

Roaringwater Bay

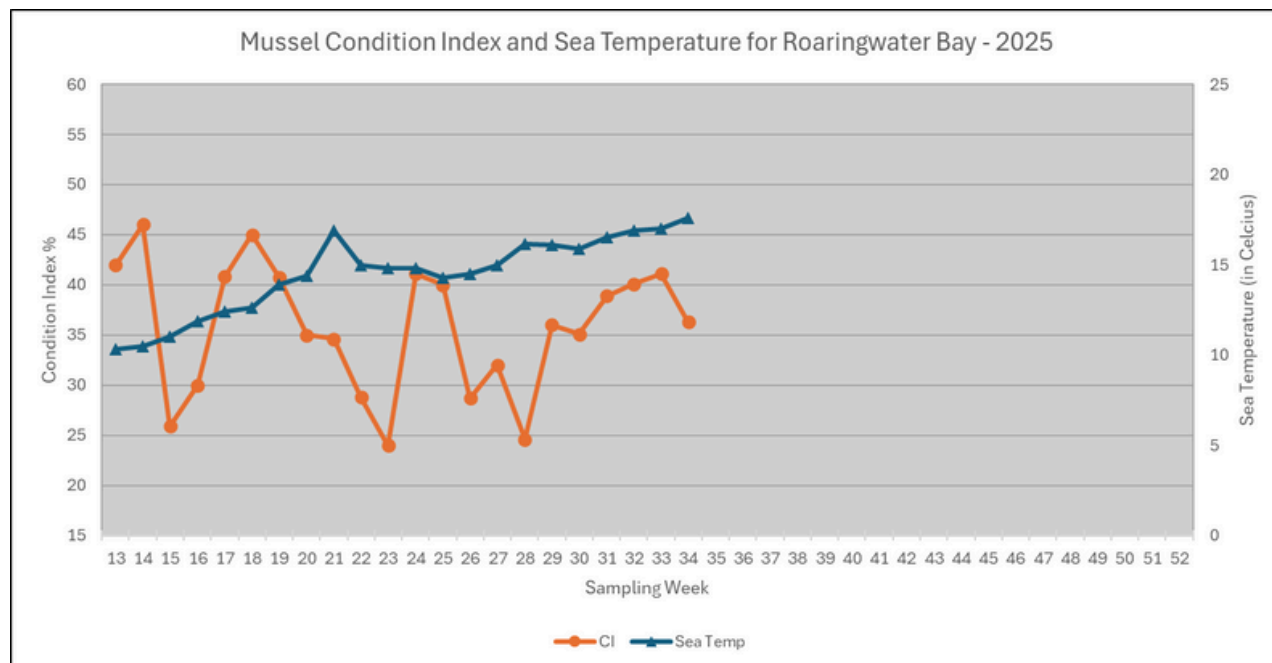
Southwest Mussel Larvae sampling

25th August 2025

Week 34 (18/08/2025 to 24/08/2025)



