

Ireland: Predictions

ASP event: Low
AZP event: **High**
DSP event: **High**
PSP event: High (site specific , moderate in general)

NMP Current closures			
ASP	AZP	DSP	PSP
0	1	0	0

ASP: Similar to last week -Continued low cell levels. It would be unusual to have an issue at this time of year and the species present do not appear to be causing any toxin issues . A slight level of caution is advised due to presence of cell levels in some sites.

AZP: **Highest caution** is still advised with this difficult species. Current seasonal impact (1 site positive) is rising as warned, in terms of sites just below the limit. This is the main historical occurrence period, suitable environmental conditions continue to prevail and the toxin is currently present in moderate levels. Issues with this toxin can occur suddenly and acutely . Highest caution is advised .

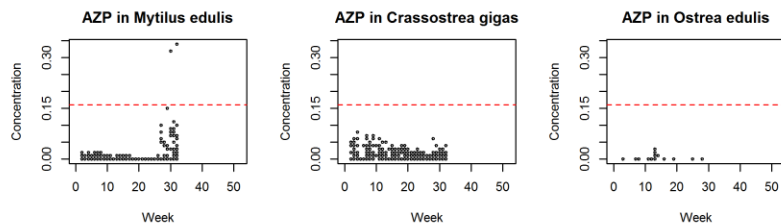
DSP: **Highest caution** - Continued toxicity issues ,just below limit, in some sites , but cell levels increasing slowly in other areas throughout the coastline. All sites should insure best sampling practices and obtaining the most recent results available. Continued rise and impact of this species is occurring and is expected to continue for a period based on current trends, historic patterns and predictive marine models.

PSP: Ideal weather conditions not expected this week but **high caution** still advised particularly in historically affected sites (S) and any site with significant species levels during any good weather period.

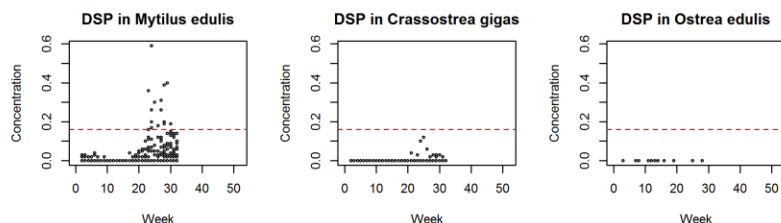
Blooms: There is a **moderate to low risk of bloom conditions spreading** due to current environmental conditions. Any unusual water discoloration should be noted and regional labs contacted if concerned /regarding possible need for additional sampling. All feedback is welcome at Joe.Silke@Marine.ie .

National Monitoring Programme

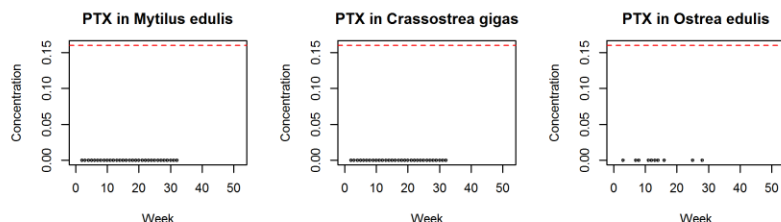
AZP



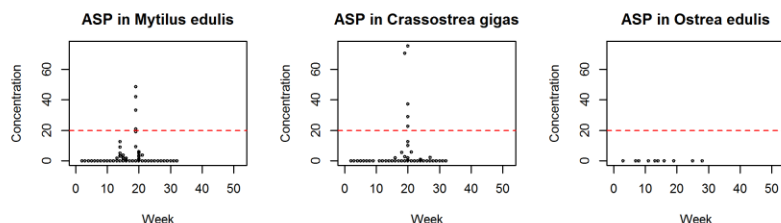
DSP



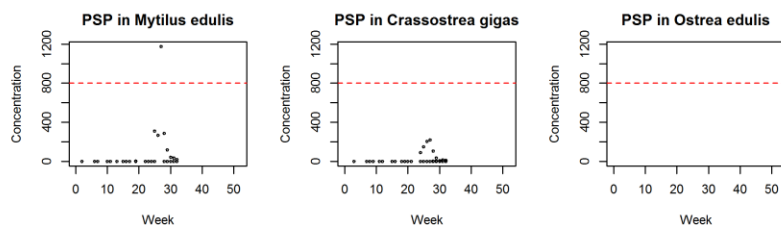
PTX



ASP



PSP



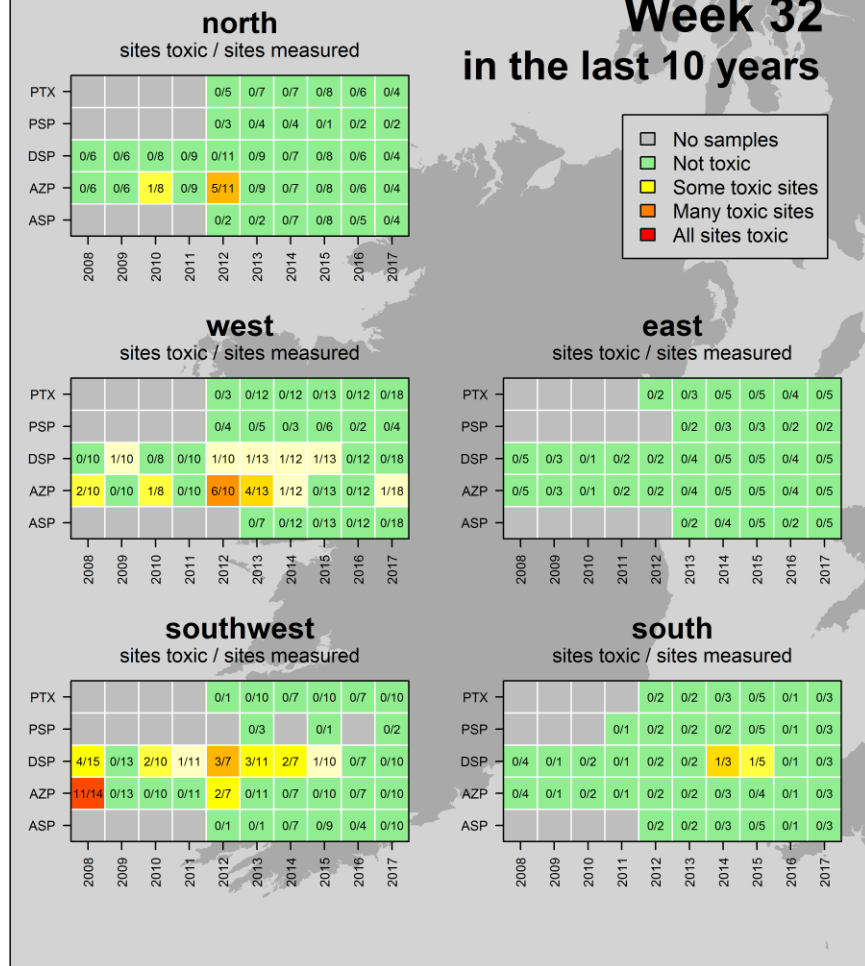
Levels from week 1 to present week. Regulatory limit - - - - -



