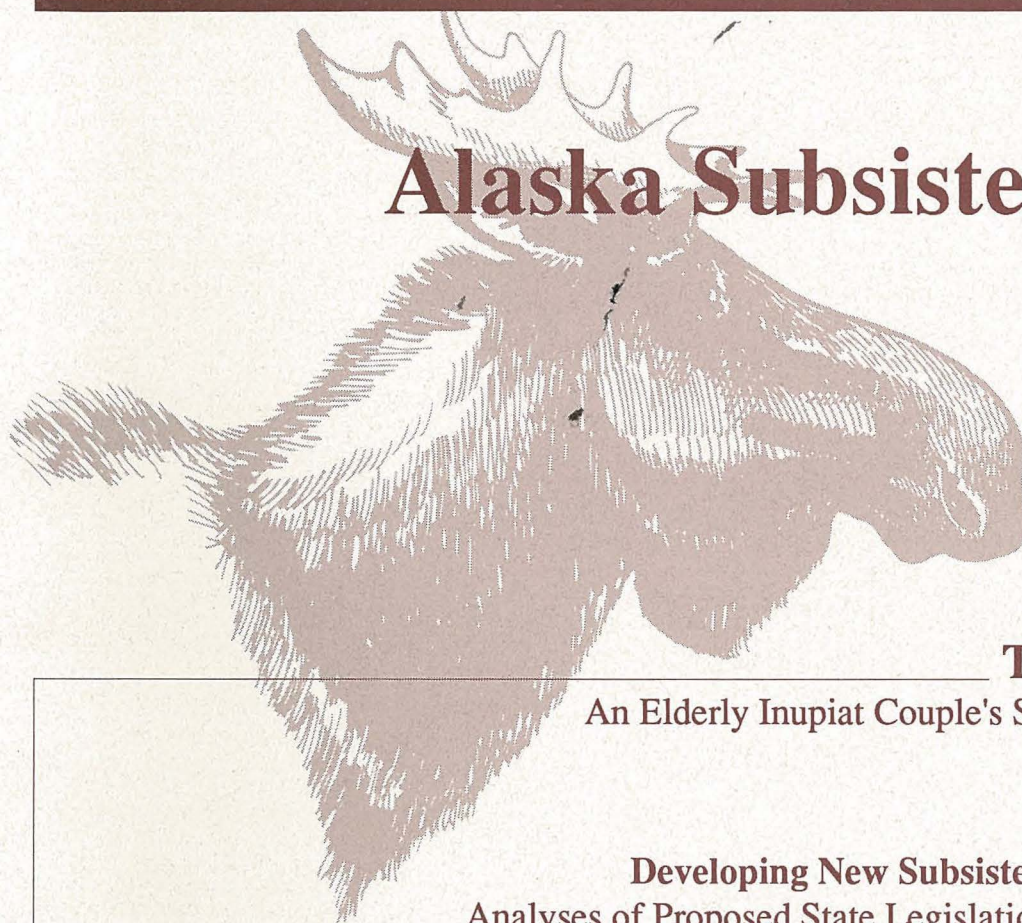


October 1991

Arctic Issues

Digest

Alaska Subsistence Issues



The Story of One . . .

An Elderly Inupiat Couple's Seasonal Subsistence Cycle

**Developing New Subsistence Management Policies:
Analyses of Proposed State Legislation and Federal Alternatives**

**The *Exxon Valdez* Oil Spill:
Impacts on Subsistence Uses of Fish and Wildlife**

**Subsistence and Self-Determination for Alaska Natives:
Can They Have a More Effective Voice?**

. . . The Voice of Many

From 1898 to 1990: What Alaska Natives Say They Want





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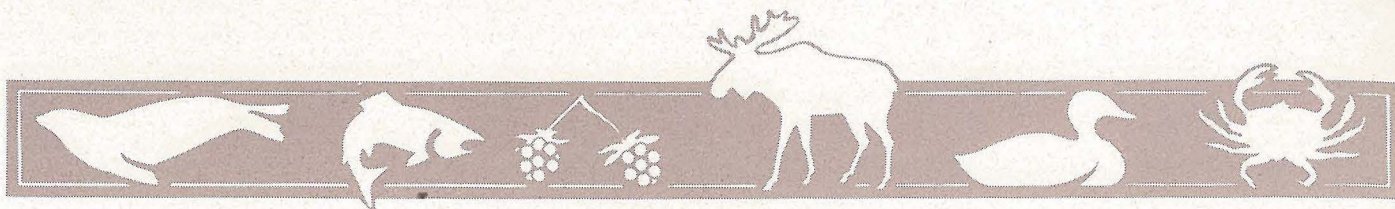
A Joint Project
of