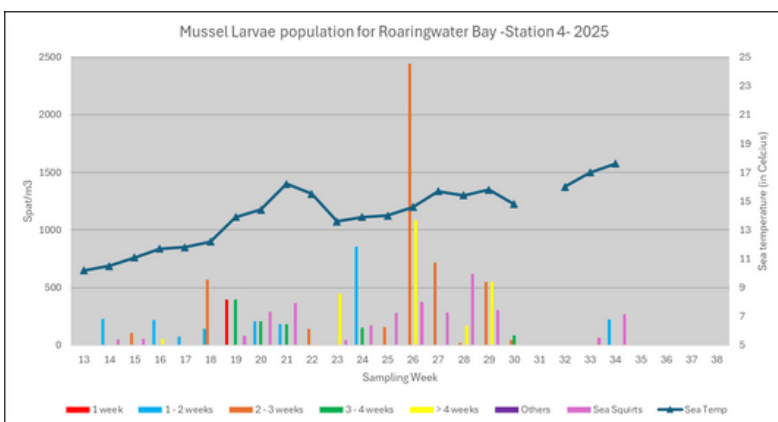
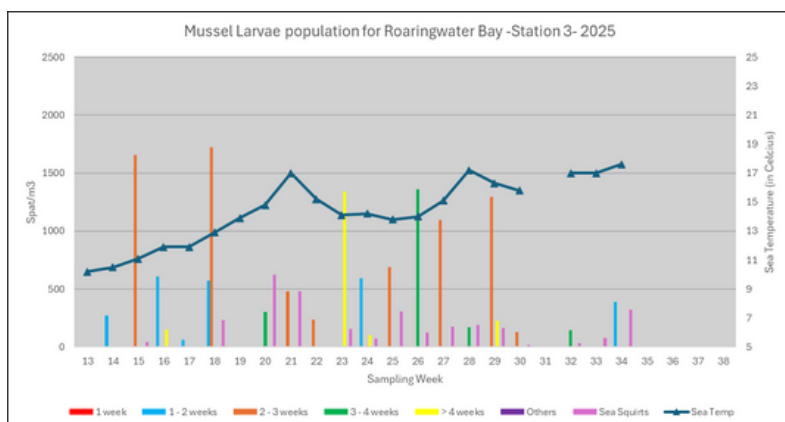
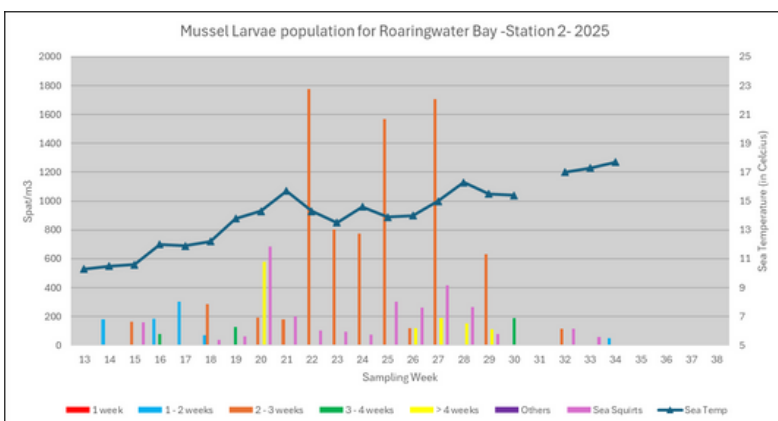
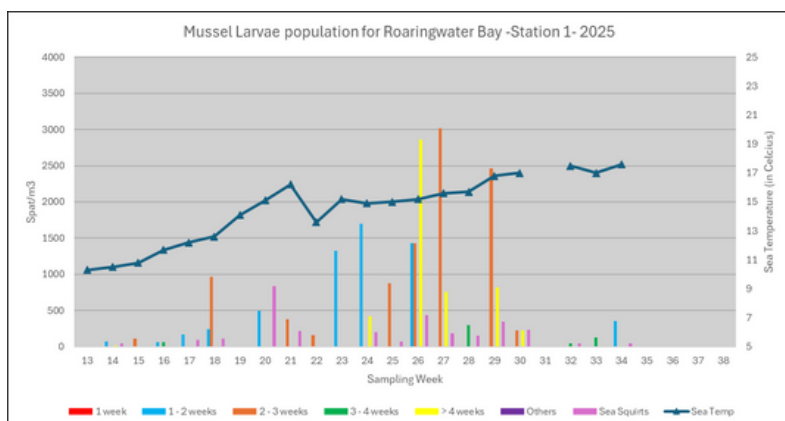
Condition Index (CI) for Roaringwater Bay



The Condition Index in Roaringwater decreased on Week 34 (down by 4.8% to 36.3%), while the sea temperature increased to 17.6°C (+0.6°C from the previous week). The Aquatroll deployed in the bay recorded sea temperature varying between 15.3 and 18.8°C during the sampling period.

Larvae population evolution in Roaringwater Bay (4 stations)

For each sample, mussel larvae are classed by age: 1 week old, 1 to 2 weeks old, 2 to 3 weeks old, 3 to 4 weeks old, over 4 weeks old and others (younger or older).



Commentary

The overall larvae population in Roaringwater Bay significantly increased on Week 34: up to 1017 spat/m³ (total across the 4 stations). Stations 1 and 3 presented the highest concentration of larvae, followed by Station 4. A small quantity was observed at Station 2. The larvae observed in all the samples were between 1 to 3 weeks old, which could indicate that some partial spawning had taken place in the previous weeks. This does not transpire in CI monitoring.

Sea temperature is increasing significantly again across the 4 stations.

