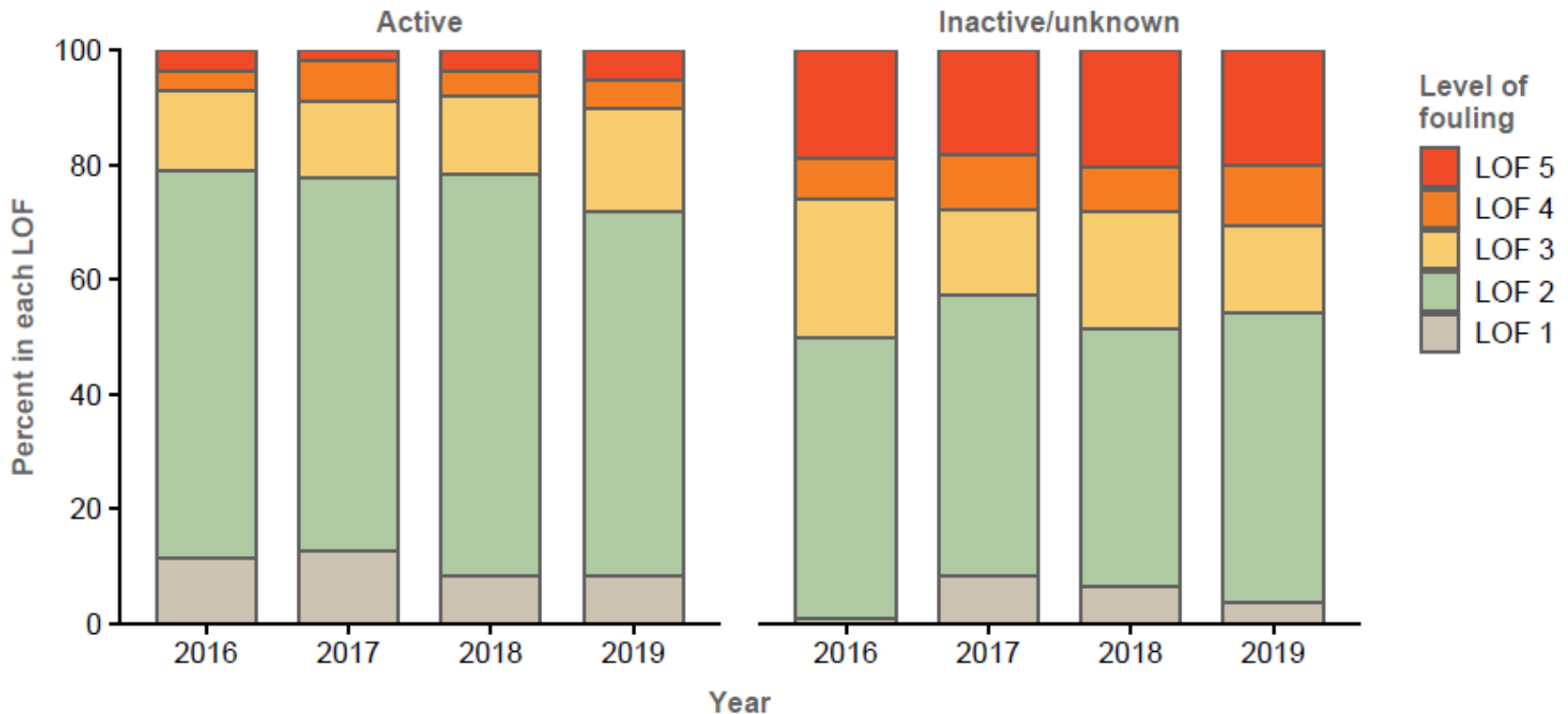
# Marlborough gets more visits from out of the region

