

Shetland Bulletin on the status of harmful & toxic algae Week 50, 8th - 14th Dec 2025

Biotoxin report:

PSP toxins: Five samples were analysed this week. Toxins were detected in low concentrations in Slyde and Busta Voe Lee.

DSP toxins: Six samples were analysed this week. Toxins were detected in low concentrations in East of Linga, Slyde and Busta Voe Lee.

ASP toxins: Five samples were analysed this week. Toxins were not detected.

AZA toxins: Six samples were analysed this week. Toxins were not detected.

YTX toxins: Six samples were analysed this week. Toxins were not detected.

Harmful algae report:

Alexandrium: One sample was analysed this week. *Alexandrium* was not detected.

***Pseudo-nitzschia delicatissima*:** One sample was analysed this week. *P-n delicatissima* was detected in low numbers in East of Linga.

***Pseudo-nitzschia seriata*:** One sample was analysed this week. *P-n seriata* was not detected.

***Dinophysis*:** One sample was analysed this week. *Dinophysis* was not detected.

***Prorocentrum lima*:** One sample was analysed this week. *P. lima* was not detected.

***Karenia mikimotoi*:** One sample was analysed this week. *Karenia* was not detected.

Shetland: trends and forecast

***Alexandrium*/PSP:** Toxins were detected in low concentrations in two sites this week. However, it is extremely unlikely there will be a toxic bloom this week.

***Dinophysis*/DSP:** Toxins were detected in low concentrations in three sites this week. However, it is unlikely there will be a toxic bloom this week.

***Pseudo-nitzschia*/ASP:** No toxins were detected this week. It is extremely unlikely that there will be a toxic bloom this week.

AZA and YTX: It is extremely unlikely that there will be a toxic bloom this week.

Risk for **PSP:** Low

Risk for **DSP:** Low

Risk for **ASP:** Low

Risk for **YTX:** Low

Risk for **AZA:** Low

While this bulletin is based on our expert opinion, SAMS cannot accept responsibility for harvesting or husbandry decisions. Those remain the responsibility of the industry.



Toxin concentrations provided courtesy of the Centre for Environment, Fisheries and Aquaculture Science



SeafoodShetland

Funding for these bulletins is kindly provided by Seafood Shetland

Primary data for biotoxins and biotoxin producing phytoplankton available at: <http://www.food.gov.uk/enforcement/monitoring/shellfish/algatoxin/#.UY0TkqTQ6O>

Warning/Threshold Levels

<i>Alexandrium</i> (PSP causative)	Warning 20 cells/l Threshold 40 cells/l
<i>Pseudo nitzschia</i> (ASP causative)	Warning: 40,000 cells/l Threshold: 50,000 cells/l
<i>Dinophysis</i> (DSP causative)	Warning : 80 cells/l Threshold: 100 cells/l
<i>Prorocentrum lima</i> (DSP causative)	Warning: 80 cells/l Threshold: 100 cells/l

The maximum permitted levels of biotoxins in shellfish are:

PSP: 800 µg/kg

ASP: 20 mg/kg

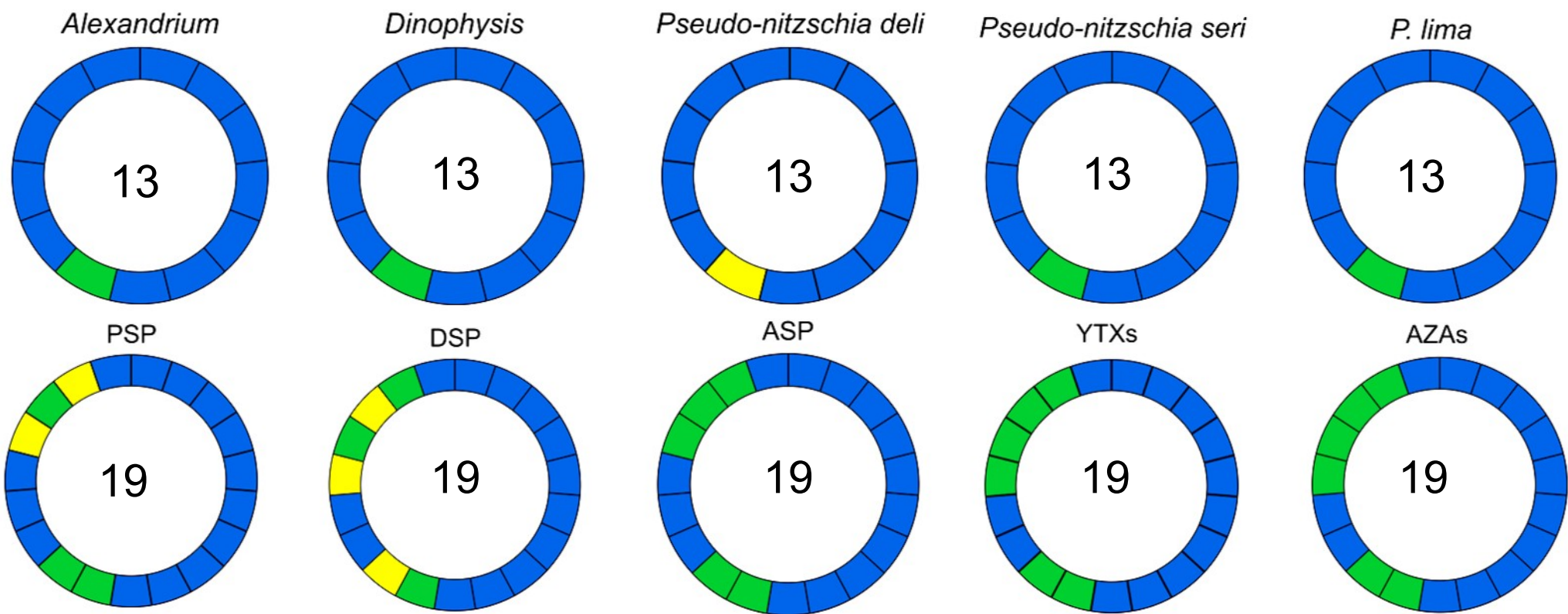
Lipophilic toxins (tested by LC-MS):