HISTORIC TRENDS



**Week 32
in the last 10 years**



ASP events: mid-March to early May

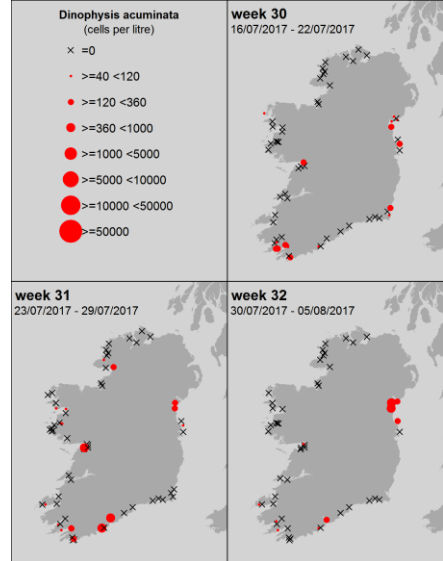
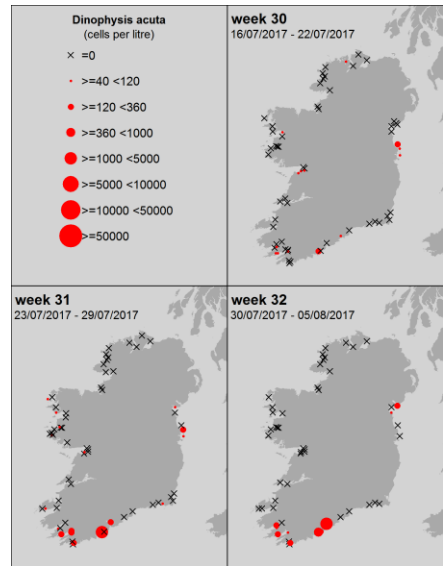
AZP events: April to December

DSP events: May to December

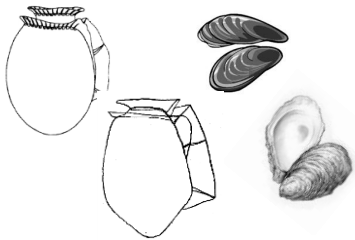
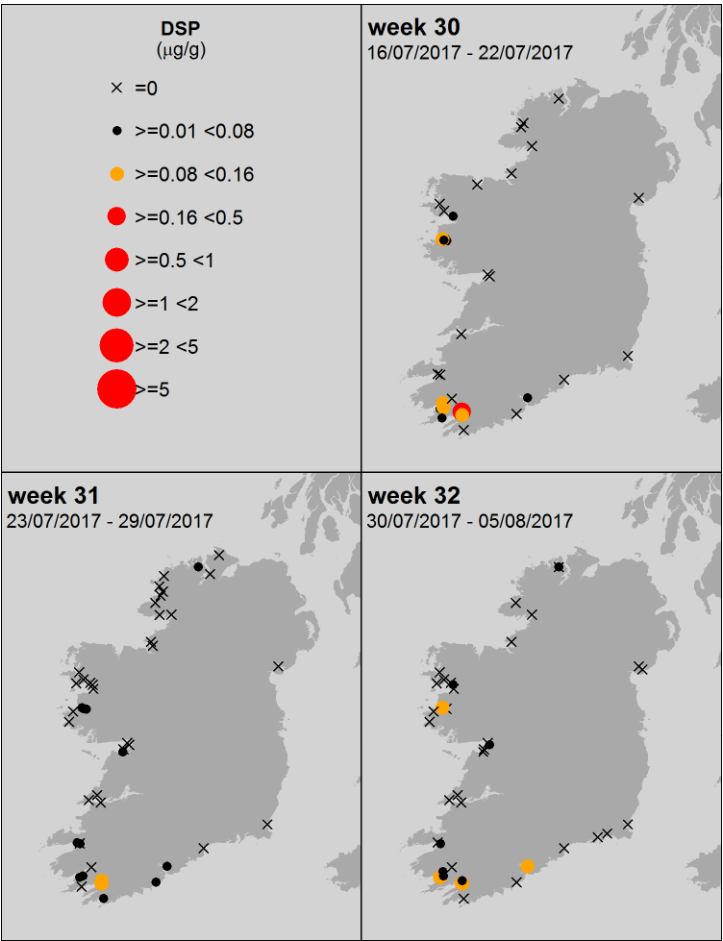
PSP events: June to mid-July and end September; only in Cork Harbour

DSP and Dinophysis sp. current trends

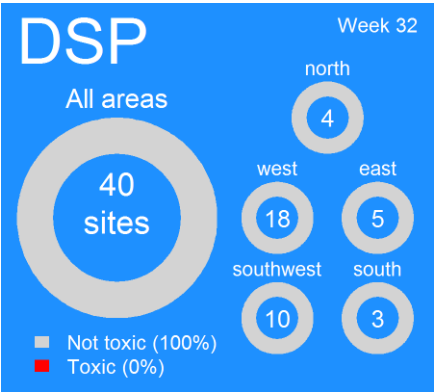
Phytoplankton species – 3 wks.



All levels of DSP biotoxin recorded- 3 wks.

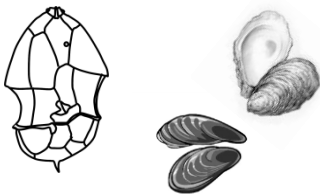


Current closures levels
≥ DSP 0.16 µg/g



Comment – As previously warned over last few weeks – seasonal issues likely to continue. Cell levels will probably go higher and increase coastal area coverage before the end of the traditional risk period. Continued highest caution advised.