a. Numbers of active vessels by main home region



# Fouling rates are not reducing

b. LOF by vessel activity status



# Fouling rates are getting worse in Nelson Tasman

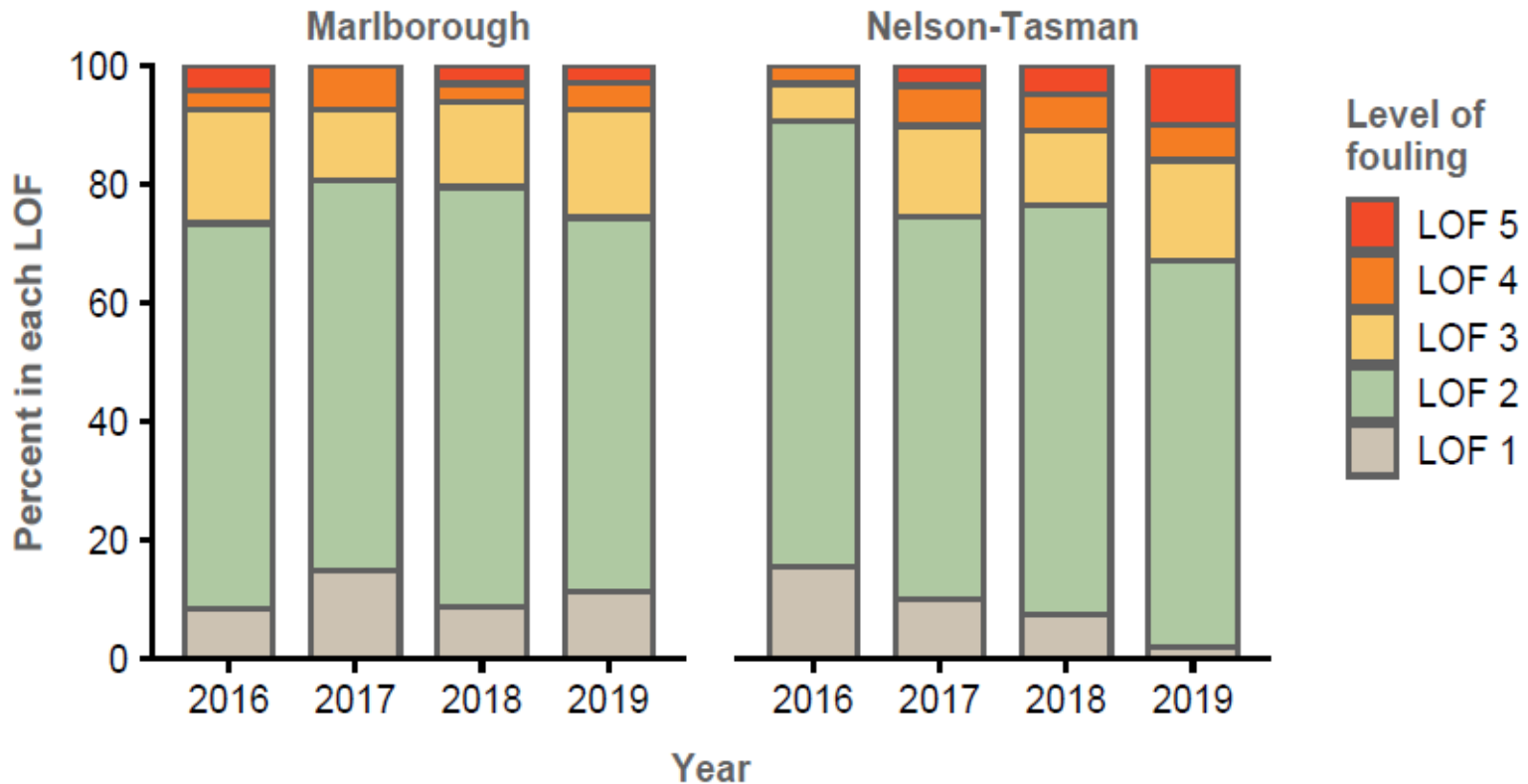


Fig. 6. Proportion of active vessels in each LOF category that were recorded in the two main regions over the four survey years (n = 30-203).

