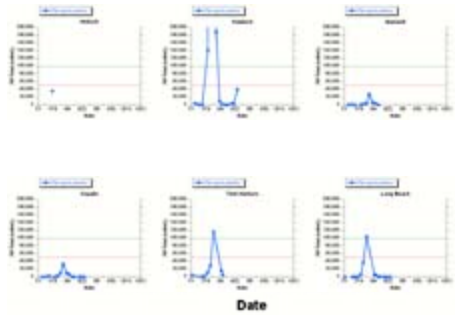


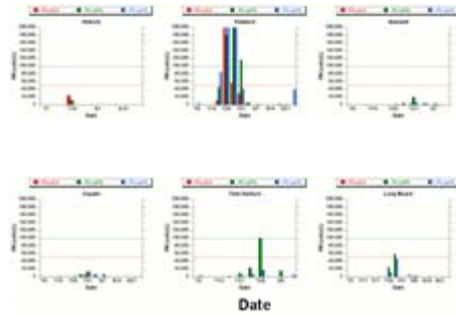
ORHAB Sample Sites



Pseudo-nitzschia Totals



Pseudo-nitzschia Species



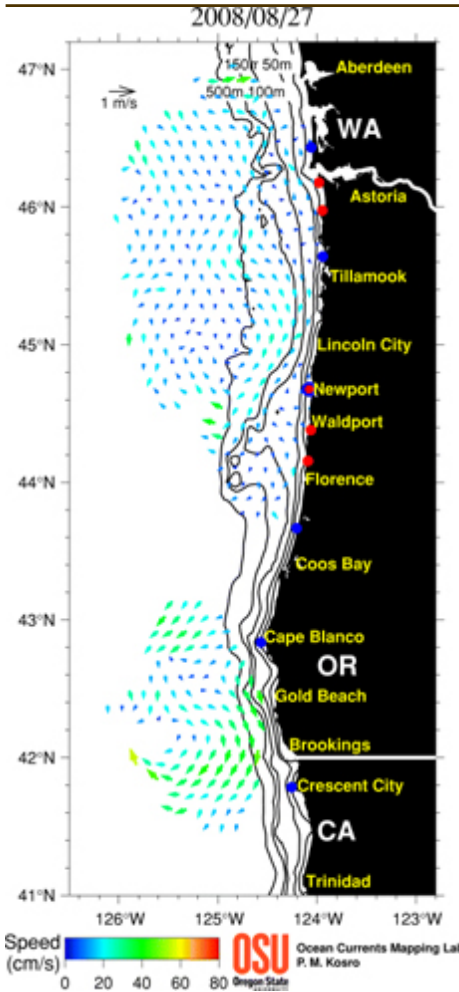
Pseudo-nitzschia totals are subdivided into the following species groups identified by light microscopy - a/f/h (*P. australis/fraudulenta/heimii*), p/m (*P. pungens/multiseriis*), pd/d/c (*P. pseudodelicatissima/delicatissima/cuspidata*). Threshold levels of each group at which toxin testing is done are shown as a colored horizontal bar in the *Pseudo-nitzschia* species graph

Summary – *Pseudo-nitzschia* cell counts remain low along the Washington coast as of 08/25/2008. The highest cell counts are at Kalaloch beach with 40,000 cells/L of the smaller pd/d/c. cell type. All other beaches remain under 10,000 cells/L. Both MocRocks and Kalaloch Beach report 1000 cells/L of *Dinophysis* sp. on 8/25/2008. The event response to Alexandrium (4000 cells/L) at Kalaloch beach on 8/25/08 is expanded testing of shellfish for PSP toxins.

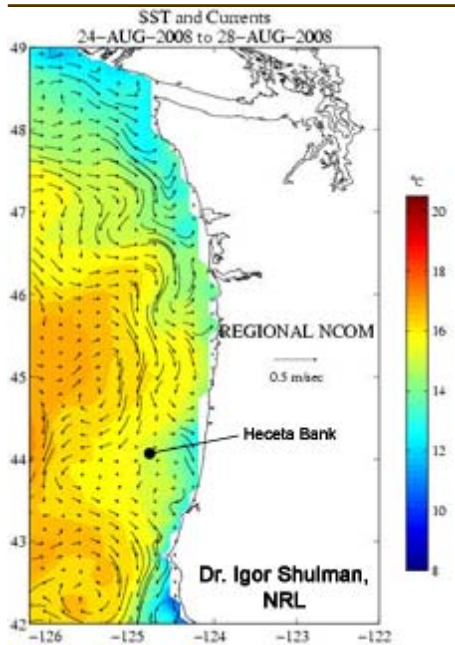
Winds continue to be episodic in nature, fluctuating between storms and upwelling favorable conditions. Results from ECOHAB-PNW studies, indicate the Juan de Fuca Eddy is more retentive during these variable wind periods. Currents at the present time (both modeled and measured) suggest a well developed upwelling system. Cold water is evident all along the coast in the model results, indicative of upwelling. Satellite-derived chlorophyll from mid-August indicates highest phytoplankton biomass is nearshore off WA and on the perimeter of the Eddy. Winds are currently westerly (onshore), shifting to southwesterly; surface currents would generally be moving phytoplankton slightly onshore, towards the coast as they move southward along the coast.

Forecast – Moderately strong, southward winds (northwesterlies) are expected to develop by early Saturday and persist for several days, indicating a return to upwelling-favorable conditions (and offshore transport). Due to the continued likelihood of onshore transport over the next two days, and the slight increase in cell counts at Kalaloch Beach, managers are advised to proceed with caution this weekend.

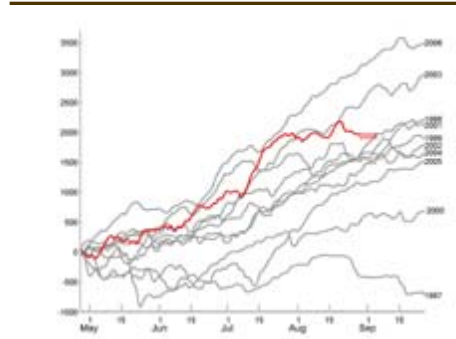
Surface Currents



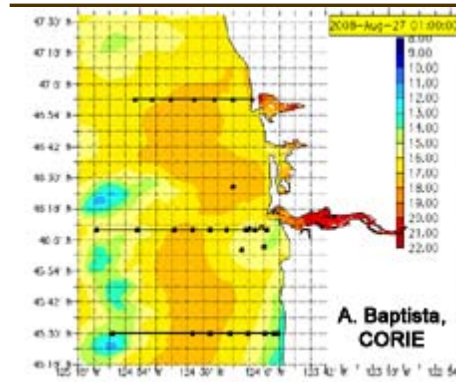
Modeled Surface Currents



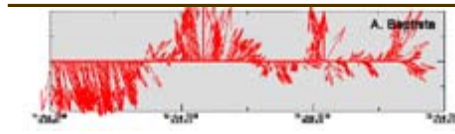
Cumulative Upwelling Index



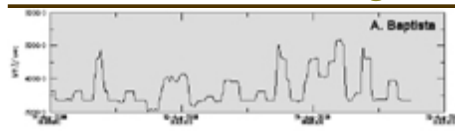
Columbia River Model Output



Winds - NDBC Buoy 46029



Columbia River Discharge



Weather Forecast - Ocean Shores

