

Ireland: Current Conditions

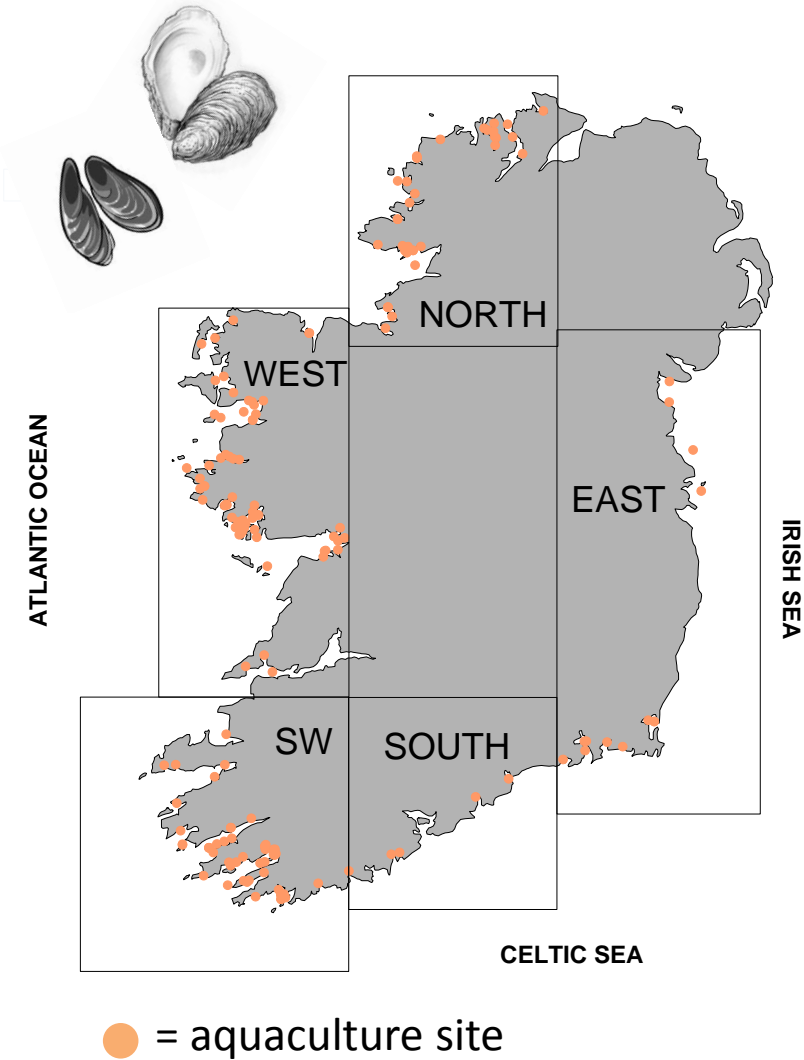
Shellfish biotoxin report (last week)



EU Regulatory Limit:
ASP 20 µg/g; AZP 0.16 µg/g; DSP 0.16 µg/g; PSP 800 µg/kg

Toxin groups
ASP = Amnesic Shellfish Poisoning; AZP = AZaspiracid Poisoning;
DSP = Diarrhetic Shellfish Poisoning; PSP = Paralytic Shellfish Poisoning

National Monitoring Programme Designated Sampling Sites



Ireland: Predictions

Prediction for this week:

ASP event: Risk remains in the southwest.

AZP event: AZP event unlikely.

DSP event: DSP biotoxins (winter carry over) likely to continue to decrease. Contamination might remain above the EU regulatory level at sites where biotoxin levels were high.

PSP event: Very low risk.

Why do we think this?

ASP: Maximum cell densities (~ 9,000 cells/L) of the potentially toxic "*P. seriata*" size group recorded in inner Bantry Bay. Levels of the "*P. delicatissima*" size group have dropped off. There is a mix of toxic and non-toxic *Pseudo-nitzschia* species in the water. While no domoic acid (biotoxin) detected in recent weeks, the known toxin producers *P. australis* and *P. multiseriata* are present. The non-toxic diatom *Skeletonema* is predominant (87% of the phytoplankton) in the outer bay while in the inner part of the bay the "*P. seriata*" size group is predominant (46%) – this increases risk of an ASP event.

AZP: *Azadinium* - like spp. up to 280 cells/L in the north. Low toxin levels with the a maxima of 0.04 µg/g in oysters on the west coast.