OA/DTXs/PTXs: 160 µg/kg of Okadaic acid equivalents

YTXs: 3.75 milligram of yessotoxin equivalent/kilogram

AZAs: 160 micrograms of azaspiracids equivalents/kilogram

Status of biotoxins & harmful algae present in Shetland



Segments - no of individual sites, Colours: Green, red, amber and yellow as per key. Blue - not analysed. Coloured segment indicates approximate position of site in Shetland

Biotoxin & Species					
PSP	<RL	RL - 399 µg/kg	400 - 800 µg/kg	>800 µg/kg	Not analysed
OA/DTX/PTX	<RL	1 - 79 µg/kg	80 - 160 µg/kg	>160 µg/kg	Not analysed
ASP	<LOQ	LOQ - 9.9 mg/kg	10 - 20 mg/kg	>20 mg/kg	Not analysed
YTX	<RL	1 - 1.7 mg/kg	1.8 - 3.75 mg/kg	>3.75 mg/kg	Not analysed
AZA	<RL	1 - 79 µg/kg	80 -160 µg/kg	>160 µg/kg	Not analysed
<i>Alexandrium</i>	<20 cells/l	n/a	20 cells/l	≥ 40 cells/l	Not sampled
<i>Dinophysis</i>	<20 cells/l	20 - 79 cells/l	80 - 99 cells/l	≥100 cells/l	Not sampled
<i>Pseudo nitzschia</i>	<20 cells/l	20 - 39,999 cells/l	40,000 - 49,999 cells/l	≥50,000 cells/l	Not sampled
<i>Prorocentrum lima</i>	<20 cells/l	20 - 79 cells/l	80 - 99 cells/l	≥100 cells/l	Not sampled

NOTE:
This page is intended as a quick overview of the situation in the Shetland Islands. If the status for a particular species or biotoxin is amber or red please check the relevant pages in the bulletin for more details and specific locations.
RL- reporting limit;
LOQ – Limit of quantification

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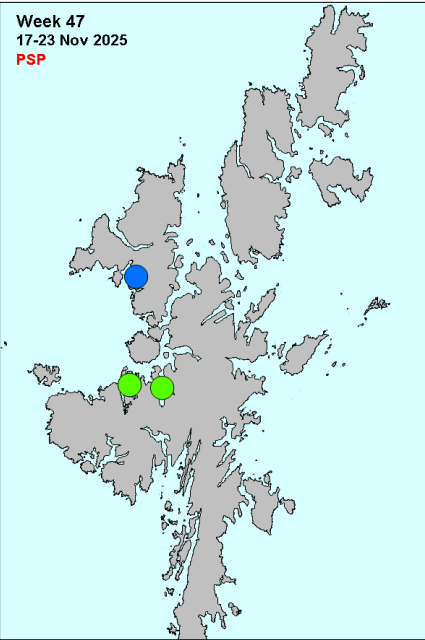
Paralytic shellfish poisoning toxins & causative phytoplankton