# Marlborough is most exposed to fouled boats from Nelson Tasman

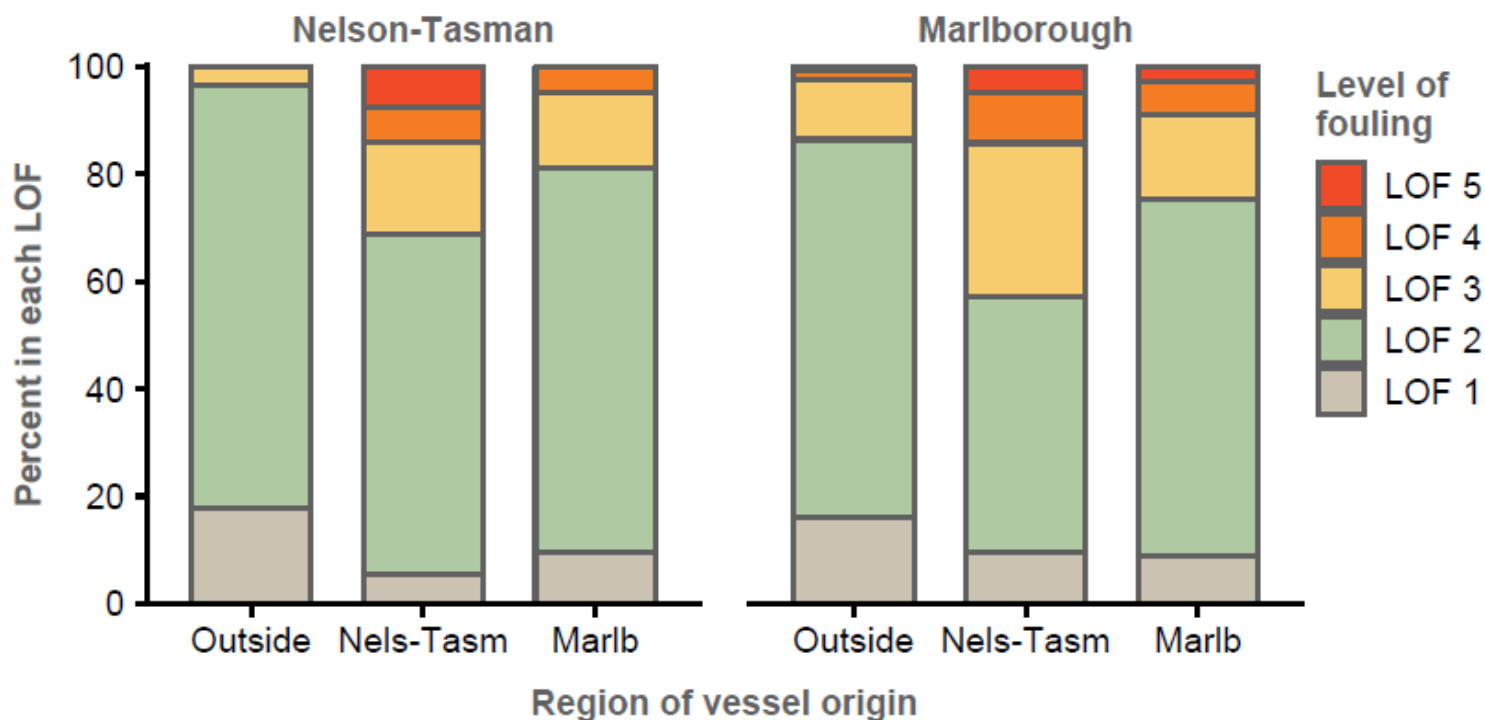
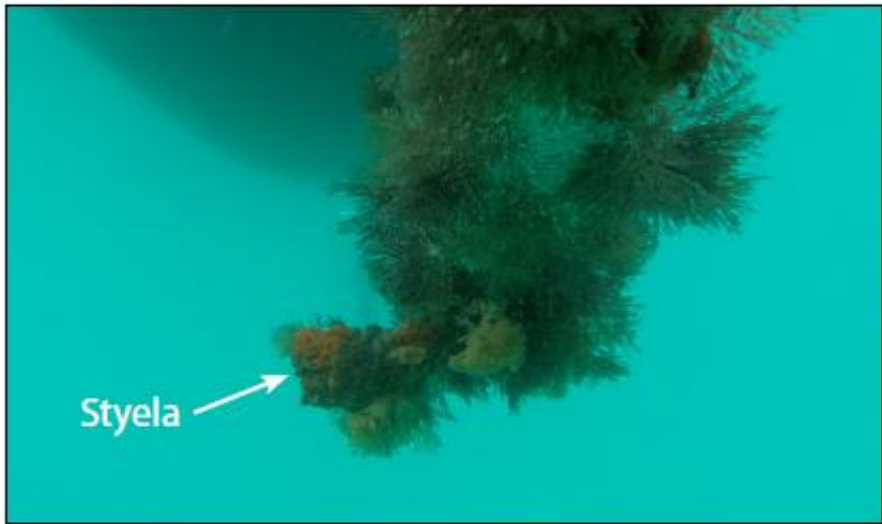


