MUSSEL CONDITION INDEX AND LARVAE MONITORING

Weekly Bulletin

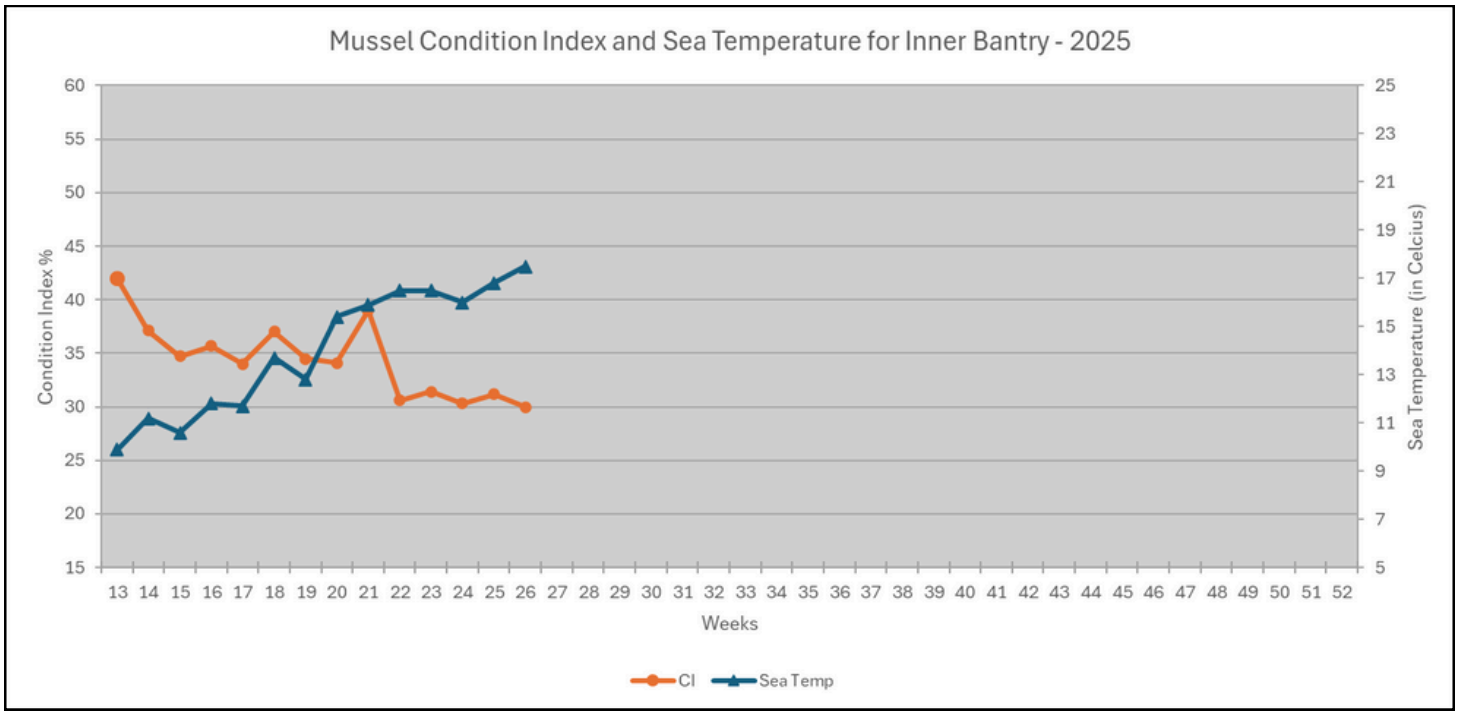
Bantry Bay (South and North Chapel)

Southwest Mussel Larvae sampling

30th June 2025

Week 26 (23/06/2025 to 29/06/2025)

Condition Index (CI) for Inner Bantry



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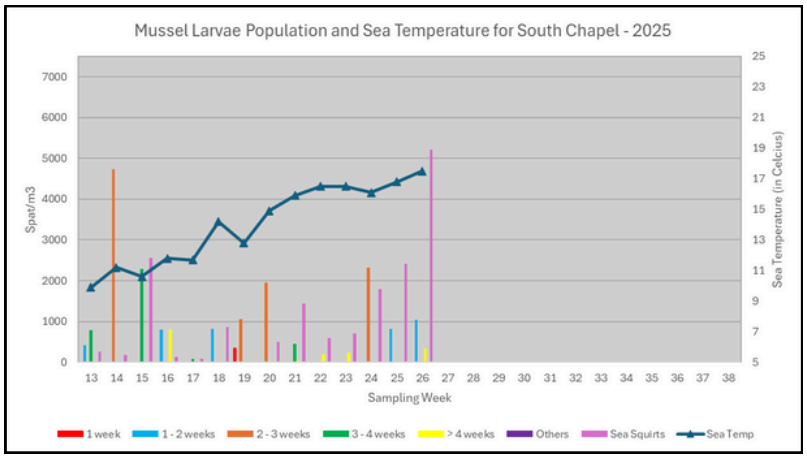
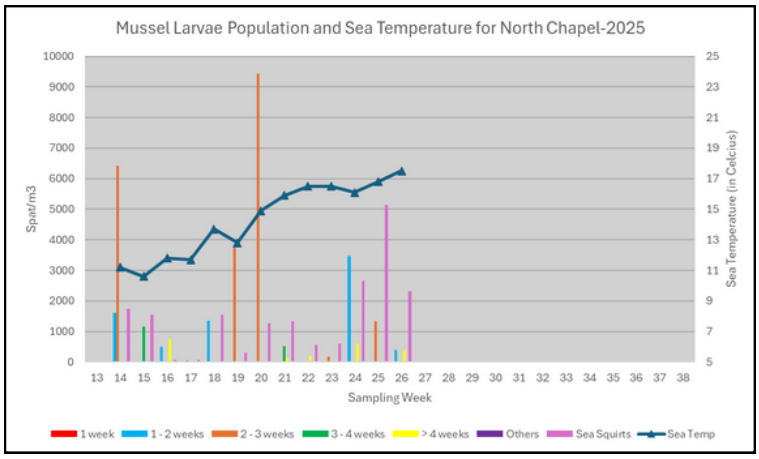
Larvae population evolution for Bantry (South and North Chapel)

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 Condition Index (CI) in Bantry decreased slightly in Week 26 at 30% (-1.2% from Week 25). The sea temperature was also increased a bit at 17.5°c (+0.7°c).

