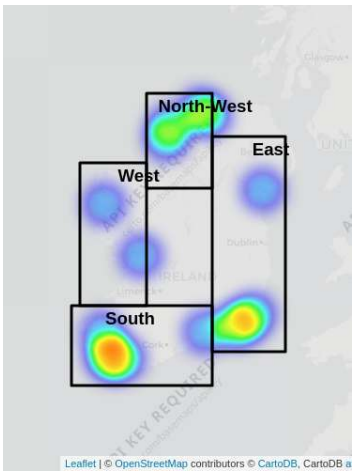
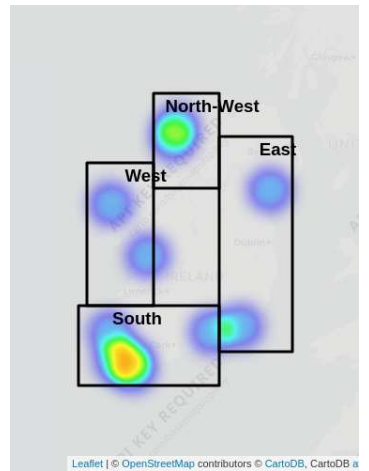


Diarrhetic Shellfish Toxins



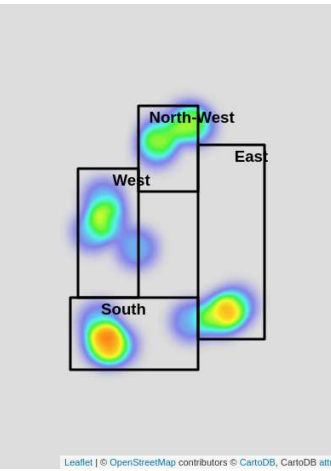
Toxic Sites	0
Analysed Sites	43

Azaspiracid Shellfish Toxins



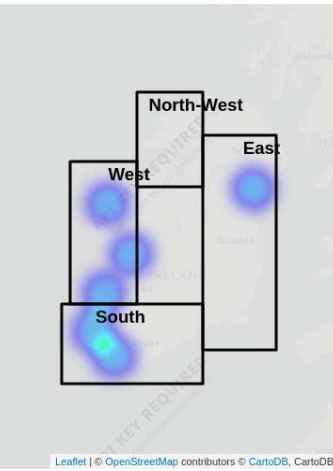
Toxic Sites	0
Analysed Sites	43

Amnesic Shellfish Toxins



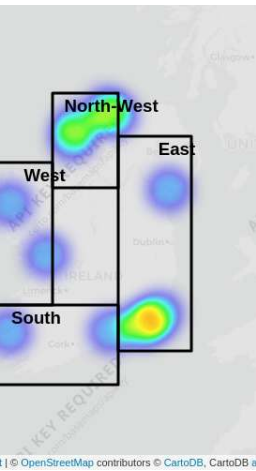
Toxic Sites	0
Analysed Sites	40

Paralytic Shellfish Toxins



Toxic Sites	0
Analysed Sites	10

Yessotoxins



Toxic Sites	0
Analysed Sites	43

AST: (Amnesic shellfish toxin) In Bantry Bay, *Pseudo-nitzschia* species cell levels are still observed at high levels & no toxins observed. *Pseudo-nitzschia* species also reduced Kenmare Bay, Moderate to low risk in the W still & caution advised.

AZA: (Azaspiracid toxin) Low risk. Azadinium spp. counts indicate presence and spread of potential cells on all coasts. Caution advised.

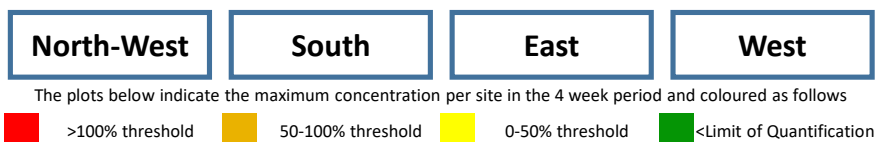
DST: (Dinophysis shellfish toxin) High Risk: Quantifiable DST still observed in the Southwest location of inner Bantry Bay.

PST: (Paralytic shellfish toxins) Low/Medium Risk Alexandrium spp. cells observed at low levels in Castlemaine harbour. Low risk in all other sites. Caution still advised as they could still return in a secondary bloom in both Cork Harbour & Castlemaine Harbour.

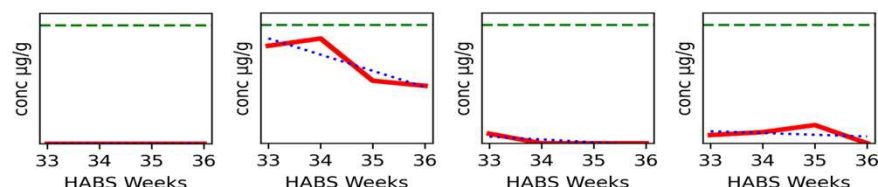
Diarhetic Shellfish Toxins & *Dinophysis* species

Regional 4-Week Trends 09/08/26 - 05/09/26

In this 4 week period there were 184 Samples tested for DST. These samples were collected at 63 Sites around the country. Resulting in 0 Site(s) with values above the regulatory limit of 0.16 µg/g



--- indicates the regulatory threshold. These plots show the max value per week for the previous 4 weeks.



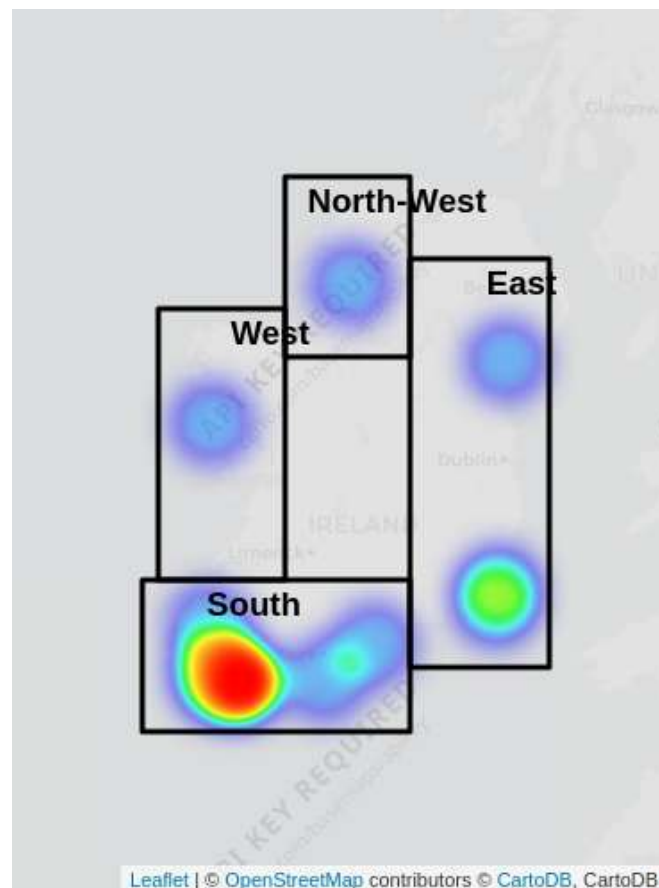
Risk: **Low** **High** **Low** **Low**

Trend:

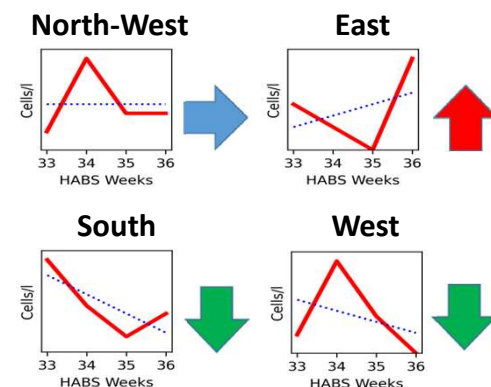
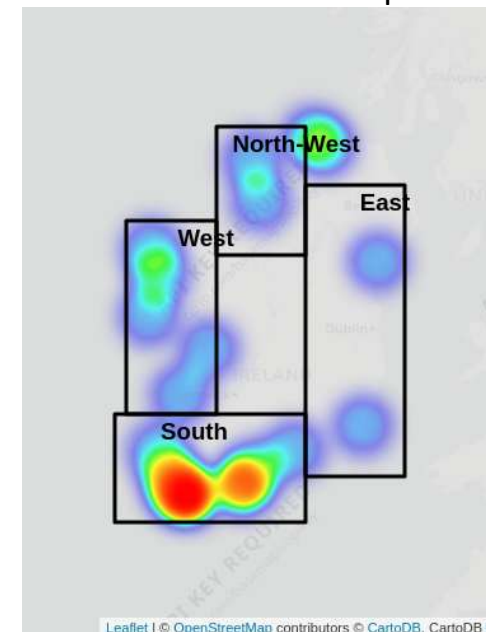
Risk:

Quantifiable DST still observed in the Southwest location of inner Bantry Bay.

