

Ireland: Predictions

ASP event: Low (decreasing)
AZP event: Moderate to high (constant fluctuation)
DSP event: **Very High** (Increasing- S, SW and W)
PSP event: High (site specific , moderate in general)

NMP Current closures			
ASP	AZP	DSP	PSP
0	0	1	0

ASP: Continued steady decreasing trend in toxicity . Slight increase in cell levels in some sites but no related toxicity issues at this point. It would be expected that this trend would continue based on current results.

AZP: Continued additional caution is advised due to current historical occurrence period, suitable environmental conditions, possibility of onshore transport and difficulty predicting the sudden potential occurrence of this species. Issues with this toxin can occur suddenly and acutely .Caution is advised.

DSP: Continued toxicity issues in some sites (SW). This is still the main season to be traditionally affected by this group so highest caution is advised until the impact has peaked and past. All sites should insure best sampling practices and obtaining the most recent results available. Continued rise and impact of this species is to be expected at present based on current trends, historic patterns and predictive marine models.

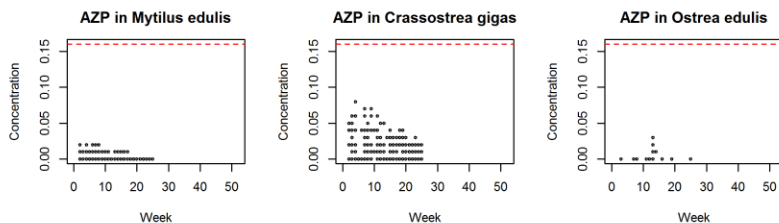
PSP: High levels of caution advised in historically affected sites (S) as the current weather pattern could provide ideal environmental rapid localised bloom conditions. Increased levels of caution should be exercised at this point in all areas where significant cell levels are observed.

Blooms: There is a **moderate to high risk of bloom conditions** due to current environmental conditions. Any unusual water discoloration should be noted and regional labs contacted if concerned /regarding possible need for additional sampling.

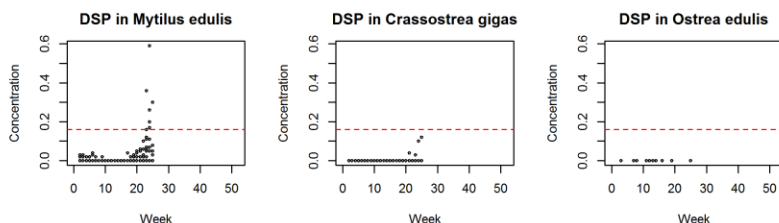
All feedback is welcome at Joe.Silke@Marine.ie .

