### **BLOOM ECOLOGY AND DYNAMICS – POSTERS**

#### (odd-numbered posters will be presented in Poster Session 1, Monday, October 29th, 4 - 6 pm; even-numbered posters will be presented in Poster Session 2, Monday, October 29th, 7:30 – 9:30 pm)

First Author (presenting author, if different)	Title	Poster #
Anderson, Jon	A fuzzy logic approach to predicting <i>Prorocentrum minimum</i> blooms in the Chesapeake Bay	B-1
Auro, Maureen	Growth, toxicity and nitrogen uptake capabilities of the toxigenic diatom <i>Pseudo-nitzschia cuspidatae</i> from the Pacific Northwest	B-3
Beall, Benjamin	Low sinking rates of <i>Pseudo-nitzschia</i> : A competitive feature contributing to the development and maintenance of toxic blooms	B-5
Bill, Brian	Puget Sound, Washington: An emerging hotspot for <i>Pseudo-</i> <i>nitzschia</i> booms and domoic acid toxic events	B-7
Borkman, David	Long-term (1992-2006) patterns in <i>Phaeocystis</i> bloom magnitude and bloom duration in Massachusetts Bay, USA	B-9
Brosnahan, Michael	Evidence of a self-recognition system in the sexual life cycle of <i>Alexandrium tamarense</i>	<b>B-</b> 11
Burson, Amanda	The nutritional ecology of the harmful dinoflagellate blooms caused by <i>Cochlodinium polykrikoides</i> in Long Island bays (NY, USA)	B-13
Carter, Melissa	Coastal bloom dynamics in southern California - Have there been any changes since 1917?	B-17
Errera, Reagan	Pigment composition of the Texas strain of <i>Prymnesium parvum</i> during log, stationary, and senescent growth phases	B-19
Goleski, Jennifer	Harmful cyanobacterial bloom proliferation in Florida Bay, FL, USA: Zooplankton grazing and the role of salinity	B-21
Griffith, Jennifer	Development and validation of a novel in vivo nitrate reductase activity assay	B-23
Hall, Emily	Distribution of nutrient data in relation to <i>Karenia brevis</i> cell counts along the west central Florida coast	B-25
Hattenrath, Theresa	Growth and toxicity of <i>Alexandrium sp.</i> on the north shore of Long Island, NY, USA: Dynamics and interactions with nutrients	B-27
Hayashi, Kendra	Long-term, temporal variability in <i>Pseudo-nitzschia</i> population dynamics and domoic acid toxicity in Monterey Bay, CA	B-29
Henrichs, Darren	Evaluating genetic diversity of <i>Karenia brevis</i> blooms in the western Gulf of Mexico	B-31
Horner, Rita	<i>Alexandrium catenella</i> cysts and environmental conditions in Puget Sound, WA: Results of a cyst survey	B-33
Hubert, Jeff ( <i>Greengrove, Cheryl</i> )	Do sediment conditions affect the incidence of <i>Alexandrium</i> <i>catenella</i> and paralytic shellfish poisoning? A study of sites from Puget Sound	B-35
Johns, Desmond	Characterization of nitrogen uptake by <i>Heterosigma akashiwo</i> grown in turbidostat culture under two light intensities	B-2

