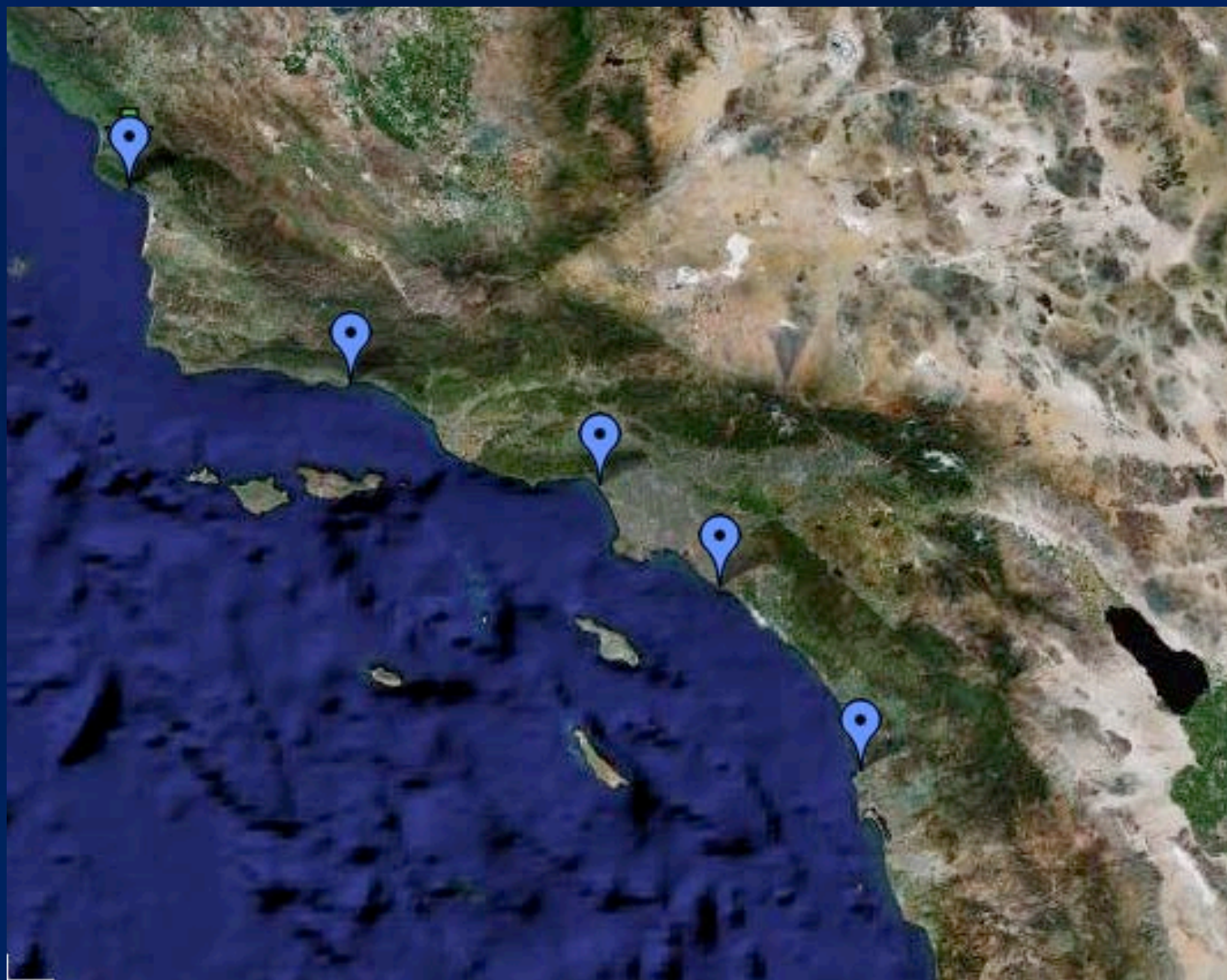


Southern California HAB Monitoring Group (SCCOOS - HAB)



SCCOOS HAB Collaborators

Mark Moline (Cal. Polytechnic State Univ., San Luis Obispo)

Mark Brzezinski (Univ. of Cal., Santa Barbara)

Grace Chang (Univ. of Cal., Santa Barbara)

Rebecca Shipe (Univ. of Cal., Los Angeles)

Burt Jones (Univ. of So. Cal.)