National Monitoring Programme

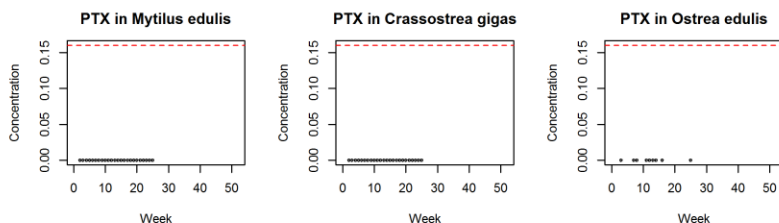
AZP



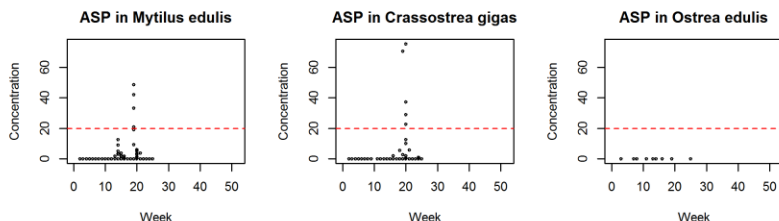
DSP



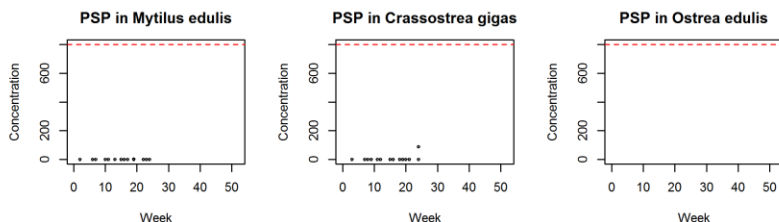
PTX



ASP



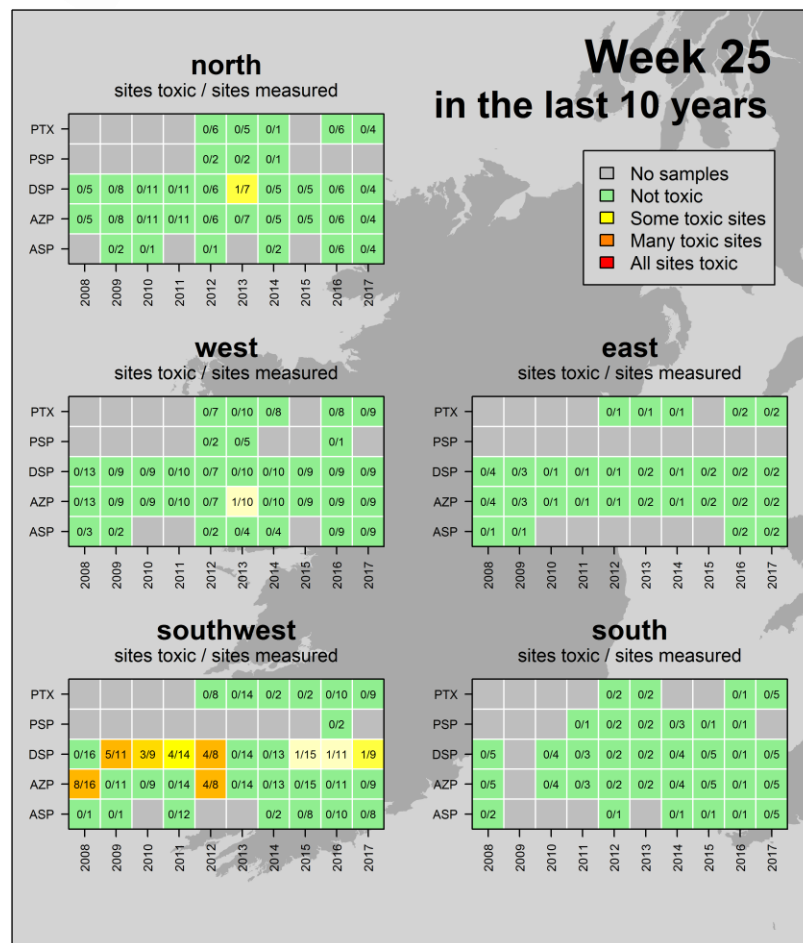
PSP



Levels from week 1 to present week. Regulatory limit - - - - -



HISTORIC TRENDS



ASP events: mid-March to early May

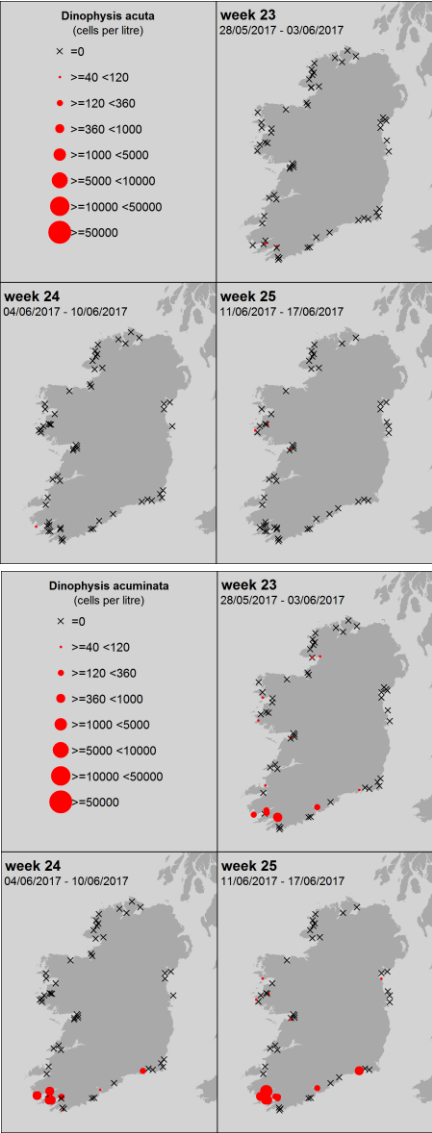
AZP events: April to December

DSP events: May to December

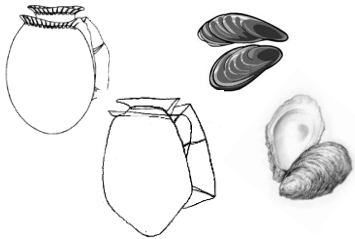
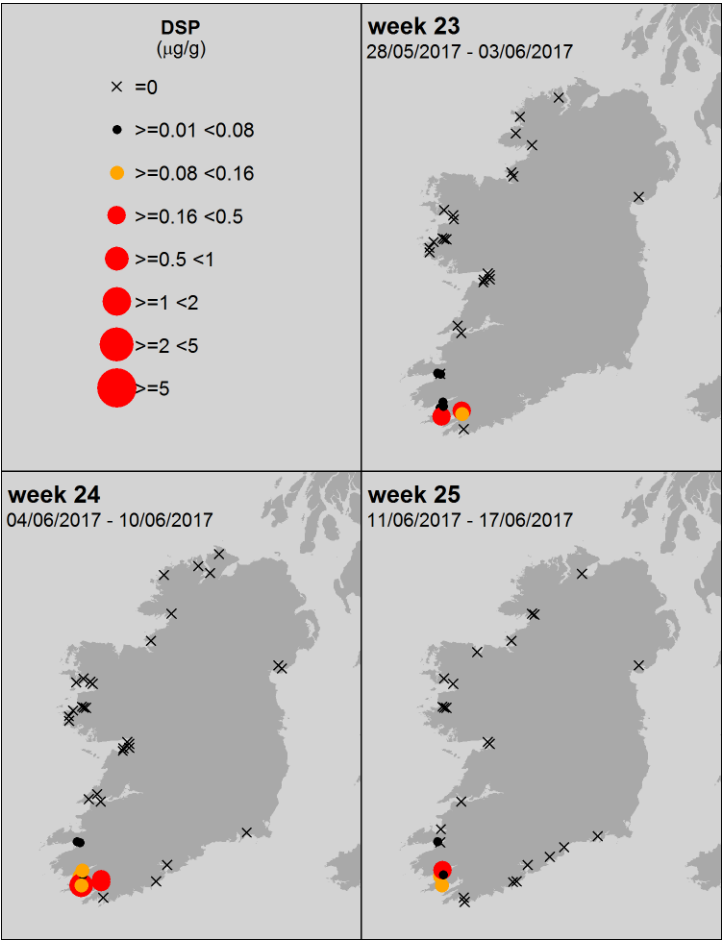
PSP events: June to mid-July and end September; only in Cork Harbour

DSP and Dinophysis sp. current trends

Phytoplankton species – 3 wks.

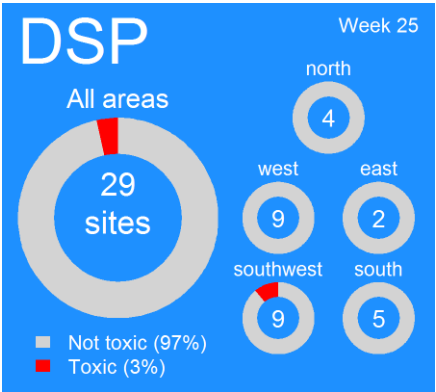


All levels of DSP biotoxin recorded- 3 wks.



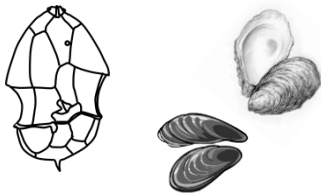
Current closures levels

≥ DSP 0.16 µg/g



Comment – Dinophysis species Continue to cause a toxicity issue in some sites in SW. This event would be ‘normal’ for this time of the year and indeed cell levels will probably go higher and increase coastal area coverage before coming to a natural end. Highest caution advised in all areas affected.