Community Development Program
Cooperative Extension Service
University of Alaska Fairbanks

Minority Student Services/Native Student Services
University of Alaska Anchorage

and

Arctic Environmental Information and Data Center
University of Alaska Anchorage



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...The Voice of Many

Arctic Issues Digest October 1991

Anthony Nakazawa and Laurie McNicholas	Editors
Judy Hargis	Production Editor
Wanda Seamster	Graphic Design
Mary Ann Katt	Circulation

To obtain copies of this publication contact:
Community Development Program
Cooperative Extension Service
University of Alaska Fairbanks
2221 E. Northern Lights Blvd., Suite 132
Anchorage, Alaska 99508
Phone: (907) 276-2433
or any state or district office of the Alaska Cooperative
Extension Service.



Foreword

The existence of many Alaska Natives and their villages are keenly dependent on a village economy and culture built on the local hunting, fishing, and gathering of food and reinforced by values of kinship, reciprocity, and mutuality. Uses of subsistence resources are also vital to the livelihood of many non-Native Alaskans. Currently, the state and federal governments are developing separate subsistence policies—the state for subsistence management on state and private lands in Alaska, and the federal for subsistence management on federal public lands in Alaska.

Since December of 1989, when the Alaska Supreme Court ruled Alaska's eleven-year-old subsistence law unconstitutional, there has been a continual need for current information on developments relating to subsistence. Recently, that need was emphasized at an October 3 public forum on Alaska Native issues at the University of Alaska Anchorage, which was sponsored by Native Student Services and the Political Science Student Association. Panelists, including statewide media representatives, pointed to a lack of continually disseminated background informa-

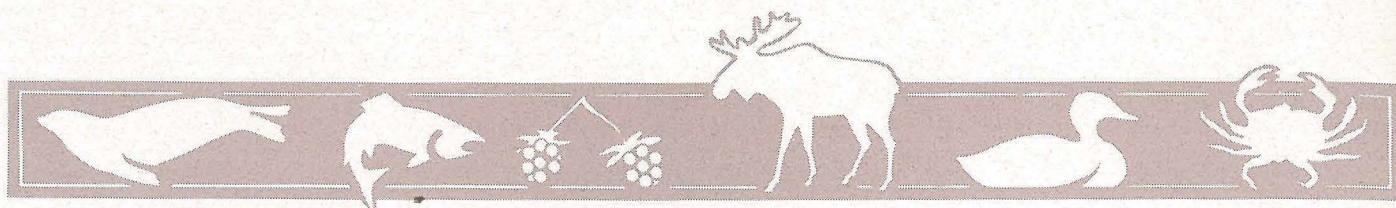
tion on developments related to subsistence and noted that even those with significant stakes in subsistence find it difficult to stay abreast of the complex, rapidly developing issues.

To help fill the information gap on subsistence issues, this first edition of *Arctic Issues Digest* features articles on aspects of subsistence that are of concern to all Alaskans. Policies currently being developed by the State of Alaska and the federal government are of vital concern in many Alaska communities. For that reason, the Cooperative Extension Service, in cooperation with the Arctic Environmental Information and Data Center, initiated a project to compile and disseminate information about the conflicts and policies currently surrounding subsistence in Alaska. The result is *Arctic Issues Digest*, an occasional publication of the University of Alaska, through which information about events and issues of considerable significance in Alaska and other arctic regions can be discussed and disseminated.

We are pleased to make this timely and important information available to you.

Irvin W. Skelton
Acting Director
Cooperative Extension Service
University of Alaska Fairbanks

Douglas A. Segar
Director
Arctic Environmental Information
and Data Center
University of Alaska Anchorage



Introduction

The first edition of *Arctic Issues Digest*, a new publication of the Alaska Cooperative Extension Service, focuses on current subsistence issues of concern to all Alaskans. As one of the articles in this edition notes, research by the Subsistence Division of the Alaska Department of Fish and Game has shown that subsistence activities such as the production and sharing of food integrates families, communities, and regions and supports the cultural and social systems and values of rural communities.