PSP

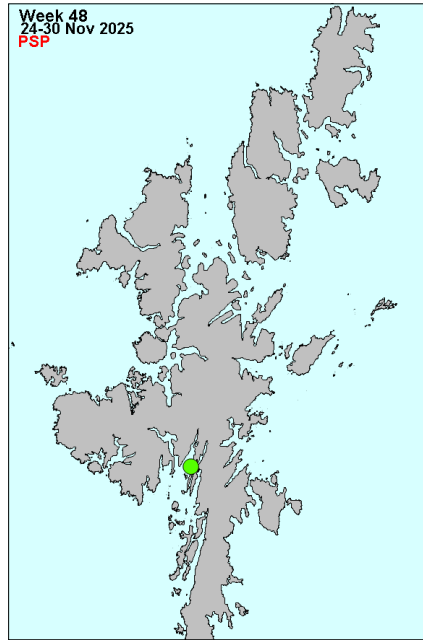
µg STX eq/kg



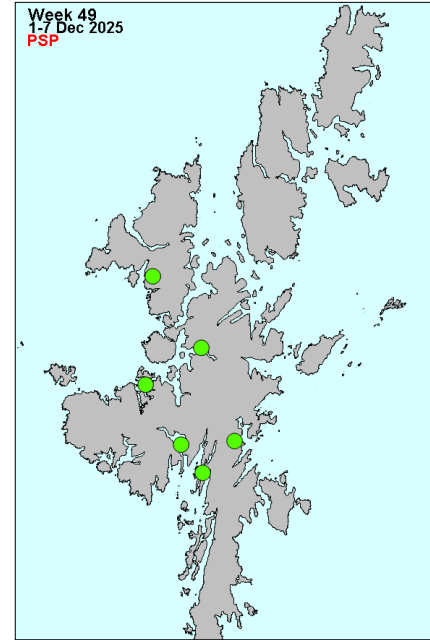
Week 47
17-23 Nov 2025
PSP



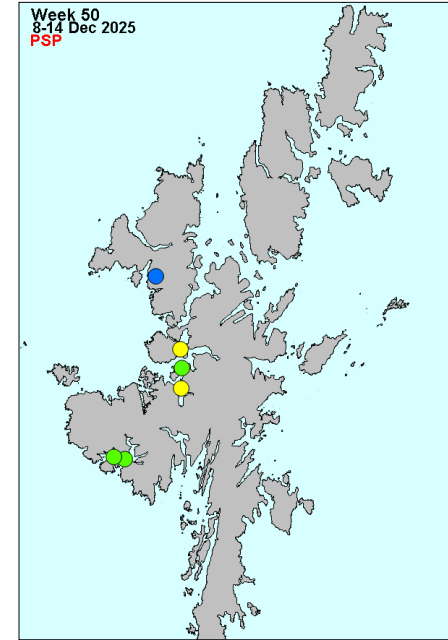
Week 48
24-30 Nov 2025
PSP



Week 49
1-7 Dec 2025
PSP

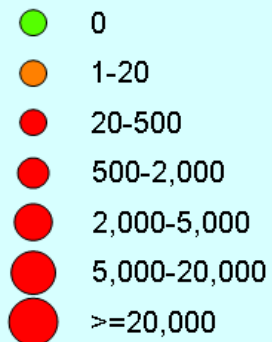


Week 50
8-14 Dec 2025
PSP

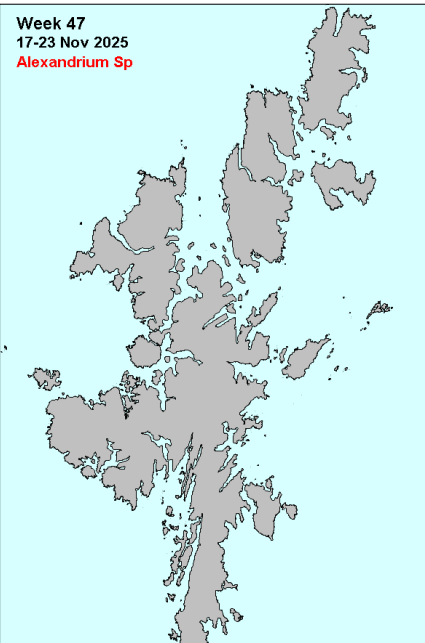


Alexandrium Sp.

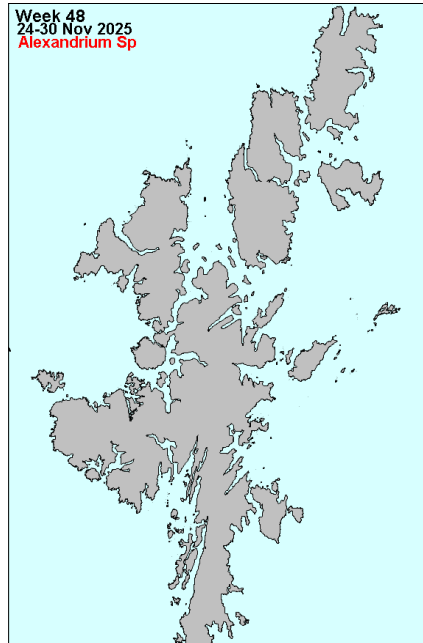
cells/l



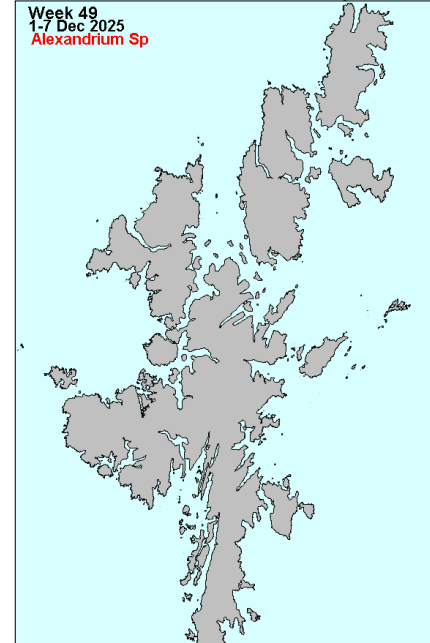
Week 47
17-23 Nov 2025
Alexandrium Sp.



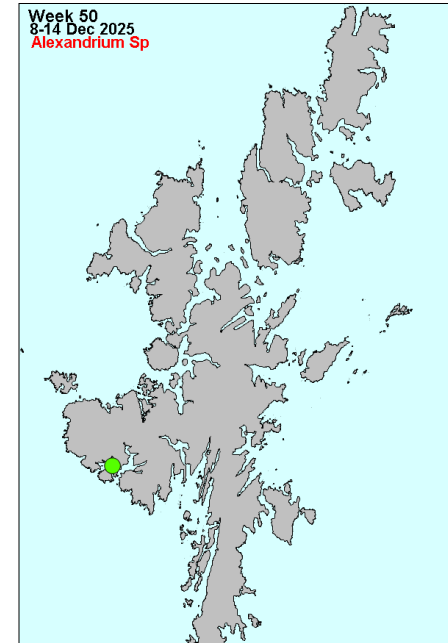
Week 48
24-30 Nov 2025
Alexandrium Sp.



Week 49
1-7 Dec 2025
Alexandrium Sp.



Week 50
8-14 Dec 2025
Alexandrium Sp.



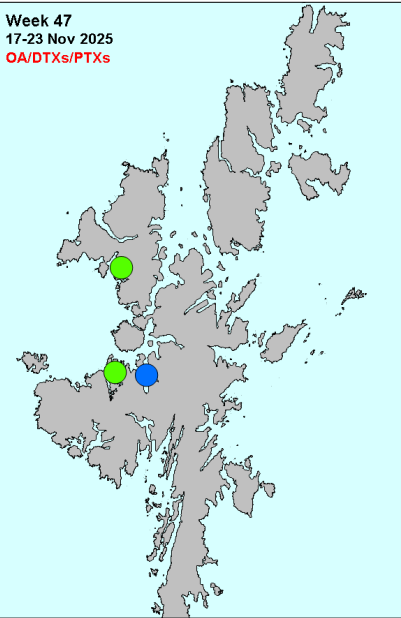
Diarrhetic shellfish poisoning toxins & causative phytoplankton