First Author (presenting author, if different)	Title	Poster #
Kulis, David	A mesocosm study examining the influence of nutrients on <i>Alexandrium tamarense/fundyense</i> toxin concentration and composition	B-4
Laine, Edward	Sediments and cysts on the floor of Harpswell Sound: Is there a local cyst bed for the high toxicities in Lombos Hole?	B-6
Lehman, Peggy	The influence of environmental conditions on the seasonal variation of <i>Microcystis aeruginosa</i> cell density and microcystins concentration in San Francisco Estuary	B-8
Lekan, Danelle	Influence of temperature, salinity and nutrient ratios on toxin profiles of <i>Karenia brevis</i>	B-10
Lovko, Vincent	Pathogenicity, prey availability and functional types in <i>Pfiesteria</i> and <i>Pfiesteria</i> -like species: The role of micropredatory feeding	B-12
Mangum, Alicia	The effect of carbon dioxide (CO2) on grazing activities for <i>Karlodinium veneficum</i>	B-14
Mazzillo, Fernanda	Spatial distribution of phytoplankton groups and toxic species in a nearshore frontal zone system in Monterey Bay, California	B-16
McCauley, Linda ( <i>Libera, Katie</i> )	A study of <i>Pseudo-nitzschia</i> in the Gulf of Maine: Diversity and toxicity	B-18
Millie, David	Bloom-forming phytoplankton in Saginaw Bay (Lake Huron) and western Lake Erie: Abundance, distribution, and cyanobacterial toxicity during late summer	B-20
Myers, Tracey	Gulf of Mexico phytoplankton affect fate of red tide toxin	B-22
Novoveska, Lucie	Seasonal and inter-annual changes in dinoflagellates community composition in nearshore Alabama waters	B-24
Peña, Angelica ( <i>Callendar, Wendy</i> )	Biophysical modeling of the Juan de Fuca eddy in the Pacific Northwest	B-15
Radan, Regina	Ammonium surge uptake and inhibition of nitrate uptake by small and large cell-sized <i>Pseudo-nitzschia</i> species from the Pacific Northwest	B-26
Richlen, Mindy	Ecology and biodiversity of toxic benthic dinoflagellates at Johnston Atoll, Pacific Ocean	B-28
Schoener, Donald	Grazing, growth, and behavioral reactions of a ciliate fed <i>Alexandrium</i> spp: apparent lack of response to saxitoxin	B-30
Senft, Christina	Phenotypic variations in ingestion of toxic algae within populations of a marine copepod	B-32
Silver, Mary	Domoic acid in oceanic Pseudo-nitzschia: Is it an issue?	B-34
Skelton, Hayley	Axenic cultivation of the heterotrophic dinoflagellate <i>Pfiesteria shumwayae</i> on a semi-defined medium	B-36
Stauffer, Beth	Small scale bloom dynamics of raphidophyte and dinoflagellate populations in King Harbor, California	B-38
Strutton, Pete	New satellite data products for the detection of Oregon HABs	B-40
Tang, Ying Zhong	Characterization, dynamics, and ecological impacts of harmful <i>Cochlodinium polykrikoides</i> blooms on eastern Long Island, NY, USA	B-44
Tango, Peter	Three year assessment of CyanoHAB forecasting on the tidewaters of the Potomac River, Chesapeake Bay, USA	B-46

First Author (presenting author, if different)	Title	Poster #
Teegarden, Gregory	The importance of surface currents in high PSP toxicity in Lumbos Hole, Harpswell Sound, Maine	B-48
Tobin, Elizabeth	Germination of <i>Alexandrium catenella</i> cysts from surface sediments in Quartermaster Harbor, WA	B-37
Trick, Charlie (Wells, Mark)	<i>Pseudo-nitzschia</i> growth and toxin production in the Juan De Fuca eddy in the Pacific Northwest – Environmental stimulators of a toxic bloom	B-50
Tweddle, Jacqui	The relationship between coastal ocean dynamics and shellfish closures: A satellite based study of Oregon HABs	B-42
Wang, Bin	Effect of cadmium, copper, nickel, and zinc on a minute golden brown alga <i>Aureoccoccus anophagefferens</i>	B-52
Wei, Liping	Growth response and glutathione production of brown tide bloom alga ( <i>Aureococcus anophagefferens</i> , CCMP 1984) upon different salinity, metals, nitrogen source, sewage and herbicide metolachlor exposure: lab culture studies and in situ incubation studies	B-54
Wrabel, Michele	Specificity of bacterial assemblages associated with the toxin- producing diatom, <i>Pseudo-nitzschia</i>	B-56
Wurch, Louie	Nutrient-regulated transcriptome profiling in the brown-tide forming alga <i>Aureococcus anophagefferens</i>	B-58

## COMMUNICATION, OUTREACH, AND EDUCATION – POSTERS (Poster Session 1, Monday, October 29th, 4 - 6 pm)

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Ammerman, James	Applications of the ocean biogeographic information system (OBIS) to HAB data	C-1
Cross, Scott (Morton, Steve)	Data management supporting regional volunteer phytoplankton monitoring efforts	C-2
Day, Sheryl	The Pacific Northwest HAB Bulletin pilot project: Technical development of an ocean observing information system for the protection of human health	C-3
Haley, Sheean	Volunteer-driven science: mapping harmful algal blooms in Puget Sound, Washington	C-4
Langlois, Gregg	Coastal HAB volunteer programs: Strengths and limitations	C-5
Morton, Steve	Identification of <i>Pseudo-nitzschia</i> and domoic acid from a North Carolina coastal bloom: Linkage between volunteer observations and biotoxins research	C-6
Trainer, Vera ( <i>Muir, Christine</i> )	ECOHAB Pacific Northwest (ECOHAB PNW) Outreach: Opening the scientific journey to the world	C-7
Zimmermann, Leigh	Florida's red tide control & mitigation grant program: The beginning	C-8