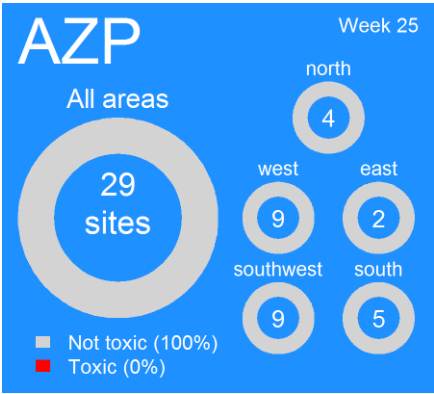
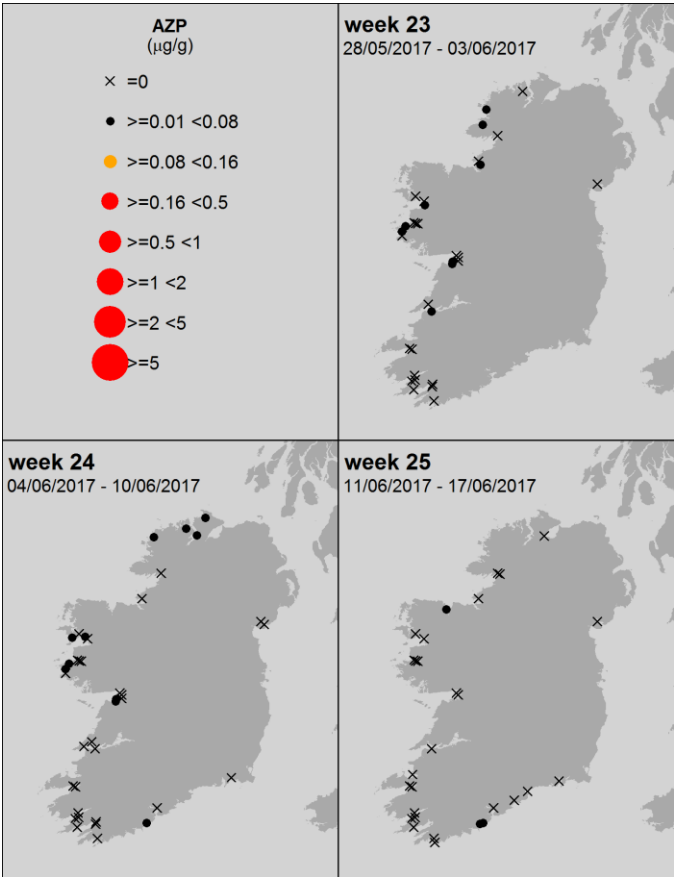
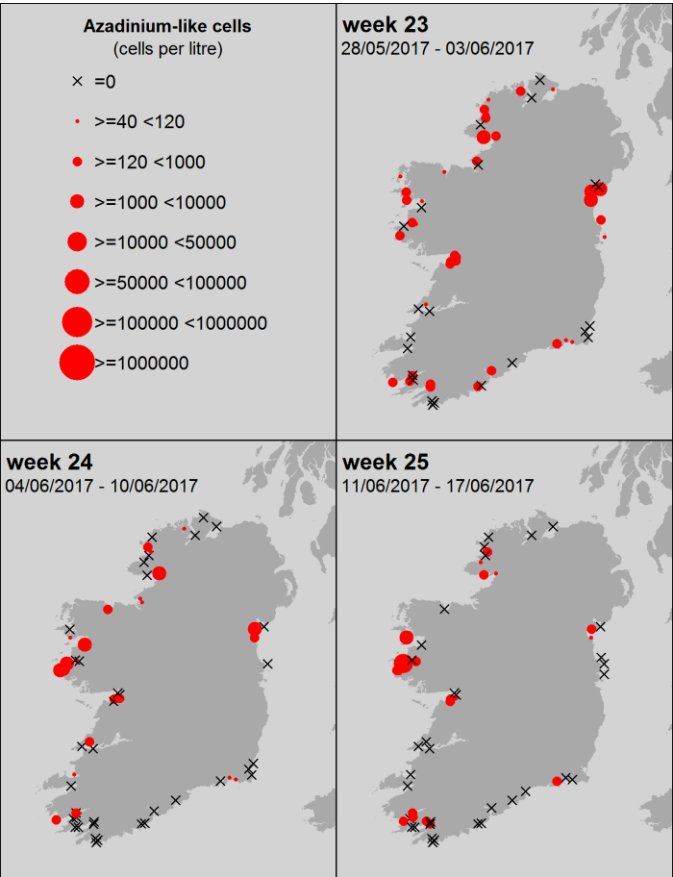
AZP and Azadinium like species current trends



Phytoplankton species – 3 wks.

All levels of AZP biotoxin recorded - 3 wks.

Current closures levels
≥ AZP 0.16 µg/g

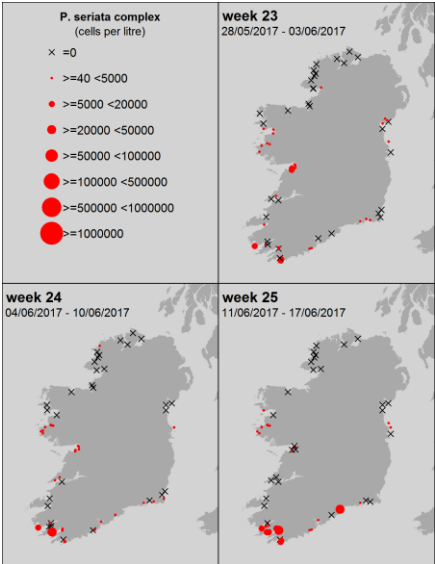
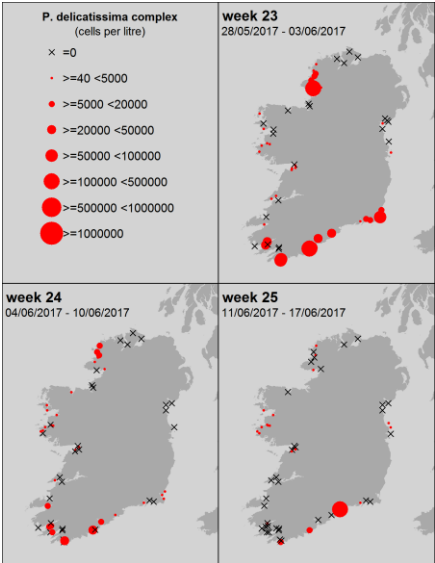


Comments

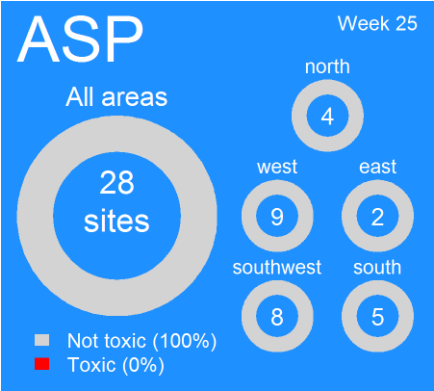
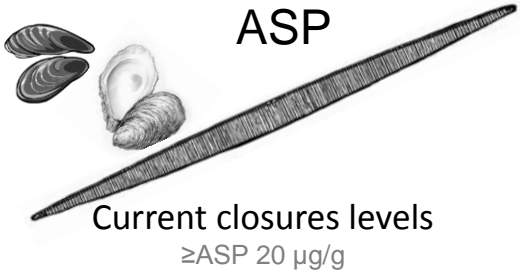
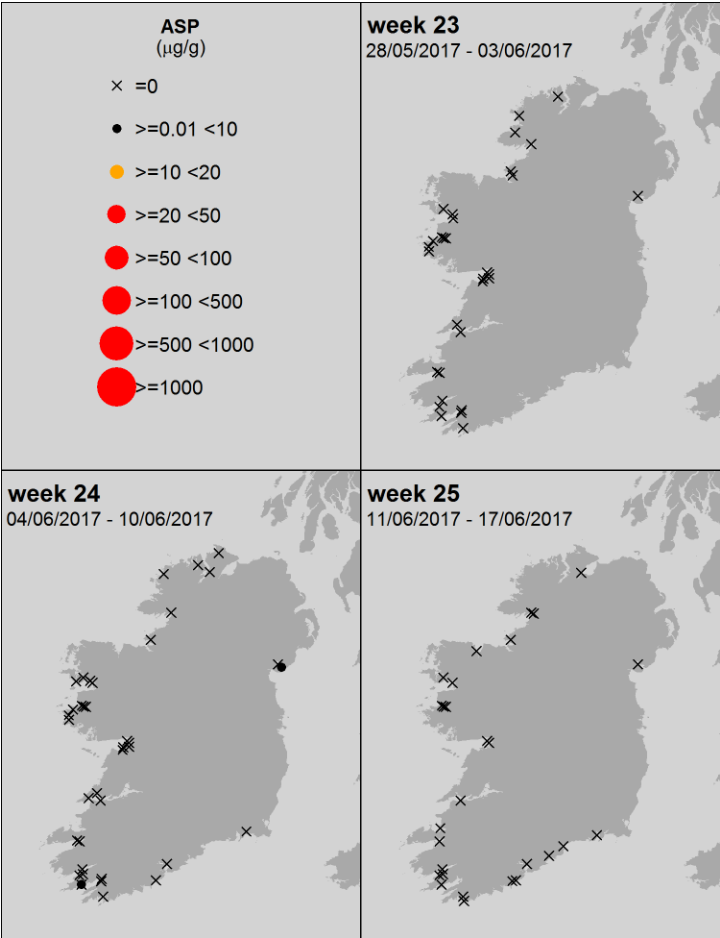
Same as last week - Cell levels continue to fluctuate but we are now in an historically high likelihood period . Potential cells appearing in more sites but related low levels of toxicity levels decreasing temporarily. Toxicity related to this species can occur quickly if the causative species 'comes in'. Additional caution advised.