In recognition of the vital importance of subsistence as a way of life for many Alaskans, and as an issue of significance to all Alaskans, the first edition of *Arctic Issues Digest* features articles dealing with the conflicts and public policies surrounding subsistence, with subsistence management regimes, and with the effects of the *Exxon Valdez* oil spill on 15 Alutiiq villages. In addition, Lily Walker, an Inupiat elder, describes the seasonal subsistence cycle that she and her husband, Francis, have followed for many years at their camp near Nome. Lily has been a member of an Alaska Extension Homemakers club for more than thirty years.

In the process of planning and developing

this publication, we sought and received the advice and assistance of many persons. We wish to thank the following individuals for providing us with background information on subsistence issues in Alaska, and with ideas for and comments on proposed content for the publication: Helen Chase, Esther Combs, and Leroy Bingham of the Cook Inlet Tribal Council; Gary Oskoloff; Paul Theodore; Robert Price; David Case; David Maas; Jim Fall; Mary Ann Katt; Julie Riley; Keith Bayha; Rod Kuhn; Kathleen Morse; and Herv Hensley.

We especially thank Frank Barry and Elaine Abraham of Minority Student Services/ Native Student Services, University of Alaska Anchorage, for their unfailing support, encouragement, and guidance throughout the development of this publication. We are grateful to the staff of the Arctic Environmental Information and Data Center, University of Anchorage, particularly Patricia McMillan for content review and helpful suggestions, and Wanda Seamster for designing the cover and page templates for the publication. We also wish to thank Ellie Evans and Ray RaLonde for translating word processing disks containing the articles for this publication.

Anthony Nakazawa
Community Development
and Home Economics Program Leader
Cooperative Extension Service



The Story of One...

Walker's Camp

Lily Walker

Last August Lily Walker of Nome took time from berry picking to write the following description of the annual cycle of hunting, fishing, gathering, and preserving that she and her husband, Francis, followed for many years. The description is similar to a story that she wrote 10 years ago in a creative writing short course at an Alaska Homemakers conference in Anchorage. Lily and Francis are Inupiat Eskimo elders, and during the past decade, they have pursued a modified version of their traditional subsistence cycle, often in the company of one or more of their children or grandchildren.

Originally from Point Hope, Lily was sent to the government-operated White Mountain industrial school on the Seward Peninsula in 1928, when she was 13. She met Francis in White Mountain, his home village, and they were married there in 1933.

Twenty years later, the Walkers moved to Nome, where they finished raising their five children. Their oldest daughter, who lives in California, spent three weeks with them last summer, picking salmonberries and blueberries nearly every day. "All we need to do next is pick a few cranberries and blackberries," Lily wrote in a letter accompanying her article. "He [Francis] talks of going trapping for a few squirrels, I hope. We'd have to go to the hills for those."

Lily was a member of the Mother's Club in Nome, an Alaska Extension Homemakers club, for some 30 years. She's always ready to share a good recipe, such as the one with which she concludes her article.

Our camp is located east of Nome, down the coast. At the north side of the camp is a lagoon, and on the south side is the ocean. In the spring, we usually go to camp with the car as far as the road is open. Then we take our snow machine and grub from in back of the car and use the snow machine to get down to our camp. In order to have fresh seal oil, we have to go there to hunt. Francis goes out seal hunting in the later part of May. We cut up the seal and put the blubber in a five-gallon bucket to render it, then cut the meat and pack it in cooking sizes, enough for two.

The house has two rooms, a bed, dresser, table and chairs, a wood-burning cook stove and wood-burning drum heater, a gas washing machine, a brown bear rug, and other things. On the south side of the house is a small hothouse, 10-by-20 feet. We did some planting for a few years, and it was doing so good. I do have some rhubarb in there now. Francis built us a little cold storage room, 10-by-10 feet, where I keep our seal oil, berries, and other things. There is also a fish rack, and we keep our drying fish and meat under it so they are protected from rain and hot sun.

Francis used to commercial fish. He took good care of the fish, and I cut and dried whatever he couldn't sell. You have to take good care of fish when you are drying them in order to have good dried fish. We sent some to our children who are living in other states. We also canned a few fish for our use. This year we caught some fish in the ocean, and we dried and canned them. We passed some around to people who couldn't catch fish for themselves.

When it's time to look for berries, we are hardly ever at home. We pick salmonberries, then blueberries,

then later, cranberries and blackberries.

When the moose season is open, we go hunting. We get our things ready, see that the motors are in good running order, and do some baking for our grub. Then we put the boat on a homemade trailer and off we go with the car to a river, and then launch the boat and head upriver to look for moose.

