MUSSEL CONDITION INDEX AND LARVAE MONITORING

Weekly Bulletin

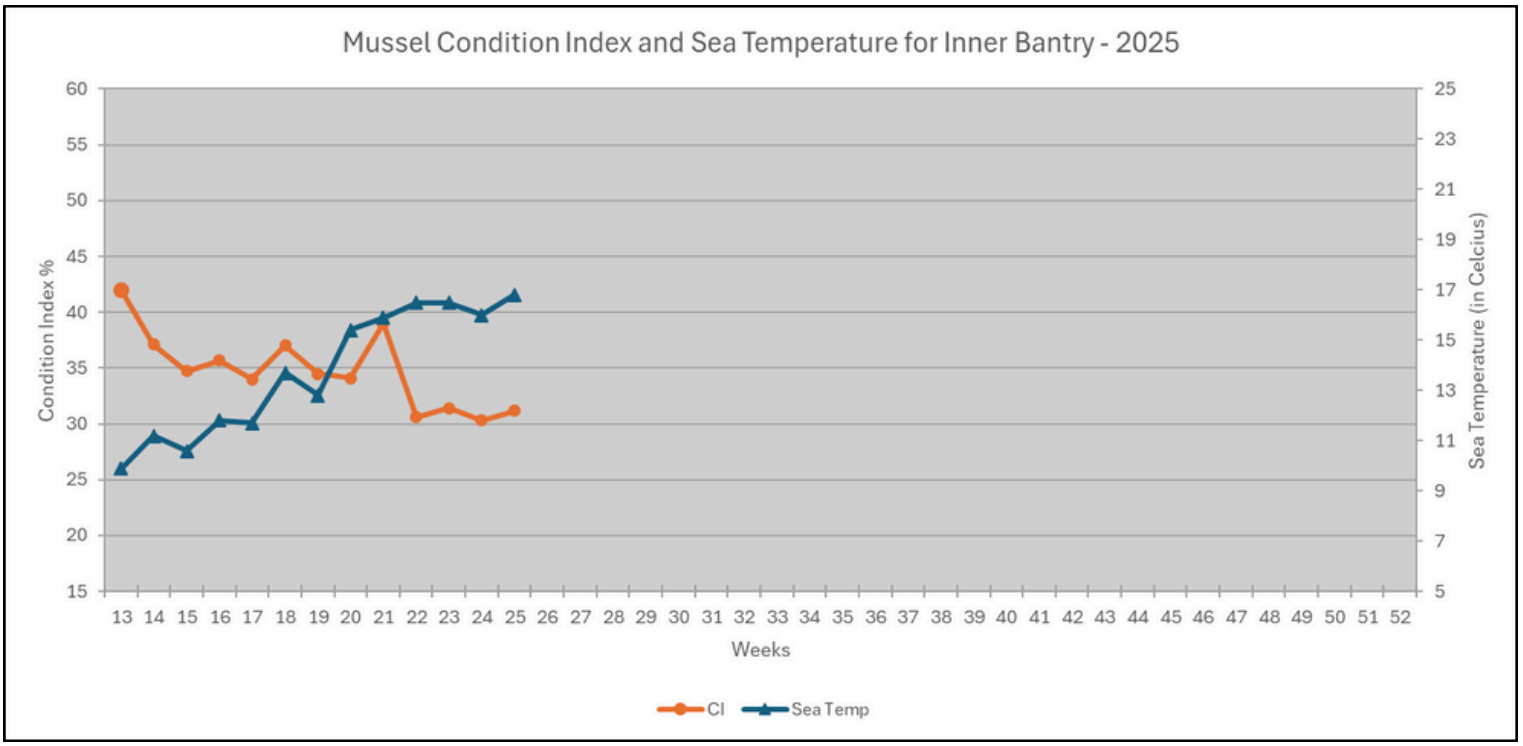
Bantry Bay (South and North Chapel)

Southwest Mussel Larvae sampling

23rd June 2025

Week 25 (16/06/2025 to 22/06/2025)

