

Human Activities

Protocol: Resource Harvest for Subsistence and Sport

Parks Where Protocol Will Be Implemented:

Sport Fish: ALAG, KATM, LACL

Sport and Subsistence Wildlife Harvest: ALAG, ANIA, KATM (Preserve), LACL

Justification/Issues Being Addressed: The Alaska National Interest Lands Claim Settlement Act of 1980 (ANILCA Public Law 96-487) established by statute that subsistence hunting, fishing, and gathering would be legitimate activities on some 41,458,000 ac (16,777,457 ha) of new park lands, including lands within ALAG, ANIA, KATM (Preserve), and LACL. Because they existed before ANILCA, subsistence harvest of fish and wildlife is not authorized in Katmai National Park and KEFJ. ANILCA also allowed sport harvest within preserves; sport fishing has always been allowed in national park units unless specifically prohibited. Subsistence harvest regulations and bag limits are often more liberal than sport harvest, and have the potential to depress wildlife populations in local areas, such as around human population centers or access routes.

Specific Monitoring Questions and Objectives to be Addressed by the Protocol:

Questions:

- How are sport and subsistence fish harvests of resident and anadromous fish changing in major drainages within or including SWAN parks?
- How are sport and subsistence wildlife harvest levels changing for brown bear, black bear, caribou, Dall sheep, and moose in Game Management Units and Uniform Coding Units that include SWAN parks?
- How are harvests of beaver, lynx, river otter, wolf, and wolverine changing within and around SWAN park units?

Objectives:

- Track annual harvest of resident and anadromous fish species within ALAG, KATM, and LACL.
- Track number and locations of brown bear, black bear, caribou, Dall sheep, and moose harvested annually within Game Management Units and Uniform Coding Units that include portions of ALAG, ANIA, KATM, and LACL.
- Track annual harvest levels within and adjacent to ALAG, ANIA, KATM, and LACL for beaver, lynx, river otter, wolf, and wolverine.

Basic Approach: This protocol will define a process to extract and use data from existing fish and wildlife harvest data sources and make them readily available to park managers.

Sport Fish Harvest-Since 1970, the ADF&G Sport Fish Division has conducted an annual mail survey to estimate total sport fish harvest levels by major watershed. Harvest estimate is broken down by these species: king salmon (*Oncorhynchus tshawytscha*), silver salmon (*Oncorhynchus kisutch*), red (sockeye) salmon, pink salmon (*Oncorhynchus gorbuscha*), chum salmon (*Oncorhynchus keta*), kokanee (*Oncorhynchus nerka*), lake trout (*Salvelinus namaycush*), Dolly Varden/arctic char, rainbow trout (*Oncorhynchus mykiss*), Arctic grayling (*Thymallus arcticus*), whitefish, northern pike (*Esox lucius*), burbot (*Lota lota*), smelt, and razor clams (*Siliqua patula*). Watersheds for which harvest data are collected have varied over time, and do not always conform to park boundaries. ADF&G currently does not estimate harvest for ANIA or KEFJ, but collects information for the two major rivers in ALAG and KATM, Naknek and Alagnak. For LACL, harvest data are available for Lake Clark, Silver Salmon Creek, and Polly Creek Beach/Crescent River Bar (razor clams), although not all sites meet ADF&G standards for useable harvest estimates (> 30 respondents) (Walker et al. 2003).

Wildlife Harvest-Since 1983, wildlife harvest statistics for brown bear, black bear, caribou, and moose have been collected by ADF&G and the Federal Subsistence Board, and are currently provided to the Alaska Regional Office Subsistence Division on an annual basis. Sandy Rabinowitch, NPS Subsistence, is currently breaking out harvest by Game Management Units and park areas. Under state hunting regulations, license holders are required to report all harvests. However, ADF&G sends follow-up letters for permit hunts, and response levels for all hunts are higher in urban areas.

Furbearer Harvest-The ADF&G Division of Wildlife Conservation collects trapping harvest figures through sealing records on river otter, wolf, and wolverine. Sandy Rabinowitch will also be compiling trapping harvest statistics. Survey units are large, and trapping in and around SWAN parks is not intensive.

Other Data Sources-The ADF&G Subsistence Division carries out periodic intensive, comprehensive surveys through interviews of subsistence users within subsistence communities. Data from these community surveys are included in the Community Profile Database (CPD) at (<http://www.subsistence.adfg.state.ak.us/geninfo/publctns/cpdb.cfm>). Although not directly comparable, the CPD can provide context and complementary data for comparison with the harvest database.

SWAN Contacts and NPS Lead:

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Development Schedule, Budget, and Expected Interim Products:

2005-2007 Develop agreements for data sharing, complete data gathering.
2008 Draft data management protocol.
2009 Protocol testing/statistical analysis.
2010 Implement.

Development of this protocol will be done in house, and no major costs are anticipated.

Literature Cited

Walker, R. J., C. Olnes, K. Sundet, A. L. Howe, and A. E. Bingham. 2003. Participation, catch, and harvest in Alaska sport fisheries during 2000. Alaska Department of Fish and Game, Division of Sport Fish. Fishery Data Series No. 03-05.