DSP: *Dinophysis acuminata* and *D. acuta* are not present in the water and biotoxins have been decreasing very slowly since last year. Chemistry levels of Okadaic acid & equiv. continue to fall at many sites in the SW. Highest record of 0.16 µg/g in Dingle Bay mussels while in Bantry Bay maximum recorded levels at 0.11 µg/g. High variability likely in the same bay; local fluctuations are related to the presence and abundance of non-toxic phytoplankton.

PSP: Historically this a low risk period of the year for all sites. *Alexandrium* species present at two sites on the west coast. Maximum concentrations at 600 cells/L . No biotoxins recorded.

A look back at how last weeks biotoxin results compares to other years



2003-2012 Shellfish Toxicity: does not include winter carry over of biotoxins

ASP events: weeks 11 to 18 (mid-March to early May)

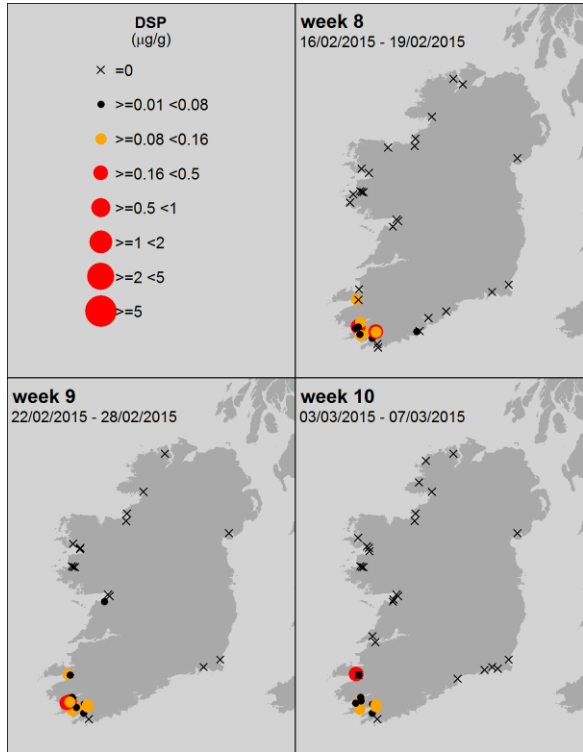
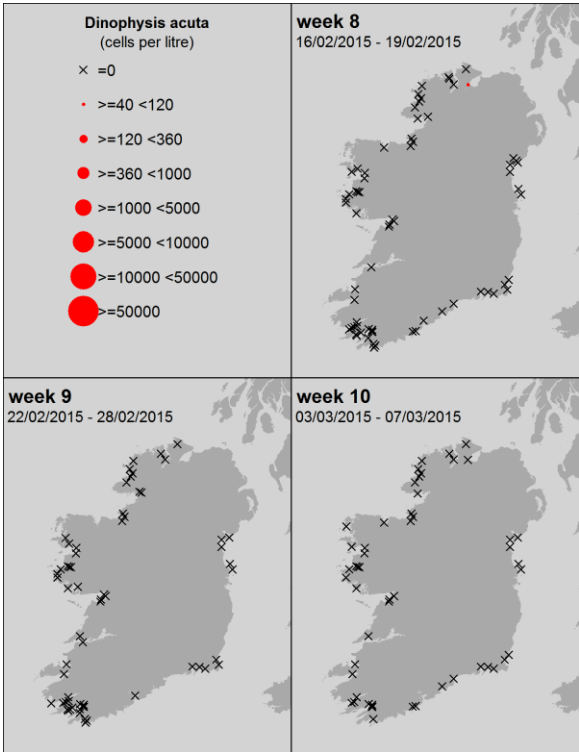
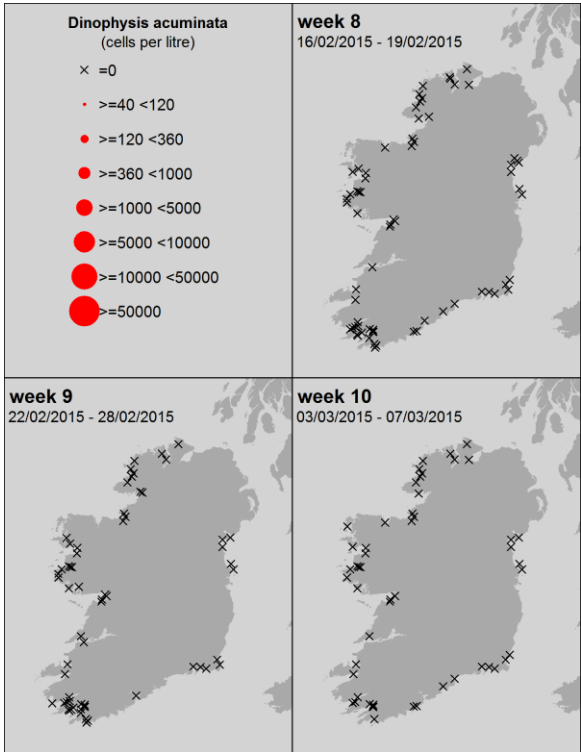
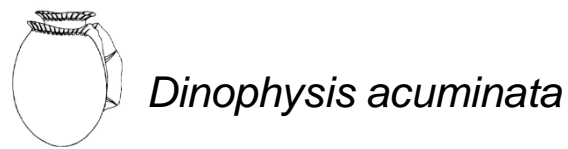
AZP events: weeks 17 to 51 (April to December)