OA/DTXs/PTXs

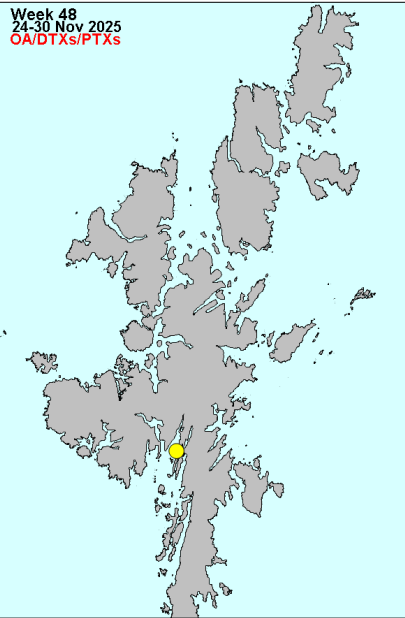
µg OA eq/kg



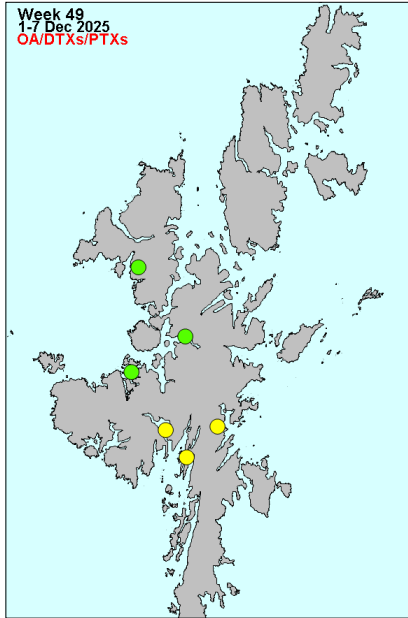
Week 47
17-23 Nov 2025
OA/DTXs/PTXs



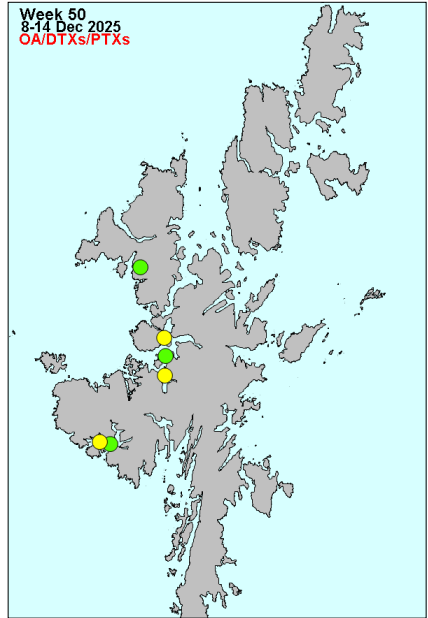
Week 48
24-30 Nov 2025
OA/DTXs/PTXs



Week 49
1-7 Dec 2025
OA/DTXs/PTXs

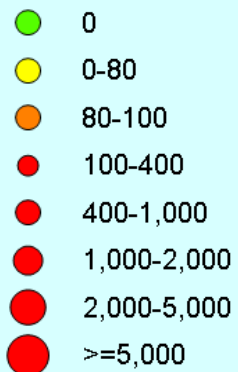


Week 50
8-14 Dec 2025
OA/DTXs/PTXs

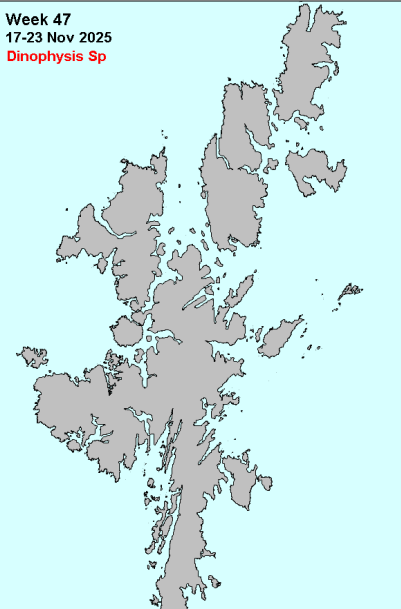


Dinophysis Sp.

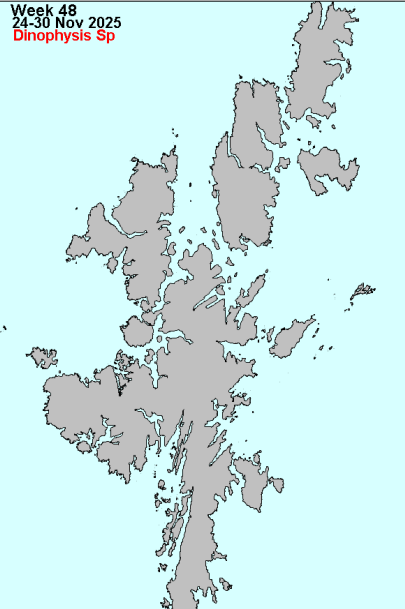
cells/l



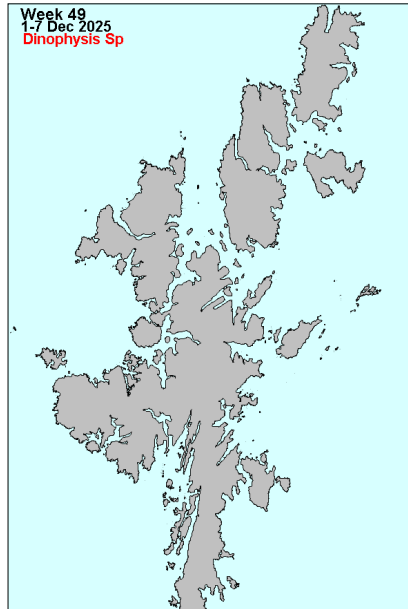
Week 47
17-23 Nov 2025
Dinophysis Sp



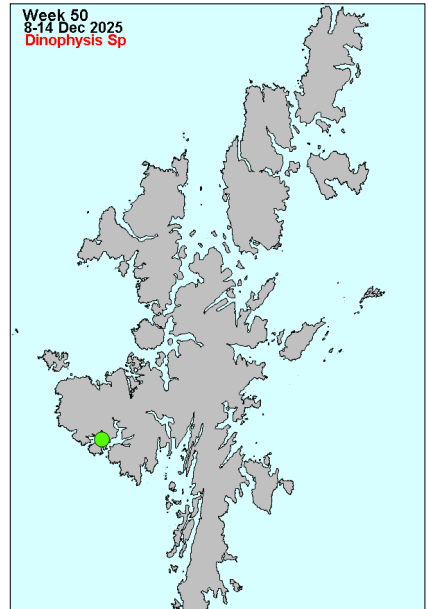
Week 48
24-30 Nov 2025
Dinophysis Sp



Week 49
1-7 Dec 2025
Dinophysis Sp



Week 50
8-14 Dec 2025
Dinophysis Sp



Shetland Bulletin on the status of harmful & toxic algae Week 50, 8th - 14th Dec 2025

