



Pacific Northwest Harmful Algal Blooms Bulletin

May 12, 2026 HAB risk =

HAB risk key:

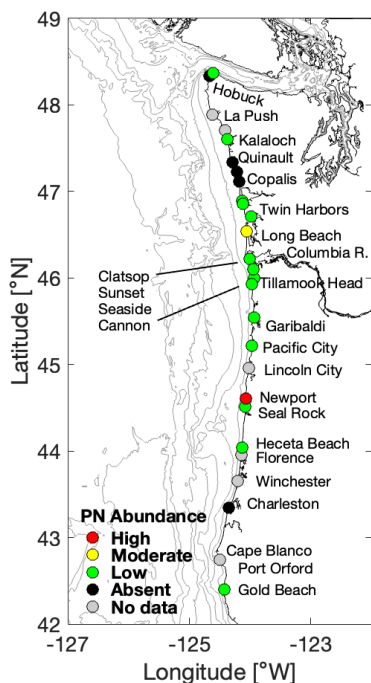
- = low
- = medium
- = high



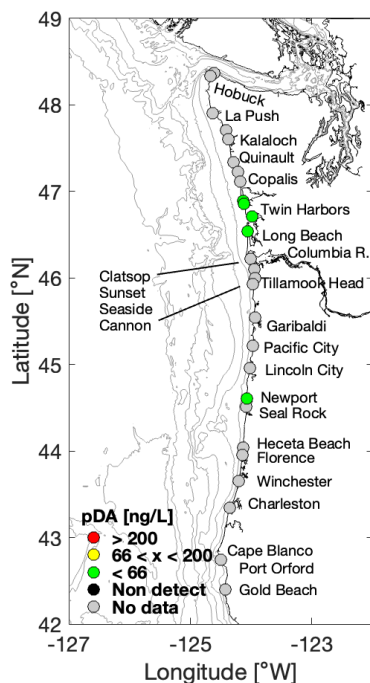
The statements, findings, conclusions, and recommendations do not necessarily reflect the views of NOAA or the Department of Commerce.

Beach Sampling

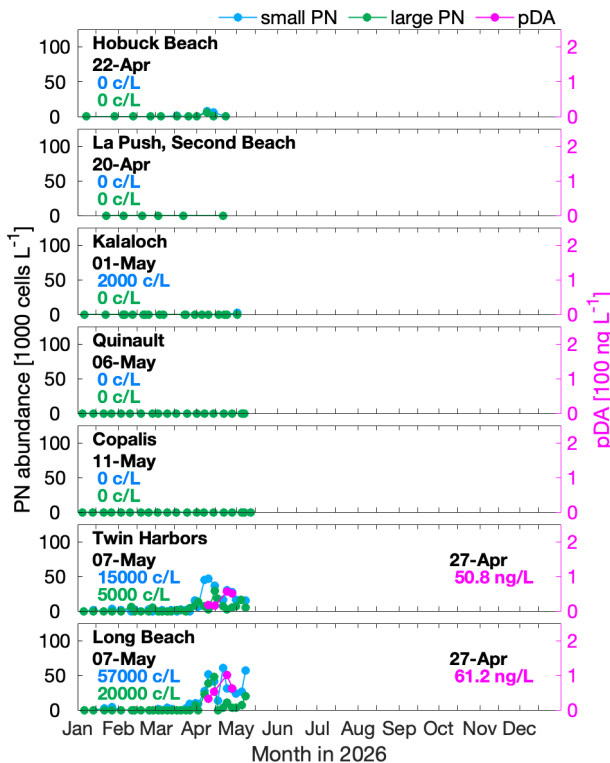
(*Pseudo-nitzschia*)