DSP events: weeks 19 to 51 (May to December)

PSP events: weeks 23, 25-28 (June to mid-July) and 38-39 (end September); only in Cork Harbour



Ireland: Last 3 weeks of available National Monitoring Programme data



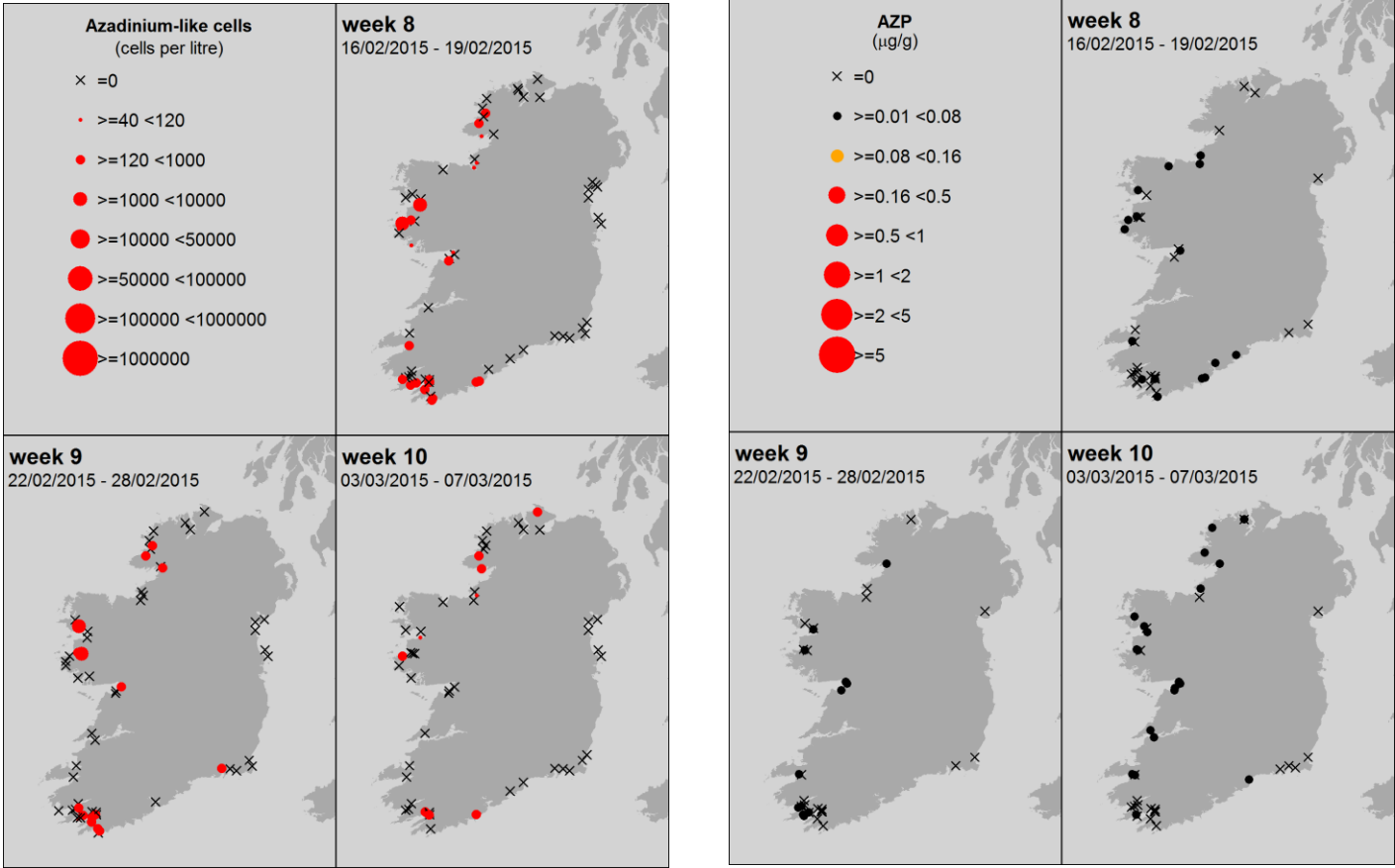
Ireland: Last 3 weeks of available National Monitoring Programme data