David Caron (Univ. of So. Cal.)

John McGowan (Univ. of Cal., San Diego)

Melissa Carter (Univ. of Cal., San Diego)

Overall goal

Provide a mechanism & template for SCOOS-HAB interactions

Specific goals

Bloom monitoring

(Shoreline surveillance of HABs and toxins)

Bloom Tracking (space and time)

(Glider observations, buoy reconnaissance)

'Event Response' Sampling

(by region - very limited!)

Regional Ocean Characterization

(Environmental forcing factors)

(Nutrient upwelling mapping, modeling)

Product Development and Display

(Web-based dissemination of information)

(Jennifer Bowen - UCSD)

SCCOOS HAB Group Weekly Pier Sampling Sites

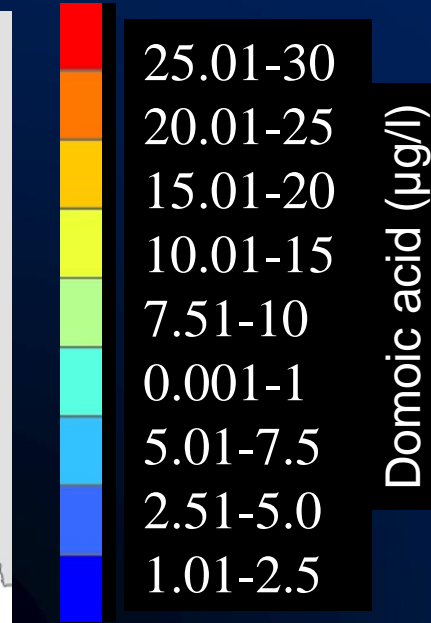
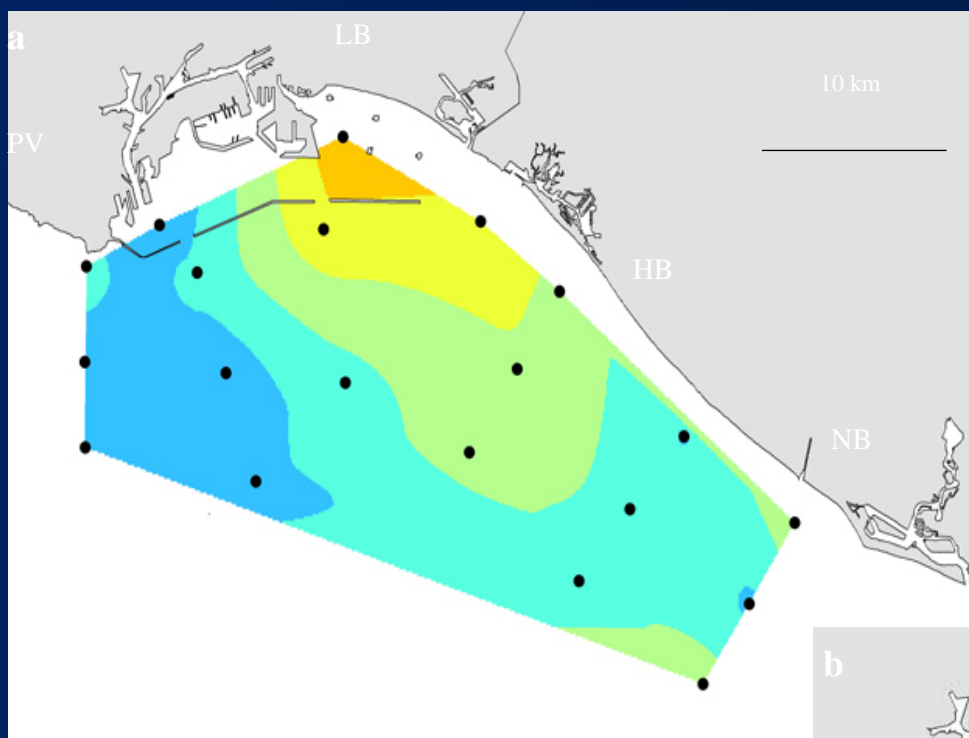
Duration of Project:
One year.