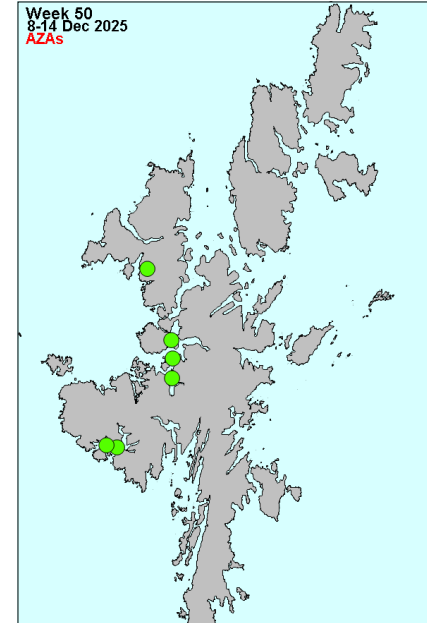
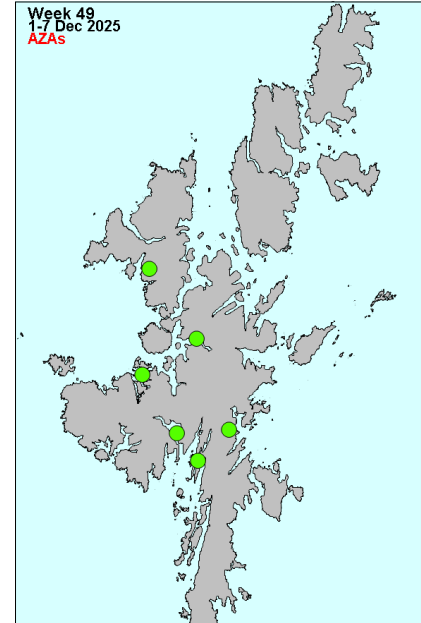
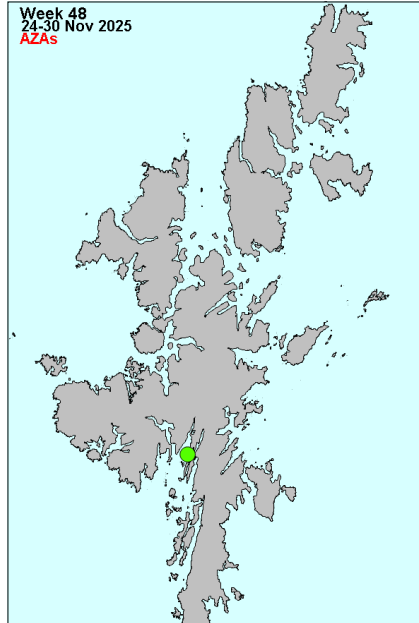
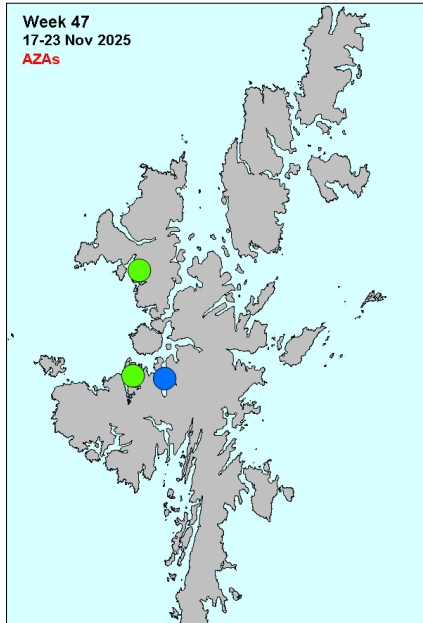
Amnesic Shellfish Poisoning & causative phytoplankton



Azaspiracid & Yessotoxin shellfish poisoning toxins

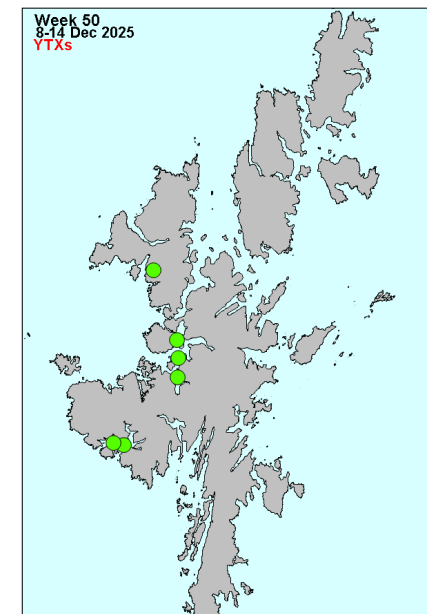
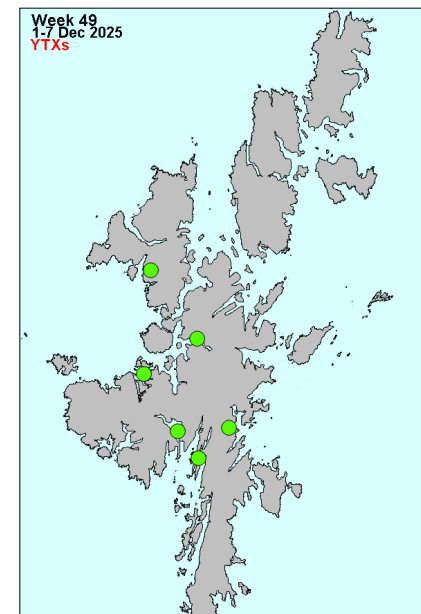
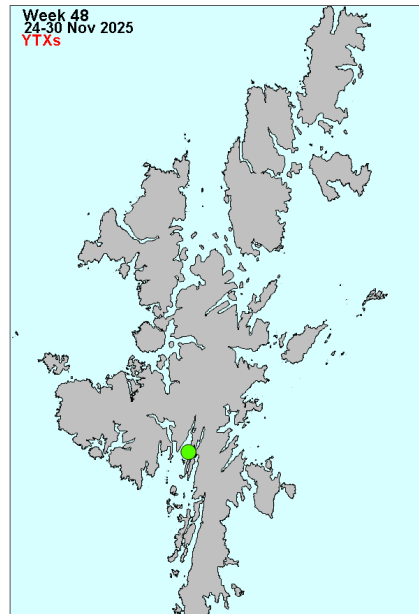
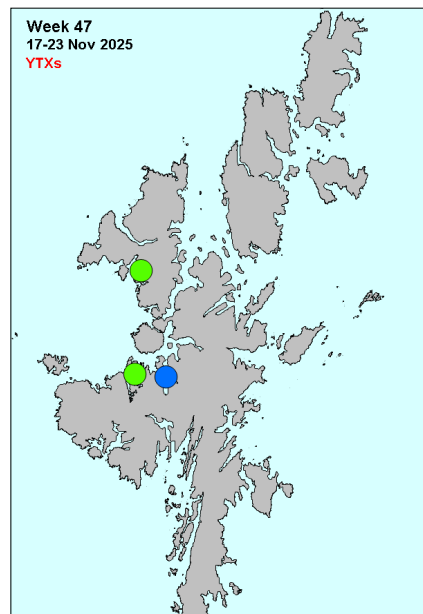
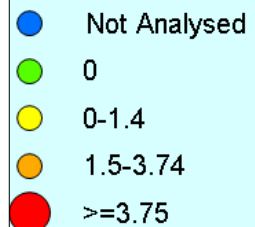
AZAs