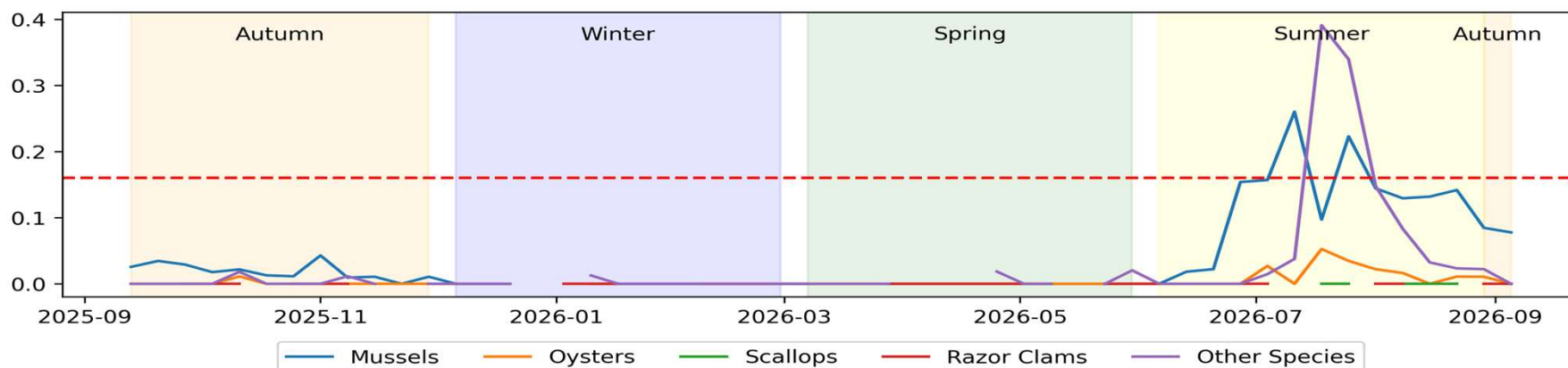
Diarhetic Shellfish Toxins National 4-Week Heatmap



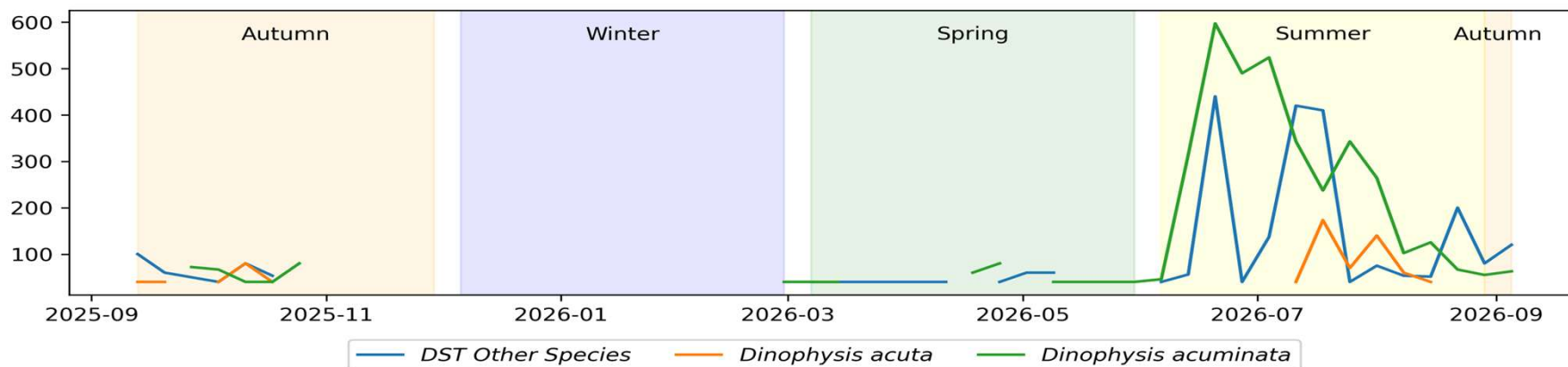
Phytoplankton *Dinophysis* spp. 4 Week Heatmap



Trend of
Maximum Toxin
concentrations
in Shellfish
Species
(measured in
 $\mu\text{g/g}$)



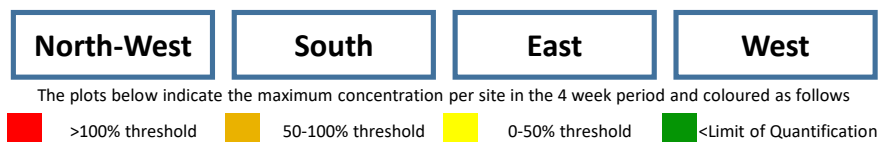
Trend of
Average
Counts of
Toxin Causing
PhytoPlankton
Species Per
Week
(measured in
Cells per Litre)



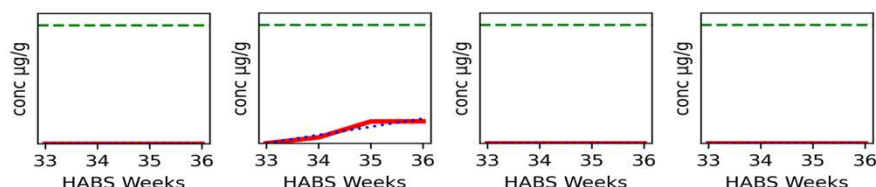
Azaspiracid Shellfish Toxins & *Azadinium* species

Regional 4-Week Trends 09/08/26 - 05/09/26

In this 4 week period there were 184 Samples tested for AZT. These samples were collected at 63 Sites around the country. Resulting in 0 Site(s) with values above the regulatory limit of 0.16 µg/g



--- indicates the regulatory threshold. These plots show the max value per week for the previous 4 weeks.



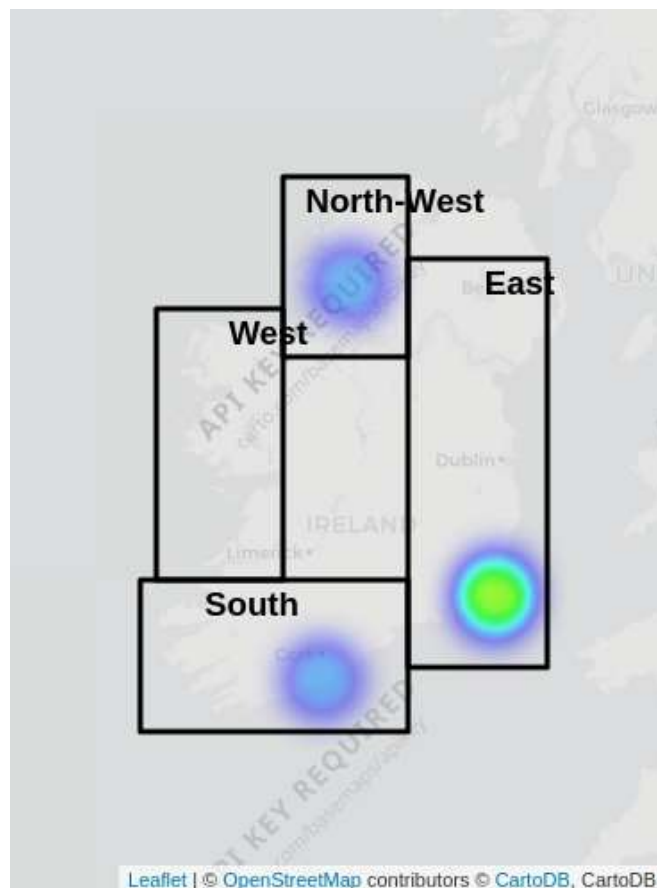
Risk: **Low** **Low** **Low** **Low**

Trend: ➡ ⬆ ➡ ➡

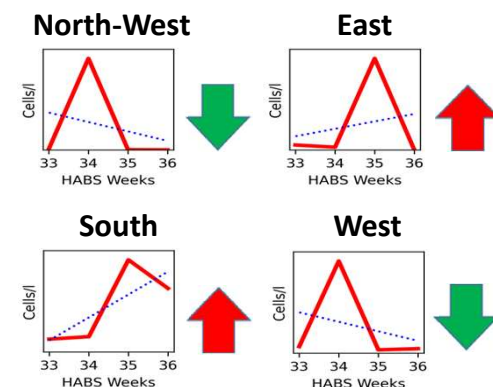
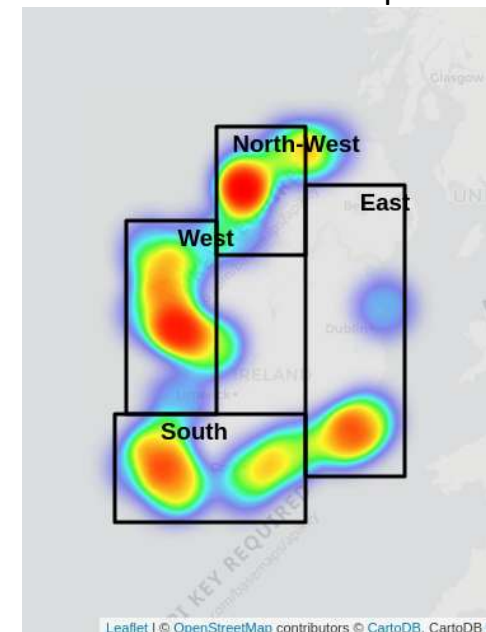
Risk:

Low risk *Azadinium* spp. counts indicate presence and spread of potential cells on all coasts.