When we catch a moose, we pack it to the boat and cool it. Then we are ready to go back home to cut the moose into cooking-size pieces and make mooseburger. That's lots of work, but it's worth it. We never waste the game we catch. We take care of them and freeze them for later use. Francis cuts them into roasts, steaks, stew meat, and briskets to cook with beans, and he may dry some of the meat. Then we are all set for the winter to come.

We have good country. We grew up eating fresh fish or meat, and we are still like that.

As soon as the rivers freeze, we go fishing for tomcods. They are good skinned and deep-fried in fat. We freeze some to eat with our greens, which are in seal oil in gallon jars.

We also freeze some crab meat, and cook some to make into sandwich filling. This we do when our ocean freezes up. You can't go hungry in our country as long as you have boats or snow machines. We used to have a dog team when we were younger.

Then we are ready to stay home and watch TV.

My recipe for seal meat stew:

Some seal meat, enough for a meal, onions, potatoes and rice, salt and pepper to taste. We've tried burgers made out of seal meat, too. Yummy.



Subsistence on Federal Public Lands in Alaska: Some Economic Impacts of Four Management Alternatives

Anthony Nakazawa and George Goldman¹

This article presents some of the potential economic impacts of alternative proposals for the federal management of subsistence resources in Alaska. The four management alternatives form the core of a Draft Environmental Impact Statement (DEIS) for subsistence management on federal public lands in Alaska. The DEIS, released in October 1991, was developed, in part, from information gathered through a public involvement process that included scoping meetings conducted by interagency teams from the U.S. Fish and Wildlife Service (FWS), U.S. Forest Service (USFS), National Park Service (NPS), and Bureau of Land Management (BLM). The teams held public scoping meetings in 56 Alaska communities and in Seattle and Washington, D.C., in the fall of 1990 to identify issues deserving analysis in the DEIS. The FWS has been designated lead agency for the federal subsistence management program. The Bureau of Indian Affairs (BIA) also is involved in the program. The DEIS was prepared by an interagency subsistence office staff which was established in August of 1990.

Following a period of public comment on the DEIS, the final Environment Impact Statement (EIS) is scheduled to be published. Following a period of public comment on the EIS, permanent federal subsistence management regulations for public lands in Alaska will be published.

¹In addition to information from the DEIS, this article includes information contained in a report, *The Economic Impact of the Management of Subsistence Resources on Federal Lands in Alaska: An IMPLAN Application*, which was submitted to the USDA Forest Service in September 1991 as background material for the Draft Environmental Impact Statement on subsistence management for public lands in Alaska. The report was prepared by Anthony Nakazawa, Cooperative Extension Service (CES), University of Alaska Fairbanks (UAF); George Goldman, (CES), University of California Berkeley, and Herv Hensley. Craig Wiese of the Marine Advisory Program, UAF, assisted with the IMPLAN model used for this analysis, and Marguerite Stetson developed information on average costs per pound of red meat by region for the CES Food Cost Survey.

The economic model used for the analyses of economic impacts of the four subsistence management alternatives in the DEIS is called Impact analysis for PLANning (IMPLAN). IMPLAN was designed by the USFS for use in creating input-output models for every county or group of counties in the United States. In the DEIS, the unavailability of reliable expenditure and revenue information for the sport and subsistence harvests of fish and game limited the application of the IMPLAN model to the impacts associated with estimated federal budget and employment decisions.

The four management alternatives propose three different total numbers of eligible subsistence users in 1991—142,410, 220,438, and 257,331—depending on the criteria used to determine a community's rural status. To place these various population figures in perspective, it is important to note that subsistence users currently take a very small proportion of the total harvest of fish and game in Alaska. Research by the Alaska Department of Fish and Game's Division of Subsistence has revealed that in 1985, commercial users took 95 percent of the total harvest; subsistence users, 4 percent; and sport hunters and fishermen, 1 percent (Fall 1990, 81).

On a statewide basis, fish comprise by far the largest proportion of the subsistence take. In the 1980s, for example, the composition of the subsistence harvest was 59 percent fish; 18 percent game; 15 percent marine mammals; and 8 percent foods such as marine invertebrates, birds, and wild plants (Fall 1990, 81). Although fish comprise a large percentage of the statewide subsistence harvest, the subsistence salmon take generally amounts to less than 1 percent of the total Alaska salmon harvest, according to Robert J. Wolfe, research director for the Division of Subsistence, who provided the following statistics in the Winter 1990 edition of *Alaska Marine Resource Quarterly*.

