

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

Advisory Team Meeting Notes

June 25, 2008, 1:30 to 4:30 pm, Eureka Sea Grant Office

- I. In Attendance:** Diane Ashton (NOAA Fisheries), Annie Eicher (California Sea Grant Extension), Vicki Frey (DFG), Joel Gerwein (Coastal Conservancy), Kirsten Ramey (DFG), Susan Schlosser (California Sea Grant Extension).
- II. Desired Outcome:** Develop list of focal conservation targets using established CAP protocol, including a basis for the selection and a list of nested targets they represent.
- III. Background for CAP Process**—Susan Schlosser (*see also attached “Susan’s Notes” and “CAP Definitions,” and AC meeting notes for 06/12/2008 and 12/13/2008.*)
 - A. The purpose of selecting **focal conservation targets** (also called **biodiversity features**) is to represent and encompass the full array of biodiversity found in a project area. Focal conservation targets serve as the basis for setting goals, carrying out conservation actions, and for measuring the effectiveness of conservation actions.
 - B. The coarse/fine filter approach provides a useful framework for selecting focal conservation targets. **Coarse filter targets** are ecological systems, community types, or occasionally species that, when conserved, also conserve a larger suite of species or communities, which are called **nested targets**. **Fine filter targets** are species or groups of species that require special attention or are not well captured by coarse filter targets.
 - C. Typically a mixture of coarse to fine filter targets are selected to represent an area’s biodiversity. Eight is the recommended number for focal conservation targets.
 - D. Criteria for lumping targets: if the features co-occur on the landscape, share common ecological processes, share similar critical threats, and therefore require similar conservation strategies, they can be lumped into a coarse filter target.
 - E. Criteria for splitting targets: fine filter targets should be considered separately if they have unique ecological attributes or conservation requirements. Examples are 1) threatened species with limited or restricted populations, 2) keystone species that drive ecological processes, 3) species or groups of species that disperse or use resources across different ecological systems.
- IV. Selection of Focal Conservation Targets**—Group Process
 - A. Steps followed:
 1. List potential targets, considering species, groups of species, communities, and habitats in our project area (recorded on flip chart)
 2. Consider the scale of each target and determine which coarse filter targets can be used to encompass other features. Record which targets are nested (often, we found them to be nested in more than one of the selected targets).
 3. Determine which targets are important to serve as fine filter targets and explain why
 4. A total of 10 focal conservation targets were selected, ranging from coarse to fine filters. The results are shown in the attached spreadsheet, with a list of nested targets and notes on each target from our discussion.
- VIII. SUMMER MEETING SCHEDULE:**
 - Thursday, July 24, 1:30-4:30, Sea Grant Office**
 - Thursday, August 7, 1:30-4:30, Sea Grant Office**
 - Thursday, August 21, 1:30-4:30, Sea Grant Office**

<u>Focal Conservation Target</u>	<u>Scale</u>	<u>Nested Targets</u>	<u>Notes</u>
1. Water Column	Coarse		Physical habitat type (broad)
		Open Water	Physical habitat type nested under Water Column
		Sloughs and Channels	Physical habitat type nested under Water Column, Intertidal Flats, Tidal Marsh
		Dredged Channels	Physical habitat type nested under Water Column
		Macroalgae	Group of organisms; nested under Intertidal Flats and Water Column
		Invertebrates	Group of organisms; nested under Intertidal Flats, Water Column, and Subtidal Benthos
		Planktonic Community	Group of organisms; nested under Water Column
		Marine Mammals	Group of organisms; nested under Water Column and Intertidal Flats
2. Intertidal Flats	Coarse		Physical habitat type (broad)
		Sloughs and Channels	Physical habitat type nested under Water Column, Intertidal Flats, Tidal Marsh
		Mud/sand/gravel	Range of substrate types found in Intertidal Flats
		Unvegetated Flats	Physical habitat type nested under Intertidal Flats
		Macroalgae	Group of organisms; nested under Intertidal Flats and Water Column
		Microbial Mats	Group of organisms; nested under Intertidal Flats
		Invertebrates	Group of organisms; nested under Intertidal Flats, Water Column, and Subtidal Benthos
		Benthic Community	Group of organisms; nested under Intertidal Flats and Subtidal Benthos
		Marine Mammals	Group of organisms; nested under Water Column and Intertidal Flats