Azaspiracid Shellfish Toxins National 4-Week Heatmap



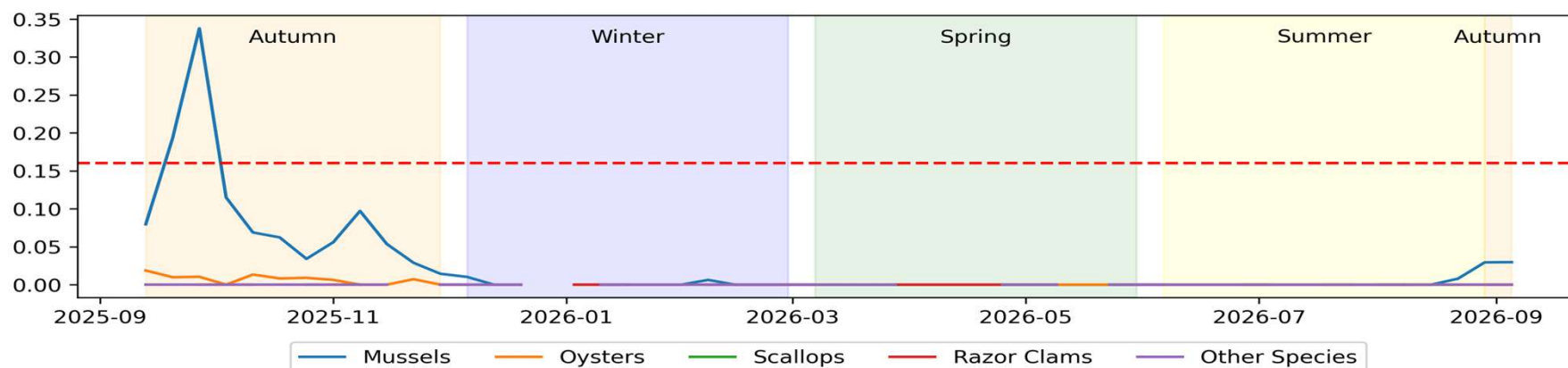
Phytoplankton *Azadinium* spp. 4 Week Heatmap



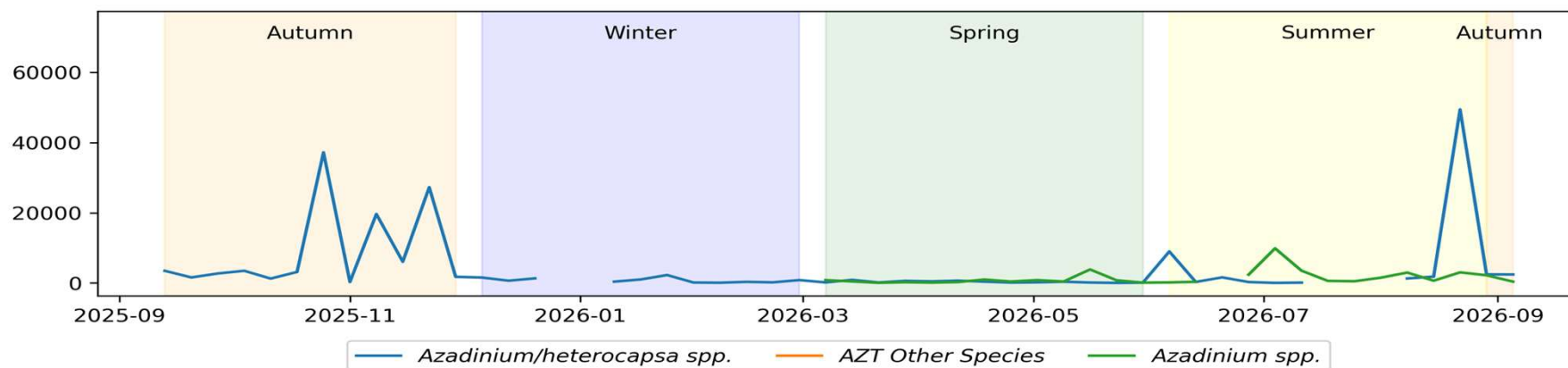
Azaspiracid Shellfish Toxins & *Azadinium* species

National Yearly Trend 06/09/25 - 05/09/26

Trend of
Maximum Toxin
concentrations
in Shellfish
Species
(measured in
 $\mu\text{g/g}$)



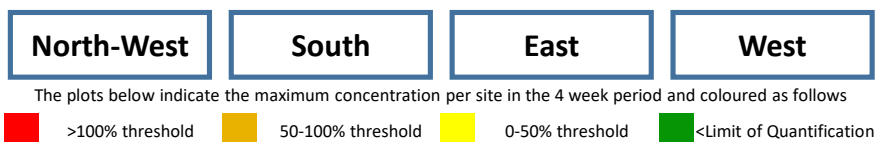
Trend of
Average
Counts of
Toxin Causing
PhytoPlankton
Species Per
Week
(measured in
Cells per Litre)



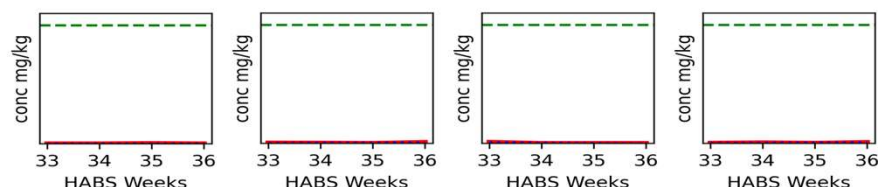
Amnesic Shellfish Toxins & *Pseudo-nitzschia* species

Regional 4-Week Trends 09/08/26 - 05/09/26

In this 4 week period there were 181 Samples tested for AST. These samples were collected at 63 Sites around the country. Resulting in 0 Site(s) with values above the regulatory limit of 20.0 mg/kg



--- indicates the regulatory threshold. These plots show the max value per week for the previous 4 weeks.



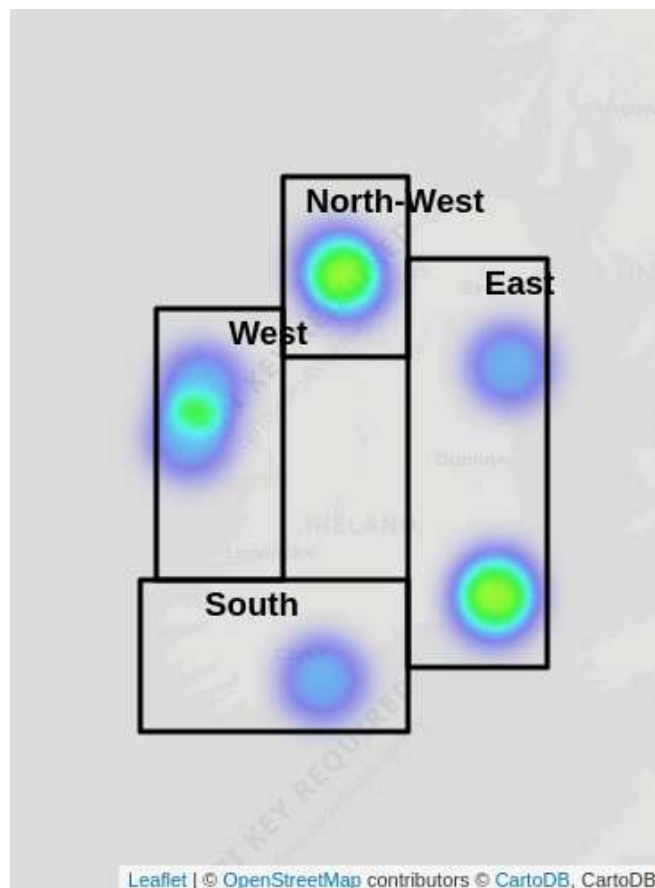
Risk: **Low** **Low** **Low** **Low**

Trend:

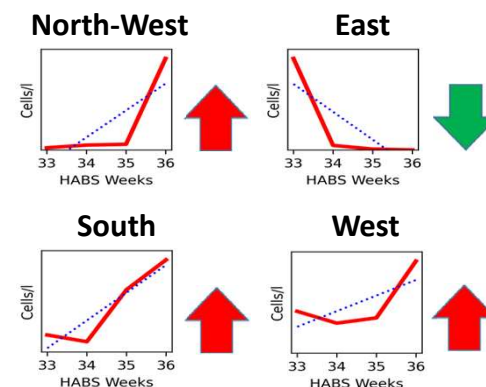
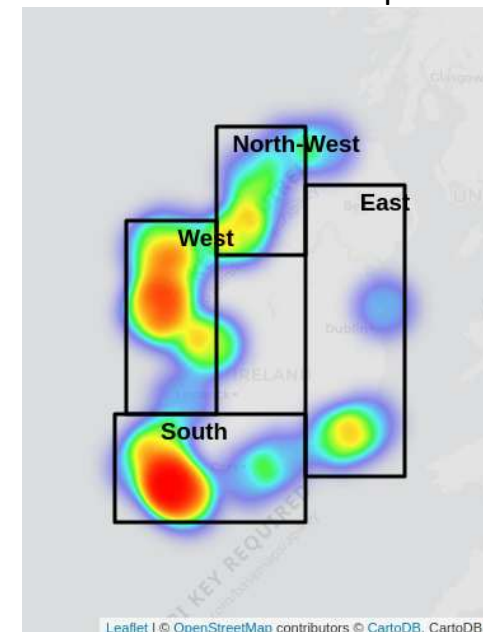
Low Risk:

Pseudo-nitzschia spp. is been observed all along the West coast. The related ASP toxins are not observed at present in the shellfish.

Amnesic Shellfish Toxins National 4-Week Heatmap



Phytoplankton *Pseudo-nitzschia* spp. 4 Week Heatmap

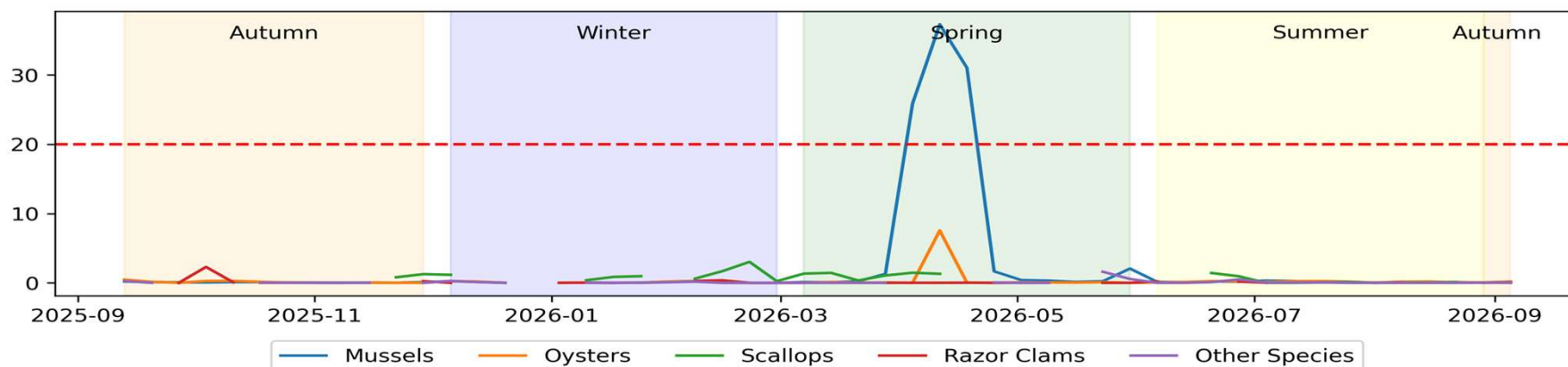


Amnesic Shellfish Toxins & *Pseudo-nitzschia* species

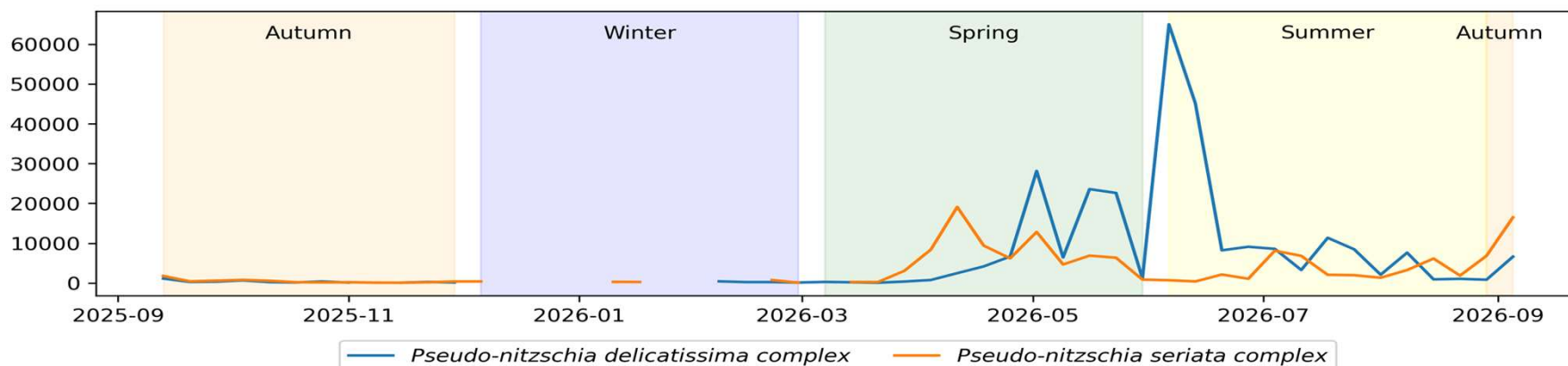
National Yearly Trend 06/09/25 - 05/09/26



Trend of
Maximum Toxin
concentrations
in Shellfish
Species
(measured in
mg/kg)



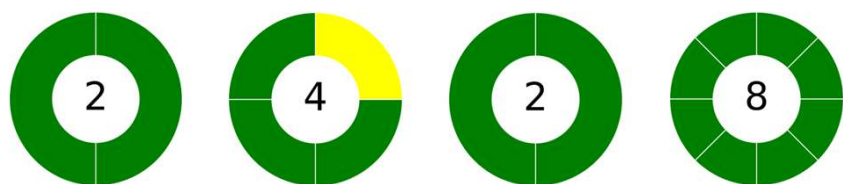
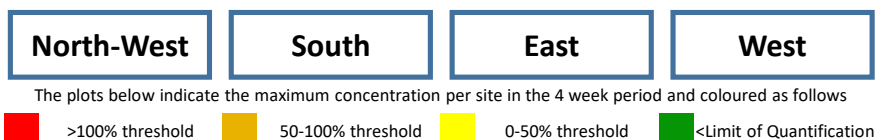
Trend of
Average
Counts of
Toxin Causing
PhytoPlankton
Species Per
Week
(measured in
Cells per Litre)



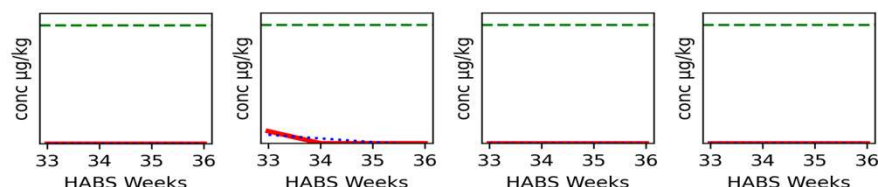
Paralytic Shellfish Toxins & *Alexandrium* species

Regional 4-Week Trends 09/08/26 - 05/09/26

In this 4 week period there were 40 Samples tested for PST. These samples were collected at 16 Sites around the country. Resulting in 0 Site(s) with values above the regulatory limit of 800.0 µg/kg



--- indicates the regulatory threshold. These plots show the max value per week for the previous 4 weeks.