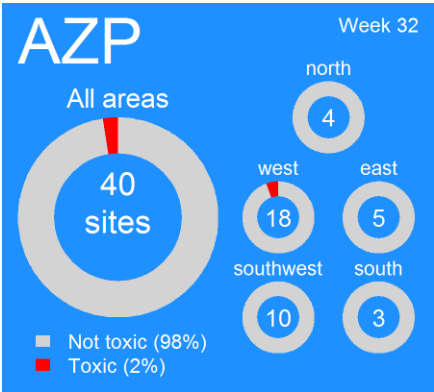
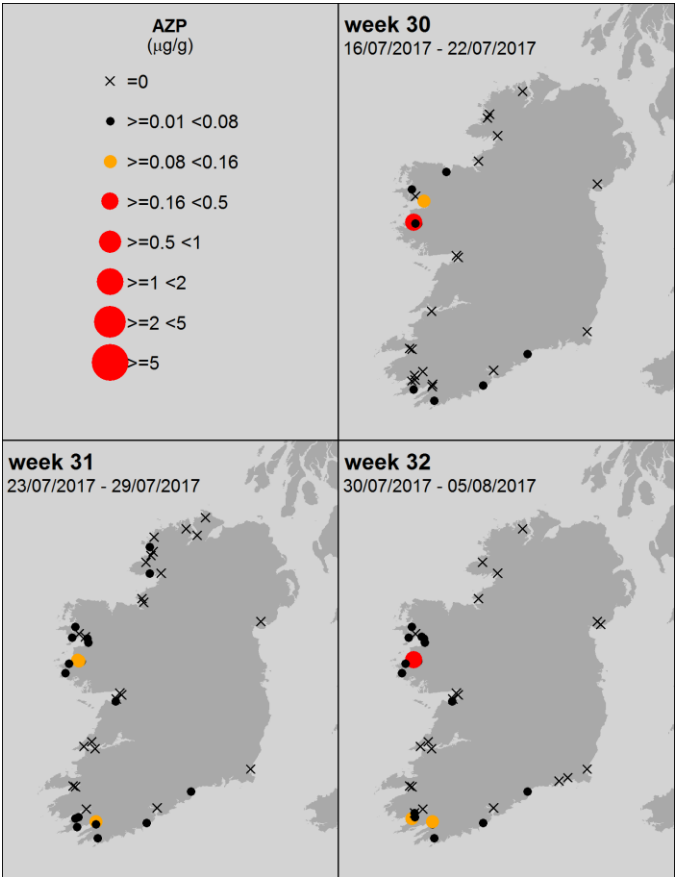
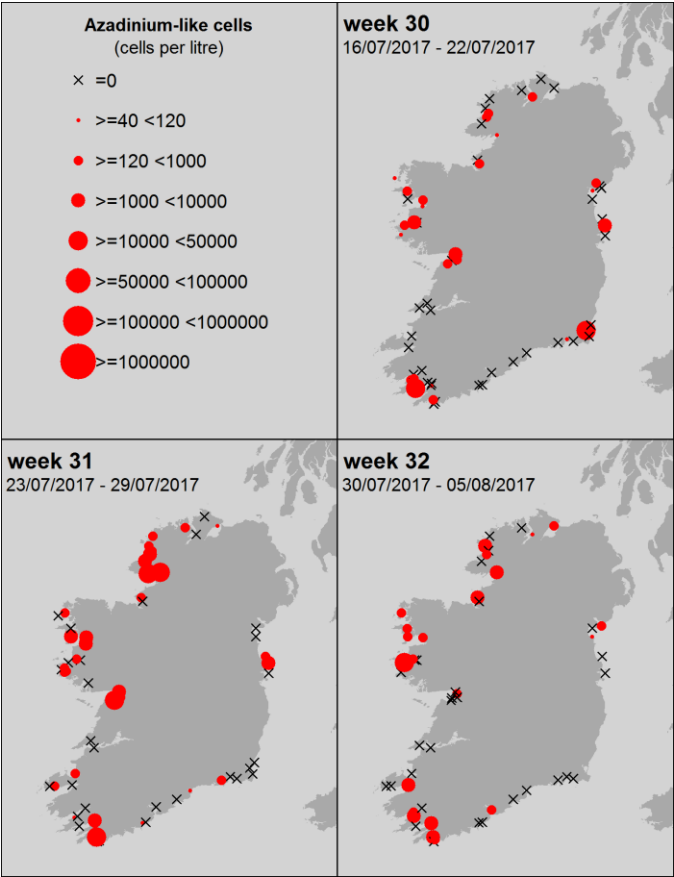
AZP and Azadinium like species current trends



Phytoplankton species – 3 wks.

All levels of AZP biotoxin recorded - 3 wks.

Current closures levels
≥ AZP 0.16 µg/g

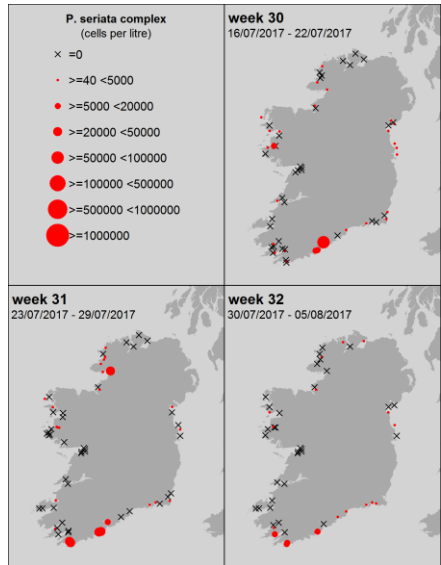
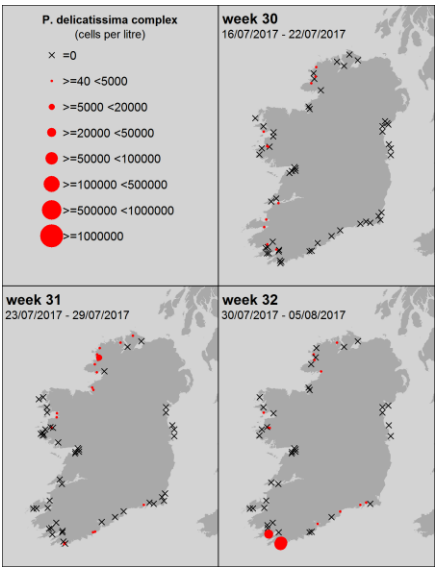