Azadinium – like spp.



AZP

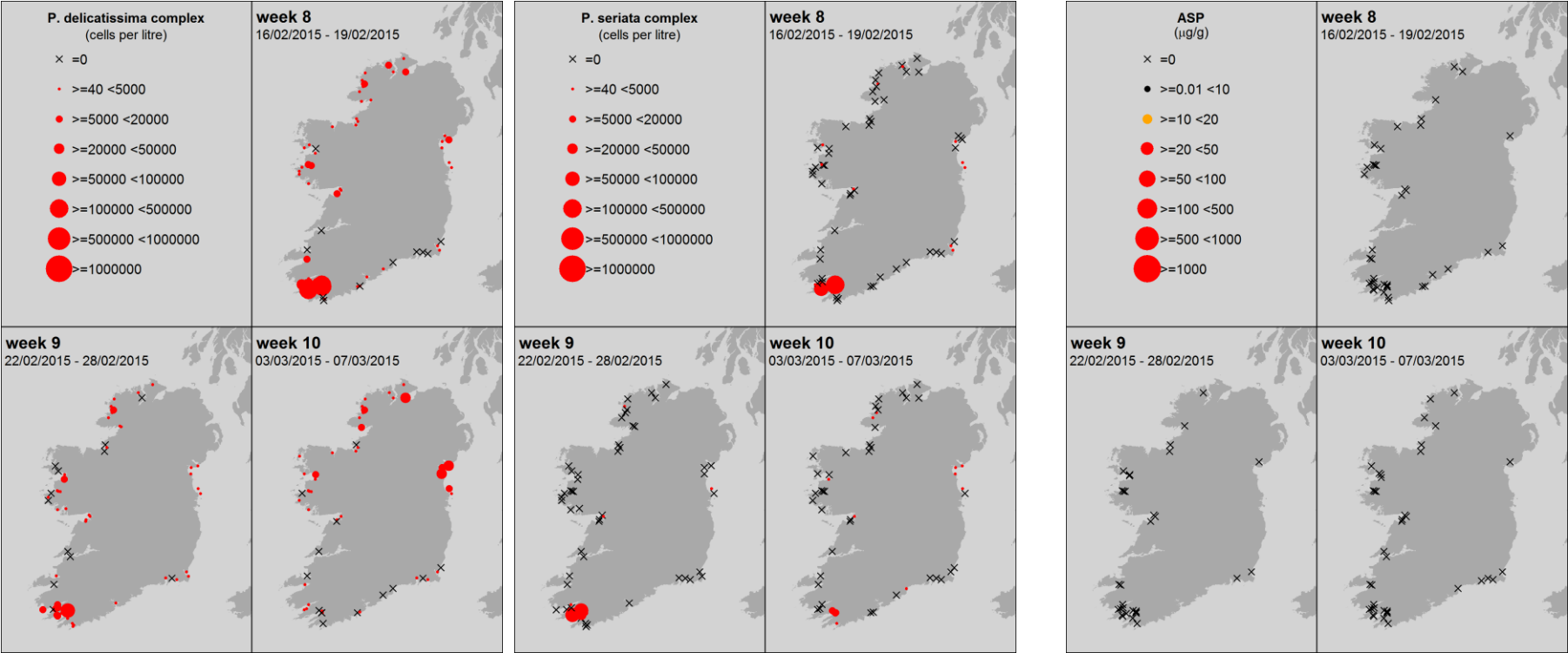


Ireland: Last 3 weeks of available