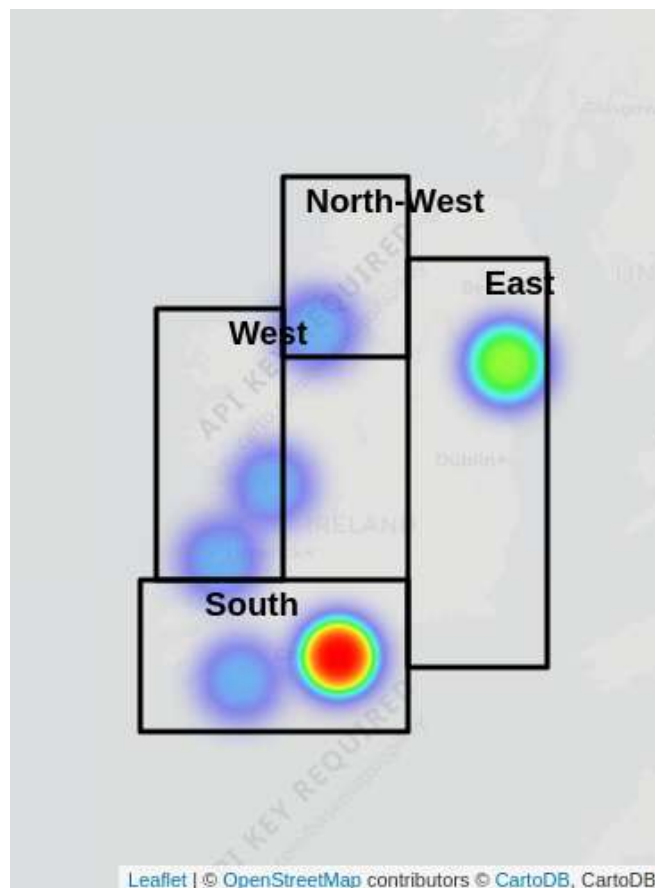
Risk: **Low** **Low** **Low** **Low**

Trend:

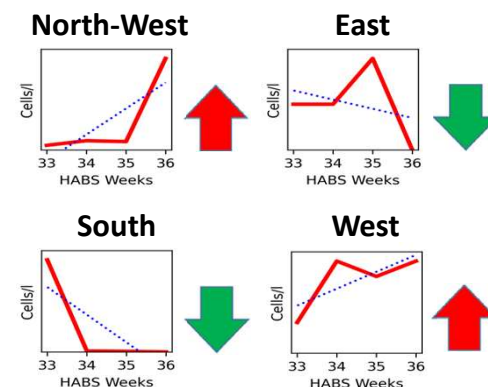
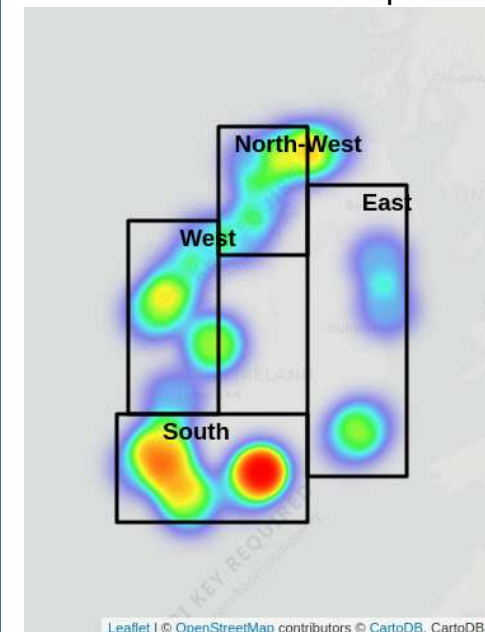
Low Risk:

PST causative organism *Alexandrium spp.* not observed in Cork Harbour in the last week and only at levels of 240 Cells/litre in Castlemaine Harbour. No PST toxins have been observed in the shellfish from either site. Caution still advised as they could still return in a secondary bloom in both Cork Harbour & Castlemaine Harbour.

Paralytic Shellfish Toxins National 4-Week Heatmap



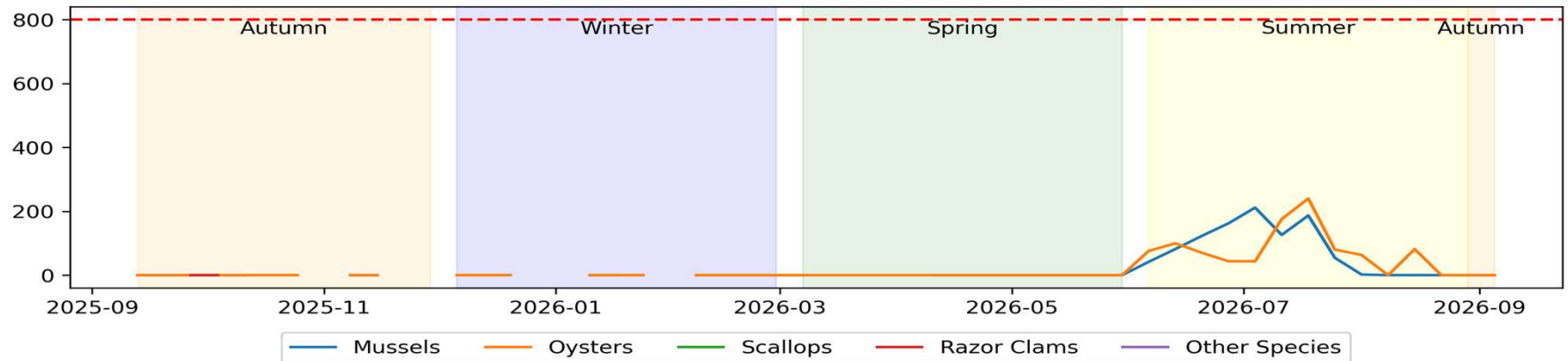
Phytoplankton *Alexandrium spp.* 4 Week Heatmap



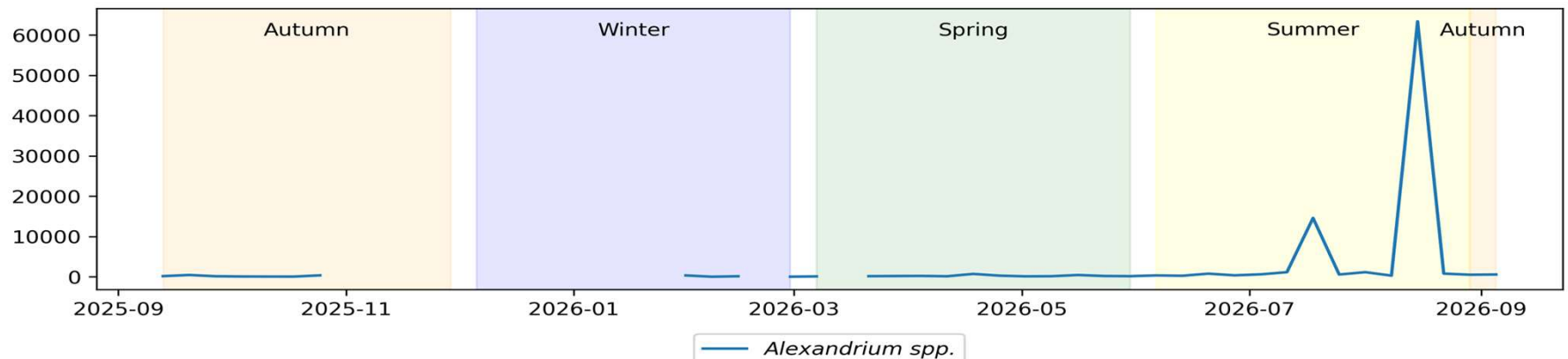
National Yearly Trend 06/09/25 - 05/09/26



Trend of
Maximum Toxin
concentrations
in Shellfish
Species
(measured in
 $\mu\text{g/kg}$)

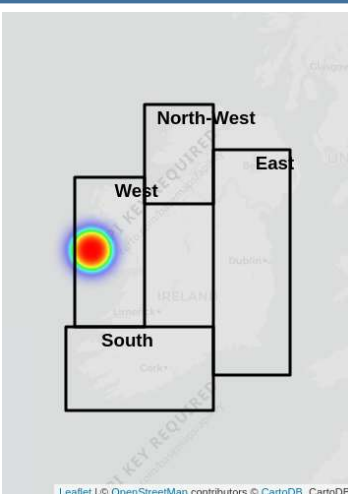


Trend of
Average
Counts of
Toxin Causing
PhytoPlankton
Species Per
Week
*(measured in
Cells per Litre)*



Fish Harming Phytoplankton

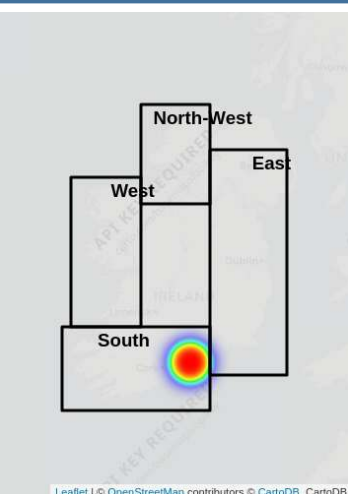
National 4-Week Analysis: 09/08/26 to 05/09/26



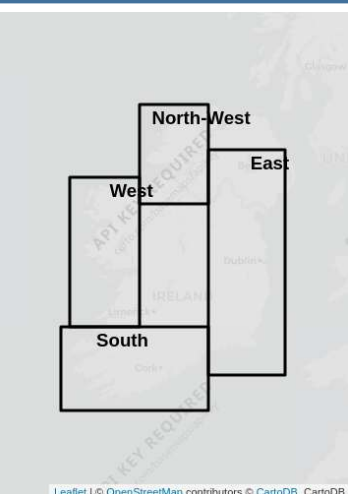
Heterocapsa sp.