Comments

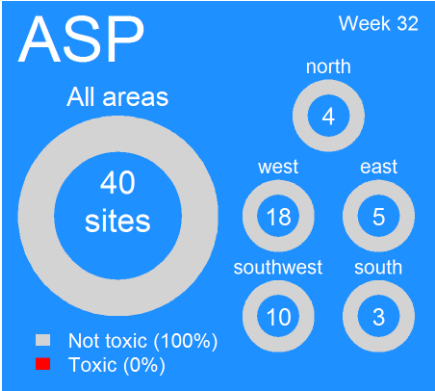
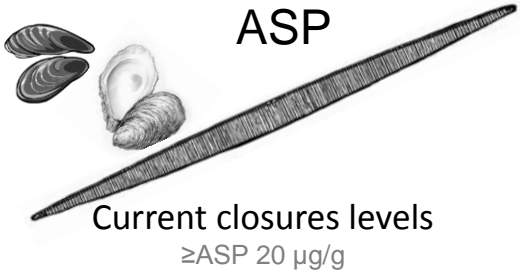
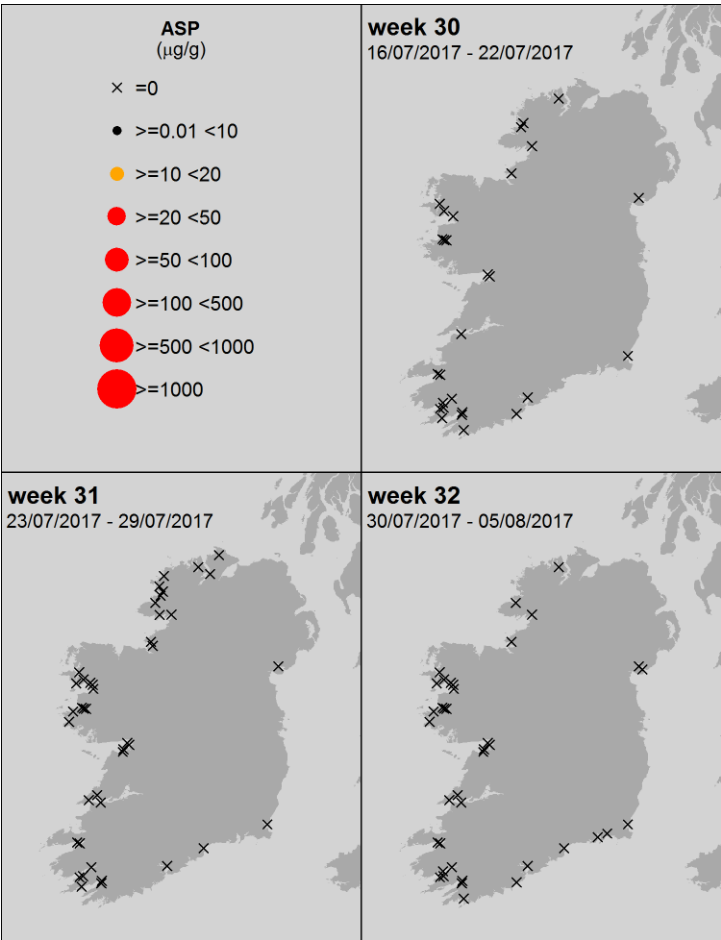
As previously warned, more seasonal issues likely - highest level of caution and observance and testing in affected areas recommended. This species has been can rapidly bloom or get transport into bay areas at bloom levels. Such transport conditions are typical at this time of year- sudden acute issues possible.

ASP and Pseudo nitzschia sp. current trends

Phytoplankton species – 3 wks.



All levels of ASP biotoxin recorded - 3 wks.



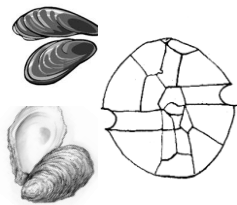
Comments

Same as last week -Low cell levels only. Cell levels appear to be returning to normal background levels and a toxin event would be unlikely at this time of year.

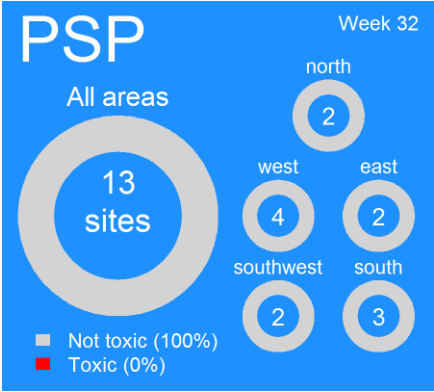
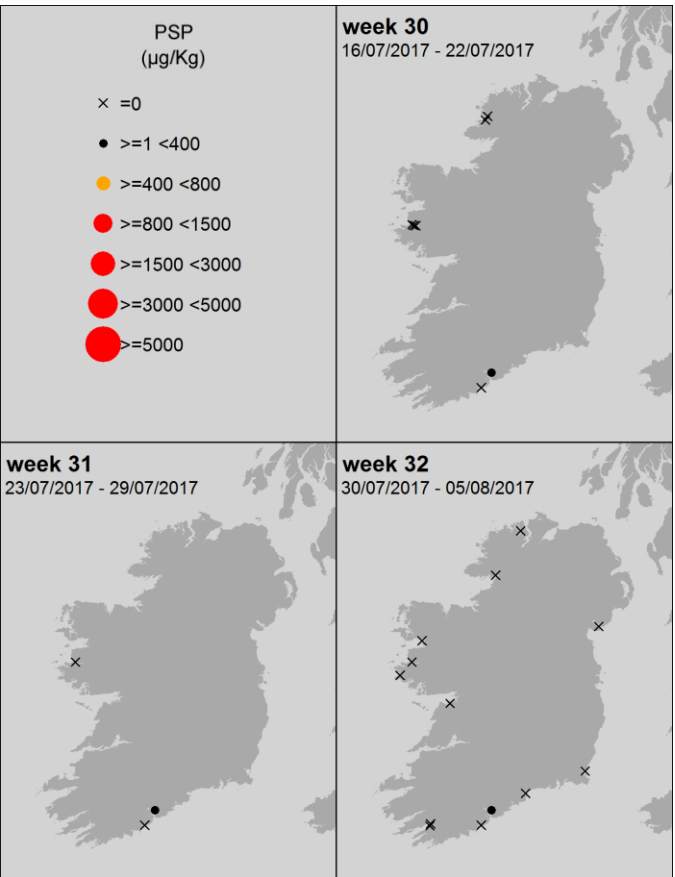
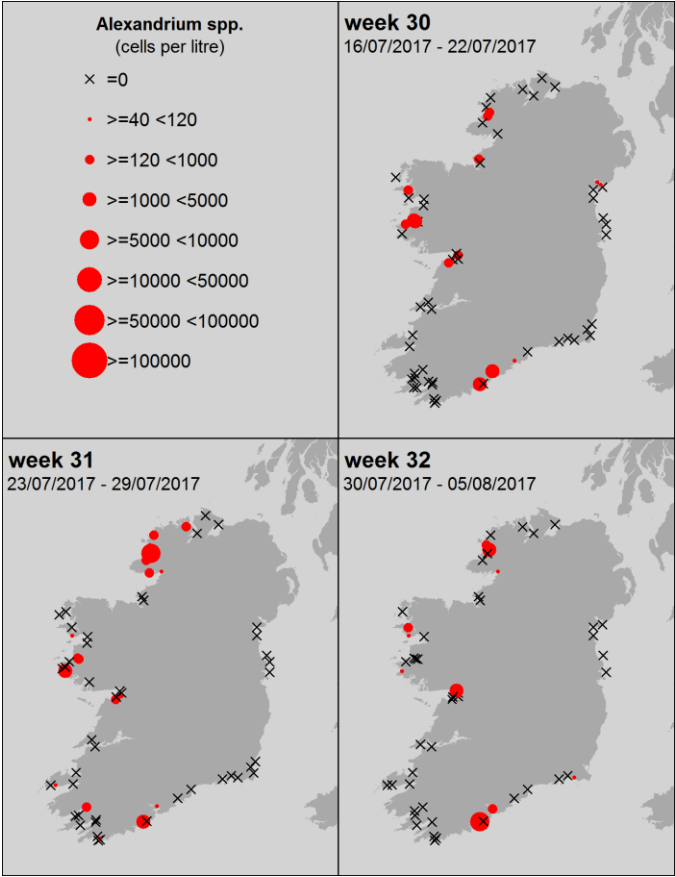
PSP and Alexandrium sp. current trends

