

5th Annual Heceta Head Coastal Conference

"Oregon's Ocean: The Land/Sea Connection"

Florence Events Center ~ October 23-24, 2009

SUMMARY of CONFERENCE PROCEEDINGS

Master of Ceremonies: Craig McMicken, Chairman, Heceta Head Coastal Conference, Inc.

Saturday, October 24

Panel 1 ~ "Coastal Management: Making the Land/Sea Connection"

Estuaries

Michael Graybill, Manager, South Slough National Estuarine Research Reserve

Estuaries are transition zones that form where the fresh water of a river meets and mixes with the salt water of the ocean. At the uppermost reaches of the estuary, river conditions dominate, yet the influence of the sea is still in evidence. At the lower reaches of the estuary, the conditions of the sea dominate yet the influence of the river is still in evidence.

Estuaries are among the most productive places on earth and provide a rich home for many living things. They serve as essential stopover places for mobile species like birds and fish and people. They also support numerous plant and animal communities that are found nowhere else on earth.

Estuaries are also important nursery areas for a huge variety of fish and shellfish. They have been of great importance to people throughout human history. A substantial percentage of all people on earth live on the shoreline or in the vicinity of estuaries. Many of the largest cities of earth are situated on estuaries

The conditions found in estuaries vary greatly depending on the size of the river, the nature of the ocean conditions and the physical geography of the coastal landscape. This presentation highlighted some of the conditions that help to define estuaries using examples that should be familiar to audience members. It also highlighted some of the important ecological services provided by estuaries to humans and other living things.

Watershed Restoration

Jack Sleeper, Fish Biologist, Siuslaw National Forest

The Siuslaw National Forest has been implementing a variety of restoration activities to restore ecological processes that create and maintain late successional forest conditions since 1994. Activities are intended to restore ecosystems that support numerous species including some Endangered Species Act listed species with strong land and sea connections such as the marbled murrelet and coho salmon.

Several state and federal agencies, watershed councils, landowners, and non-profit organizations have collaborated with the Siuslaw National Forest to accomplish these activities.

Historically, large diameter trees and landslides (debris flows) that delivered abundant large wood to streams and floodplains created high quality aquatic habitats. Human settlement, clearcut logging and road

construction have removed large trees from riparian areas. The frequency of landslides has increased with many lacking large wood due to clearcut logging. Road construction and settlement activities have disconnected streams from their riparian areas and floodplains.

Restoration activities such as land acquisitions and easements, road stabilization (upgrades, waterbarring, and decommissioning), plantation thinning, riparian planting, release of understory conifer, adding large wood to streams, and channel reconstruction are being implemented to restore aquatic habitats. Large reference areas (areas with the least human impacts) are critical for understanding ecological processes that create and maintain aquatic habitats.

A collaborative, landscape perspective is needed to restore watersheds considering the fragmented land ownership patterns in most watersheds and the need to develop mutual understanding and trust among diverse interest groups.

Research

Gil Sylvia, Marine Resource Economist, Coastal Oregon Marine Experiment Station, OSU

Three salmon cases were used to illustrate the land-sea research "connection". The first case, involving ESA listed salmon species on the Columbia River, illustrated a "lost connection" between Columbia River industries and salmon fishermen due to lack of honest engagement and conflicting political agendas. The result was a lost opportunity to support cooperative research to reduce harvests of endangered salmon.

The second case illustrated a "direct connection" between farmers in Eastern Oregon and commercial fishermen on the Oregon coast in supporting new salmon research on freshwater ecology, marine ecology, and fishery genetics. This research is now revealing new knowledge to help sustain and rebuild salmon and marine fishery populations.

The third case illustrated a "multiparty connection" through the ongoing "CROOS" Project (Collaborative Research on Oregon Ocean Salmon) which includes the Oregon salmon industry, Oregon State University, federal and state agencies, and other private and public organizations. These partners are using cutting edge research to improve salmon science, management, and economic benefits to industry and coastal communities. Over 150 salmon fishermen have provided "near real time" biological, oceanographic, and fisheries data that reveals salmon stock migration patterns and distribution on fine spatial and temporal scales. The project is also developing new research protocols, an electronic fishery information system (www.Pacificfishtrax.org), and new marketing tools including barcoding, traceability, and electronic kiosks.

These tools are helping to integrate research, management, and marketing and create a virtual human community sharing information in support of sustainable fisheries. Together these three "land-sea connection" cases illustrate the importance of collaborative marine research and the benefits that can accrue to cooperators, industries, and communities.