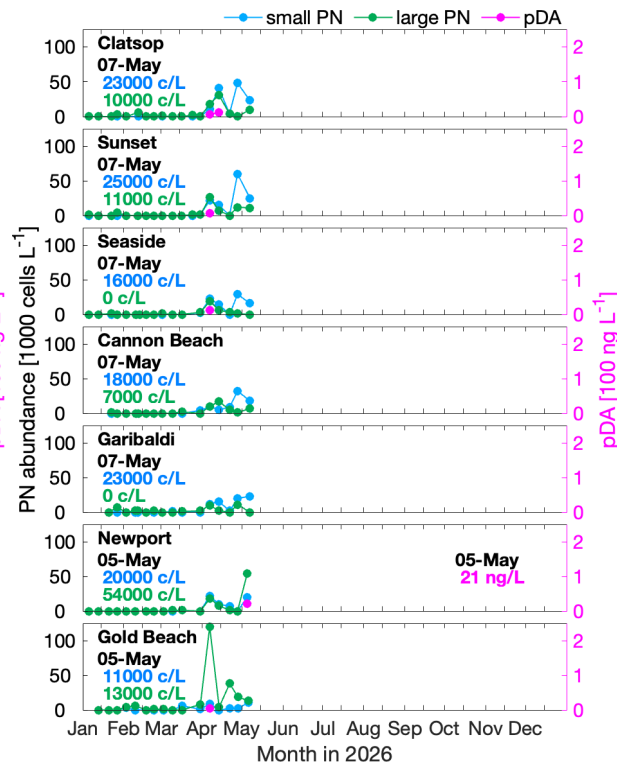
(particulate domoic acid)



WA *Pseudo-nitzschia* & Domoic Acid

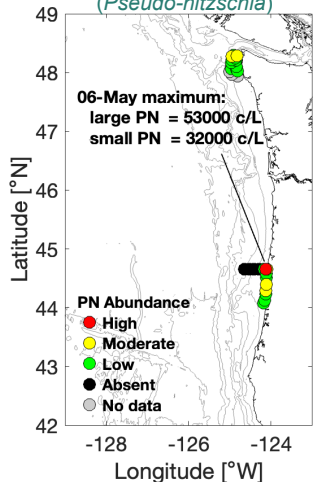


OR *Pseudo-nitzschia* & Domoic Acid

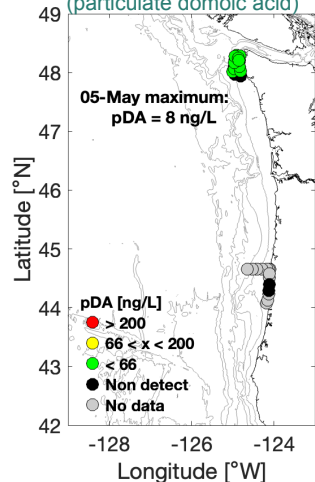


Offshore Sampling

(*Pseudo-nitzschia*)



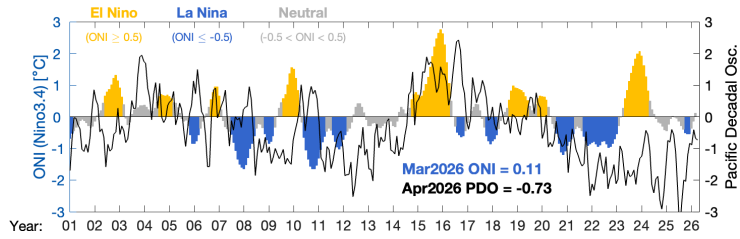
(particulate domoic acid)



Pseudo-nitzschia (PN) abundances are quantified for large and small cell morphologies using light microscopy. Threshold values: 50,000 cells/L for large PN; 1,000,000 cells/L for small PN; which trigger additional testing for seawater particulate domoic acid (pDA). Seawater pDA values >200 ng/L lead to toxin accumulation in shellfish such as razor clams. Sampling sites, colored by relative PN abundance (*high*: > threshold value for either cell morphology; *moderate*: > 1/3 threshold; *low*: < 1/3 threshold) and pDA, are shown in the upper left two panels. "No data" indicates that there were no data within the previous 15 days. Time series of PN abundance (cells per liter = c/L) and pDA at select beaches are shown in the upper right main two panels. Offshore samples (lower left) are collected and analyzed at ~2 week intervals during late summer/early fall. Additional samples are collected by a remotely operated Environmental Sample Processor (ESP) that is moored off La Push, WA, in late spring and late summer.