Phytoplankton species – 3 wks.

All levels of PSP biotoxin recorded - 3 wks.



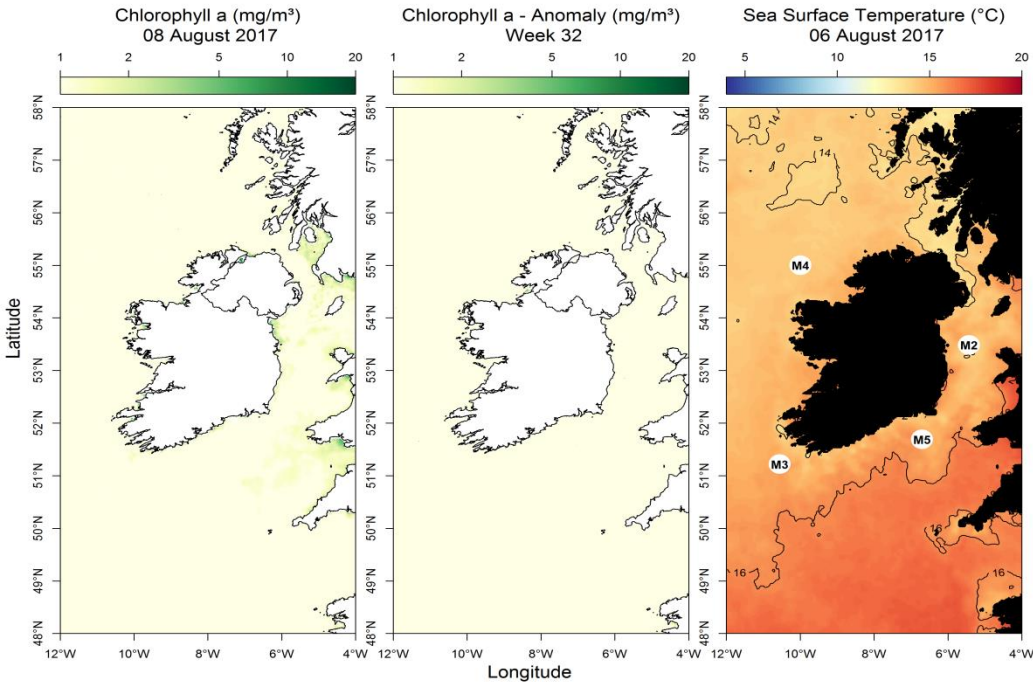
Current closures levels
≥ PSP 800 µg/Kg



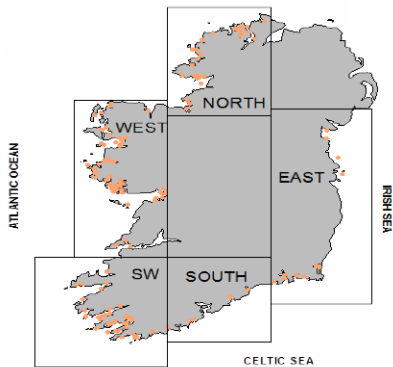
Comments

This is within peak historical likely occurrence and while current environmental conditions may not be ideal r full caution is still advised.

Most up to date available satellite data



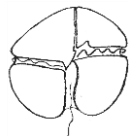
Diatoms still dominating the top 5 species by abundance in most sites with a slight decrease in volumes in general. Currently no significant chlorophyll peak anomalies in any area around coastline.



NW coast (M4) Below average by 0.60°C wk31
SW coast (M3) Unavailable
SE coast (M5) Below average by 0.67°C wk31

What phytoplankton were blooming at inshore coastal sites last week?

Rank	Region	Species	Rounded Count
1	east	Chaetoceros spp. (H) (small)	384000
2	east	Leptocylindrus minimus	143000
3	east	Rhizosolenia sp	52000
4	east	Haptophytes	7000
5	east	Chaetoceros (Hyalochaete) spp.	5000
1	north	Chaetoceros (Hyalochaete) spp.	105000
2	north	Skeletonema spp.	56000
3	north	Haptophytes	31000
4	north	Dactyliosolen spp.	23000
5	north	Raphidophytes	21000
1	south	Chaetoceros (Hyalochaete) spp.	18000
2	south	Pseudo-nitzschia seriata complex	4000
3	south	Paralia sulcata	1000
3	south	Leptocylindrus danicus	1000
5	south	Euglena/Eutreptiella spp.	1000
5	south	Scripsiella spp.	1000
1	southwest	Chaetoceros (Hyalochaete) spp.	197000
2	southwest	Lauderia / Detonula sp	163000
3	southwest	Asterionellopsis glacialis	144000
4	southwest	Leptocylindrus minimus	139000
5	southwest	Pseudo-nitzschia delicatissima complex	74000
1	west	Skeletonema spp.	1339000
2	west	Haptophytes	338000
3	west	Pennate diatom	49000
4	west	Chaetoceros (Hyalochaete) spp.	33000
5	west	Azadinium/heterocapsa spp.	27000



Karenia mikimotoi bloom warning level
- High to medium -

Potential bloom in south/south east areas still possible – current weather conditions slightly unfavourable but this is still the peak season for the potential occurrence of *Karenia* blooms . If blooms reach shore areas for sustained periods of time high likelihood of potential issues for stock/habitats ranging from mild stress to mortalities.