Example red tide near the coast

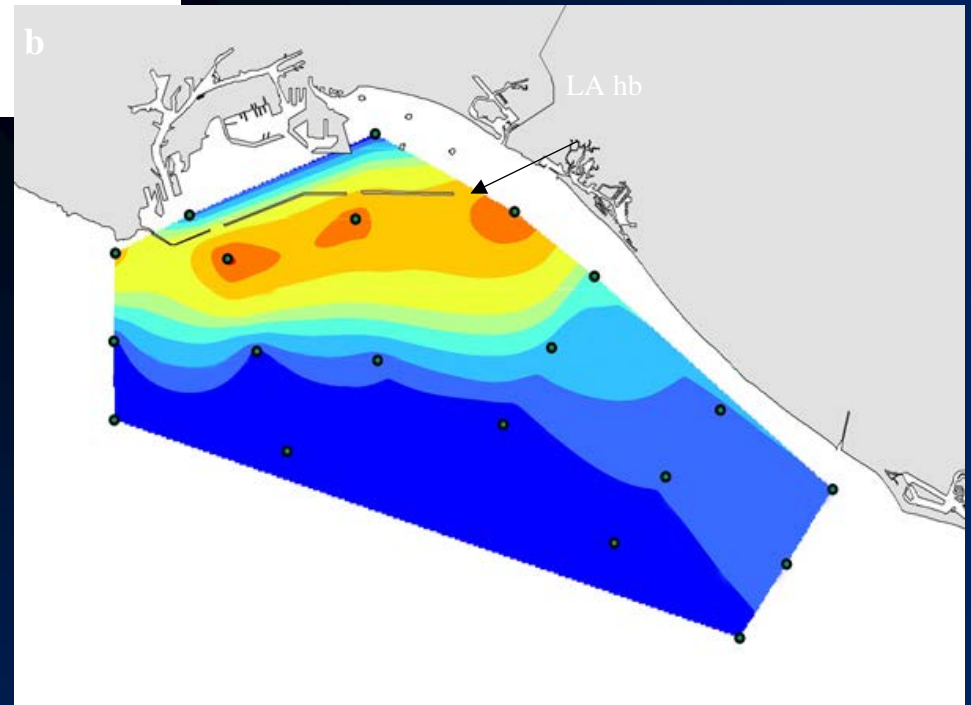


Photo taken by Eddie Kisfaludy



Domoic acid ($\mu\text{g/l}$)

Fine-scale geographic distribution of domoic acid in the harbor and San Pedro area during 2006 and 2007.