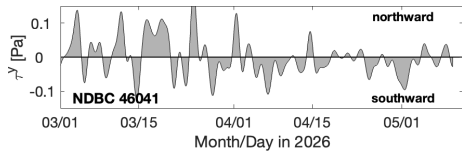
Decisions regarding shellfish harvest closures at individual beaches are made by the Washington Department of Health, the Oregon Department of Agriculture, and Coastal Treaty Tribes after measuring toxin levels in shellfish collected from each beach (WA [link](#); OR [link](#)), and not from the information presented here. However, the information presented here aids coastal managers in better understanding and predicting the onset, duration, and magnitude of toxin outbreaks as well as their impacts.

Pacific Ocean Indices



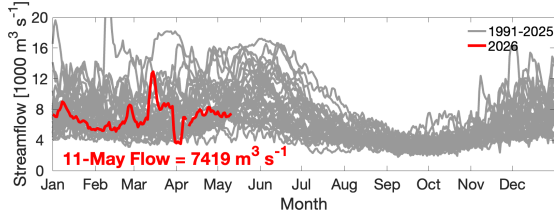
Research has shown that toxic HAB events off WA and OR tend to occur during or following periods of El Niño and/or positive phases of the PDO, when ocean temperatures are relatively warm.

North-south Wind Stress



Southward wind stress drives coastal upwelling that can lead to plankton blooms. Northward wind stress tends to push any existing offshore plankton and toxins towards beaches. In addition, summer/fall toxic blooms often occur in years with a moderate cumulative upwelling index (i.e. during years with fluctuating winds) rather than in years with sustained upwelling or downwelling winds.

Columbia River Discharge



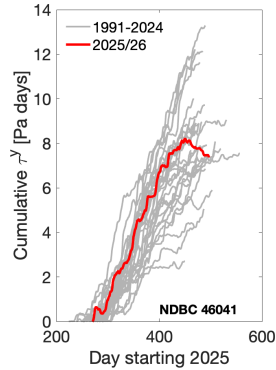
The Columbia River plume can help transport HABs and toxins from the south, northward along the WA coast. However, the plume can also serve as a protective barrier by preventing offshore toxins from reaching beaches.

Marine Weather Forecast



Fair weather can support plankton blooms whereas storms can concentrate any plankton and toxins on beaches.

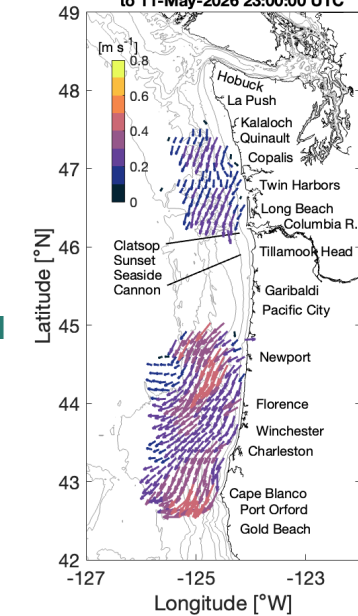
Cumulative Wind Stress



Model predicted sea surface salinity with particles released near the Juan de Fuca eddy and Heceta Bank and tracked three days into the future. Red dots indicate particle end points.

Ocean Surface Currents

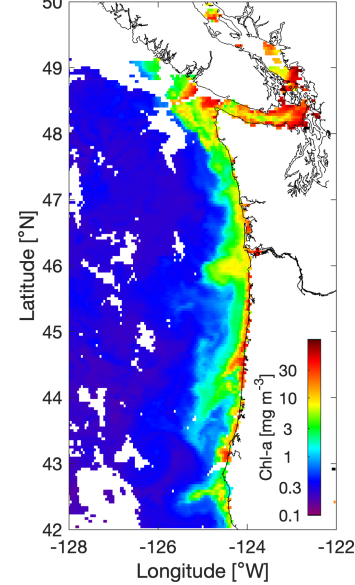
25hr mean: 10-May-2026 23:00:00 to 11-May-2026 23:00:00 UTC



Primary currents flow north and south in winter and summer, respectively, except within ~10 km of shore, where fluctuations follow changes in wind direction.

