

# Roaringwater Bay

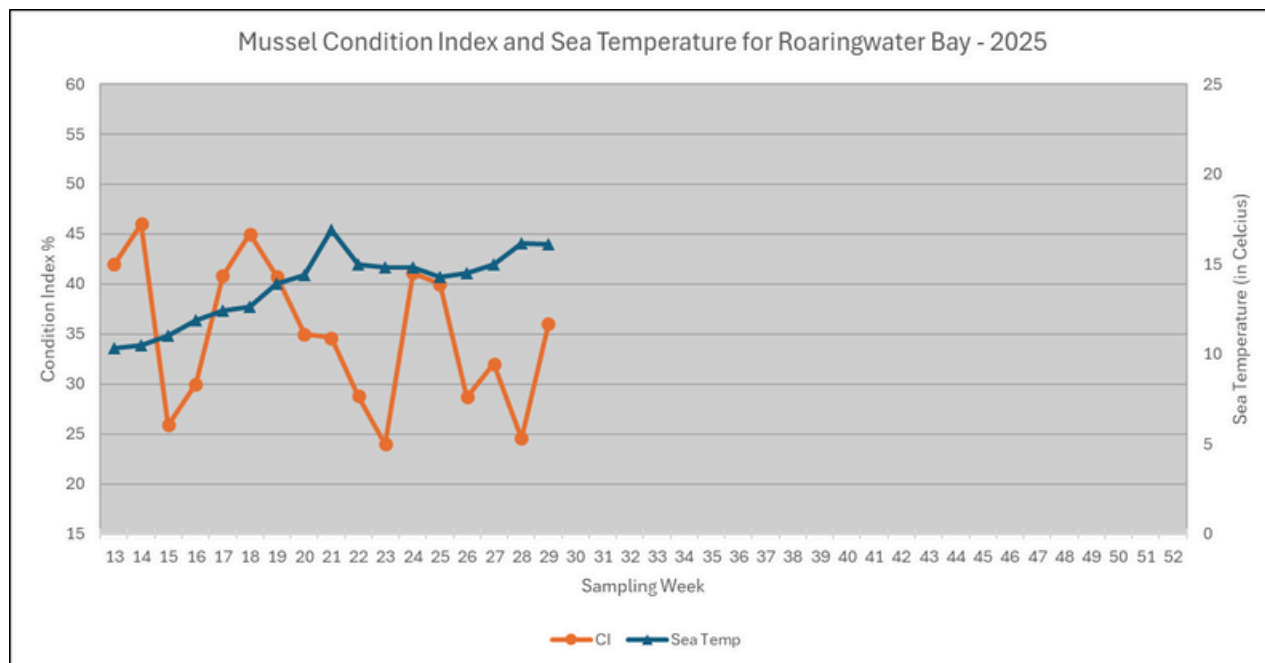
Southwest Mussel Larvae sampling

14th July 2025

Week 29 (14/07/2025 to 20/07/2025)



