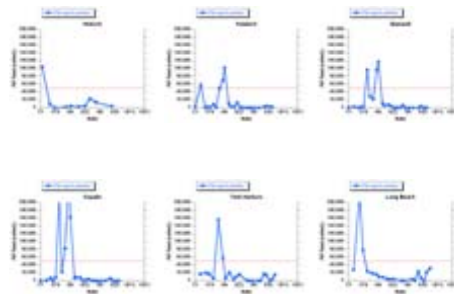


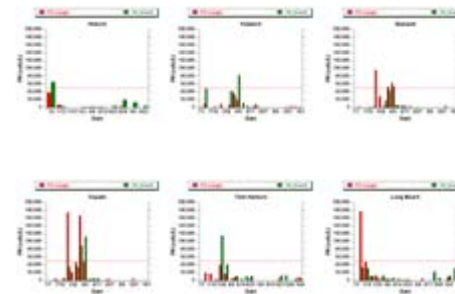
ORHAB Sample Sites



Pseudo-nitzschia Totals



Pseudo-nitzschia Species



Pseudo-nitzschia (PN) totals are identified by light microscopy and grouped by PN Large and PN Small. The 50k cells/L threshold level for large PN that triggers toxin testing is indicated by a red line across the PN plots. (The trigger for toxin testing for small PN is 1 million cells/L)

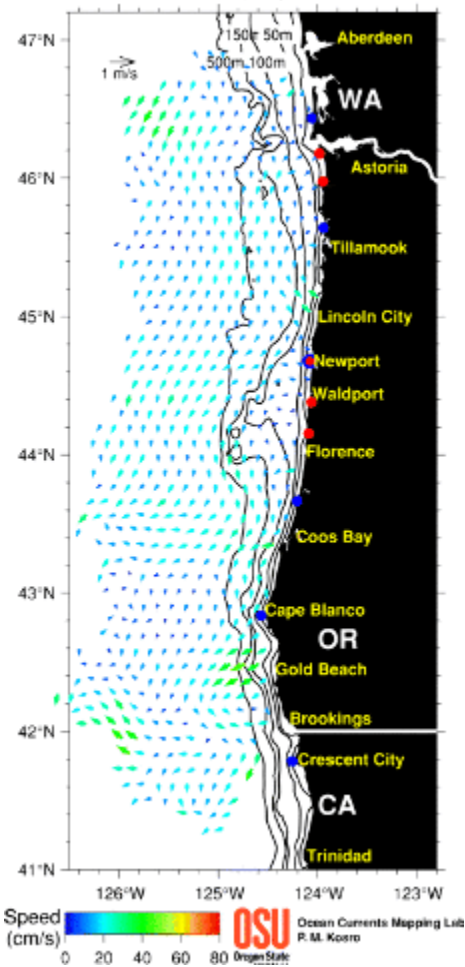
Summary – *Pseudo-nitzschia* spp. cell counts remain low along the WA Coast. The highest counts are found at Long Beach on 10/5 at 37,000 cells/L of the small cell type. DA levels in razor clams have declined in recent WDOH tests. The highest levels are found at MocRocks area BC at 5 ppm on 10/4. *Alexandrium catenella* is still present in the WA coast surf zone. The highest counts are found at Long Beach on 10/5 at 4000 cells/L. PSP toxin in razor clams has increased along the south coast and decreased on the central coast according to WDOH. The highest levels are found at Twin Harbors area XH at 70 µg/100g tissue on 10/4. *Dinophysis* spp. are still present along the WA coast. The highest counts are found at Long Beach, Twin Harbors, and Kalaloch Beach at 2000 cells/L. *Akashiwo sanguinea* remains dominant along many sites along the WA coast. The highest counts are at Twin Harbors at 1,116,000 cells/L on 10/4.

Winds in late Sept. and early Oct. were primarily upwelling favorable, interrupted by brief downwelling favorable winds as observed at NDBC buoy 46029. On average, the cumulative upwelling index begins to decrease by Sept. 28, but this transition in wind direction has been postponed in 2009. As a result, modeled sea surface temperature is colder near shore and satellite-derived *chl-a* is high near the coast. Modeled and observed surface currents are directed southward and offshore, with weaker currents near shore.

Forecast – Winds are expected to blow offshore from the east through Sunday off the WA coast as low pressure builds off Oregon. Toxic species from the Juan de Fuca eddy region are not expected to be transported to the coast in this short term period, but the risk is increased over the next 2 weeks as the likelihood of fall storms increases. Although risk is expected to be low (green) this weekend, a weak storm expected next Tues-Thurs will increase the risk (red) then due to high Chl off the coast at this time. The risk is expected to decrease again after that front passes through--the average risk for the next week is moderate (yellow).

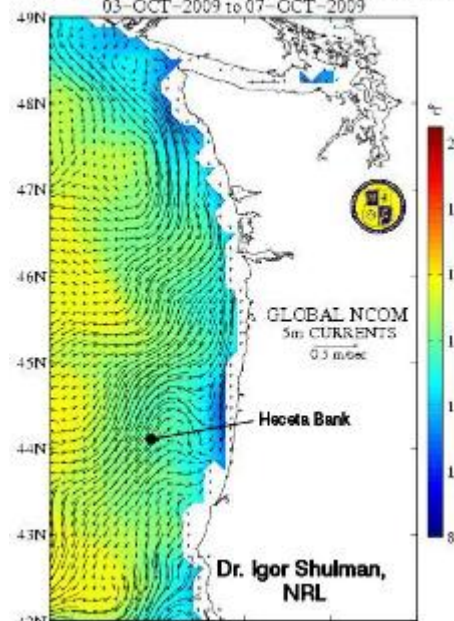
Surface Currents

2009/10/05

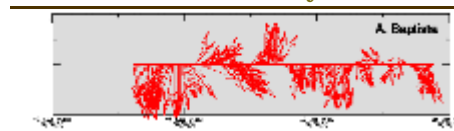


Modeled Surface Currents

SURFACE TEMPERATURE AND 5M CURRENTS
03-OCT-2009 to 07-OCT-2009



Winds - NDBC Buoy 46029

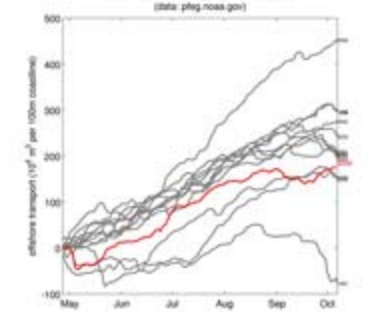


Columbia River Discharge

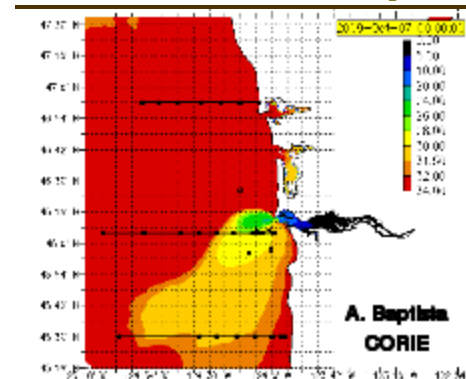


Cumulative Upwelling Index

Cumulative upwelling index 49N, 125W
(data: plog.noaa.gov)



Columbia River Model Output



Weather Forecast - Ocean Shores