ASP and Pseudo nitzschia sp. current trends

Phytoplankton species – 3 wks.



All levels of ASP biotoxin recorded - 3 wks.



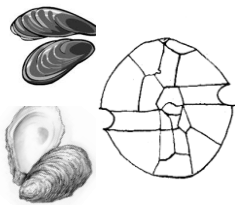
Comments

Continued decreasing trend in levels of cells ,on average ,but some sites exhibiting low background toxicity. Low levels of caution are still advised until cell levels decrease further.

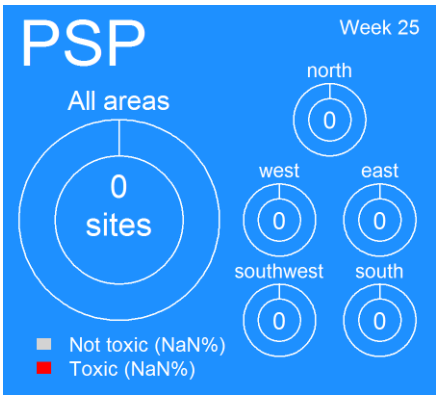
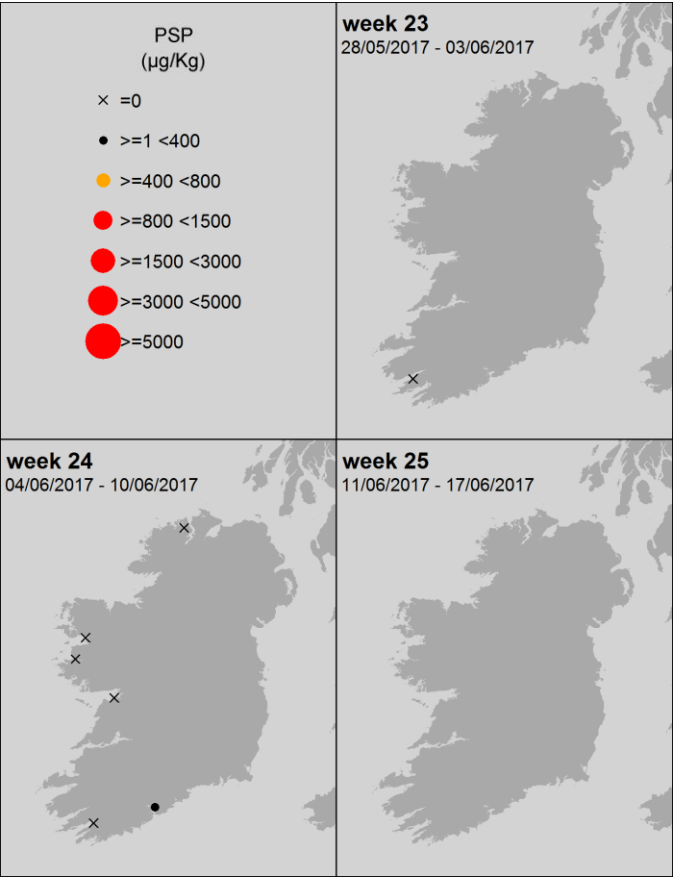
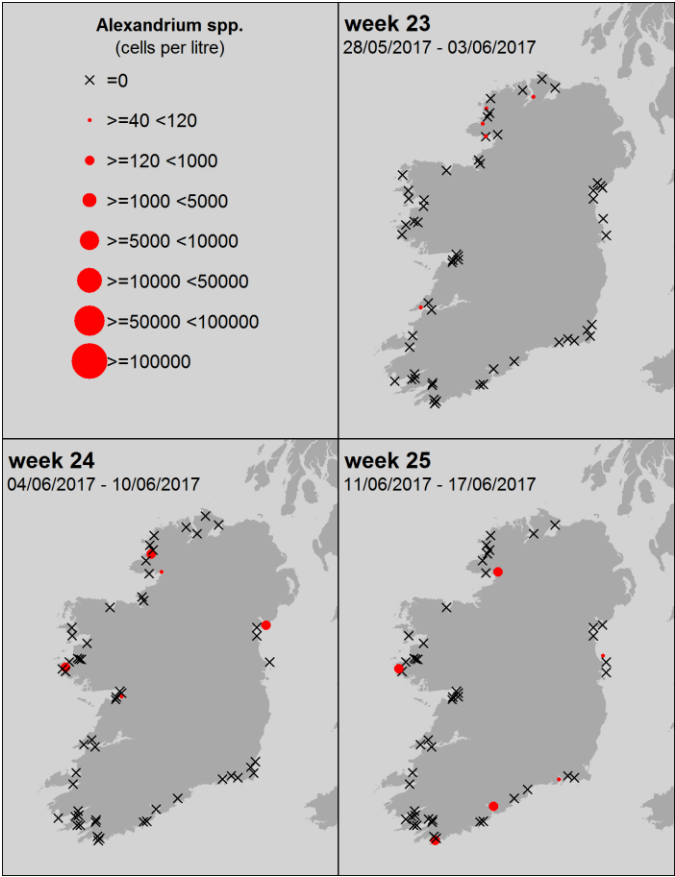
PSP and Alexandrium sp. current trends

Phytoplankton species – 3 wks.

All levels of PSP biotoxin recorded - 3 wks.