For instance, in the Bristol Bay Area, the mean commercial salmon harvest between 1985-88 was



19.6 million fish annually, compared with an annual subsistence harvest of about 187,000 fish by Bristol Bay communities (representing 1.0 percent of the catch). In the Southeast region, the difference is even greater. Only in the Yukon River drainage (35.3 percent of the catch) and the Kuskokwim River drainage (12.9 percent of the catch), does subsistence begin approaching the commercial harvest. Nevertheless, while these subsistence salmon harvests are modest compared with commercial harvests, salmon represents the single most important subsistence food product in rural Alaska...(1990, 4).

The types and quantities of subsistence foods rural Alaskans eat vary from region to region. For example, fish comprise a smaller portion of the diet in extreme coastal arctic areas, where caribou, seal, whale, and walrus are major subsistence resources (Wolfe 1989, 17). The consumption of non-commercial fish and game resources ranges from 96 pounds per capita on the Kenai Peninsula to 1,067 pounds per capita in the northwest Arctic region of Alaska (Wolfe and Walker 1987, 61).

Social and cultural values associated with subsistence use in Alaska, which are not included in the following analysis of some of the economic impacts of the four DEIS management alternatives, are discussed in detail in the DEIS. It is important to note in this article that in addition to supplying dietary staples for rural families, subsistence products are used for sharing (with the elderly, the disabled, and others who are unable to harvest for themselves); for clothing (such as mitts, parkas, and mukluks); as food for dog teams (particularly dried fish); as home goods (such as sealskin pokes for food storage, and baskets and mats made of wild grasses); as fuel (wood for home heating and for smoking and preserving fish and meat); for construction (of log houses, sleds, fish racks, and many other items from a variety of wood); for arts and crafts (made from ivory, grass, wood, skins, and furs); for ceremonial occasions (funeral potlatches, marriages, other cultural events); and for customary trade and exchange through traditional trade networks (Wolfe, 1989, 16-17). Studies by the Division of Subsistence have documented evidence that subsistence activities such as the production and sharing of food integrates families, communities, and regions and supports the cultural and social systems and values of rural communities (Fall 1990, 80).

Finally, assigning a dollar value to subsistence foods for the purposes of this analysis does not imply

the existence of a subsistence economy separate from that of a cash economy. Findings of research by the Division of Subsistence have shown that subsistence hunting, fishing, and gathering in rural communities are part of a "mixed, subsistence-market economy" (Wolfe and Walker 1987, 68). Baseline data from Division of Subsistence studies of 122 Alaska communities also have revealed that in the 1980s

...subsistence hunting and fishing were central activities in rural Alaska communities undertaken by family groups using small-scale, efficient technologies such as gill nets, fishwheels, small skiffs and motors, and snowmachines. Each family's subsistence production was supported and supplemented by cash employment. Earnings were invested in subsistence technologies. Employment tended to be seasonal and sporadic, and cash incomes were generally lower than those of urbanized areas (Fall 1990, 80).

Subsistence Management Alternatives

The focus of each of the four subsistence management alternatives in the DEIS is summarized as follows in Table 1:

- Alternative 1. Minimal change from the State subsistence management program.
- Alternative 2. Independent agency management.
- Alternative 3. Local involvement.
- Alternative 4. Flexible program responsive to regions.

Eligible Subsistence Users and the Non-Commercial Harvest

To estimate the cash equivalent value of the non-commercial harvest of land animals associated with the implementation of each alternative (as shown in Table 2), the following relationship was used:

$$V = R \times P \times C$$

Where:

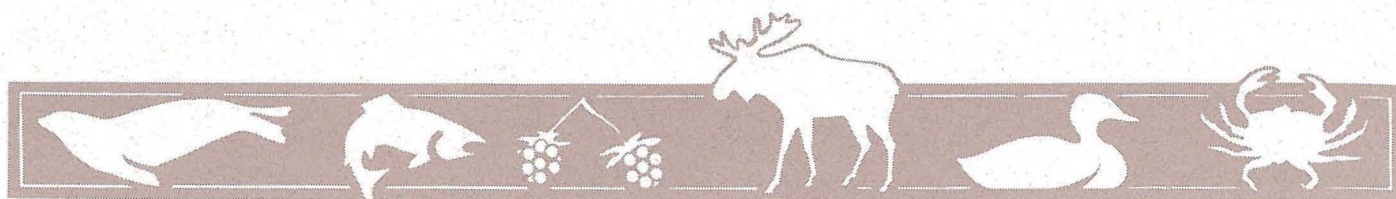
V = Cash Equivalent Value of the Non-Commercial Harvest