µg AZA1 eq/kg

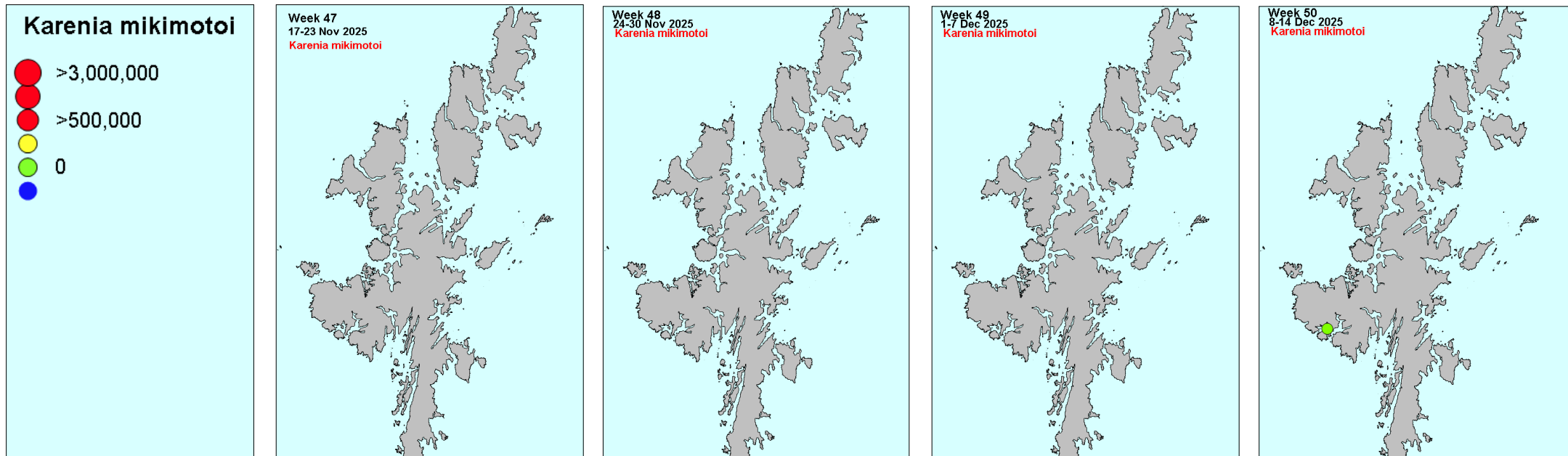


YTXs

mg YTX eq/kg



Karenia mikimotoi



Chain forming Phytoplankton

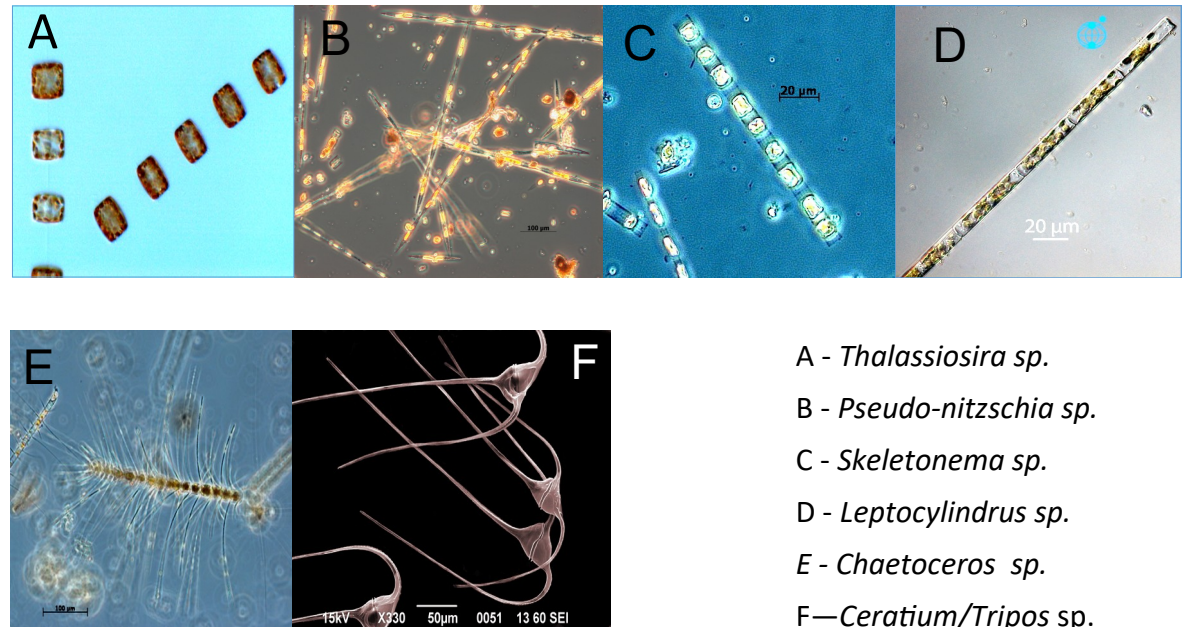
High densities of chain forming diatoms including, but not limited to the genus, *Chaetoceros*, *Skeletonema*, *Leptocylindrus*, *Rhizosolenia*, *Thalassiosira*, *Corethron* and *Pseudo-nitzschia*, the centric species *Coscinodiscus wailesii*, and species with long spines such as *Ceratium* (*Tripos*) can cause debilitating damage to fish gills.