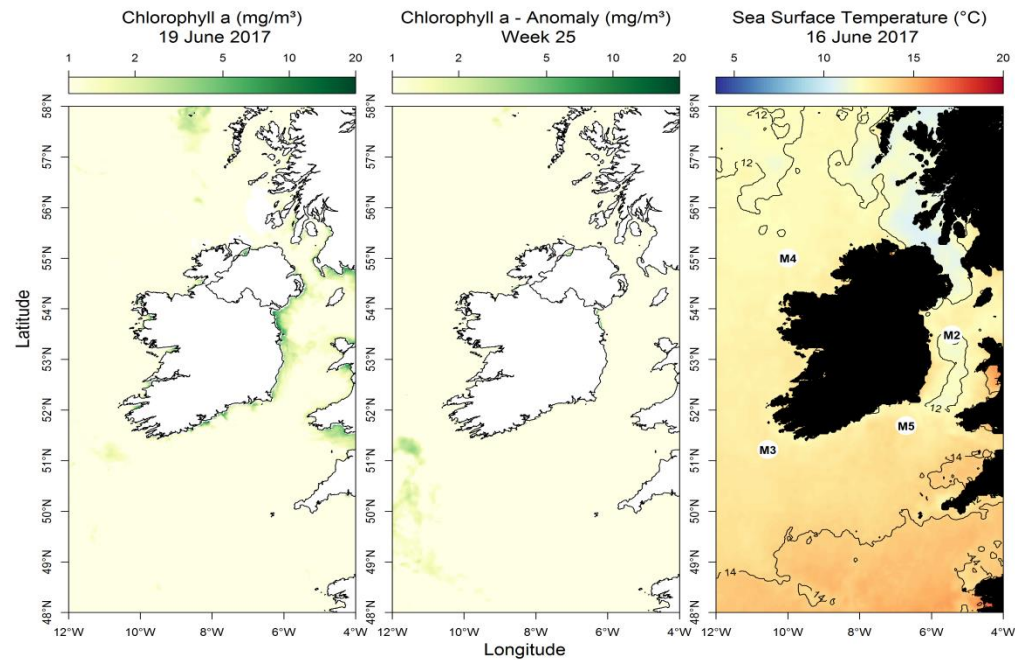
Current closures levels
≥ PSP 800 µg/Kg



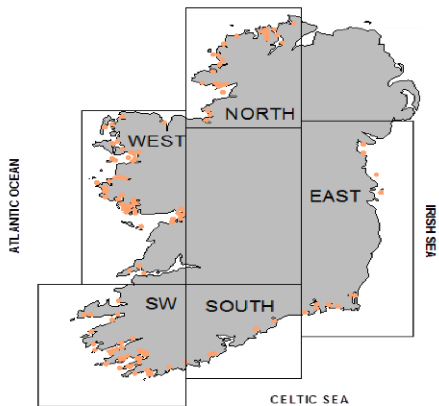
Comments

Current localised favourable weather conditions increase the risk factor significantly this week .Records of issues with this species have been very site specific and associated with specific environmental conditions and high cell levels. Additional caution advised.

Most up to date available satellite data



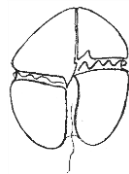
Chlorophyll levels indicate potential bloom patches off the Eastern and Southern coasts. High levels of beneficial diatoms (see table) continue to be observed in most inshore areas.



NW coast (M4) Below average by 0.57°C wk24
SW coast (M3) Below average by 0.81°C wk24
SE coast (M5) Below average by 0.42°C wk24

What phytoplankton were blooming at inshore coastal sites last week?

Rank	Region	Species	Rounded Count
1	east	Ciliates	699000
2	east	Leptocylindrus danicus	32000
3	east	Cylindrotheca closterium/ Nitzschia longissima	3000
4	east	Skeletonema spp.	3000
5	east	Guinardia flaccida	2000
5	east	Rhizosolenia sp	2000
1	north	Chaetoceros (Hyalochaete) spp.	391000
2	north	Dactyliosolen spp.	62000
3	north	Cylindrotheca closterium/ Nitzschia longissima	30000
4	north	Leptocylindrus danicus	30000
5	north	Guinardia delicatula	19000
1	south	Prasinophytes	1446000
2	south	Pseudo-nitzschia delicatissima complex	173000
3	south	Thalassiosira spp.	160000
4	south	Leptocylindrus danicus	154000
5	south	Bacteriastrum spp.	130000
1	southwest	Leptocylindrus minimus	209000
2	southwest	Skeletonema costatum	105000
3	southwest	Leptocylindrus danicus	99000
4	southwest	Skeletonema spp.	74000
5	southwest	Navicula spp. <25um	73000
1	west	Chaetoceros (Hyalochaete) spp.	793000
2	west	Skeletonema spp.	207000
3	west	Cylindrotheca closterium/ Nitzschia longissima	164000
4	west	Licmophora spp.	163000
5	west	Pennate diatom	137000



Karenia mikimotoi bloom warning level
- Moderate to high -

Currently only low levels of cells have been observed in some sites but this species can bloom offshore and come inshore rapidly during favourable transport conditions. Caution levels will be increasing as cell levels and conditions change.

Other bloom species news

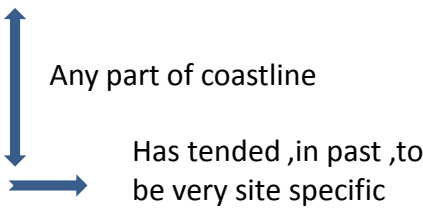
Most species have the potential to reach high numbers and be considered a bloom. The majority of such blooms are short lived and not a problem. At this time of year the typical species to watch out for , that can cause problems, are:

Karenia mikimotoi

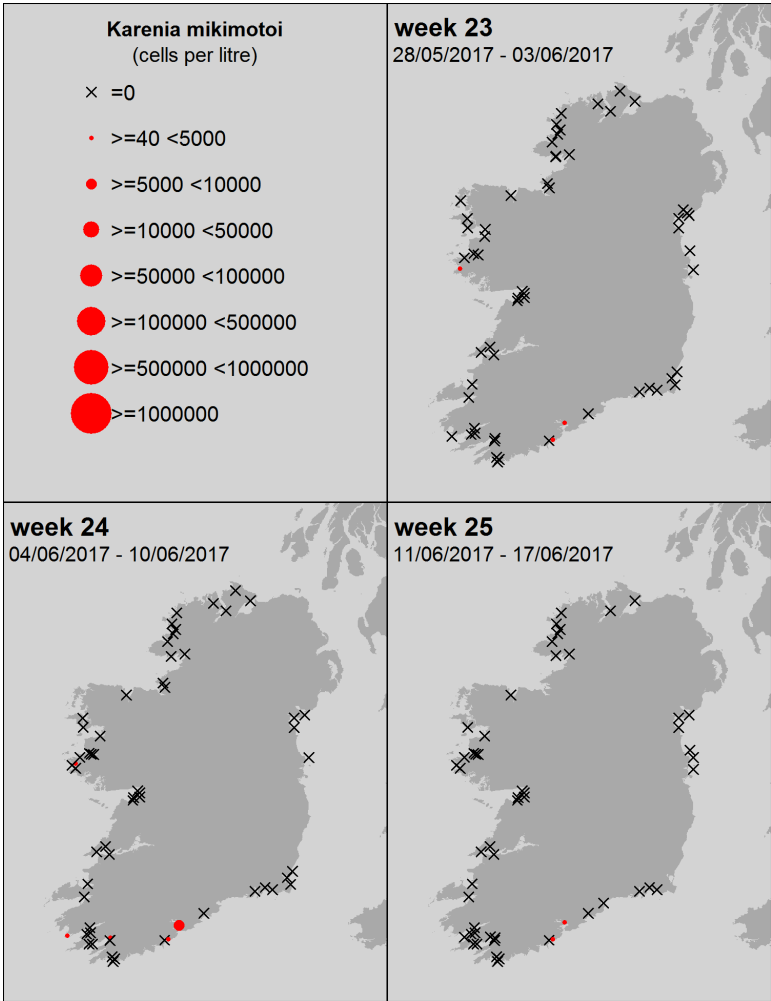
Heterocapsa spp.