Fig. 7. Proportion of active vessels in each LOF category comparing boats whose home port was from either Marlborough, Nelson/Tasman or outside the TOS, partitioned according to the TOS region in which the vessels were active. Data pooled across four survey years. Sample sizes as per Table 4.

# Niche areas are the biggest issue



The bottom of the keel, especially in the case of yachts, can be heavily fouled even when the main hull is clean and well anti-fouled.

# Most *Styela* on active vessels is from Nelson

a. *Styela* on active vessels (n=22, 2.8%)

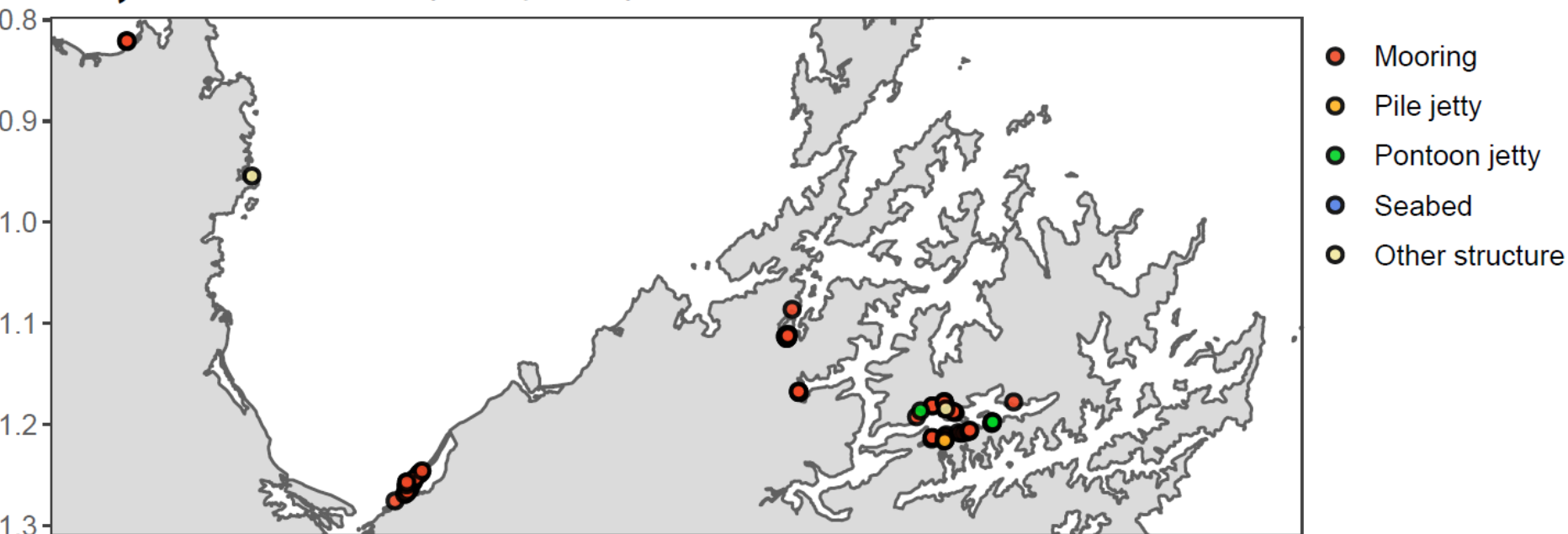




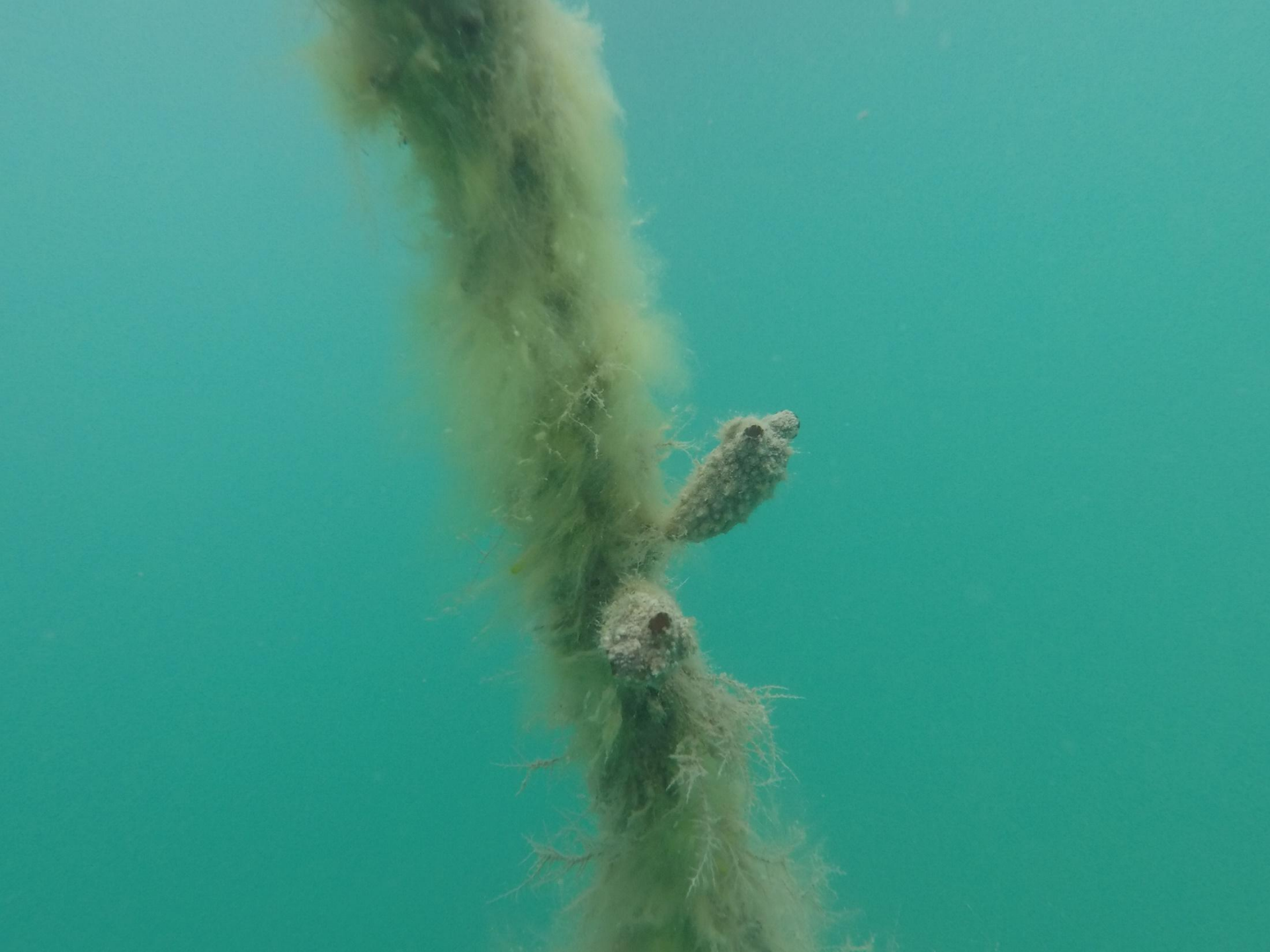


# *Styela* is now spreading on structures from secondary nodes

a. *Styela* on structures (n=95, 7.9%)