southern california bight



Buoy



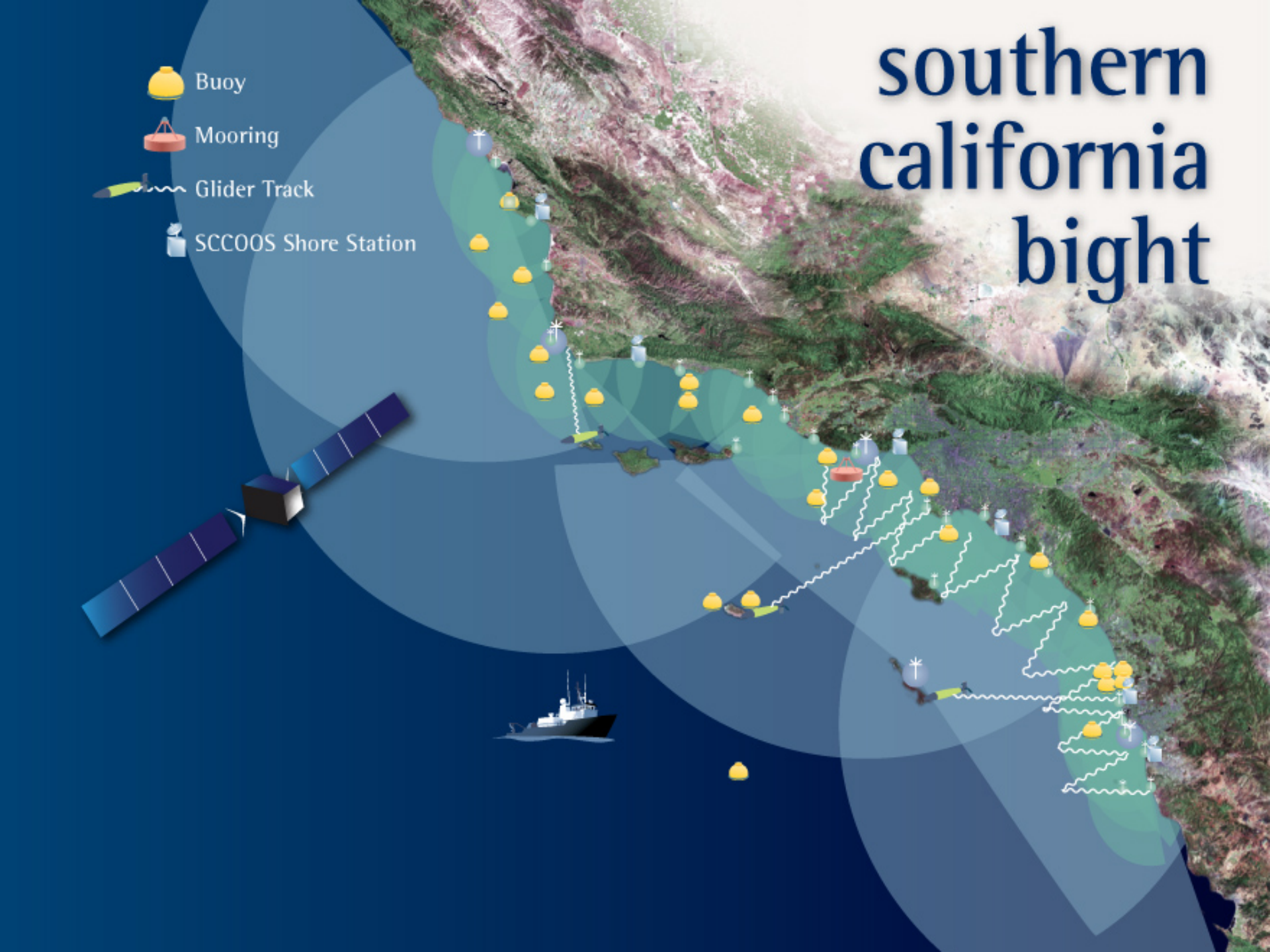
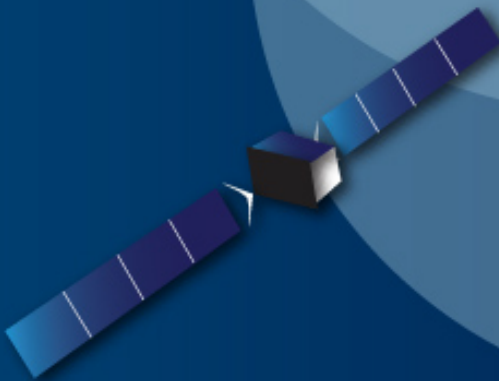
Mooring



Glider Track



SCCOOS Shore Station



FY08 Planned SCOOS Observational Activities (HAB related)

- Harmful Algal Bloom shoreline and nutrient surveillance along the coast of Southern California Bight
- Continued operation of nearshore egg and larval surveys that complement the offshore CALCOFI survey
- Development of nearshore climatologies and climate relevant indices relevant to ecosystem assessment for fisheries, IEAs, and MPA development
- Continued operations and maintenance of the SCCOOS 1km resolution, realtime ocean nowcast/forecast system

SCCOOS HAB Group

Routine parameter measurements

1) Live and preserved specimens for HAB taxonomy.

Primary targets:

***Pseudo-Nitzschia* spp.

Alexandrium sp.

Cochlodinium spp.