HUMAN HEALTH – POSTERS
(Poster Session 3, Tuesday, October 30th, 4 - 6 pm)

First Author (presenting author, if different)	Title	Poster #
Calkins, Julie (Tomlinson, Michelle)	Using a novel low-cost monitoring array for validation of brevetoxin-induced respiratory impact in Southwest Florida	H-1
Gold, Elena	Potential good in a "SEA" of harm: Characterization of a mammalian receptor associated with voltage-sensitive sodium channels using brevenal produced by <i>Karenia brevis</i>	Н-2
Kirkpatrick, Barbara	Ocean observing systems and public health: The Florida Beach conditions reporting system to minimize exposure to <i>Karenia brevis</i> aerosols	Н-3
Lenzi, Allison	Evaluation of cysteine efficiency as a mitigating agent of shellfish contamination during red tides	H-4
LePrell, Rebecca	Development and initiation of HABISS; CDC's Multi-state HAB surveillance system	H-5
Margot, Kelli	Immunological response of distal lung cell lines to brevetoxins	H-6
Naar, Jerome	The mitigating properties of cysteine on the harmful effects of red tide	H-7
Nierenberg, Kate	Reported respiratory symptom intensity in asthmatics during exposure to aerosolized Florida red tide toxins	H-8
Polanksy, Lara (Hoagland, Porter)	Determining the role of <i>Karenia brevis</i> blooms in emergency room visits due to respiratory ailments in Sarasota, Florida	Н-9
Shehee, Mina	North Carolina harmful algal bloom events 2005 – 2007	H-10
Tomlinson, Michelle	The development of a beach impact model for Florida <i>Karenia brevis</i> blooms	H-11

### TOXINS AND TOXIN DETECTION – POSTERS (Poster Session 3, Tuesday, October 30th, 4 - 6 pm)

First Author (presenting author, if different)	Title	Poster #
Bottein, Marie- Yasmine	Evaluation of short and long lasting neurological response to single and repeated ciguatoxin exposure in mice	T-1
Fahnenstiel, Gary	Factors affecting microcystin concentrations and cell quotas in the Great Lakes	T-2
Hotto, Amber	Relationship between microcystin potential and environmental variables in lakes across New York state	T-3
Lane, Jenny	Degradation of domoic acid under common storage conditions	T-4
Lee, Jungju	Advanced treatment processes for the removal of cyanotoxins from Lake Erie drinking water	T-5
Mooney, Ben	Distribution of karlotoxins among Australian and North American ichthyotoxic Gymnodinioid dinoflagellates (Kareniaceae)	T-6
Pierce, Richard	Accumulation and depuration of brevetoxins and major metabolites in shellfish exposed to recurring <i>Karenia brevis</i> blooms	T-7

First Author (presenting author, if different)	Title	Poster #
Ramsdell, John	Diel synchronization of embryonic diapause aids prediction of fetal toxicity of California sea lions to domoic acid-producing harmful algal blooms	T-8
Schultz, Irvin	Domoic acid uptake and excretion in fish, Dungeness crabs, razor clams and mussels	T-9
Sinclair, James	Survey of algal toxins in source and finished drinking waters	T-10
Smith, Juliette	Development of an internal standard for the measurement of free microcystins in fish tissue and sediments	T-11
Stewart, Thomas	Rapid enzyme-linked immunosorbent assay for the detection of domoic acid	T-12
Sutherland, Cristy	<i>Dinophysis</i> species and diarrhetic shellfish toxins in Monterey Bay, CA	T-13
Tatters, Avery	Hemolytic activity of selected HAB flagellates: A toxin complex strategy	T-14
Thessen, Anne	The effect of salinity on domoic acid production by the diatom <i>Pseudo-nitzschia multiseries</i>	T-15
White, Kristy	Studies on the enzymatic hydrolysis of DSP esters to produce the toxic, okadaic acid, in three strains of <i>Prorocentrum lima</i>	T-16
Yang, Xingye	Comparative reactivity of different cysteine congeners as detoxifying agents of brevetoxins	T-17