Noctiluca scintillans

Alexandrium spp.



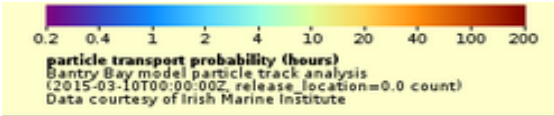
Karenia mikimotoi
(old name: *Gyrodinium aureolum*)



SOUTHWEST: Bantry Bay

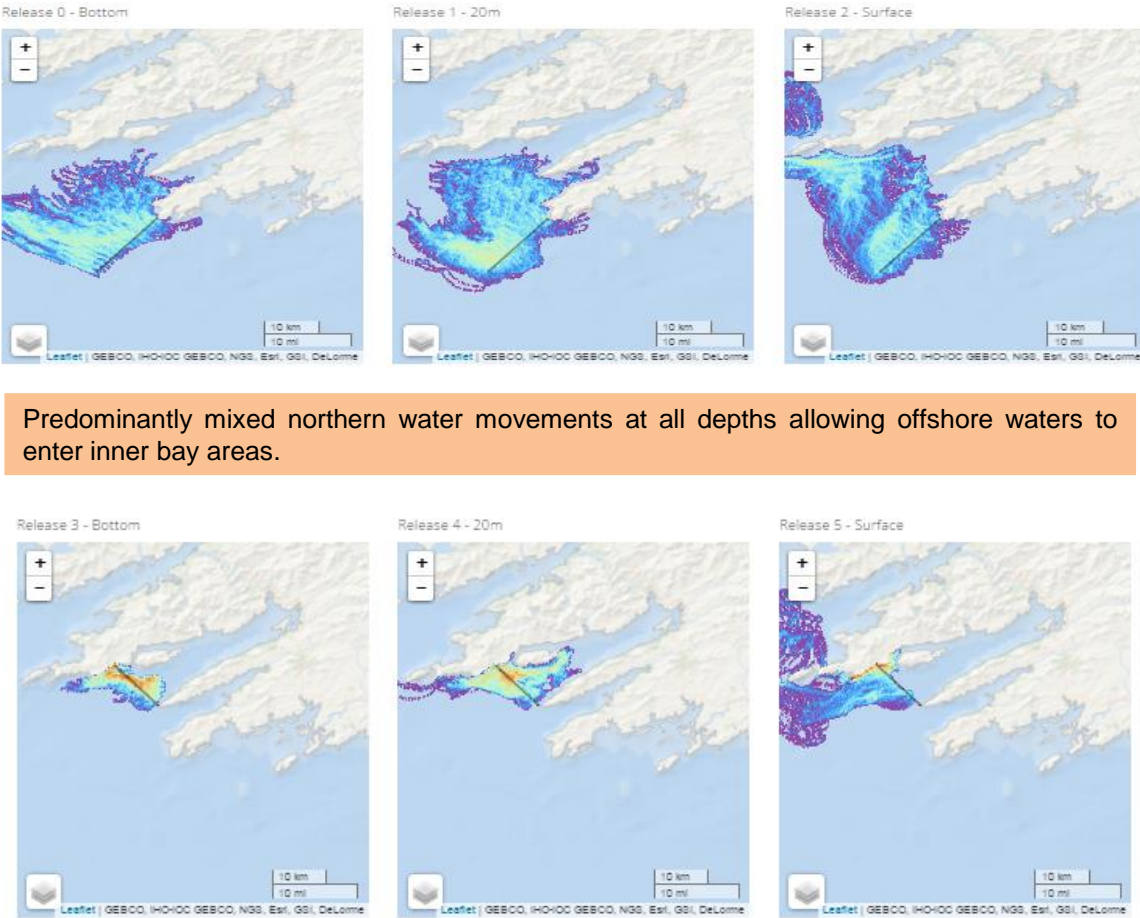
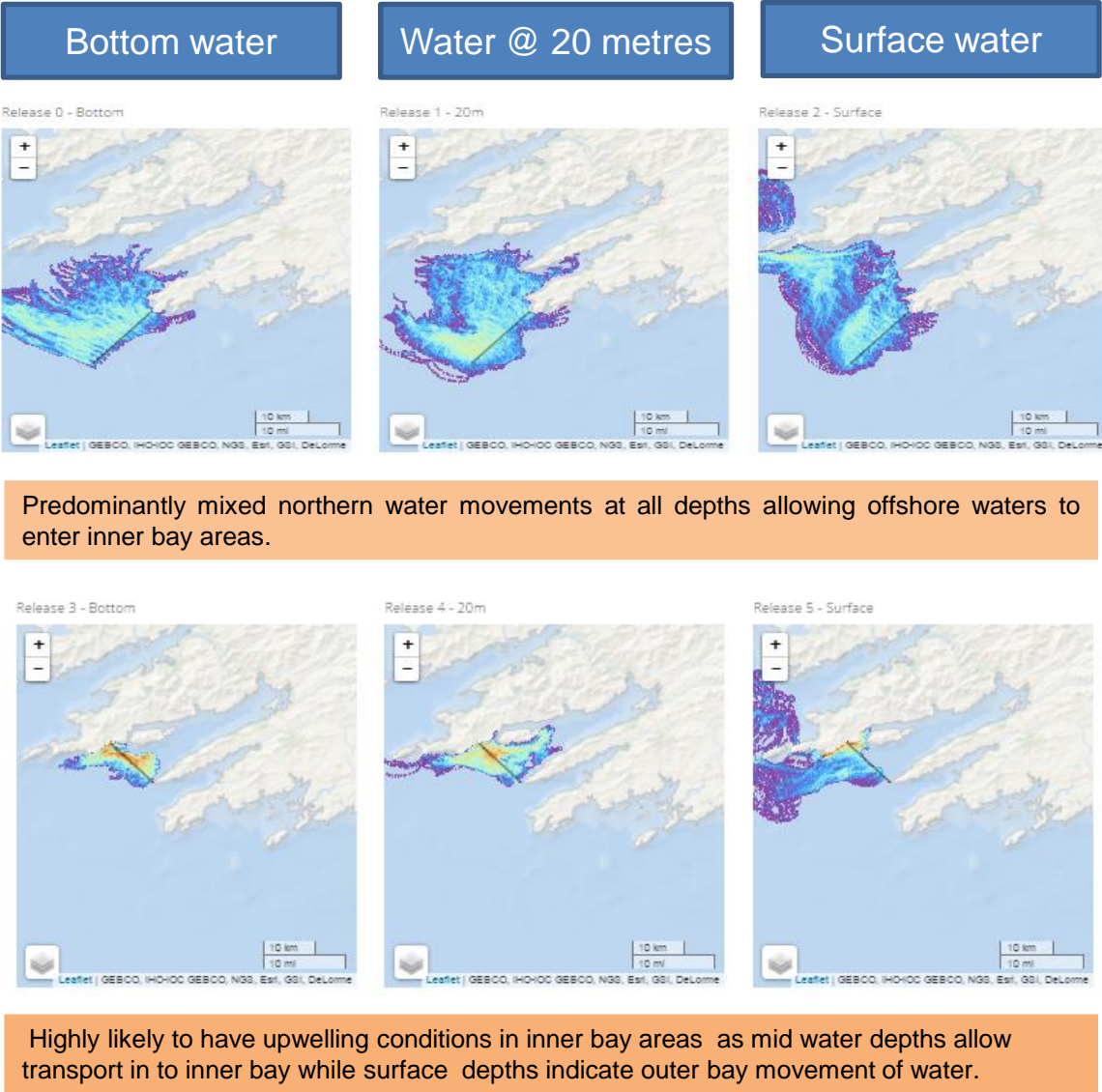
The maps show the **most likely transport pathways for the next 3 days of phytoplankton** found along the **presented transects** (black lines off Mizen Head and the Mouth of Bantry Bay) and **water depths** (bottom, 20 metres and surface)