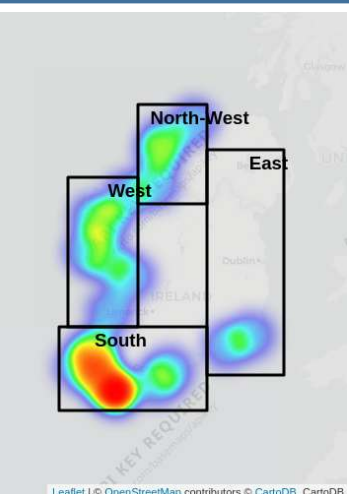
Alexandrium sp.



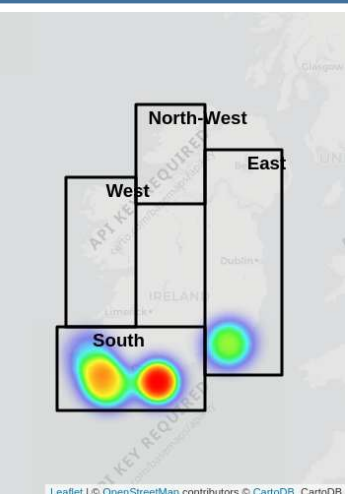
Coscinodiscus sp.



Phaeocystis sp.

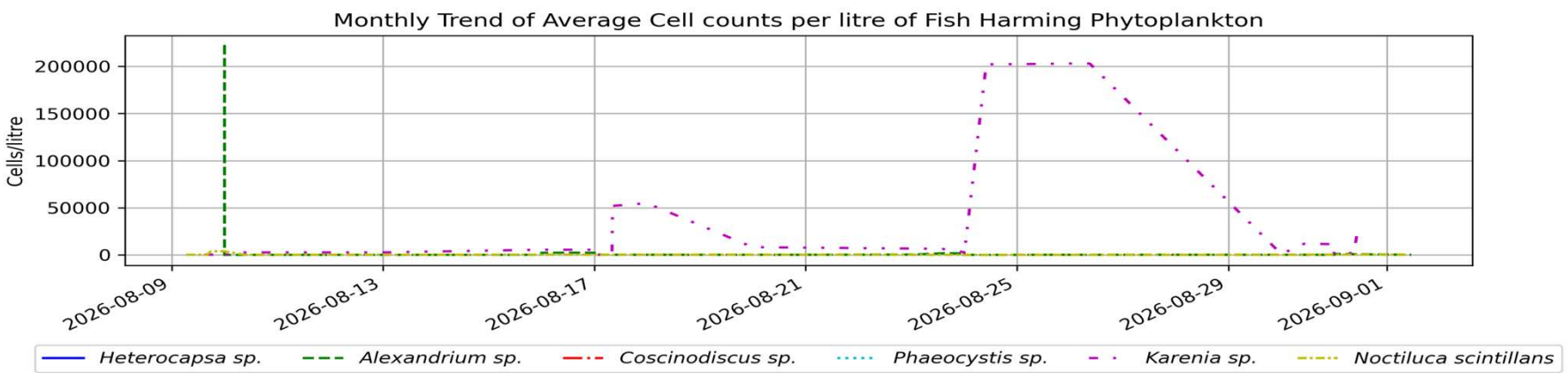


Karenia sp.

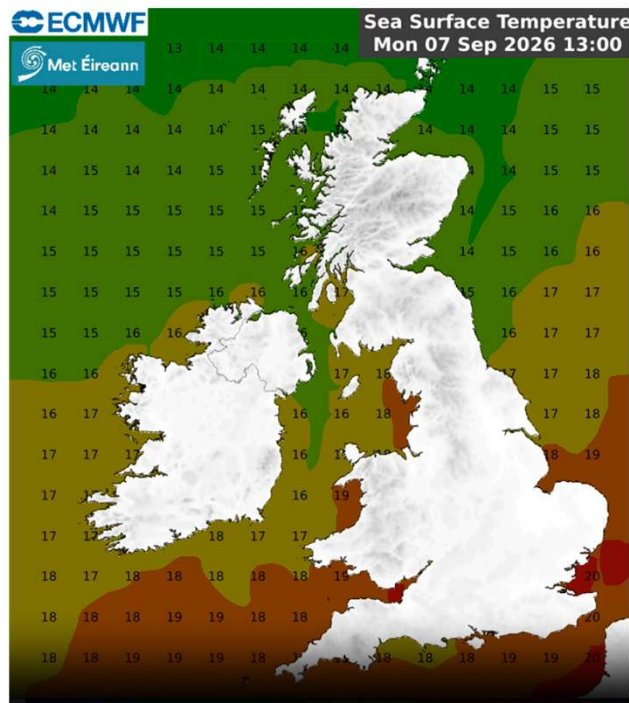


Noctiluca Scintillans

Phytoplankton cell levels are in line with this time of the year. Offshore Sea water temperatures & light levels are at Summer levels. Offshore transportation potential higher likelihood of occurrence as insitu risk levels of HABs growth increasing significantly. Any Phytoplankton species at sufficient numbers may cause temporary issues in water quality which could impact specific areas over the course of a tidal cycle or for a period of days while specific suitable conditions prevail. Please note some blooms can occur rapidly and acutely. If concerned about a problematic or toxic species level please check specific site information updates at www.marine.ie.



Sea Surface Temperature (°C)



Sea water temperatures summer levels offshore areas with onshore movements & light levels increasing. *Dinophysis Spp.* still present in the Southwest. *Alexandrium spp.* reducing in Castlemaine harbour & Cork Harbour. Please check specific area information for local activity.

Chlorophyll Concentrations (mg/m3)

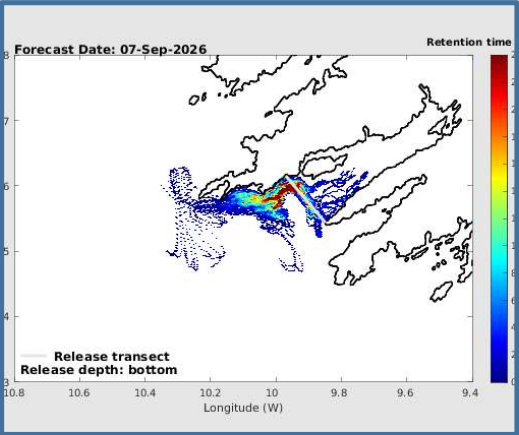


Marine Institute Data Buoy – Temperature Data

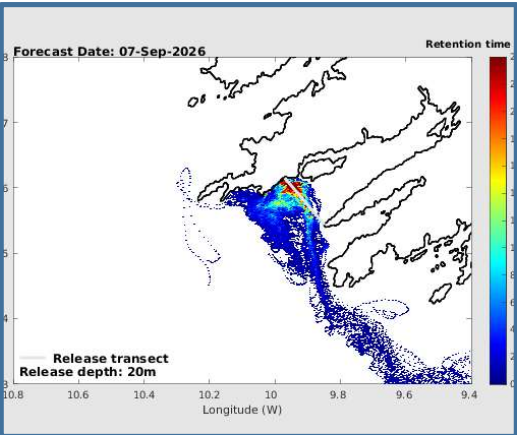


- M4: No buoy data available this week
- SW Coast (M3) Average SST of 17.67 Celcius: Increase of 1.45 Celcius over the historic Weekly Average
- SE Coast (M5) Average SST of 17.17 Celcius: Increase of 1.11 Celcius over the historic Weekly Average

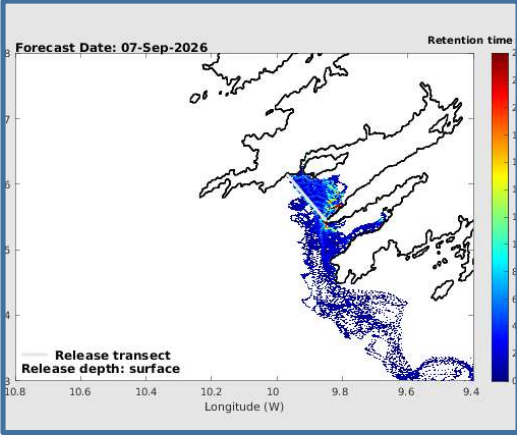
The maps show the **most likely transport pathways for the next 3 days of phytoplankton** found along the **presented transects** (black lines off Mizen Head and the Mouth of Bantry Bay) and **water depths** (bottom, 20 metres and surface).
Reddish colours represent areas where phytoplankton remain longest. **Cooler colours represent areas where phytoplankton remain for shorter periods**