Condition Index (CI) for Inner Bantry



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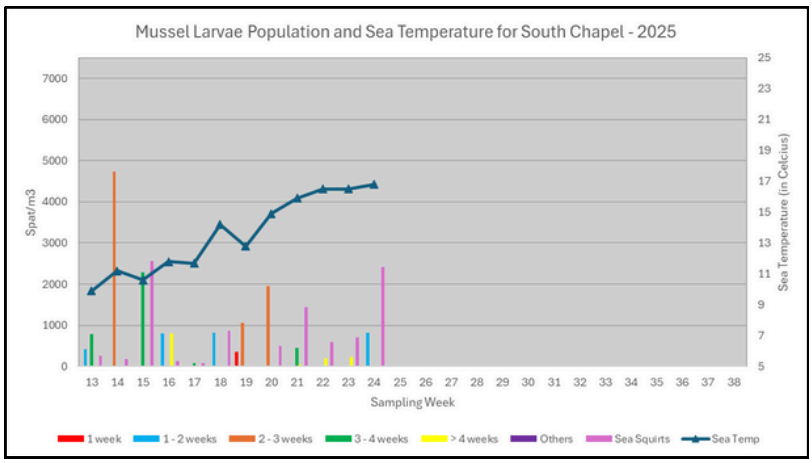
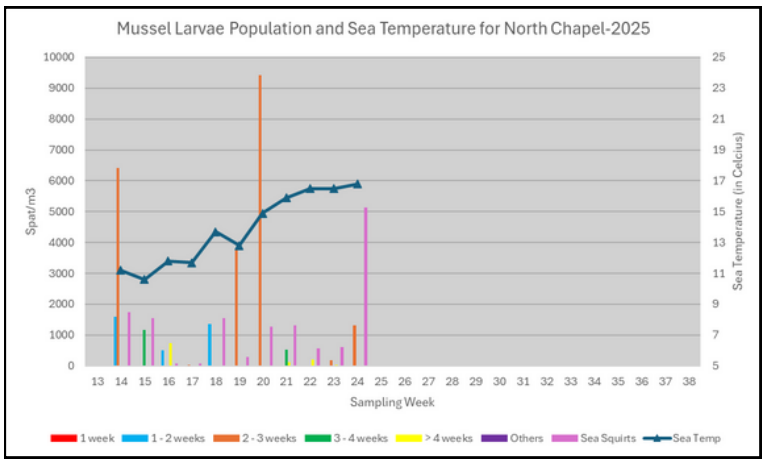
Larvae population evolution for Bantry (South and North Chapel)

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 was stable in Week 25 at 31.2% (+0.9% from Week 24). The sea temperature was also stable at 16.8°c (+0.8°c).

Larvae Population:

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

- South Chapel: **826 spat/m^3 of 1 to 3 weeks old**.
- North Chapel: **1326 spat/m^3 of 2 to 3 weeks**.

Those results indicate that a possible settlement could occur in the next 3 weeks at both locations.

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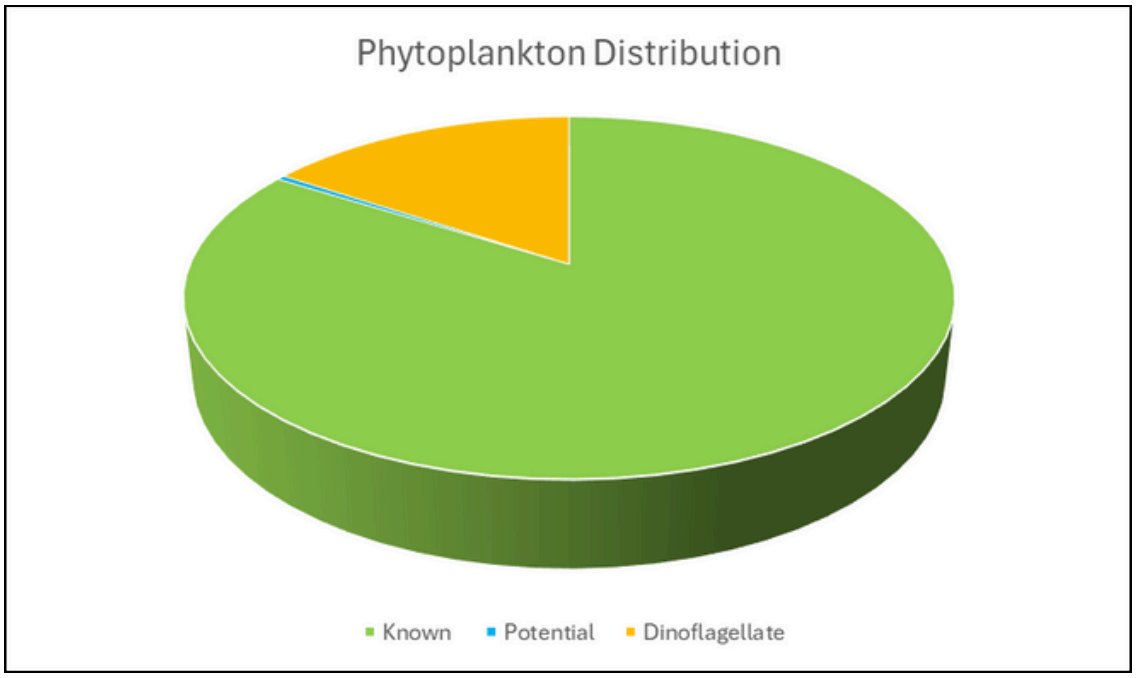
Sample details:

- South Chapel: The sample presented a high level of sea squirt (2413 ind./m^3) as well as high levels of copepods, tubeworm and starfish. The phytoplankton biomass in the sample was high with Chaetoceros sp. (halochaete) dominating.

- North Chapel: The level of sea squirt in the sample was very at 5140 ind./m^3 with also high concentrations of copepods and tubeworms, while the level of starfish was moderate. The phytoplankton biomass was moderate with L. minimus dominating.

Both sites presented elevated concentrations of sea squirts and tubeworms. This increases the risks of fouling on collectors and growing ropes. In addition, levels of starfish larvae were high in South Chapel, increasing the risk of predation on newly settled spat.

The phytoplankton sample for Week 25 decreased to 29,720 cells/litre, composed at 84% of known food source species,16% of dinoflagellate and traces of potential source.



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