

The Alaska Department of Fish and Game Division of Subsistence

Why does ADF&G have a Division of Subsistence? Over 30 years ago, the Alaska Legislature passed the state's first subsistence statute and established subsistence as the priority use of Alaska's fish and wildlife. The legislature also recognized the need for basic information about subsistence uses—who, what, when, where, how, and how much—which would assist the Alaska Board of Fisheries and the Board of Game in developing opportunities for subsistence as well as for other hunting and fishing. To address this information need, the 1978 law created a research unit within ADF&G called the "section of subsistence hunting and fishing:" this became the Division of Subsistence in 1981. The division's mission and core services are in the box to the right.

By establishing a subsistence priority, the 1978 legislature acknowledged the unique importance of wild resources—resources used for food, raw materials, and other traditional uses. For the first time, the law defined subsistence as "customary and traditional uses" of fish and wildlife, thereby highlighting the continuing role of subsistence fishing and hunting in sustaining long-established ways of life in the state.

Investigating the many dimensions of how humans use subsistence resources requires the division to apply the methods of the social sciences, especially cultural anthropology. The goal of this holistic approach is to understand subsistence activities within a broad socioeconomic and sociocultural context. From the start, division researchers have used a range of established scientific methods: systematic household surveys, key respondent interviewing, mapping, and participant observation. Many studies focus on subsistence uses within a community or area; others investigate topics, such as the use of fish camps or the uses of nonsalmon fish.



Most study findings appear in the division's Technical Paper Series, now with over 350 titles available online. The subsistence

Division of Subsistence Mission

To scientifically gather, quantify, evaluate, and report information about customary and traditional uses of Alaska's fish and wildlife resources.

Core Services

- Compile existing data and conduct studies on all aspects of the role of subsistence hunting and fishing in the lives of the residents of the state.
- 2. Quantify the amount, nutritional value, and extent of dependence on subsistence-harvested food.
- 3. Make this information available to the public.
- 4. Assist ADF&G and the Board of Fisheries and Board of Game in determining which uses are subsistence, which users are subsistence users, and which methods are subsistence methods.
- Evaluate the impact of state and federal laws on subsistence hunting and fishing; make recommendations to ADF&G if corrective action is indicated.
- Make recommendations to the Board of Fisheries and Board of Game regarding adoption, amendment, and repeal of subsistence regulations.
- 7. Participate with other ADF&G divisions in preparation of management plans so that those plans recognize subsistence uses.



Important Subsistence Legislation

Alaska's subsistence law, and subsistence priority: A.S. 16.05.258 Subsistence use and allocation of fish and game.

What the Division of Subsistence does: A.S. 16.05.094 Duties of section of subsistence hunting and fishing.

Board of Fisheries' consideration of subsistence: A.S. 16.05.251 Regulations of the Board of Fisheries.

Board of Game consideration of subsistence: A.S. 16.05.255

Regulations of the Board of Game; management requirements.



Interviewing in Elim, 2005.

1

law



also directs the division to quantify subsistence harvests. To help with this, we have developed the "Community Subsistence Information System" (CSIS): an on-line database that contains

the results of our systematic household surveys. Over 260 communities are represented in the CSIS, which also includes demographic data and information about jobs and sources of cash. The division has also developed a statewide subsistence salmon permit database, with reports available upon request.

These research results are key sources of information for the Alaska Board of Game and the Alaska Board of Fisheries, especially during their deliberations on customary and traditional use findings, reasonable opportunities for subsistence, and the amounts reasonably necessary for subsistence.

An early finding is that contemporary subsistence uses take place within a "mixed economy" in rural Alaska: a subsistence hunting and fishing component and a cash component. Cash is necessary to purchase the equipment, supplies, and fuel needed to harvest subsistence resources.

Division research also finds that subsistence activities continue to provide large quantities of food for Alaskans—on average about one pound of food per day per person in rural areas.

Subsistence uses also vary from place to place. "Alaska is distinguished by its diversity of small, rural communities that are economically and culturally dependent on fish and game. Multiple ways of living have developed within these communities of users that include the traditional harvest and use of wild resources, adapted to local ecological and economic circumstances" (Technical Paper 284, 2004).

Since subsistence uses do vary, the subsistence law also directs the Joint Boards of Fisheries and Game to identify "non subsistence areas," and the division's research program helps to provide this information.

Division studies have also documented specialization in subsistence harvests. The pattern is so consistent that we refer to it as the "30-70 rule"— 30% of the households in a community often produce 70% of the community's harvest (in terms of usable pounds). Highly-productive households



Harriet Kaufman, her daughter Connie, and her grandson Zackary prepare king salmon for subsistence use at Tyonek, on Cook Inlet, just 40 miles west of Anchorage.

usually have several older adult members with access to cash, and these households are often successful in both the subsistence and cash sectors of the local mixed economy.

These households also share their harvests widely. In a recent example, Jim Magdanz and his colleagues reviewed 10 years of subsistence salmon harvest data for 10 northwest Alaska communities. They found that, despite varying harvest levels and run sizes, each year about 23% of the fishing households harvested about 70% of the salmon. High harvesting

households contained older members, were headed by couples, and were involved in other subsistence harvests. The study team did find, however, that there is significant yearly variation in who the top-harvesting households are (Technical Paper 294, 2005).

Many studies have also shown that subsistence hunting, fishing, and processing in Alaska are informed by "traditional ecological knowledge" (TEK). Resource managers and planners would also benefit from this body of knowledge. For example, Caroline Brown (Division of Subsistence), John Burr (Division of Sport Fish), and Kim Elkin (Tanana Chiefs' Conference) learned about the abundance, distribution, and movements of nonsalmon fish, especially northern pike, in the Innoko River and middle Yukon River through TEK interviews, harvest surveys,

mapping, biological sampling of catches, and fish tag returns. (Technical Paper No. 289, 2005). Such work produces not only important scientific data but also builds relationships with subsistence harvesters that provide a bridge to further understanding, mutual respect, and collaborative studies.

Why is there a Division of Subsistence? In short, because subsistence hunting and fishing are vital to the economy and culture of hundreds of Alaska communities and tens of thousands of Alaska residents. Also, understanding customary and traditional uses of fish and wildlife through scientific research and by learning from subsistence hunters and fishers strengthens Alaska's resource management system. And

finally, providing opportunities for customary and traditional uses of fish and wildlife supports the diverse ways of living in Alaska, and enriches the lives of everyone who lives in the Great Land.