<u>Focal Conservation Target</u>	<u>Scale</u>	<u>Nested Targets</u>	<u>Notes</u>
3. Tidal Marsh	Coarse		Biogenic habitat type (broad)
		Salt Marsh	Biogenic habitat type nested under Tidal Marsh
		Brackish Marsh	Biogenic habitat type nested under Tidal Marsh
		Freshwater Marsh (tidal)	Biogenic habitat type nested under Tidal Marsh
		Sloughs and Channels	Physical abitat type nested under Water Column, Intertidal Flats, Tidal Marsh
		Insects	Group of organisms nested under Tidal Marsh and Riparian
		Terrestrial Mammals	Group of organisms nested under Tidal Marsh and Riparian
		Rare Plants	Significant species nested under Tidal Marsh
4. Riparian Scrub/Forest	Coarse		Biogenic habitat type, more common in Eel River Estuary than in Humboldt Bay
		Neotropical migrant birds	Group of organisms nested under Tidal Marsh; Riparian; and Shorebirds, Waterfowl, and Piscivorous Birds; also utilize upland habitats out of the range of our study area
		Insects	Group of organisms nested under Tidal Marsh and Riparian
		Terrestrial Mammals	Group of organisms nested under Tidal Marsh and Riparian
5. Subtidal Benthos	Coarse		Group of organisms with unique considerations
		Invertebrates	Group of organisms; nested under Intertidal Flats, Water Column, and Subtidal Benthos
		Benthic Community	Group of organisms; nested under Intertidal Flats and Subtidal Benthos

<u>Focal Conservation Target</u>	<u>Scale</u>	<u>Nested Targets</u>	<u>Notes</u>
6. Eelgrass	Medium		Significant species constituting a biogenic habitat type that supports a community of organisms
7. Shorebirds, Waterfowl, and Piscivorous Birds	Medium		Group of species that utilize mosaic of habitats including terrestrial habitats not addressed by other focal conservation targets
		Osprey	Significant species nested under Shorebirds, Waterfowl, and Piscivorous Birds
		Bald Eagle	Significant species nested under Shorebirds, Waterfowl, and Piscivorous Birds
		Neotropical migrant birds	Group of organisms nested under Tidal Marsh; Riparian; and Shorebirds, Waterfowl, and Piscivorous Birds; also utilize upland habitats out of the range of our study area
8. Native Fish Assemblages	Medium		Group of organisms with threats (fishing) not addressed by other conservation targets
		Anadromous species	Group of species nested under Native Fish Assemblages
		Catadromous species	Group of species nested under Native Fish Assemblages
		Salmonids	Group of species nested under Native Fish Assemblages
		Commercial fish species	Group of species nested under Native Fish Assemblages
		Fish nursery grounds	Habitat types nested under Native Fish Assemblages
		Herring	Significant species; nested under Native Fish Assemblages
		Tidewater Goby	Significant species; nested under Native Fish Assemblages

<u>Focal Conservation Target</u>	<u>Scale</u>	<u>Nested Targets</u>	<u>Notes</u>
9. Filter-Feeding Bivalves	Fine		Group of organisms including native and cultured species; utilize water column and benthic habitats; sensitive indicators
		Shellfish beds	Biogenic habitat type nested under Filter-Feeding Bivalves
10. Dungeness Crabs	Fine		Native species with commercial significance/pressure; utilize mosaic of habitats including oceanic habitats not addressed by other focal conservation targets