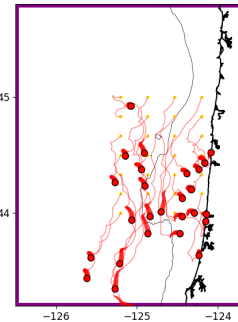
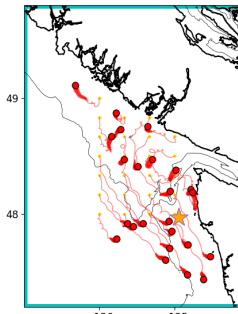
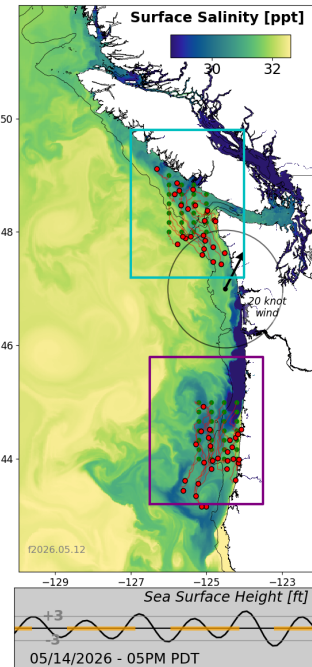
Satellite Chlorophyll-a

SNPP VIIRS 11-May-2026



Clouds often obstruct satellite views, but the extent of phytoplankton blooms can at times be seen from space. Blooms do not necessarily reflect the presence of toxins.

LiveOcean Forecast Model



Summary - Aside from a couple of stronger upwelling-favorable pulses, along-shelf winds have generally remained weak and variable. Southward ocean surface currents strengthened somewhat during a wind event at end of April and southward motion continues according to the HF radar data and LiveOcean output; Columbia River plume water now resides primarily off OR. However, shelf bottom water is still over 8 °C, indicative of weaker upwelling. Most satellite images have been obscured by clouds, but a few limited views indicate elevated chlorophyll-a concentrations off northern WA and close to the coast in OR, particularly near Newport. A mix of both large and small morphology *Pseudo-nitzschia* (*PN*) cells continue to be found in moderate concentrations at area beaches. Small *PN* cells tend to outnumber large cells in WA and northern OR, whereas large *PN* cells are more prominent in southern OR (but with lower overall abundance). The highest recent concentrations in WA were 57,000 cells/L small *PN* and 20,000 cells/L large *PN* at Long Beach, WA on 7-May. In OR, 54,000 cells/L large *PN* were contained in a sample from Newport on 4-May. Offshore samples collected by the Lightfish autonomous surface vehicles (ASVs) off WA and OR and a ship off OR between 5-7 May were consistent with beach samples, and contained moderate concentrations of both large and small *PN*. Particulate domoic acid (pDA) was confirmed in low concentrations (<10 ng/L) off the northern WA coast (6-May), and as high as 61 ng/L at southern WA beaches in late April. A sample from Newport contained 21 ng/L pDA on 4-May. Razor clam DA values remain low throughout WA. The highest concentrations were 2 ppm at Twin Harbors on 6-May. In OR, razor clams from Sunset Beach and Sparrow Park (near Winchester) were below detection limits as of 8-May.

Forecast - ENSO neutral conditions are expected through spring with a transition to El Niño by summer. The PDO index remains negative. Variable onshore-directed winds are expected for the remainder of this week. Longer-term forecasts suggest the possibility of stronger upwelling-favorable winds building next week which could fuel additional plankton blooms. Current conditions and relatively weak upwelling are therefore expected to continue at least through the weekend. Since *PN* cell and pDA concentrations remain relatively low, risk of a large DA event in the near-term also appears low.