Status

One sample was analysed this week. *Karenia* was not detected.

The IFCB's at Cole Deep and Scalloway are mainly detecting small flagellates.

<https://www.habreports.org/ifcb-nafc.php>



A - *Thalassiosira* sp.

B - *Pseudo-nitzschia* sp.

C - *Skeletonema* sp.

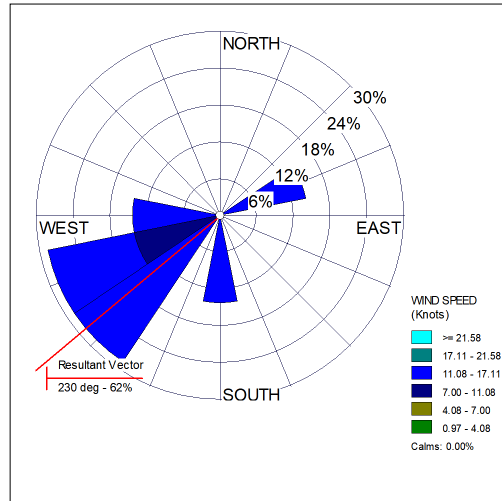
D - *Leptocylindrus* sp.

E - *Chaetoceros* sp.

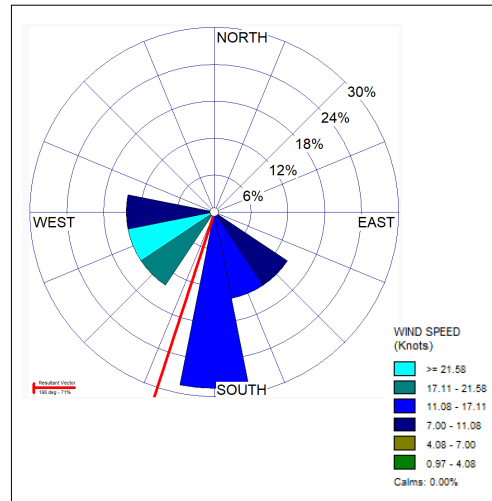
F—*Ceratium/Tripos* sp.

Mean wind direction observed in Shetland for current and three preceding weeks

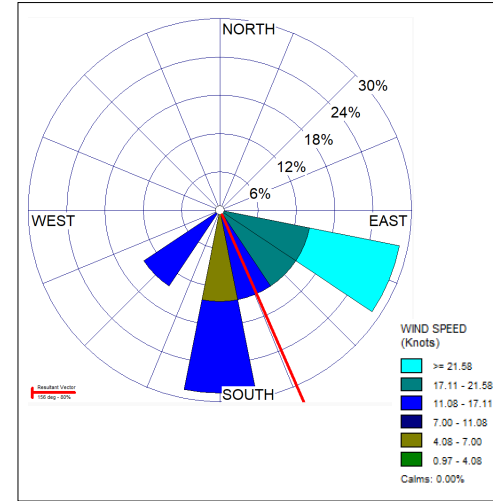
Week 47



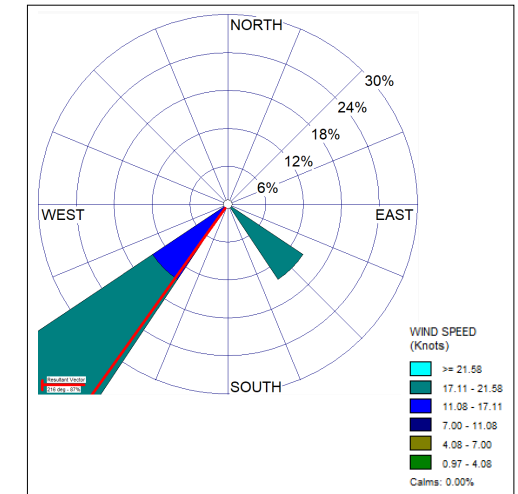
Week 48



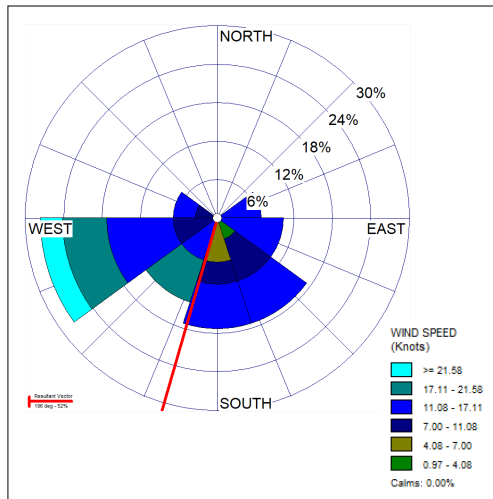
Week 49



Week 50



November



Status:

Over the past week the average wind direction has been from the south west.

Mean wind direction and speed observed in Shetland over the past four weeks. Higher wind speeds are shown in lighter shades. The percentage of time the wind blew from any particular direction is shown by the length of the triangle. The resultant vector, represented by the red or blue line, shows the average wind direction for the week. It is based on wind direction only and includes periods of calm which are not indicated on the diagram. The data used is taken from the weather station at Sumburgh.

Predictions:

The risk of wind blown *Dinophysis* blooms in Shetland is **low** this week due to the winds blowing in from a southerly direction.

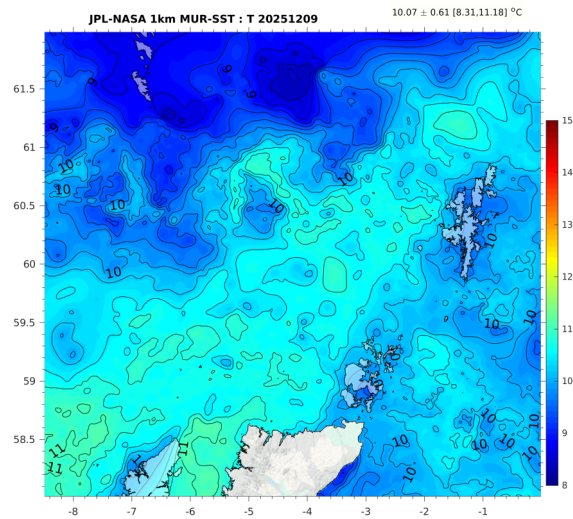
Why do we think this?