Bottom water



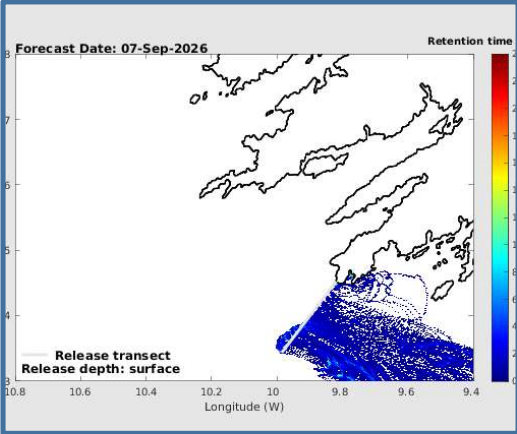
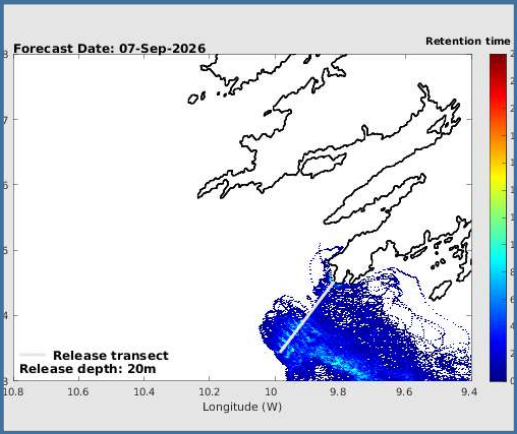
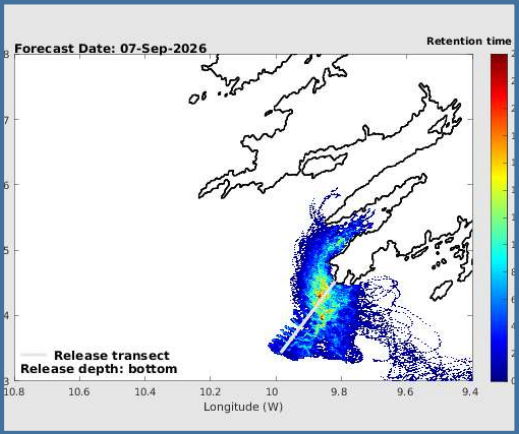
Water @ 20 metres



Surface water

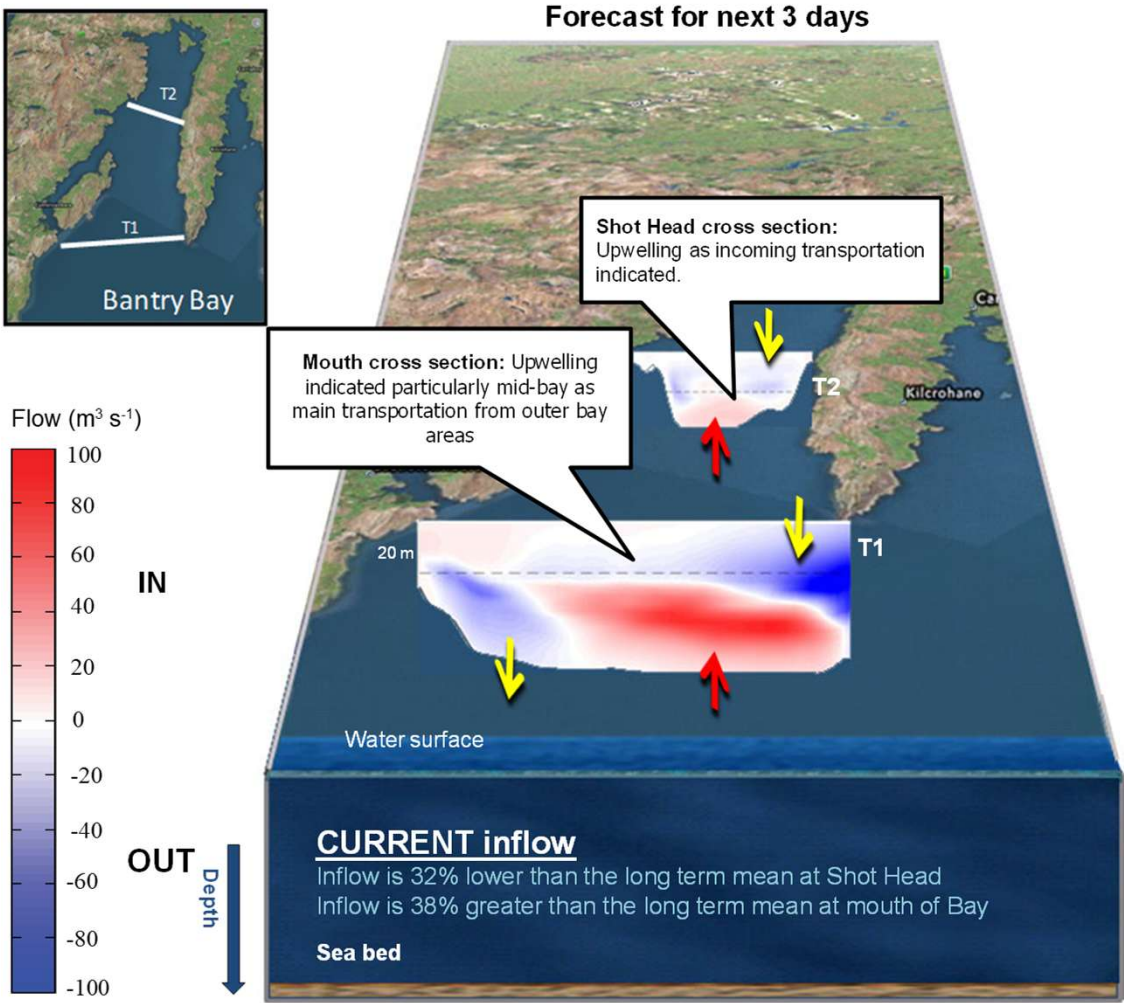
Mouth of Bantry Bay:

Southern water movements at depths, where deeper waters indicate slower movement of waters. At surface levels there is a quicker change of water.



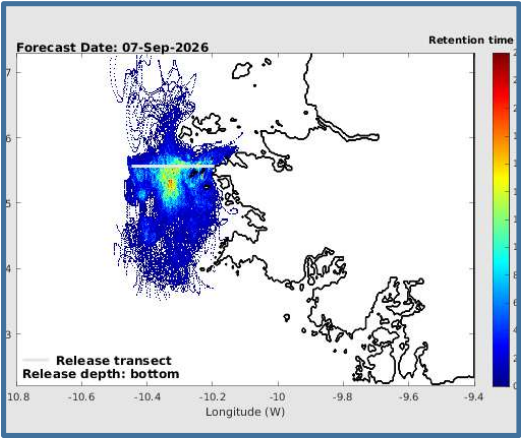
Mizen Head:

Change over to Southern water movements at all depths, where deeper waters indicate slower movement of phytoplankton.

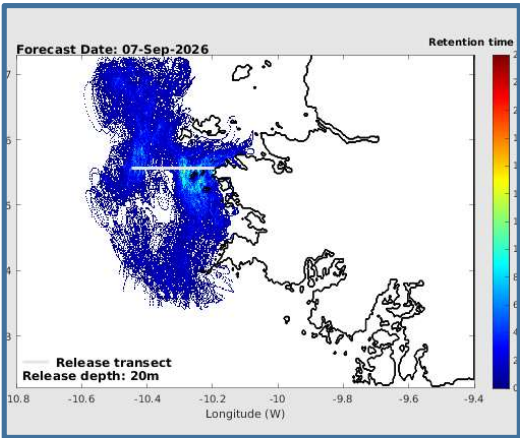


The maps show the **most likely transport pathways for the next 3 days of phytoplankton** found along the **presented transects** i.e. white lines off Aughrus Point and the Mouth of Killary Harbour, and **water depths** (bottom, 20 metres and surface).