Larvae Population:

There was a significant increase of the larvae population of both sampling stations from previous weeks:

- South Chapel: the larvae concentration reached 1391 spat/m^3 composed at 75% of 1 to 3 weeks old larvae, and at 25% of 5 to 6 weeks old.

- North Chapel: the larvae concentration reached 803 spat/m^3 composed at 50% of 1 to 2 weeks old larvae, and at 50% of 5 to 6 weeks old.

Those results indicate that some settlement is taking currently place. A typical settlement can be observed at the North Chapel sampling site from Week 24 to Week 26 (number of larvae decreasing while the age of the larvae in the samples is increasing).

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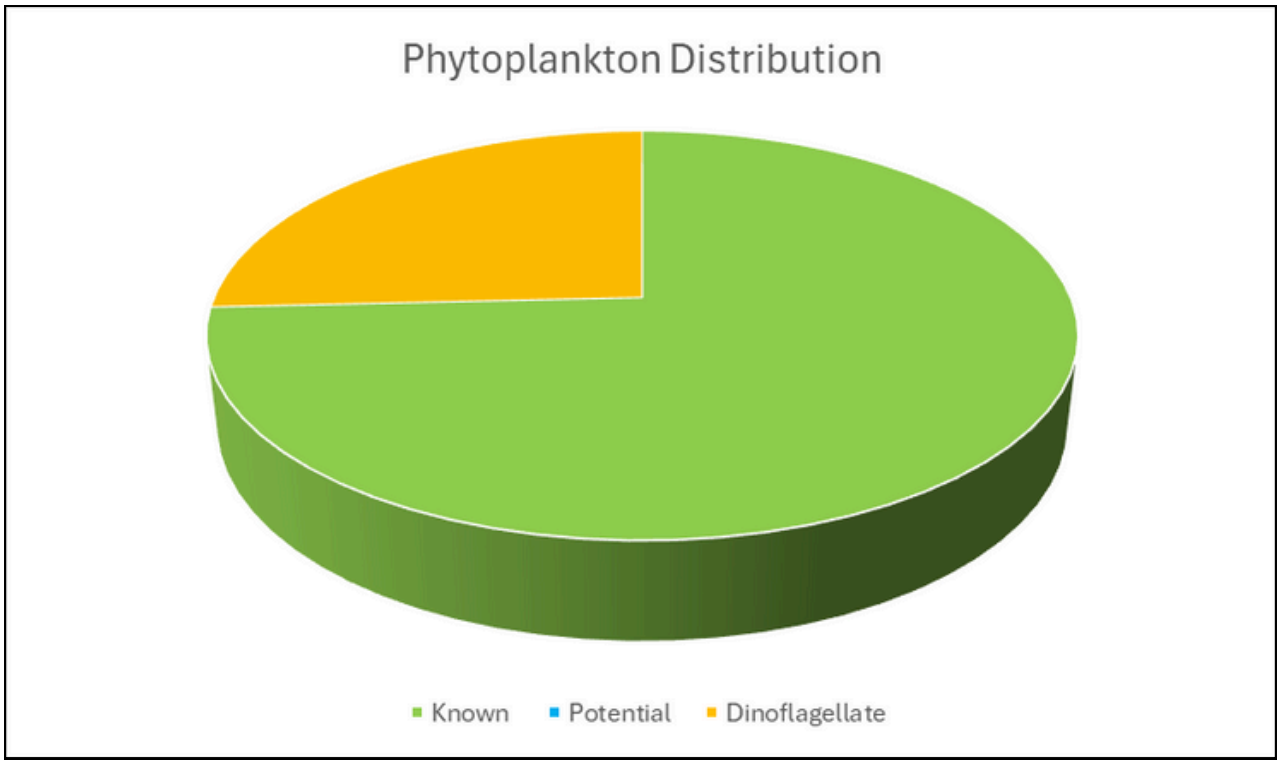
Sample details:

- South Chapel: **The sample presented a high concentration of sea squirt (5208 ind./m^3)**. The level of copepods was very high while tube worms, barnacles and periwinkles levels were high. Two other bivalve species were also present in moderate concentration. The sample also indicated high levels of phytoplankton with C. fusus and Chaetoceros being dominant.

- North Chapel: As per South Chapel, **the level of sea squirt in the sample was high at 2324 ind./m^3**. Again, the concentration of copepods was very high while the sample also indicated high levels of periwinkles, barnacles and crabs. Two other bivalve species and tubeworm were present in moderate concentrations. The level of phytoplankton was moderate with C. fusus, Coscinodiscus and Chaetoceros sp. being dominant.

Both sites presented elevated concentrations of sea squirts and tubeworms. This increases the risks of fouling on collectors and growing ropes. However, both sites also had high levels of copepods which can mitigate those high concentrations (especially sea squirts).

The phytoplankton sample for Week 26 decreased to 27,800 cells/litre, composed at 74% of known food source species,26% of dinoflagellate.



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