Lingulodinium polyedra

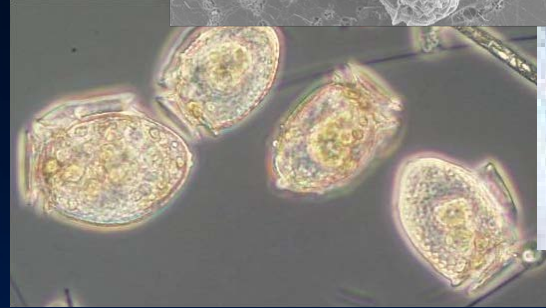
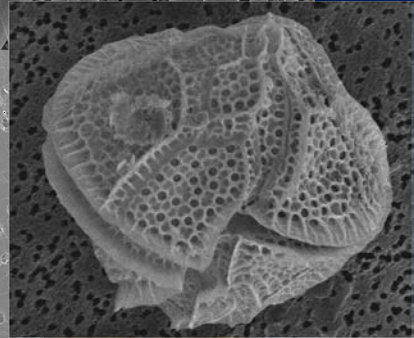
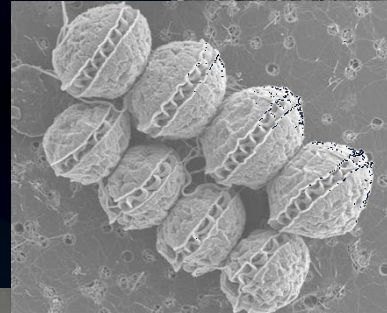
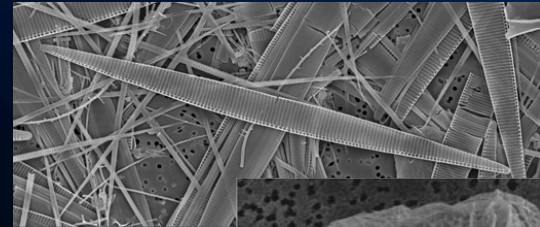
Prorocentrum spp.

Dinophysis spp.

Heterosigma spp.

Akashiwo sanguineum

Phaeocystis sp.



SCCOOS HAB Group

Routine parameter measurements

1) Live and preserved specimens for HAB taxonomy.

2) Domoic acid concentrations in plankton samples.

ELISA

(Samples processed at USC)

SCCOOS HAB Group

Routine parameter measurements

1) Live and preserved specimens for HAB taxonomy.

2) Domoic acid concentrations in plankton samples.

ELISA

(Samples processed at USC)

3) Primary inorganic nutrients.

Nitrate + nitrite

Phosphate

Silicate

(Samples processed at UCSB)

SCCOOS HAB Group

Routine parameter measurements

1) Live and preserved specimens for HAB taxonomy.

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3) Primary inorganic nutrients.

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4) Extracted chlorophyll concentration in plankton samples.

SCCOOS HAB Group

Routine parameter measurements

1) Live and preserved specimens for HAB taxonomy.

2) Domoic acid concentrations in plankton samples.

ELISA

(Samples processed at USC)

3) Primary inorganic nutrients.

Nitrate + nitrite

Phosphate

Silicate

(Samples processed at UCSB)

4) Extracted chlorophyll concentration in plankton samples.

5) Temperature, salinity.

SCCOOS HAB Group

'Event Response' measurements

(this will be a very limited effort)

1) Glider studies

SCCOOS & MERHAB Webb SLOCUM gliders

Temperature, salinity, chlorophyll fluorescence, CDOM, phyerythrin, optical backscatter at three wavelengths.

2) Limited ancillary ship work to characterize extent of a HAB event.

Other SoCal HAB Group Efforts (Potential Interactions & Collaborations with OOSs)

MERHAB: RADPALERT (USC, UCLA, SCCWRP)

West Basin (USC: Caron, Jones)

King Harbor, Redondo Beach, Marina Del Rey
Observatories (USC: Caron, Sukhatme)

CICORE (SCMI: Pieper)

Also, potential contributions to:

California HABMAP (Statewide collaborative effort)

Bight '08 (SCCWRP, regional collaborative effort in '09)