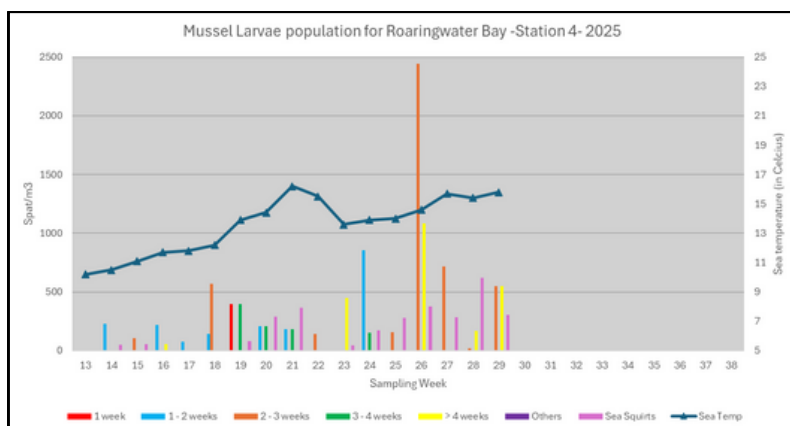
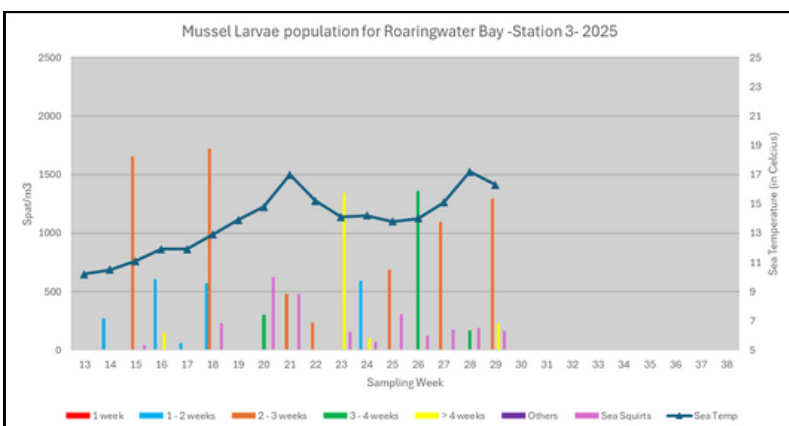
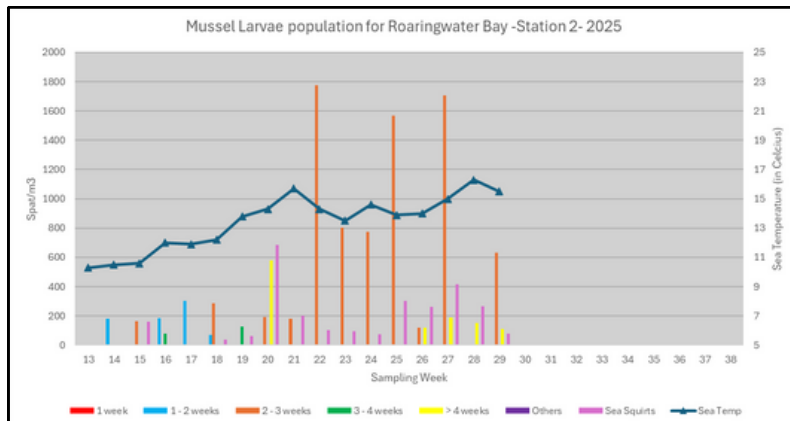
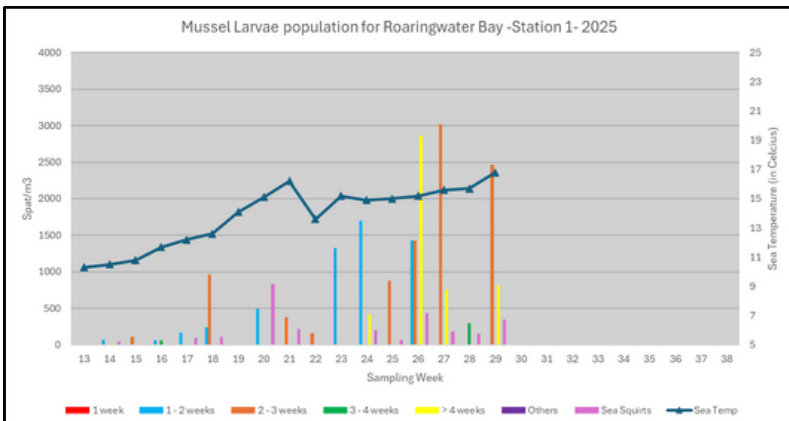
## Condition Index (CI) for Roaringwater Bay



The Condition Index in Roaringwater increased on Week 29 (up by 11.4% to 36%), while the sea temperature was stable at 16.1°C (- 0.05°C from the previous week). The Aquatroll deployed in the bay recorded sea temperature varying between 14 and 17°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 increase on Week 29: up to 6,646 spat/m<sup>3</sup> (total across the 4 stations). Each sampling station has seen an increase of its larvae population, with Station 1 seeing the most important one (from 301 spat/m<sup>3</sup> on Week 28 to 3282 on Week 29). Larvae of 2 to 3 weeks old are the dominant age class across all the sampling stations completed with older larvae (4 to 6 weeks old).

**Some further settlement should be expected in the coming 1 to 3 weeks.**

Sea temperature remains high at every station with an average of 16.1°C.

- Station 1: +1.1°C at 16.8°C
- Station 2: - 0.8°C at 15.5°C
- Station 3: - 0.9°C at 16.3°C
- Station 4: +0.4°C at 15.8°C