# EMERGING TECHNOLOGIES – POSTERS (Poster Session 4, Wednesday, October 31st, 4 - 6 pm)

First Author (presenting author, if different)	Title	Poster #
Atkinson, Heidi	Assessment of microcystin production in cyanobacteria using a novel whole cell fluorescent immunologicalization method, flow cytometry and the enzyme-linked immunosorbant assay (ELISA)	E-1
Bhattacharya, Debashish and Moustafa, Ahmed	Phylosort: A Program for detecting endosymbiotic and horizontal gene transfer and its application to understanding STX gene origin in <i>Alexandrium tamarense</i>	E-2
Bowers, Holly	Using Real-time PCR to demonstrate co-occurrence of <i>Karlodinium veneficum</i> and the parasitic dinoflagellate <i>Amoebophyra</i> sp. ex. <i>Karlodinium veneficum</i>	E-3
Campbell, Lisa	Genetic variation among isolates of <i>Karenia brevis</i> as measured with microsatellite markers	E-4
Carvalho, Gustavo	Long-term evaluation of a satellite ocean color dataset to detect blooms of the toxic dinoflagellate <i>Karenia brevis</i> off the west Florida shelf	E-5
Chrest, Francis and Daniel Terlizzi	Measurement of apoptosis in phytoplankton using flow cytometry and Annexin V binding	E-6
Dash, Padmanava	Quantitative mapping of cyanobacterial blooms from Oceansat-1 OCM satellite data: An empirical approach	E-7

First Author (presenting author, if different)	Title	Poster #
Donovan, Chelsea (Younan, Lawrence)	New performance data for in situ and simulated experiments using the phytoflash submersible active fluorometer	E-8
Duy, Janice	Fast and accurate detection of <i>Alexandrium</i> species using peptide nucleic acid probes and surface plasmon resonance	E-9
Fisher, Kathleen	Assessment of an operational harmful algal bloom forecast system for the eastern Gulf of Mexico: A comparative analysis of success and utilization through two bloom seasons	E-10
Freitag, Michael	Coupling physiological responses of the toxic haptophyte <i>Prymnesium parvum</i> to patterns in gene expression	E-11
Gray, Cynthia	Glycolipid families in peridinin-containing dinoflagellates	E-11
Kelly, Vince	<i>In situ</i> nutrient monitoring: An example of research, development, demonstration and technology transfer	E-12
Love, Rebecca	Integrating novel data sources to improve the Gulf of Mexico harmful algal bloom forecast system	E-13
Miller, Peter	California program for regional enhanced monitoring of phycotoxins (Cal-PReEMPT)	E-14
Miranda, Lilibeth	<i>Alexandrium fundyense</i> cDNA microarray: The hunt for growth-related genes	E-15
Truxal, Laura	Characterization of novel compounds found in <i>Karenia brevis</i> cultures	E-16
Walker, Elyse	Identification and enumeration of <i>Pseudo-nitzschia</i> in Pacific Northwest coastal waters using the Flowcam® continuous imaging particle analyzer	E-17
Wynne, Timothy	Detecting cyanobacteria blooms using MERIS	E-18

## FISHERIES AND FOOD WEBS – POSTERS (Poster Session 4, Wednesday, October 31st, 4 - 6 pm)

First Author (presenting author, if different)	Title	Poster #
Coblentz, Francie	Single laboratory validation of the brevetoxins ELISA for shellfish contamination assessment	F-1
Connell, Laurie	Population structure of Paralytic Shellfish Poisoning (PSP) resistant softshell clams, <i>Mya arenaria</i> , in eastern Maine, USA	F-2
Fire, Spencer	Unusually high levels of domoic acid identified in Minke whale ( <i>Balaenoptera acutorostrata</i> ) stranding during California <i>Pseudo-nitzschia</i> bloom	F-3
Ford, Susan (Bricelj, Monica)	Deleterious effects of a non-PSP bioactive produced by <i>Alexandrium tamarense</i> on bivalve hemocytes	F-4
Garcia, Ana	Bioaccumulation of cyanobacterial <i>Cylindrospermopsis</i> toxin in Louisiana blue crab, <i>Callinectes sapidus</i>	F-5
Garcia, Suzanne	Domoic acid in benthic communities of the Santa Cruz municipal wharf in Monterey Bay, California	F-6
Giner, José	Metabolism of algal sterols by bay scallops and brine shrimp	F-7

First Author (presenting author, if different)	Title	Poster #
Hamilton, Scott	New techniques for non-lethal DNA Extraction from, and Passive Integrated Transponder (PIT) tagging of, the soft-shell clam <i>Mya</i> <i>arenaria</i>	F-8
Jin, Di	The value of HAB predictions to the commercial shellfish industries in the Gulf of Maine	F-9
Landsberg, Jan	The emerging risks of cyanobacteria for fish and wildlife in Florida	F-10
Shumway, Sandra	Mitigating the risk of introduction of harmful algae via transfer of bivalve mollusks	F-11
Wikfors, Gary	Variable expression of toxicity in <i>Prorocentrum minimum</i> , and possible relationships with trophic status	F-12