National Monitoring Programme data

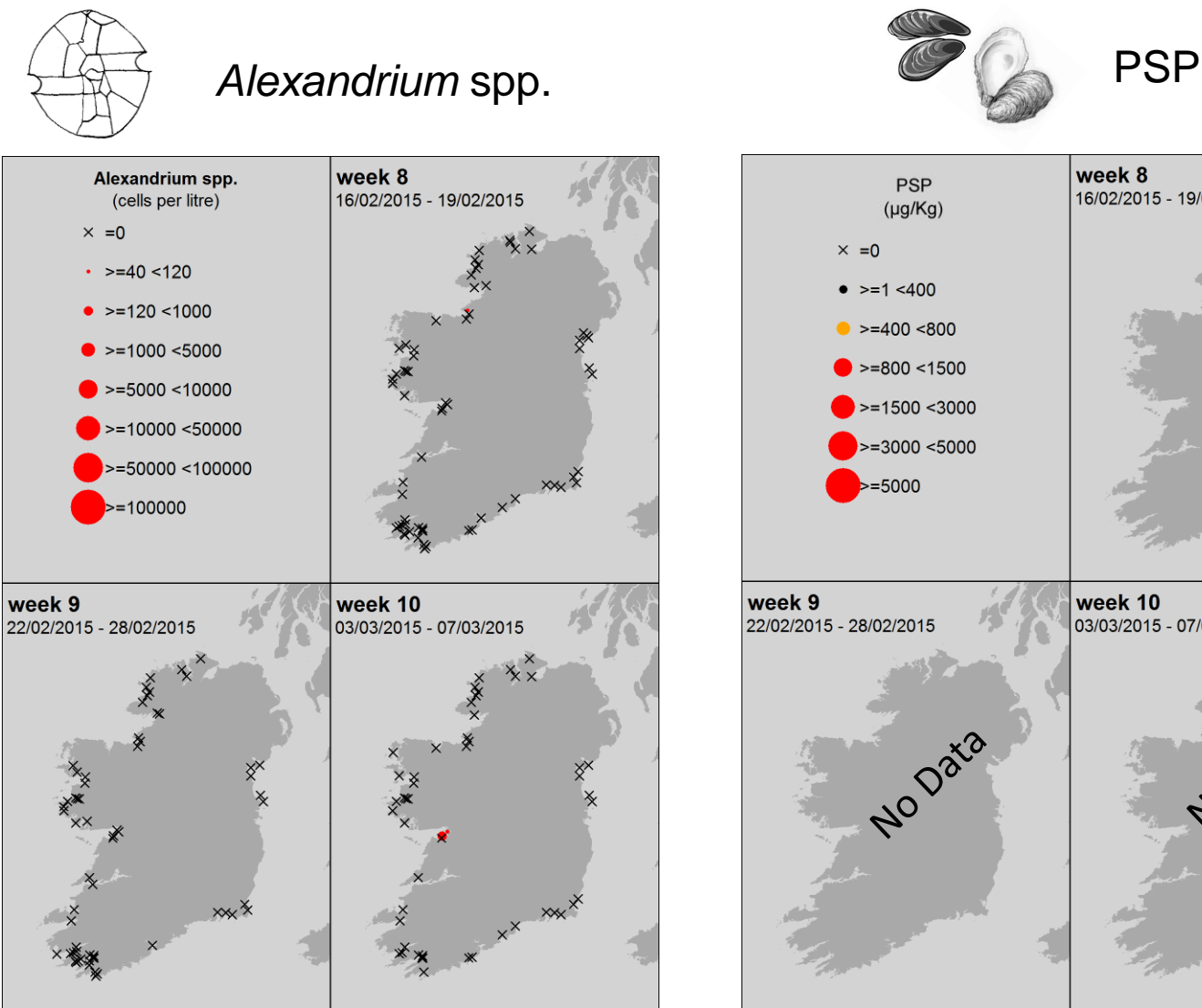
Pseudo-nitzschia spp.