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Government of Ireland

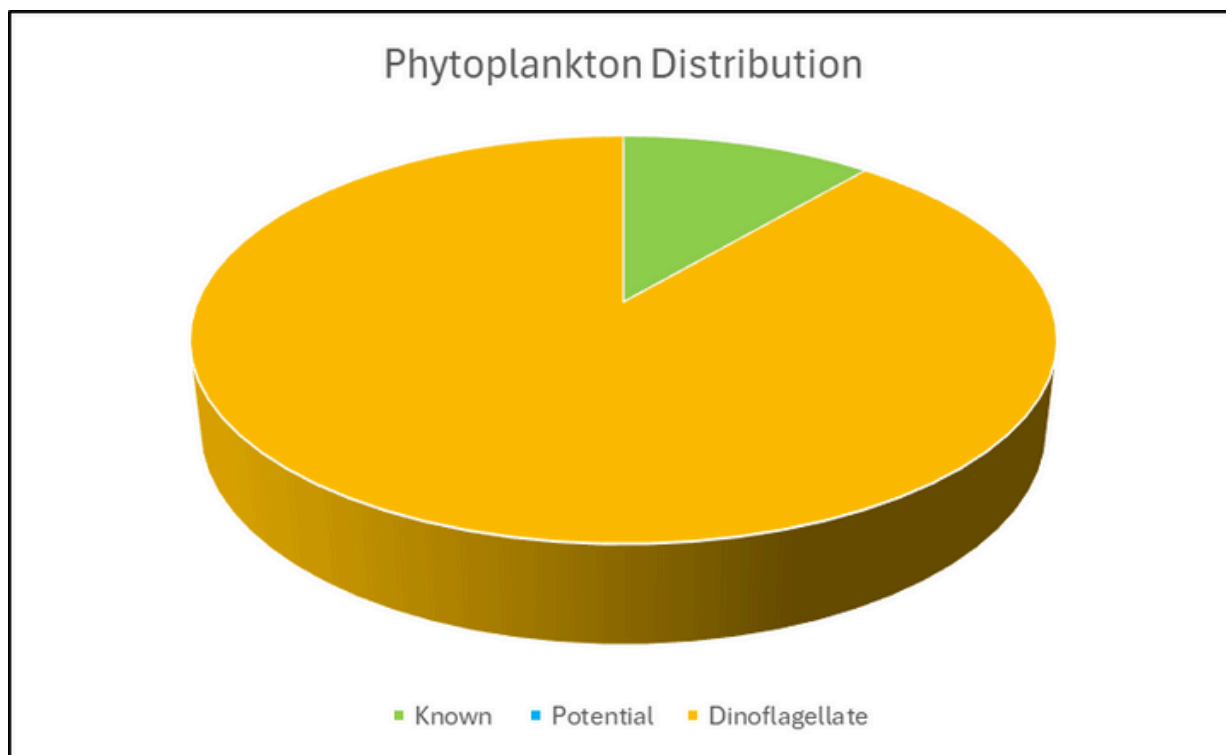


Arna chomhchistiú ag  
an Aontas Eorpach  
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## Further observations from analysis:

- Station 1: The concentration of sea squirt increased from the previous week to 344 ind./m<sup>3</sup>. The levels of tubeworm, copepods and a second bivalve species were low. The phytoplankton biomass was low in the sample with *Coscinodiscus* and *Ceratium* dominant.
- Station 2: The sea squirt concentration dropped significantly to 78 ind./m<sup>3</sup>. The levels of copepods were low. The phytoplankton biomass in the sample was low with *Ceratium* and *Coscinodiscus* dominant, with *Noctiluca* and *D. acuta* also present.
- Station 3: The sea squirt levels were stable from the previous week with 164 ind./m<sup>3</sup>. A second bivalve species was present in low concentrations. Again, the sample present a low phytoplankton, biomass with *Coscinodiscus* and *Ceratium* sp. dominant.
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- Station 4: The sea squirt concentration decreased to 304 ind./m<sup>3</sup>. The levels of copepods and a second bivalve were low as well as potential eggs. The phytoplankton biomass in the sample was low with *Ceratium* and *Coscinodiscus* dominant, with *D. acuta* also present.

The phytoplankton concentration decreased significantly in Week 29 to 4,640 cells/litre, dominated by dinoflagellate (89%) with some known food species (11%).



## Summary Tables

### Condition Index for the last 5 weeks

SAMPLING WEEK	CONDITION INDEX %	WATER TEMPERATURE (°C)	CI VARIATION	SEA TEMPERATURE VARIATION
WEEK 25	40	14.3	-1.1	-0.5
WEEK 26	28.7	14.5	-11.3	+0.2
WEEK 27	32	15	+3.3	+0.5
WEEK 28	24.6	16.2	-7.4	+1.2
WEEK 29	36	16.1	+11.4	-0.1

### Larvae population distribution for the 4 sampling Stations:

Week 24	Spat/m3	Larvae Stage	Sea Temperature	Sea Squirts/m3
Roaringwater Bay 1	3283	75% 2 to 3 weeks, 25% 4 to 6 weeks	16.8	344
Roaringwater Bay 2	744	85% 2 to 3 weeks, 15% 4 to 6 weeks	15.5	78
Roaringwater Bay 3	1520	85% 2 to 3 weeks, 15% 4 to 6 weeks	16.3	164
Roaringwater Bay 4	1099	50% 2 to 4 weeks, 50% 4 to 6 weeks	15.8	304