R = Rural Population/Eligible Subsistence Users by Region

P = Pounds Per Capita Consumption of Land Animals

C = Cost Per Pound of Red Meat by Region

The cash equivalent value of the estimated non-commercial harvest associated with the various management alternatives may be thought of as *income-in-kind* (i.e., what a person would have to buy with cash



if restricted from hunting). The utilization of the imputed *income-in-kind* associated with the non-commercial harvest of subsistence resources is useful for comparative purposes among the various alternatives. Also, it should be noted that the above relationship deals with the consumption of land animals; while anadromous fish represent a significant portion of the harvest of subsistence resources from state lands, the opposite is the case on federal lands. Anadromous fish are harvested primarily from navigable streams and marine waters to which ANILCA does not apply (USFWS 1991).

Impacts of Federal Government Programs and Employment

To estimate the likely economic impacts of the management regulations associated with the federal government program and employment impacts that are represented by Alternatives 1 through 4, the initial economic change resulting from each alternative was quantified in dollar terms. This initial economic change represents the estimated direct impact associated with the respective alternative being discussed. For example, under Alternative 1, it is estimated that the federal agencies involved with implementing this

Table 1: Subsistence Management Alternatives

Program Element	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Theme	Minimal change from State	Independent agency management	Local Involvement	Flexible program, responsive to Regions
Federal Subsistence Board	The Board would consist of 6 members: 5 Federal managers and a chair.	No Board would be established; each agency would operate independently with key elements of mutual agreement.	The Board would have 16 members: a chair, one State representative, 12 subsistence users and 2 "at large" members.*	The Board would have 6 members: 5 Federal managers and a chair. 8 Regional liaisons would be consultants to the Board.
Regional Councils	The 6 State regional advisory councils would be used.	Each agency would have its own region system (total up to 36) and its own Regional Councils.	There would be 12 Federal Regional Councils established by subsistence use area.	There would be 8 Federal Regional Councils.
Local Advisory Committees	State advisory committees would be used.	State advisory committees would be used and/or Federal Local Advisory Committees formed as needed.	Many Federal Committees would be formed as needed, potentially one per community or group of communities.	State and/or Federal advisory committees would be used. Federal Local Advisory Committees could be formed as needed.
Rural Determination	Communities would be aggregated; then population and community characteristic tests would be applied.	Determinations only would be based on population. Communities with greater than 7,000 residents would be non-rural. A 5-year waiting period would be required before any status change takes effect.	Anchorage, Fairbanks, Juneau, and Ketchikan would be the only non-rural communities.	Rural determinations would be made based on the aggregation, population, and community characteristic steps, the same as Alternative 1.
Customary and Traditional Use	The Board adopted the State of Alaska's customary and traditional use determinations as of July 1, 1990. These determinations would be maintained unless changed by the Board.	Information on subsistence uses would be made available to the Regional Councils in order for the councils to make recommendations on customary and traditional uses to the agencies.	The Local Advisory Committees would consider information provided by the Federal agencies in making recommendations through the Regional Councils to the Board on a community's customary and traditional use of resources.	Determination of customary and traditional use of subsistence resources would be made by the Board on recommendation of the Regional Councils.
Regulation Process	Proposals from all sources would be submitted to the Board, which would distribute them to the public, councils, and committees for comment. Recommendations by the Regional Councils would be used during the Board's review of proposals.	The Regional Councils would develop proposals and review and evaluate proposals from other sources. Recommendations from the Regional Councils would be forwarded to the appropriate agency for action.	Local Advisory Committees would develop proposals and review and evaluate proposals prior to Regional Council review and Board action. Proposals by Local Advisory Committees would be presented to the Regional Councils for review, evaluation, and recommendation to the Board.	The Regional Councils would develop proposals and review and evaluate proposals. Recommendations from the Regional Council would be forwarded to the Board for action.

*Congressional action would be required to implement this alternative.
Source: U.S. Fish and Wildlife Service 1991.



alternative will have an annual budget of \$14,200,000, of which \$9,275,000 will be allocated for salaries of the estimated 152 agency employees who will be hired.

Next, the direct change corresponding with the alternative under consideration, along with the associated economic multiplier derived from the Alaska IMPLAN input-output model, were used to estimate the likely secondary economic impacts that would result throughout the Alaska economy. The total economic impact associated with the impacts on federal government programs and employment for Alternatives 1 through 4 includes both the initial economic change and the secondary, or multiplier, effects.