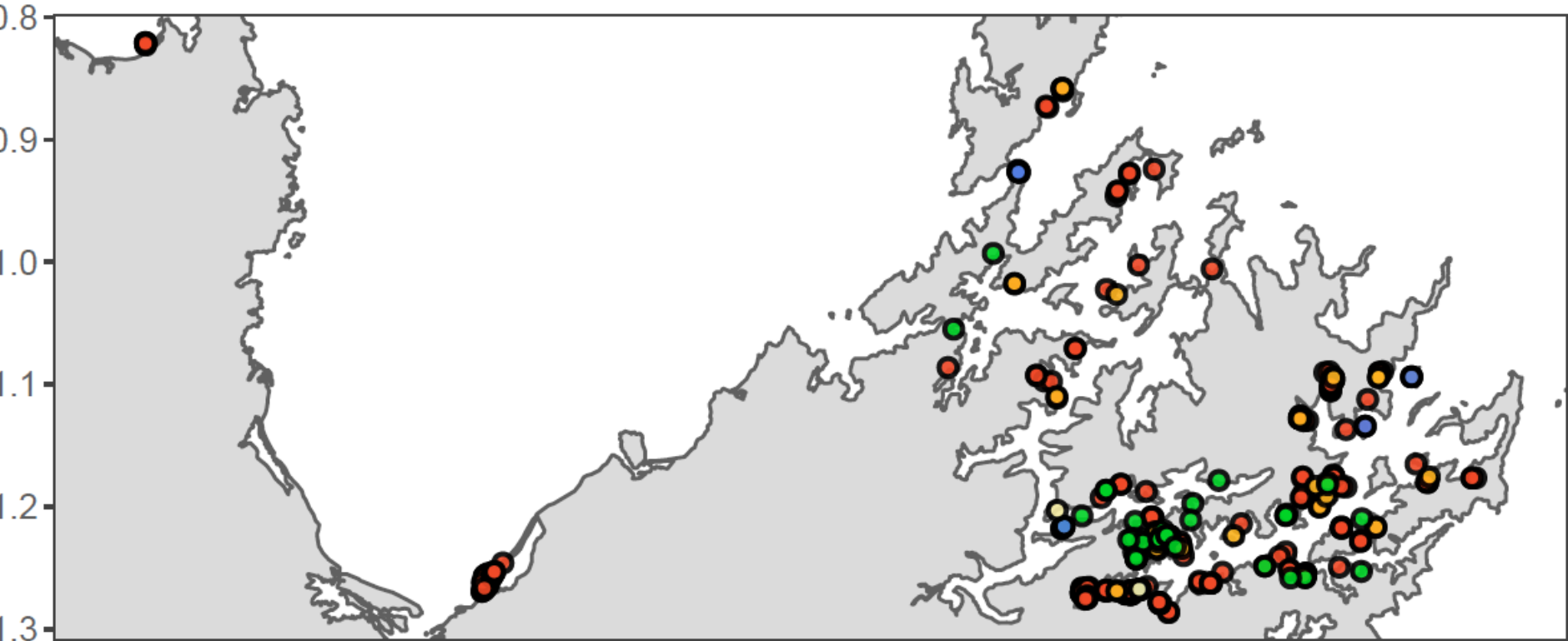




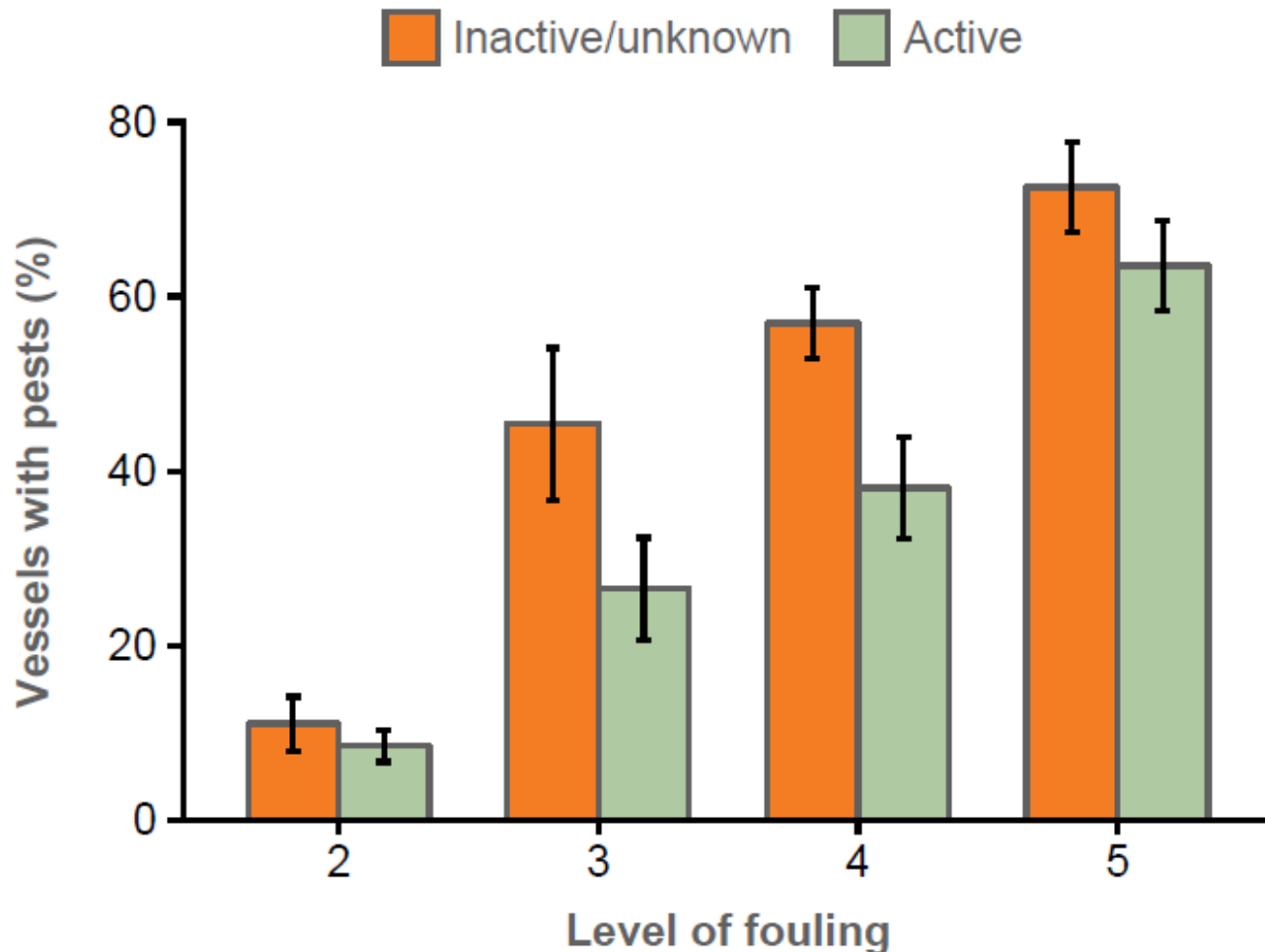


# *Undaria* shows the results of unconstrained spread

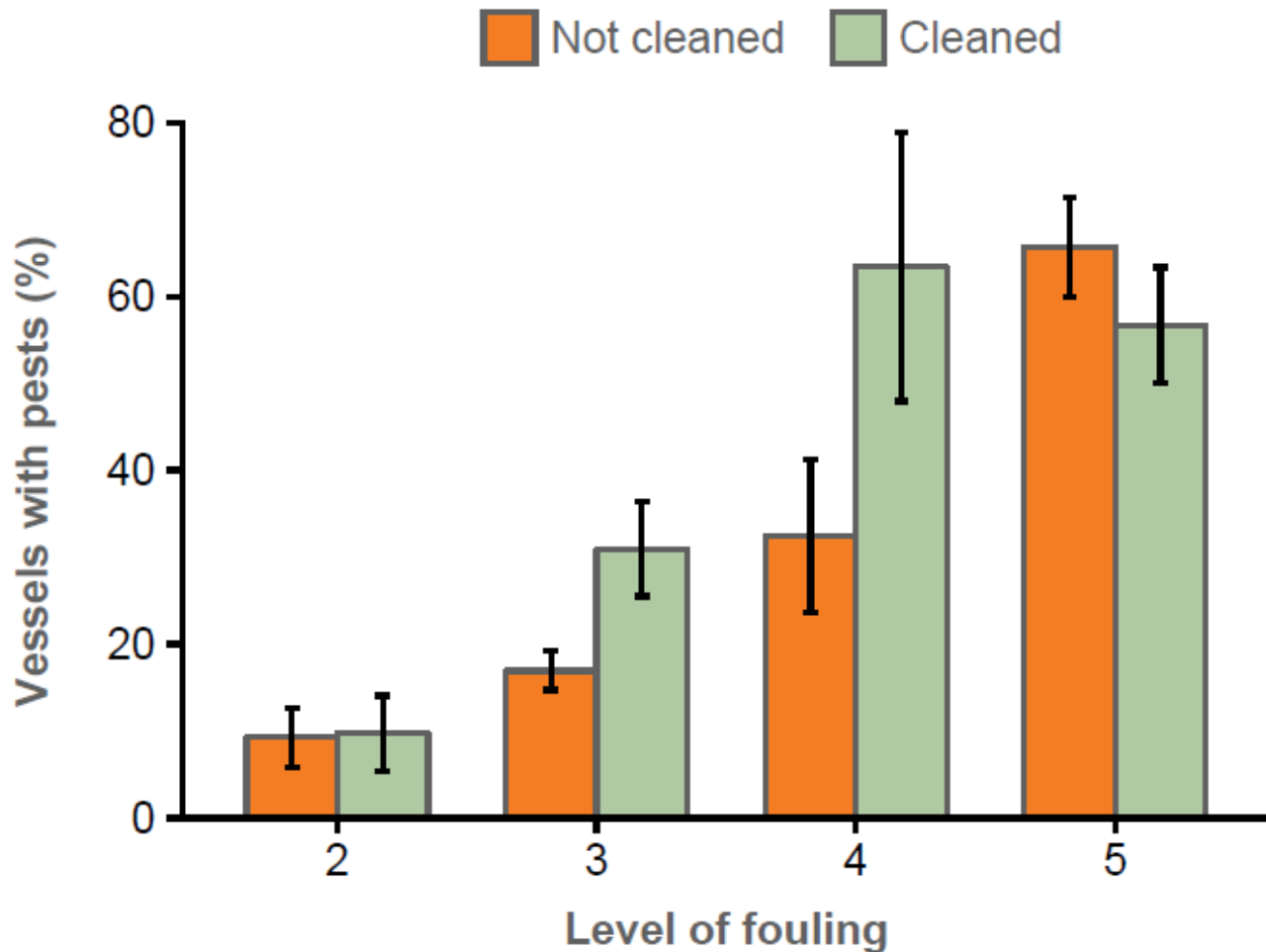
b. *Undaria* on structures (n=379, 31.5%)



# Keeping the level of fouling below 3 will stop most pests spreading



# In-water cleaning is ineffective



# A quarter to a third of all active vessels breach current rules

**Table 6. Number and percentage of active vessels in each region that exceed LOF 2 (the RPMP threshold put in place by MDC), or LOF 3 (the Nelson marina berth licence condition put in place by NCC). For completeness and comparative purposes, both thresholds are shown for both regions.**

Vessel origin	No. vessels	LOF >2 (#)	LOF >2 (%)	LOF >3 (#)	LOF >3 (%)
<b>a. Boaters surveyed in Marlborough</b>					
Marlborough	275	68	25	25	9
Nelson-Tasman	21	9	43	3	14
Outside TOS	125	17	14	3	2
<b>b. Boaters surveyed in Nelson-Tasman</b>					
Marlborough	21	4	19	1	5
Nelson-Tasman	186	58	31	26	14
Outside TOS	28	1	4	-	-

# Summary

- Suppression of *Sabella* in nodes is working, so far.
- *Styela* spread can be slowed, but not stopped – better maintenance of vessels in Nelson Tasman is critical.
- Marlborough is more exposed to new pests but compliance with its rules would be effective.
- Awareness alone is not enough.



# Summary