ASP

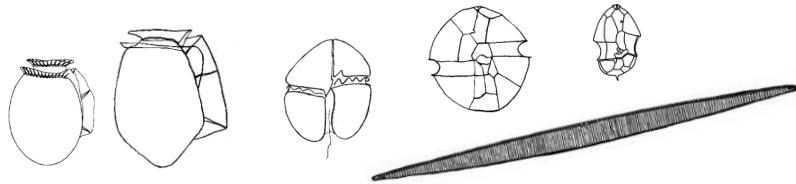


Ireland: Last 3 weeks of available National Monitoring Programme data



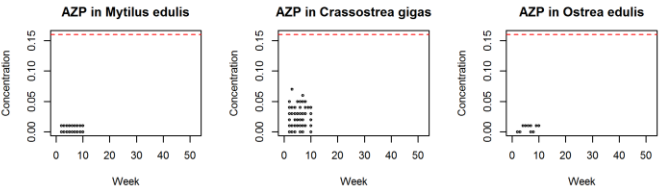
Ireland: **HABs and biotoxins** Levels from week 1 to present

Ireland: **Biotoxins**

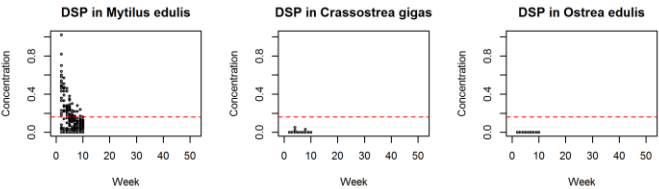


Toxin groups

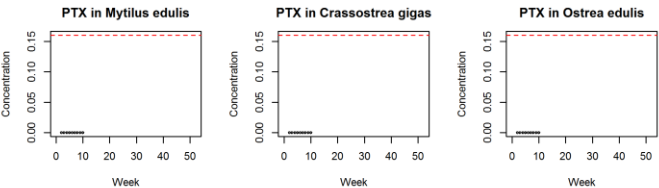
AZP
AZaspiracid
Poisoning



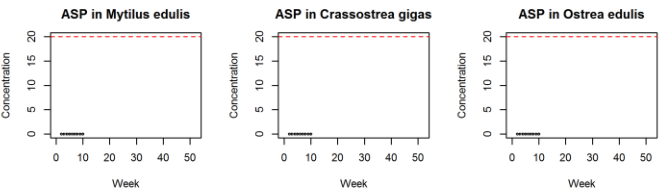
DSP
Diarrhetic
Shellfish
Poisoning



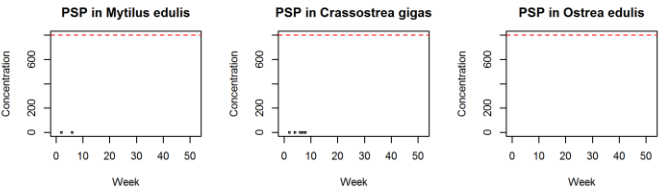
PTX
Pectenotoxin



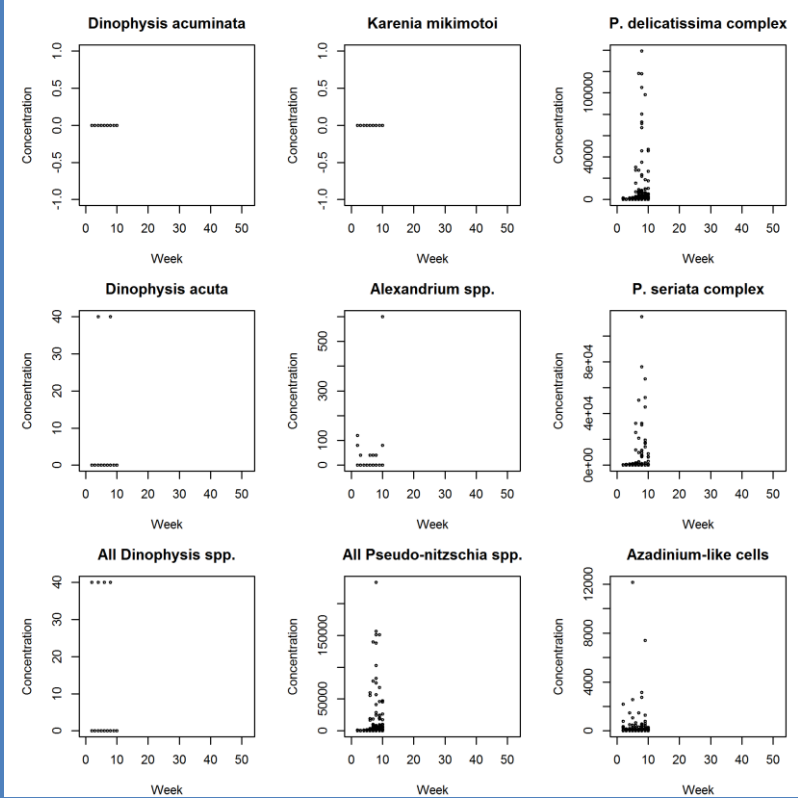
