

Field Season Highlights

Field 2007

Southwest Alaska Network Inventory and Monitoring Program

Marine Nearshore Monitoring Program

The marine nearshore monitoring protocol was designed to detect changes across different temporal and spatial scales and to evaluate potential causes of these changes.



Recording sea otter foraging behavior, Kenai Fjords National Park, June 2007.

- Field tested protocols for sampling marine invertebrates, black oystercatchers, sea otter (diet), marine birds and mammals, and marine debris and animal carcasses at random sites in KATM for the second straight year and in KEFJ for the first time.

- Conducted sea otter aerial surveys in KEFJ.

- Successfully tested an underwater videocamera to map spatial extent of kelp and seagrass at sites in KATM and KEFJ.

Insect Outbreaks Monitoring Program

Insect outbreaks have the potential to significantly alter forest structure and composition in the SWAN. Using tree-ring data, ecologists are gathering information about historic spruce bark beetle outbreaks in LACL and KATM.

- Three of five stands showed 100% mortality.
- Affected trees ranged in age from 60 to 200+ years old.
- New beetle activity evident near Lake Brooks and along the Valley 10K Road.
- Approximately 450 tree cores were collected from 5 beetle disturbance sites in KATM.



Beetle-killed trees, Bay of Isles, KATM

Chuck Lindsay (SWAN) extracts a tree core. KATM, July 2007.



Salt Marsh Monitoring Program

Salt marshes are among the most productive ecosystems in the world and play a critical role in the ecology of the SWAN. In LACL, uplift following the 1964 earthquake has dramatically altered these vegetation communities.



Michael Shephard (SWAN), Page Spencer (LACL) and Buck Mangipane (LACL) sample vegetation. LACL July 2007.

- Vegetation and soils were sampled across 8 permanent transects at two sites in LACL.

- Data loggers will monitor soil temperature and water level.

- Crest gauges will record high water on levees and in meadows.

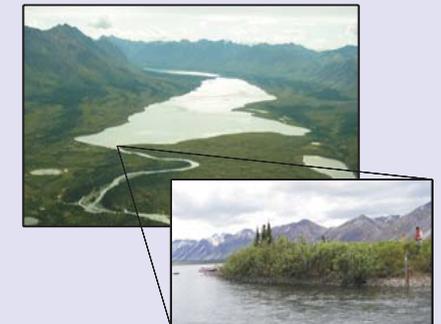
- In 2008, two additional sites will be established in KATM.



Surface Hydrology Monitoring Program

Fluctuations in lake levels and seasonal hydrographs are major drivers in dictating physical, chemical, and biological processes in SWAN lakes. USGS-WRD installed water level pressure transducers and measured lake discharge to develop stage discharge rating curves for several SWAN lakes.

- Stage discharge rating curves will be available for Lower Twin, Telaquana, and Crescent Lakes in LACL and Brooks and Naknek Lakes in KATM.
- Discharge and water levels will be gaged for Lakes Clark and Naknek and their tributaries in 2008.



Lower Twin Lake Outlet Survey, LACL.

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