Alternative 1 represents a minimal change from the State subsistence program that was in place prior to July 1, 1990, and it fulfills the requirements of Title VIII of ANILCA. For the purposes of this analysis, Alternative 1 is considered as the baseline. Alternatives 2, 3, and 4 will be analyzed in relation to their deviation

from the baseline alternative.

Alternative 1

Eligible Subsistence Users and the Non-Commercial Harvest

Under Alternatives 1 and 4, the determination of a community's rural status is based on an aggregate of population and community characteristics (Table 1), and under this alternative the eligible subsistence users number approximately 142,410 in 1991. This number is expected to increase to over 163,000 in the next 10 years. During this period, it is estimated that several of the larger rural areas will change to a non-rural status as a result of applying the rural determination criteria of this alternative. As presented in the DEIS, the value of the non-commercial harvest is estimated to increase \$9,296,000 by the year 2001 (Table 2).

Table 2. Comparison of the Management Alternatives*

Eligible Subsistence Users and the Non-Commercial Harvest				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Eligible Subsistence Users in 1991 and 2001	1991: 142,410 2001: 163,000	220,438 247,000	257,331 370,000	142,410 163,000
Increase in Cash Equivalent Value of Non-Commercial Harvest of Land Animals in 1991 and 2001 over Base	1991: Base 2001: \$9,296,000	\$6,723,000 \$25,318,000	\$8,473,000 \$27,651,000	Same as Base \$9,296,000
Impacts of Federal Government Programs and Employment				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Direct Impacts — Estimated annual operating budget of Federal agencies, employees hired and personal income	\$14,200,000 152 employees \$9,275,000 in wages and salaries	\$20,700,000 216 employees \$13,755,000 in wages and salaries	\$18,500,000 184 employees \$11,515,000 in wages and salaries	\$16,300,000 168 employees \$10,395,000 in wages and salaries
Indirect Impacts — Secondary economic impacts in additional statewide expenditures, employment and personal income	\$6,700,000 26 additional jobs \$1,302,000 in wages and salaries	\$9,768,000 36 additional jobs \$1,931,000 in wages and salaries	\$8,730,000 31 additional jobs \$1,616,000 in wages and salaries	\$7,691,000 28 additional jobs \$1,459,000 in wages and salaries

*Incurent dollars.

Source: U.S. Fish and Wildlife Service 1991.



Impacts on Federal Government Programs and Employment

Direct impacts. The FWS will provide technical and administrative support and coordination among the agencies involved in implementing the federal subsistence program. Employment is expected to increase to a total of 152 federal positions among the five agencies, and most of the positions are slated to be filled in Anchorage. The federal agencies involved in implementing this alternative will have an estimated annual budget of \$14,200,000, of which \$9,275,000 is to be used for salaries.

Indirect impacts. The expenditures of the federal agencies involved with implementing this alternative are expected to have a multiplier effect on the Alaska economy of approximately \$6,700,000. This multiplier effect will result in approximately 26 additional jobs, and personal income will increase by another \$1,302,000 on a statewide basis.

The above discussion of federal government employment impacts assumes that no construction will be required to accommodate the projected changes in federal employment, and further that state government employment will not be impacted as a result of this alternative. For purposes of this analysis, it is assumed that the majority of the employment impacts will be realized in the Anchorage, Fairbanks, and Juneau areas.

Alternative 2 Eligible Subsistence Users and the Non-Commercial Harvest

As shown in Table 1, independent agency management of subsistence on federal lands is the focus of this alternative, and a population of less than 7,000 residents is the sole criterion for determining a community's rural status. The population of eligible subsistence users in the state totals 220,438 in 1991, a net gain of 78,028 subsistence users over Alternative 1. This number is expected to increase to over 247,000 in the next 10 years. Those communities under this alternative which would be rural in the near term and become non-rural in the long term are Kenai, Soldotna, Wasilla, Palmer, Moose Creek, Kodiak, and Unalaska. The DEIS estimates that the value of the subsistence harvest would increase \$6,723,000 in the near term and \$25,318,000 in the long term over the present condition (Table 2).

Impacts of Federal Government Programs and Employment

Direct impacts. Under Alternative 2, management of subsistence would require an increase in federal employment in the regional/district offices and field

staffs of the FWS, NPS, BLM, USFS, and BIA. The FWS, as the designated lead agency, would continue to support a small subsistence office in Anchorage to coordinate activities of the agencies. It is estimated that the federal agencies involved with implementing this alternative would have an annual budget of \$20,700,000 (an increase of \$6,500,000 over Alternative 1). Of that amount, \$13,755,000 (an increase of \$4,480,000 over Alternative 1), would be used for salaries for the estimated 216 agency employees who would be hired (an increase of 64 employees compared to Alternative 1).