ASP
Amnesic
Shellfish
Poisoning



PSP
Paralytic
Shellfish
Poisoning



Ireland: **HABs**



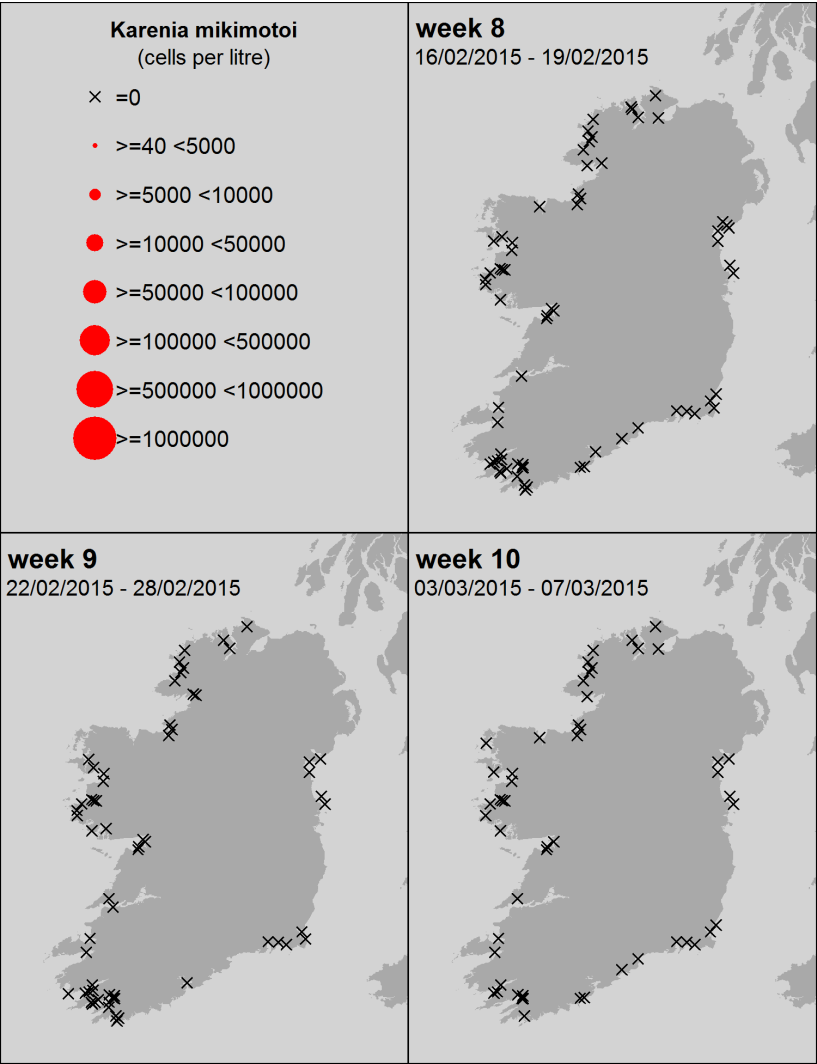
Week number: 1 to 10

EU Regulatory Limit: ASP 20 µg/g; AZP 0.16 µg/g; DSP 0.16 µg/g; PSP 800 µg/kg

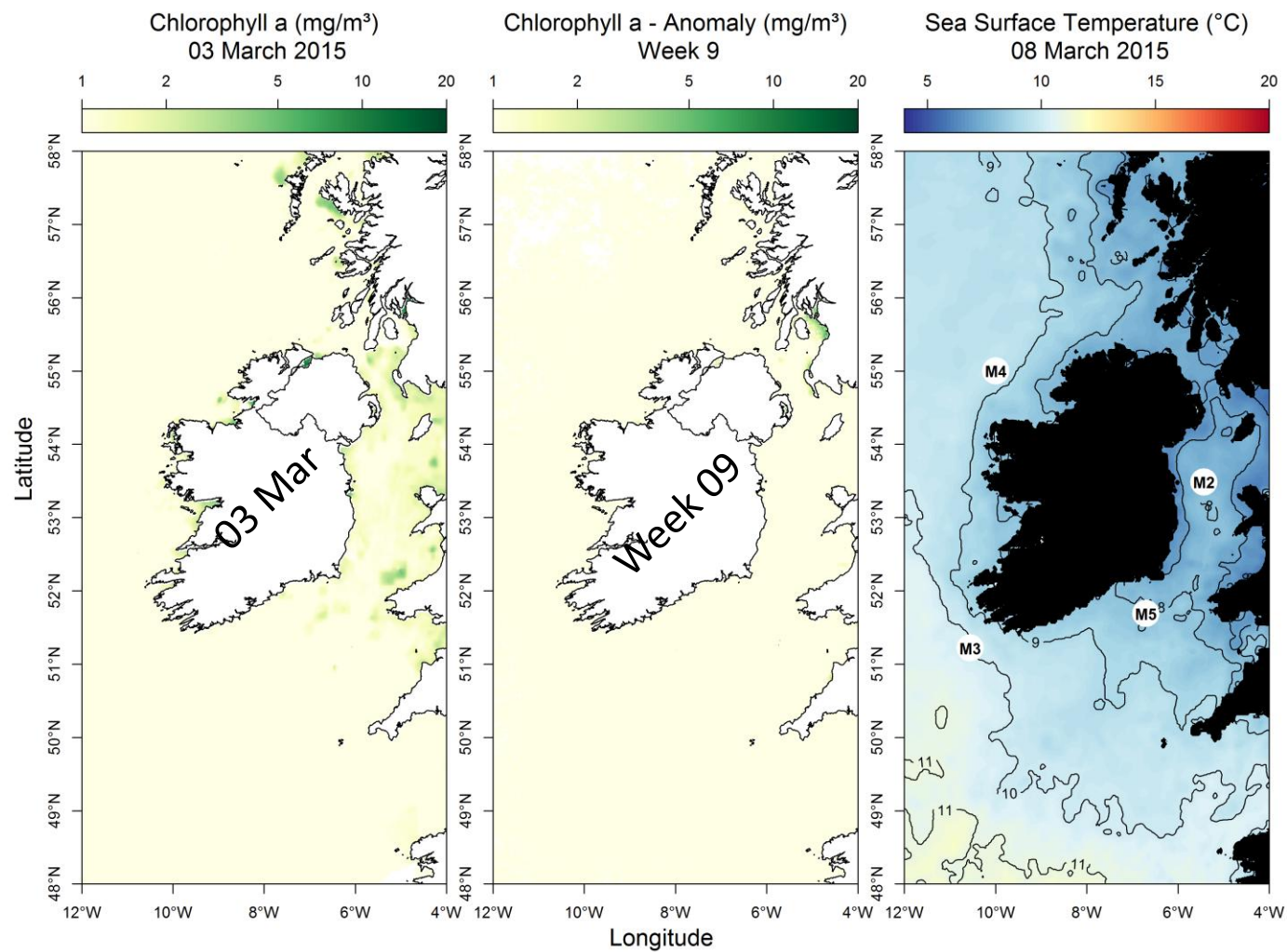
Regulatory limit = ■■■■■



Karenia mikimotoi
(old name: *Gyrodinium aureolum*)



Ireland: Most up to date available satellite data



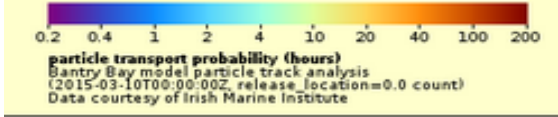
SST (°C) anomaly for last week:
Data taken from the Irish data buoy network where the anomaly is the weekly difference in SST compared to the long term mean (~ 10 yrs)

Northwest coast (M4)	below average by 0.06 °C
Southwest coast (M3)	below average by 0.38 °C
Southeast coast (M5)	below average by 0.47 °C

Please go to <http://vis.marine.ie/particles/> to view daily forecasts in more detail

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.



0.2 0.4 1 2 4 10 20 40 100 200
particle transport probability (hours)
Bantry Bay model particle track analysis
(2015-03-10T00:00:00Z, release_location=0.0 count)
Data courtesy of Irish Marine Institute