Other bloom species news

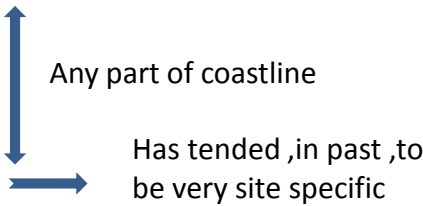
Most species have the potential to reach high numbers and be considered a bloom. The majority of such blooms are short lived and not a problem. At this time of year the typical species to watch out for , that can cause problems, are:

Karenia mikimotoi

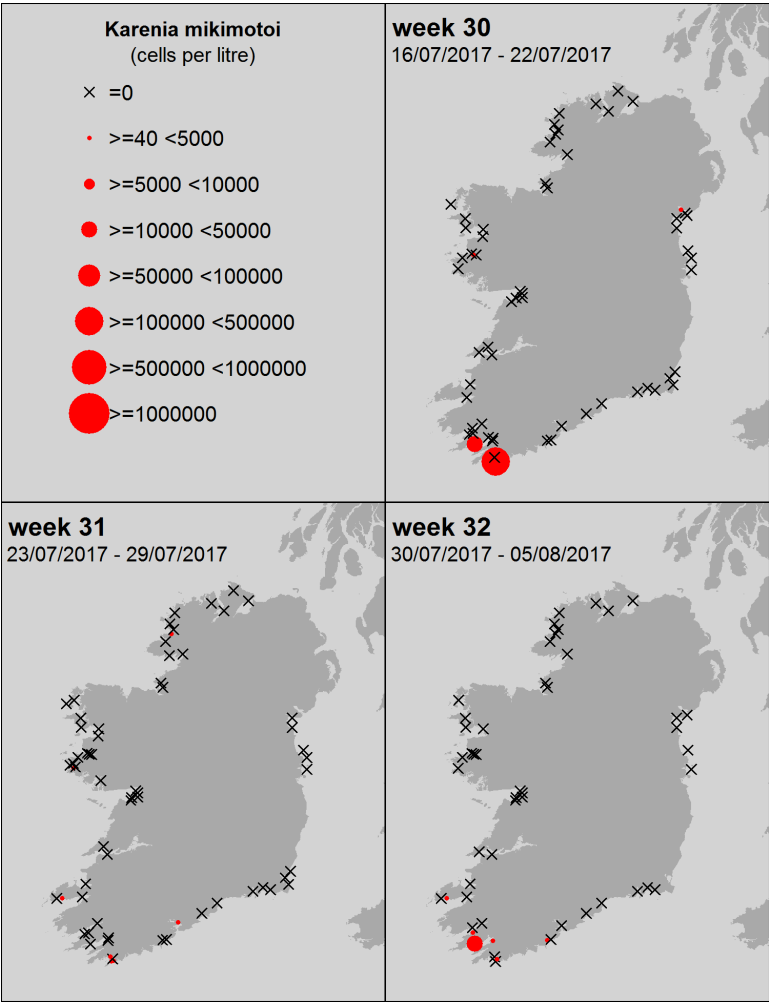
Heterocapsa spp.

Noctiluca scintillans

Alexandrium spp.



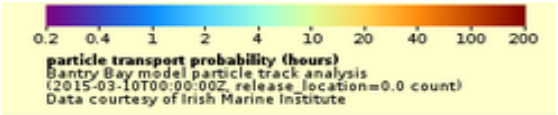
Karenia mikimotoi
(old name: *Gyrodinium aureolum*)