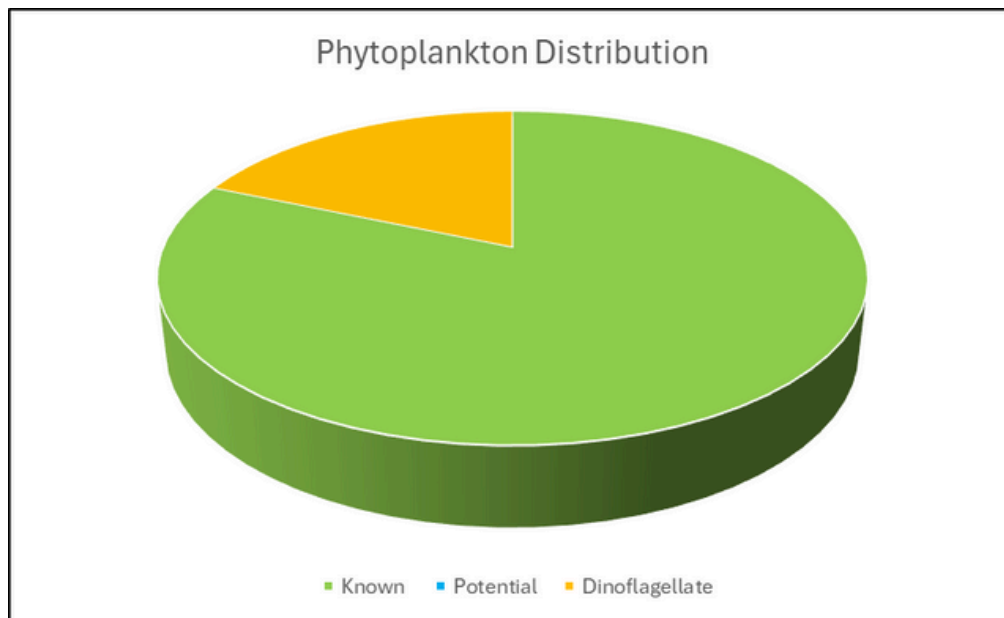
- Station 1: +0.6°C at 17.6°C
- Station 2: +0.4°C at 17.7°C
- Station 3: +0.6°C at 17.6°C
- Station 4: +0.6°C at 17.6°C



Further observations from analysis:

- Station 1: The concentration of sea squirt in the sample was low at 45 ind./m³. The levels of copepods in the sample were low. The phytoplankton biomass in the sample was high, dominated by Noctiluca and L. minimus.
- Station 2: There was no sea squirt observed in the sample. The sample presented low levels of copepods with M. Atlantica and micro jellies also present. The phytoplankton biomass was moderate and dominated by L. minimus, Rhizosolenia and Noctiluca.
- Station 3: The level of sea squirt in the sample was 323 ind./m³. There were high levels of copepods, barnacles and tubeworm. M. Atlantica was also present in the sample. The phytoplankton biomass was high and dominated by Noctiluca, Rhizosolenia, Chaetoceros sp. halochaete.
- Station 4: The level of sea squirt in the sample was 268 ind./m³. Copepods and tubeworm levels were low in the sample. The phytoplankton biomass was low with Chaetoceros, Rhizosolenia and Noctiluca in low concentration.

The phytoplankton sample presented a moderate concentration of 4,960 cells /litre dominated by known food source species (81%) and a low level of dinoflagellate (19%)



Summary Tables

Condition Index for the last 5 weeks

SAMPLING WEEK	CONDITION INDEX %	WATER TEMPERATURE (°C)	CI VARIATION	SEA TEMPERATURE VARIATION
WEEK 30	35.1	15.9	-0.9	-0.2
WEEK 31	38.9	16.5	+3.8	+0.6
WEEK 32	40.1	16.9	+1.2	+0.4
WEEK 33	41.1	17	+1	+0.1
WEEK 34	36.3	17.6	-4.8	+0.6

Larvae population distribution for the 4 sampling Stations:

Week 24	Spat/m3	Larvae Stage	Sea Temperature	Sea Squirts/m3
Roaringwater Bay 1	355	1 to 3 weeks old	17.6	45
Roaringwater Bay 2	48	1 to 3 weeks old	17.7	0
Roaringwater Bay 3	388	1 to 3 weeks old	17.6	323
Roaringwater Bay 4	226	1 to 3 weeks old	17.6	268

