

Subtidal and Intertidal Habitat Goals for Humboldt Bay and the Eel River Estuary

Advisory Team Meeting Notes

May 8, 2008, 1:30 to 4:30 pm, Eureka Sea Grant Office

- I. In Attendance:** Diane Ashton (NOAA Fisheries), Steve Cannata (DFG), Annie Eicher (California Sea Grant Extension), Joel Gerwein (Coastal Conservancy), Bill Pinnix (USFWS), Kirsten Ramey (DFG), Susan Schlosser (California Sea Grant Extension). Guests: Whelan Gilkerson (Humboldt State University) and Greg O'Connell (Humboldt State University).

- II. Project Administrative Updates—Susan Schlosser**
 - A. Approved 03/13/08 meeting notes
 - B. Sea Grant presented a poster and presentation on the Habitat Goals Project at the Humboldt Bay Symposium April 24-25, 2008
 - C. Mapping update: the weather was not suitable during our May window (days when tide was sufficiently low at a time of acceptable sun angle) for the aerial flight. The next window is June 4-8, 2008.

- III. Update on *Zostera japonica*—Susan Schlosser**
 - A. On Monday, April 28, Kirsten Ramey, Cal Fish and Game, found *Zostera japonica* in McNulty Slough, a northern arm of the Eel River Estuary. McNulty Slough is bounded by two levees. On the eastern side are pastures and the western side, the DFG Ocean Ranch Wildlife Area. On May 2 we surveyed by boat, taking GPS points of Zj locations along the length of McNulty Slough to just beyond its confluence with Hawks Slough. Zj occurs in a fairly dense strip near the boat ramp on both banks, occupying approximately 1200 meters of mudflat. Beyond that, we found only scattered patches. There is very little *Zostera marina* in the slough. We found Zj growing either on otherwise unvegetated mudflat or with macroalgae.
 - B. We are planning to continue ground/boat surveys throughout suitable areas of the Eel River estuary; we are also looking into low-elevation aerial photography to aid in mapping the infestation.
 - C. We are evaluating a number of control strategies to present to permitting agencies, and we plan to look for sources of emergency funding to initiate a rapid response to this discovery.

- IV. Eelgrass Distribution Model—Whelan Gilkerson**
 - A. Whelan recently completed his Master's thesis at HSU developing a spatial model of eelgrass habitat in Humboldt Bay that is GIS-based as a preliminary step towards identifying and prioritizing mitigation/restoration opportunities
 - B. The model incorporates both suitable depth (based on available bathymetry data) and wave exposure (using wave exposure model software), plus extensive fieldwork to define the upper and lower limits of eelgrass in Humboldt Bay
 - C. Study results (derived from model): 2202 hectares of continuous eelgrass habitat (1256 ha in North Bay + 946 ha in South Bay). Eelgrass depth range: 3.5 meters.
 - D. These results can be compared to the maps that will be prepared for us by Photo Science.

V. Phytoplankton Research—Greg O’Connell

- A. Greg is currently working on his Master’s thesis at HSU studying phytoplankton dynamics from a long-term monitoring site in Humboldt Bay.
- B. Phytoplankton are primary producers, the base of many food chains, and also potential sources of harmful algal blooms (HABs)
- C. Greg is examining long-term data collected by the CICOORE (Center for Integrative Coastal Observation, Research and Education) at the Humboldt Bay Dock B Water Quality logger. He is evaluating abundance of phytoplankton taxa and community metrics of diversity in relation to seasonal changes in water temperature, precipitation, salinity, dissolved oxygen, pH, turbidity, and depth.
- D. Greg’s work will be helpful in characterizing the phytoplankton community in our habitat description of the water column in Humboldt Bay.

VI. Review of EndNote—postponed to next meeting when more AC members present

VII. Review of Preliminary Habitat Types List

Group discussion to be continued next month after further review of literature.