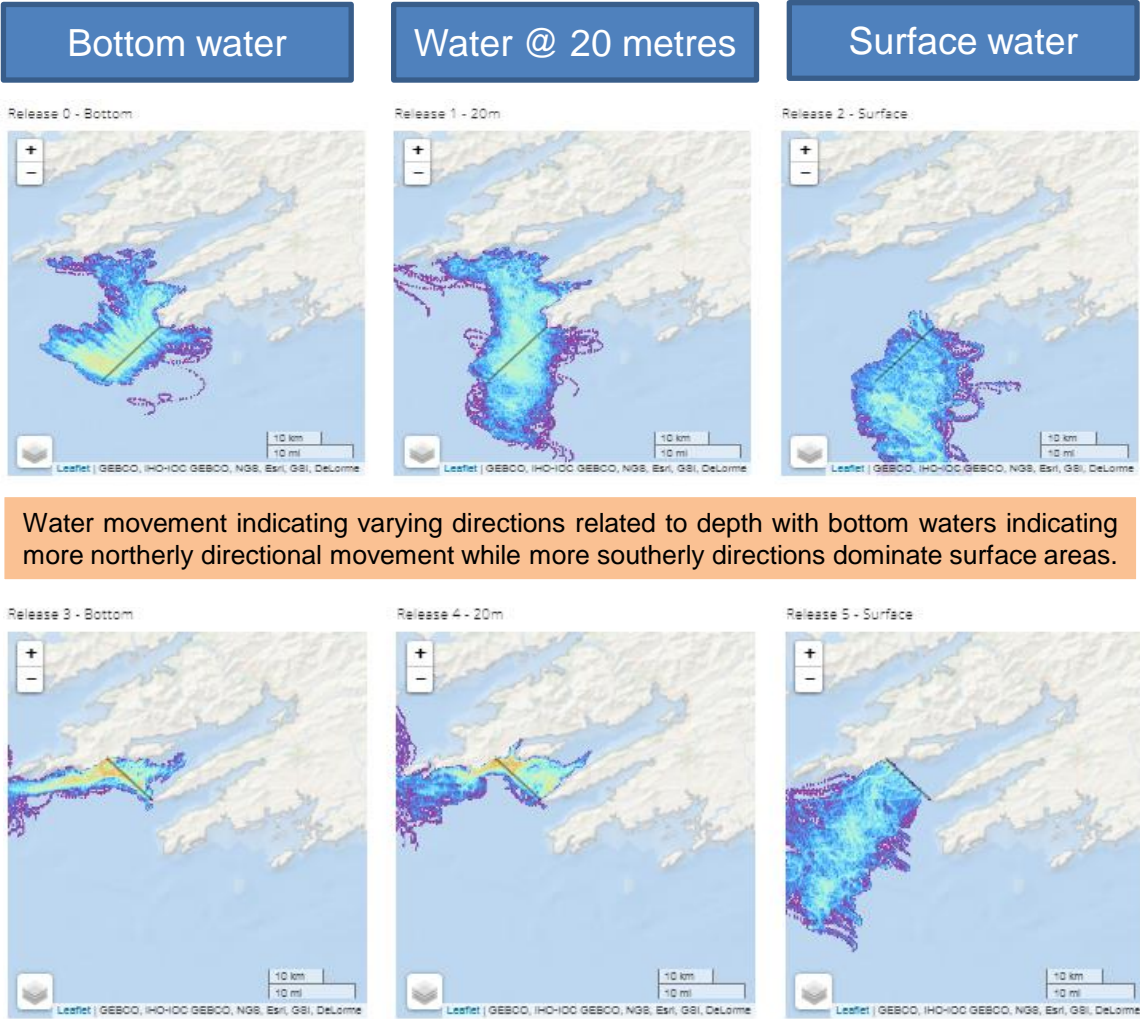
SOUTHWEST: Bantry Bay

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



Forecast for the next 3 days



Water movement indicating varying directions related to depth with bottom waters indicating more northerly directional movement while more southerly directions dominate surface areas.

Similar to last week -mirroring the mixed directions of movement in offshore waters but also allowing for upwelling events to occur.

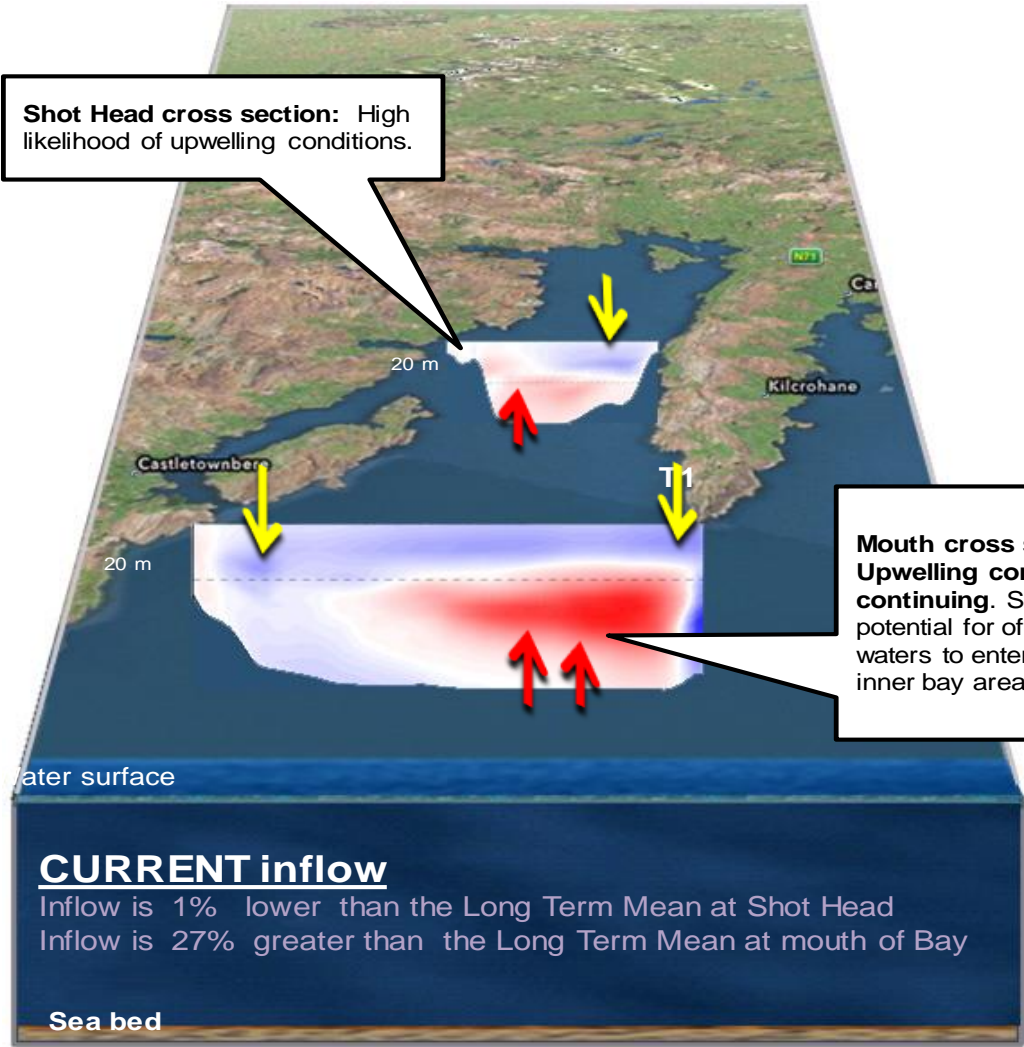
Bantry Bay

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

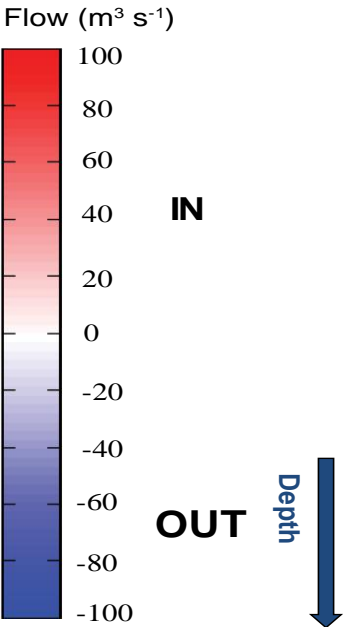


Forecast for next 3 days

Shot Head cross section: High likelihood of upwelling conditions.



Mouth cross section: Upwelling conditions continuing. Strong potential for offshore waters to enter the inner bay area .