During the summer *Dinophysis* can bloom out at sea and at shelf fronts found off the West of Shetland. Westerly winds can then blow these blooms into shore. Westerly winds may also retain *Dinophysis* cells in Westerly facing voes and inlets where their numbers may increase. Wind for the past week has been predominantly from the south west. It is unlikely that there will be an advected bloom of *Dinophysis* in the coming week.

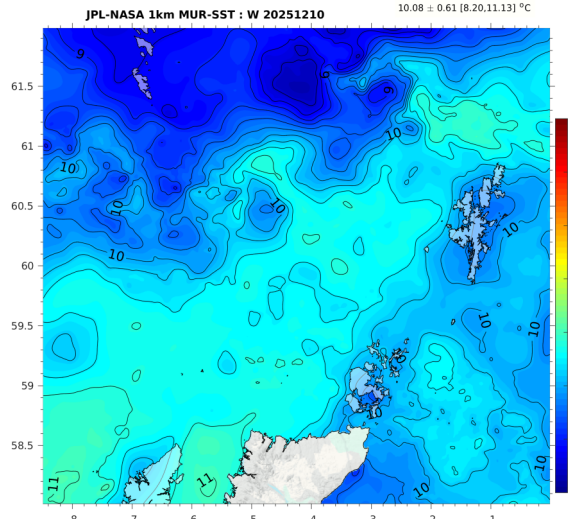
Shetland Bulletin on the status of harmful & toxic algae Week 50, 8th - 14th Dec 2025

Sea Surface temperature (°C) in preceding 6 days in the Shetland Islands

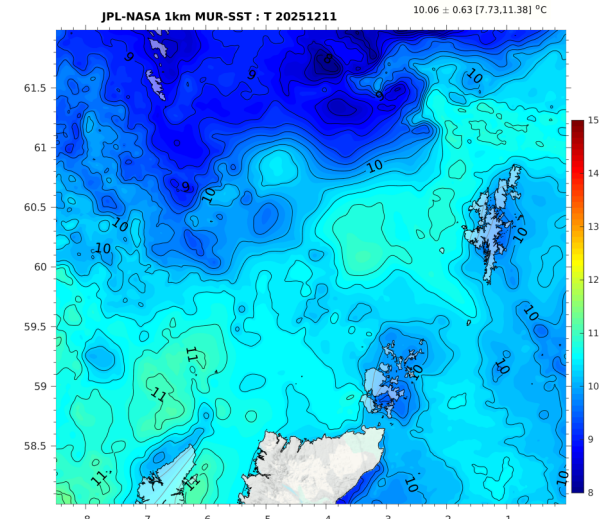
9 Dec 2025



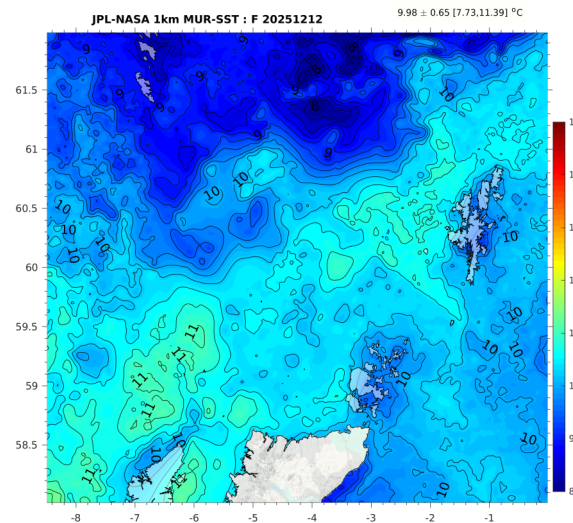
10 Dec 2025



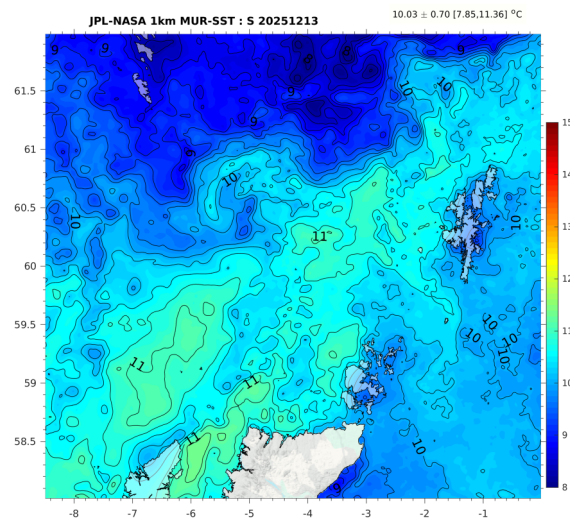
11 Dec 2025



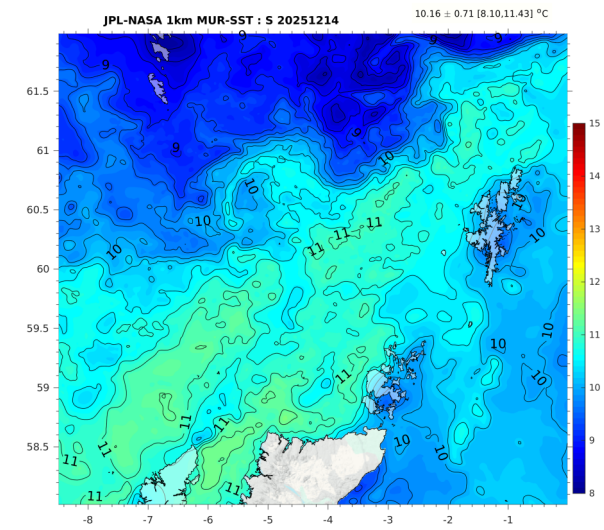
12 Dec 2025



13 Dec 2025



14 Dec 2025



Maps provided courtesy of the Jet Propulsion Laboratory, NASA

Shetland Bulletin on the status of harmful & toxic algae Week 50, 9th - 15th Dec 2025

Wind and rain forecast for next three days in Shetland

6 AM

12 Noon

6 PM

12 PM

17 Dec

18 Dec

19 Dec