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



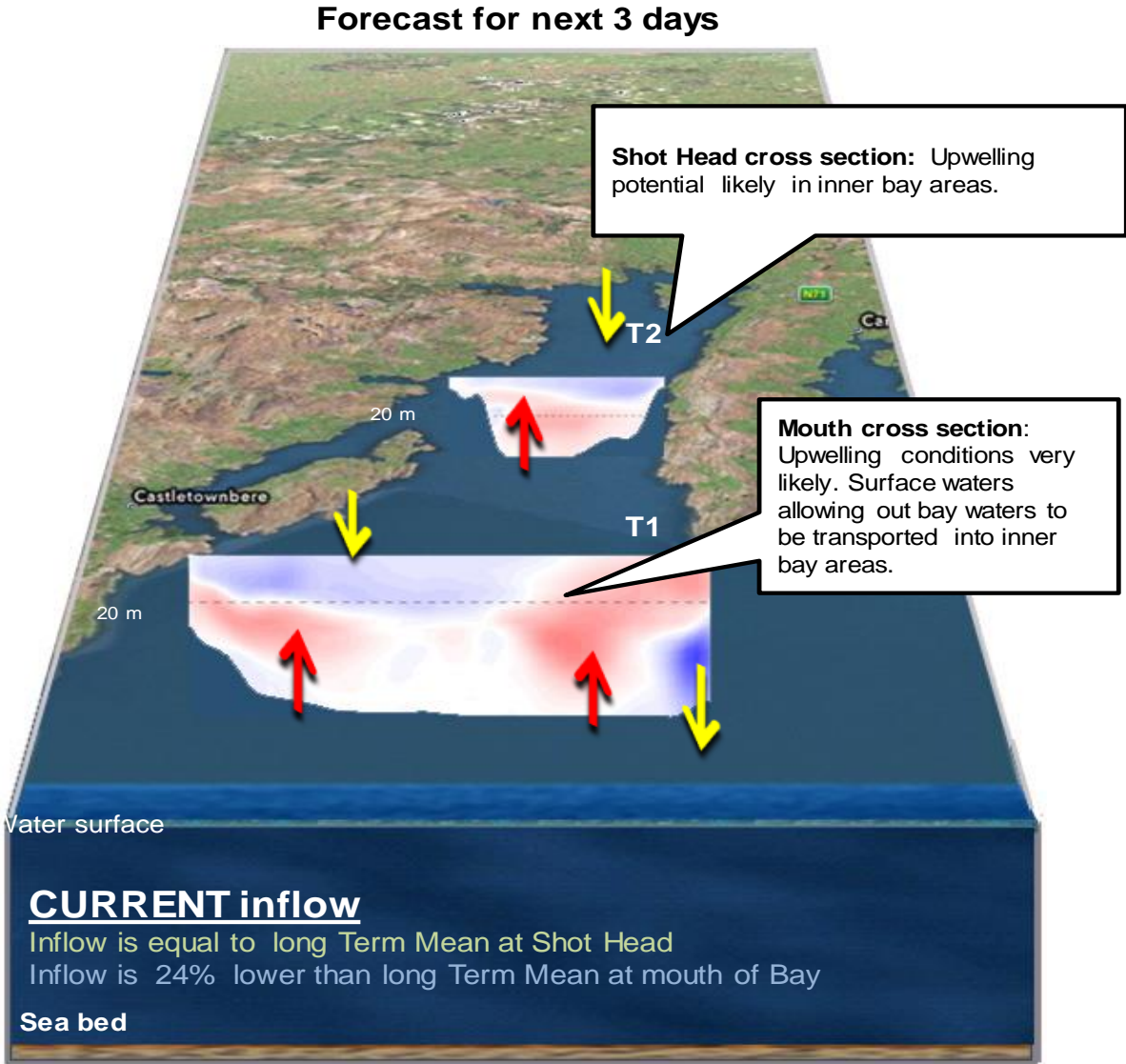
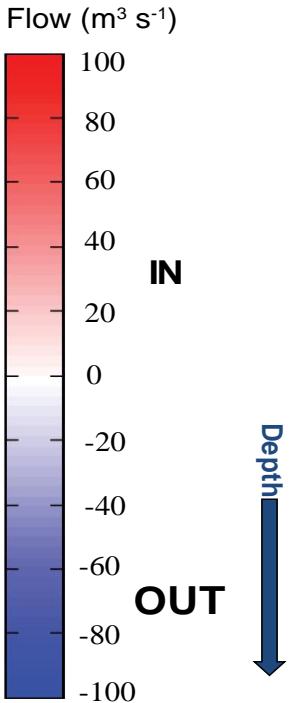
particle transport probability (hours)
Bantry Bay model particle track analysis
(2015-03-10T00:00:00Z, release_location=0.0 count)
Data courtesy of Irish Marine Institute

Forecast for the next 3 days



Bantry Bay

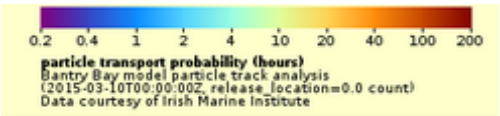
3 day estimated water flows at the mouth and mid-bay sections of Bantry Bay



WEST: Killary Harbour

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)

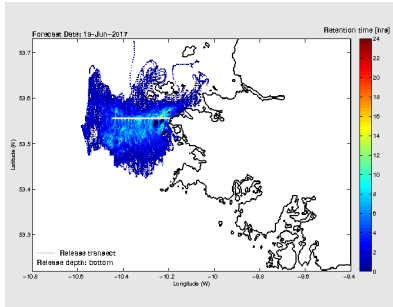
Reddish colours represent areas where phytoplankton remain longest
Cooler colours represent areas where phytoplankton remain for shorter periods



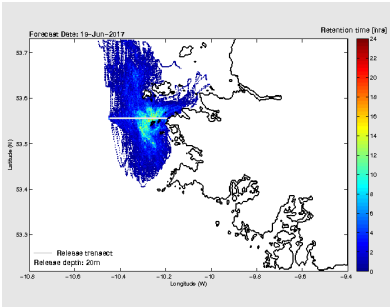
particle transport probability (hours)
Bantry Bay model particle track analysis
(2015-03-10T00:00:00Z, release_location=0.0 count)
Data courtesy of Irish Marine Institute