WEST: Killary Harbour

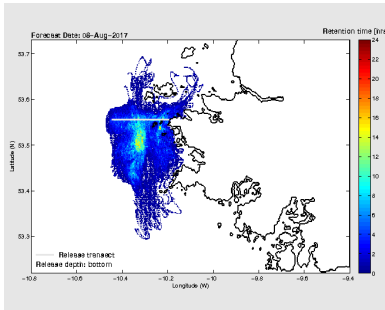
Forecast for the next 3 days

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)

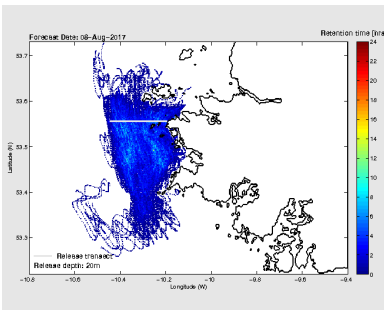
Reddish colours represent areas where phytoplankton remain longest
Cooler colours represent areas where phytoplankton remain for shorter periods

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

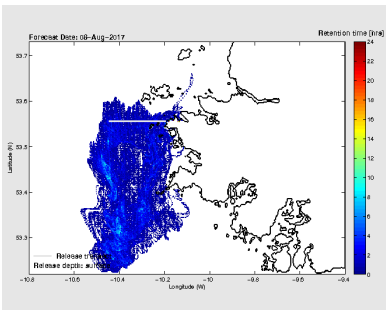
Bottom water



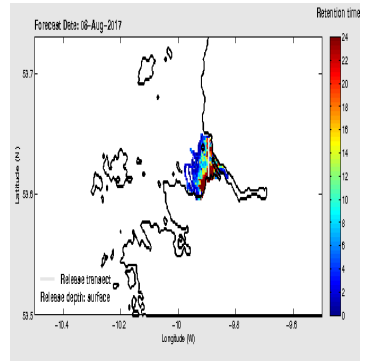
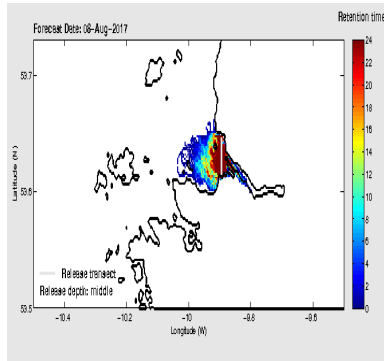
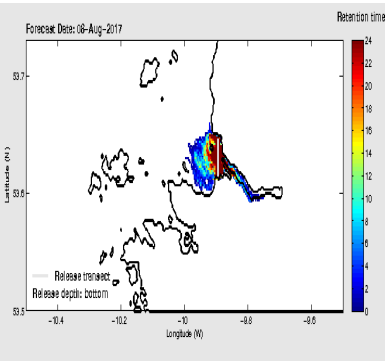
Water @ 20 metres



Surface water



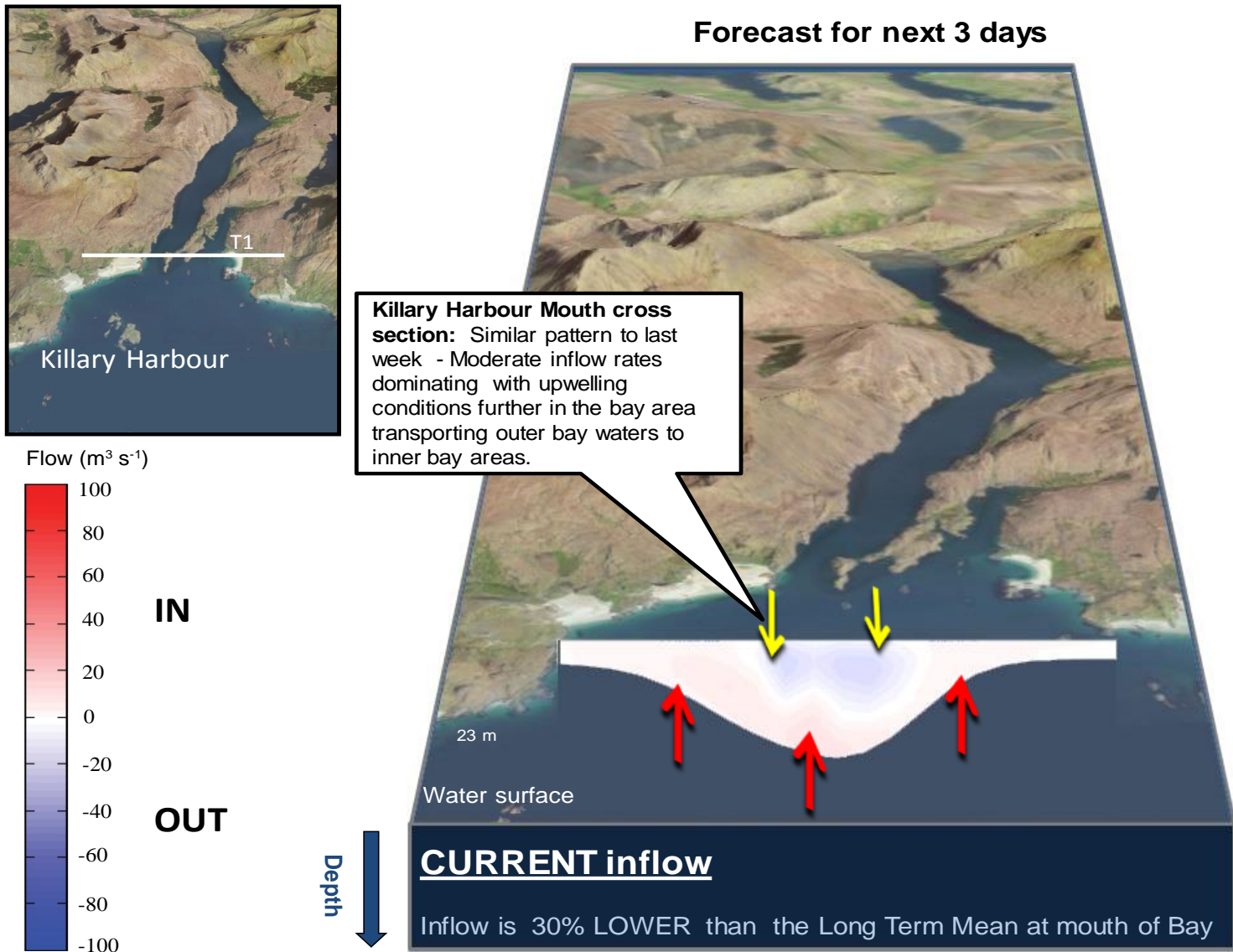
Cleggan
Opposite to last week - strong predominantly southerly water movements at all depths. Offshore waters reaching near shores areas likely.



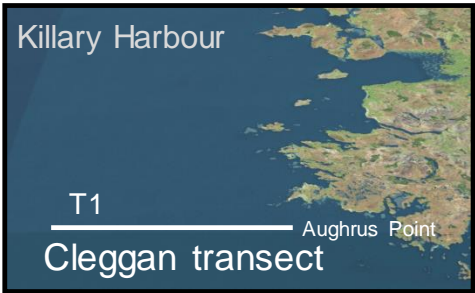
Killary
Strong intrusions of offshore waters into inner bay areas, Outer bay waters reaching inner bay areas , at all depths, likely.

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