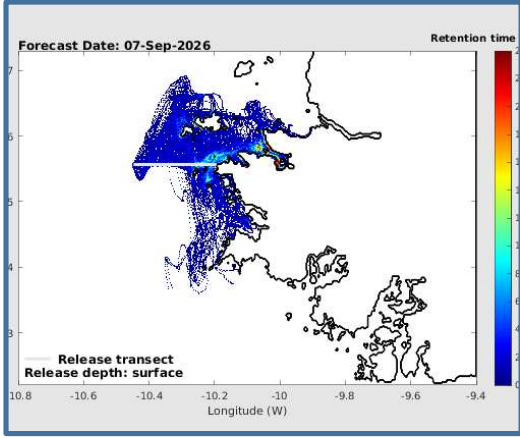
Reddish colours represent areas where phytoplankton remain longest. Cooler colours represent areas where phytoplankton remain for shorter periods



Bottom water



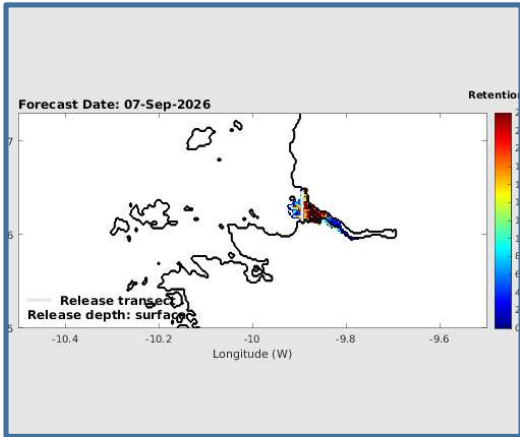
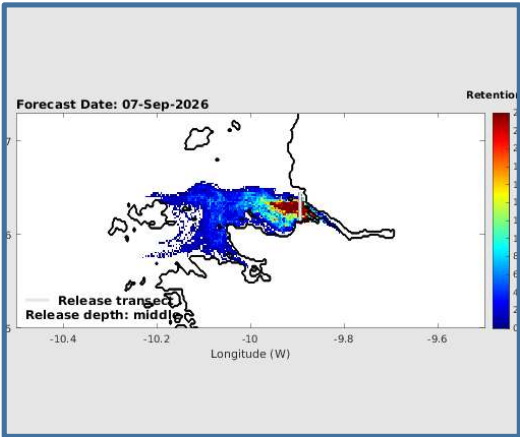
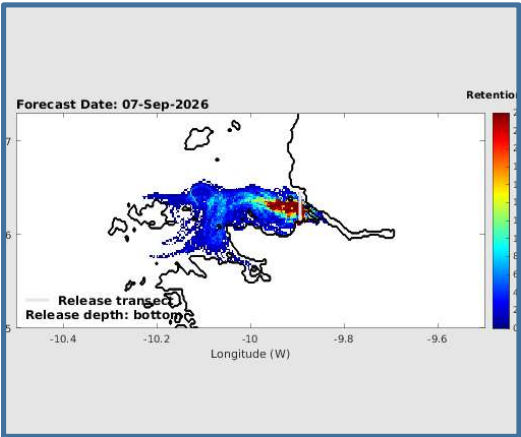
Water @ 20 metres



Surface water

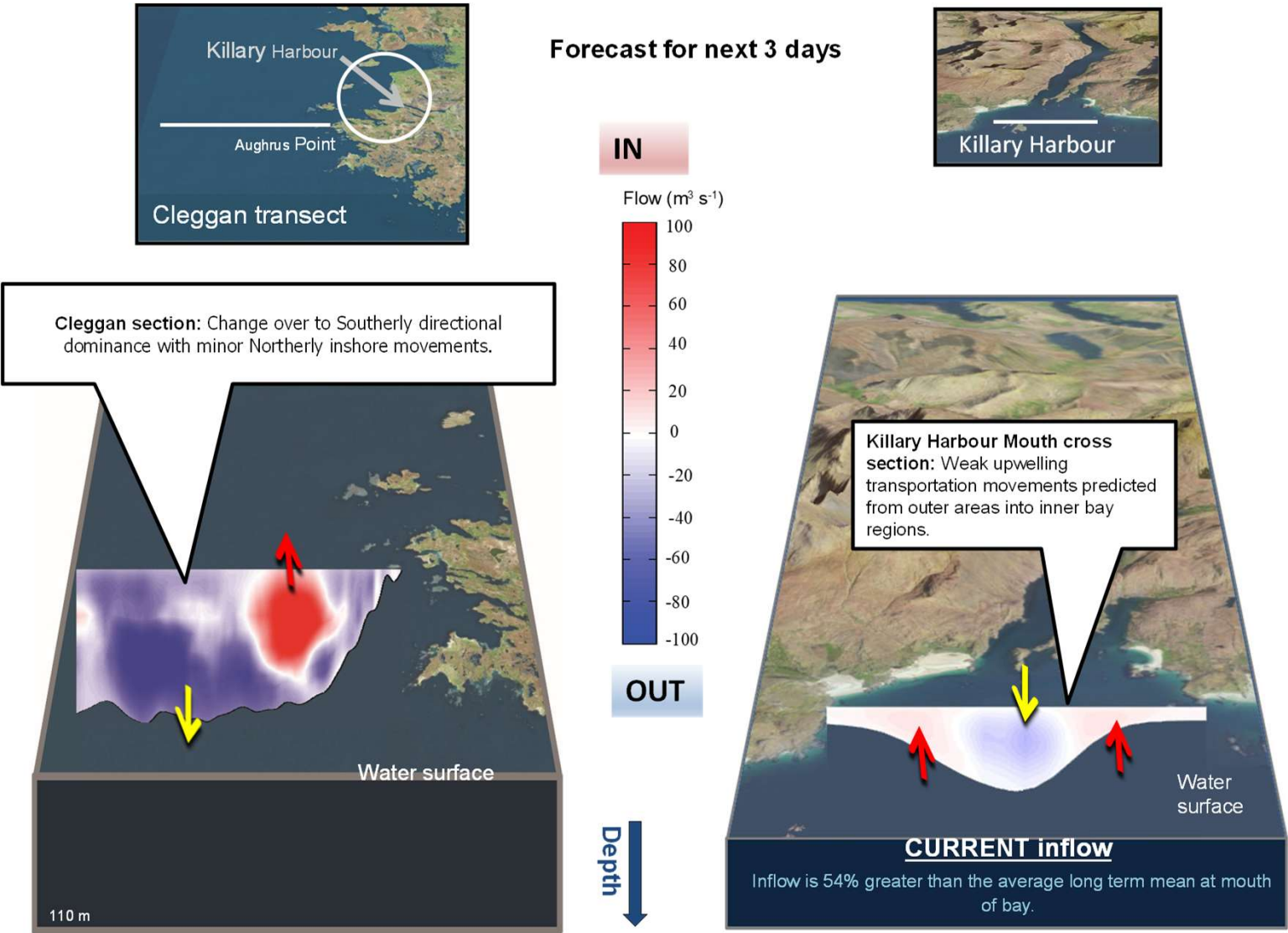
Cleggan

- It remains mixed movements at all depths.



Killary

- Upwelling of offshore water remains as main inshore transportation.



This Harmful Algal Blooms (HAB) Bulletin aims to provide a short (3-5 day) predictive forecast on the likelihood of the onset of a HAB event occurring/continuing in a region. The data provided for the compilation of this report is derived from a number of sources comprising of in-situ, remote sensing and hydrodynamic modelling datasets. For the latest and historical biotoxin and phytoplankton results for aquaculture production areas please visit <https://webapps.marine.ie/habs>

In-situ Data

- Biotoxin and Phytoplankton data is provided by National Monitoring Programmes from the HABs database (Marine Institute)
- Heat map images – Leaflet.

Remote Sensing Data

- Sea Surface Temperature Data Product: SST_NWS_SST_L4_NRT_OBSERVATIONS_010_003 (ODYESSA L4 SST from Copernicus CMEMS MCS).
- Chlorophyll image data is provided by: EUR-L4-CHL-ATL-v01 (IFREMER/ DYNECO and CERSAT).
- Sea Surface Temperature observations: Irish weather buoy network (Marine Institute).

Hydrodynamic modelled data

- Particle Tracking Simulation data: The downscale models of areas of particular interest (Bantry Bay, Killary Harbour and Cleggan Bay) incorporate online particle tracking with virtual particles released at pre-defined transects at the start of each model. The operational model produces an estimate of the ocean state once a week and a daily 3-day forecast of the dominant regional physical processes that result in water exchange events between the bay and its adjacent shelf (Marine Institute).
- Hydrodynamic model data: Hydrodynamic nowcast/forecast models show the latest 3-day volumetric flux forecast for vertical transects at the mouth and mid-bay. The results are plotted graphically on a map of the area.

Definitions

- A toxic site is defined as a site that had at least 1 result in the time period indicated greater than the regulatory limit.
- Heat maps represent relative distribution and patterns, and should not be interpreted as indicative of the maximum or absolute concentrations of a toxin in a region.
- Risk levels are calculated based on internal logic applied to measurements captured over the period, along with any additional information available to the evaluator. These risk levels are to be regarded as advisory only.
- Trends are calculated based on average or maximum values per week over the period of time and the slope of the line connecting these points.

Disclaimers

The predictions and comments produced within this bulletin are based on our expert opinion on the datasets and sources as outlined above. The Marine Institute cannot accept any responsibility for business and risk management decisions on harvesting and husbandry based on this report.

Acknowledgements

Funding for the development of this bulletin version has been provided by Interreg Atlantic Area Project: PRIMROSE (Predicting the Impact of Regional Scale events on the Aquaculture Sector) EAPA 182/2106