Forecast for the next 3 days

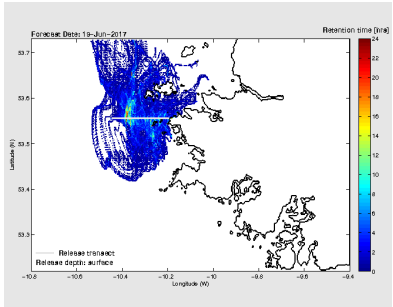
Bottom water



Water @ 20 metres

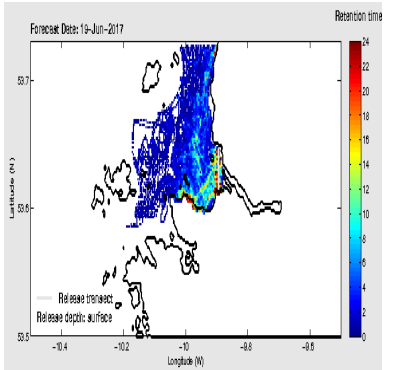
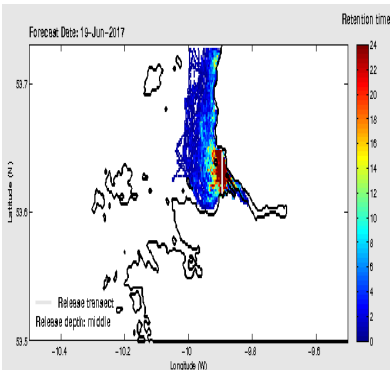
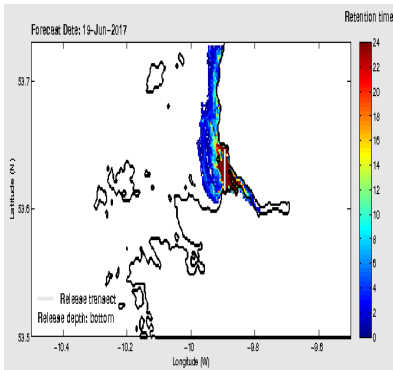


Surface water



Cleggan

Well mixed waters at all depths with equally opposing directional movement – North/ South. Strong possibility of offshore waters entering near shore areas.

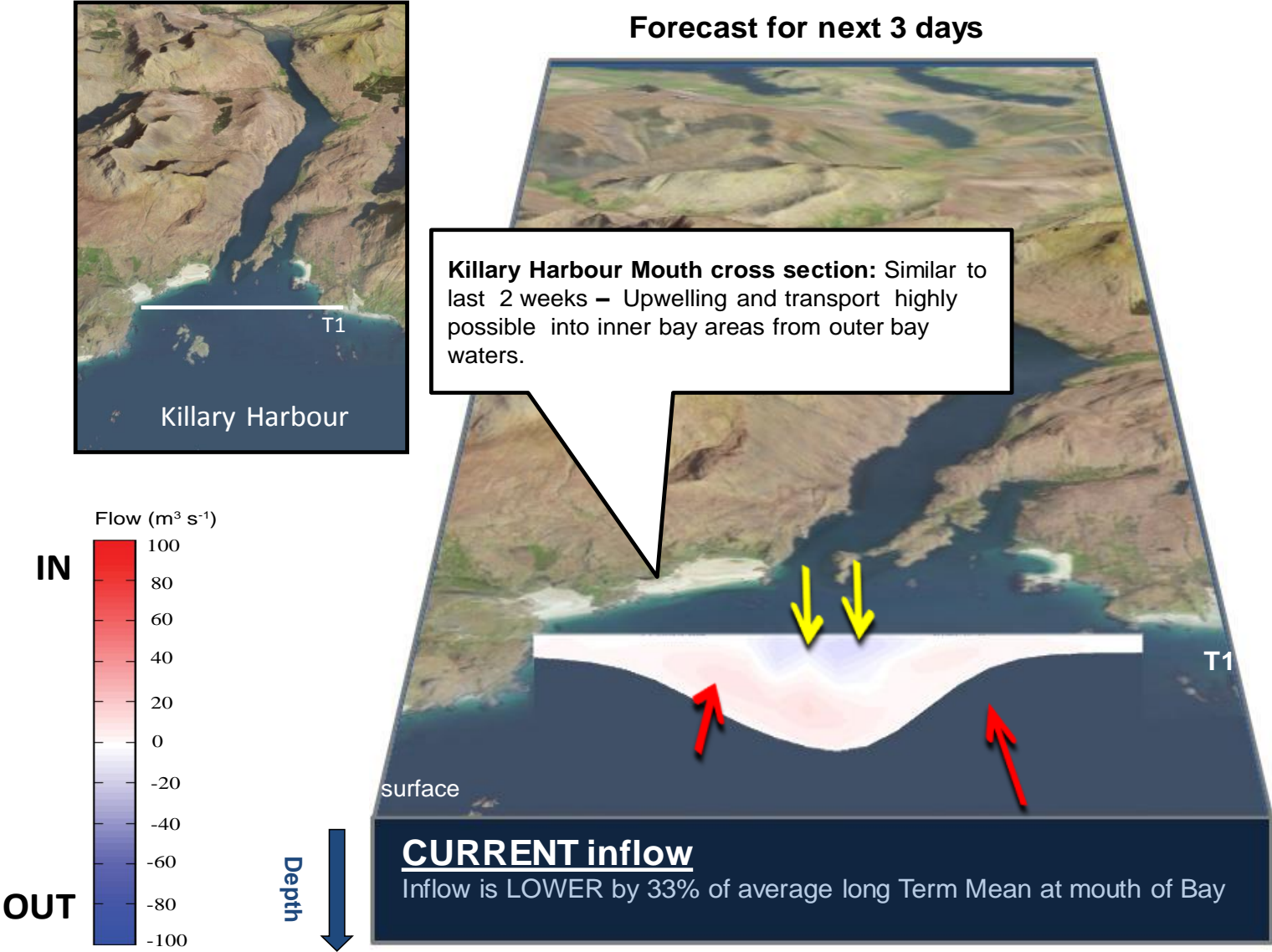


Killary

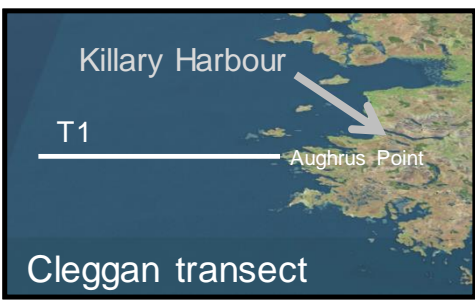
Waters at all depths moving northward outside bay mouth area . Upwelling conditions likely in inner bay area as bottom and deeper waters indicate movement inward while surface waters indicate opposite transport.

Killary Harbour

3 day estimated water flows at the mouth of Killary Harbour



West Coast - 3 day estimated water flows along a transect off Aughrus Point



Forecast for next 3 days

Cleggan section: Strong water mixing and dominant northerly flows offshore , at all depths, with some counter southerly flows continuing to establish in near shore areas. .