Indirect impacts. The annual expenditures of the federal agencies involved with implementing this alternative are expected to have a multiplier effect on the Alaska economy of approximately \$9,768,000 (an increase of \$3,067,000 over Alternative 1). The multiplier effect will result in approximately 36 additional jobs (an increase of 11 employees over Alternative 1). On a statewide basis, personal income will increase by another \$1,931,000 (an increase of \$628,000 over Alternative 1).

Alternative 3 Eligible Subsistence Users and the Non-Commercial Harvest

As shown in Table 3, the focus of this alternative is local involvement. This alternative provides for a subsistence management structure that emphasizes the role of local advisory committees and incorporates subsistence users into the Federal Subsistence Board. The local advisory committees will enable local subsistence users to have a meaningful role in federal subsistence management. As many as 283 committees (or one per rural community) will be formed within 12 regional councils. In regard to rural community status, under Alternative 3, only the communities of Ketchikan, Juneau, Anchorage, and Fairbanks are designated as non-rural. By excluding those communities, the total number of eligible subsistence users becomes 257,331 in 1991, an increase of 114,921, as compared to Alternative 1. This number is expected to increase to over 370,000 in the next 10 years. In the DEIS, the estimated value of the non-commercial harvest over the current would be \$8,473,000 in the near term and \$27,651,000 in the long term (Table 2).

Impacts of Federal Government Programs and Employment

Direct impacts. To manage subsistence under this alternative, Federal employment will be increased in the regional/district offices and field staffs of the FWS, NPS, BLM, USFS and BIA. The FWS will continue to support a subsistence office in Anchorage to coordinate



activities of the agencies. Federal employment will increase under this alternative, because the large numbers of local advisory committees and regional advisory councils will require a great deal of coordination and support from the agencies involved in the subsistence management program. Those agencies will have an estimated annual budget of \$18,500,000 (an increase of \$4,300,000 over Alternative 1). Of this amount, \$11,515,000 (an increase of \$2,240,000 over Alternative 1) will be used for salaries for the estimated 184 employees (an increase of 32 employees over Alternative 1) who are to be hired.

Indirect impacts. The annual expenditures of the federal agencies involved with implementing this alternative are expected to have a multiplier effect on the Alaskan economy of approximately \$8,730,000 (an increase of \$2,029,000 over Alternative 1). This multiplier effect will result in approximately 31 additional jobs (an increase of five employees over Alternative 1). On a statewide basis, personal income will increase by another \$1,616,000 (a gain of \$314,000 over Alternative 1).

Alternative 4 **Eligible Subsistence Users and the Non-Commercial Harvest**

The federal management goal under this alternative will be to provide a flexible program to meet the needs of subsistence users and to provide regulations responsive to regional requirements. Under this alternative, as under Alternative 1, the determination of a community's rural status is based on an aggregate of population and community characteristics, and eligible subsistence users number approximately 142,410 in 1991. This number is expected to increase to over 163,000 in the next 10 years. During this period the communities of Kodiak, Sitka, and Unalaska are predicted to lose their rural status. As presented in the DEIS, the estimated cash equivalent value of the non-commercial harvest would increase \$9,296,000 over the next 10 years (Table 2).

Impacts of Federal Government Programs and Employment

Direct impacts. Under Alternative 4, it is estimated that the federal agencies involved with implementing this alternative will have an annual budget of \$16,300,000 (an increase of \$2,100,000 over Alternative 1). Of that amount, \$10,395,000 (an increase of \$1,120,000 over Alternative 1) will be used for salaries for the estimated 168 agency employees who are to be hired (an increase of 16 employees over Alternative 1).

Indirect impacts. The annual expenditures of the federal agencies involved with implementing this alternative are expected to have a multiplier effect on the Alaska economy of approximately \$7,691,000 (an increase of \$990,000 over Alternative 1). This multiplier effect will result in approximately 28 additional jobs (an increase of three employees over Alternative 1). On a statewide basis, personal income will increase by another \$1,459,000 (an increase of \$157,000 over Alternative 1).

The above discussion of federal government employment impacts assumes that no construction will be required to accommodate the above changes in federal employment, and further that state government employment will not be impacted as a result of this alternative.

Anthony Nakazawa is a Community Development Specialist with the Cooperative Extension Service, University of Alaska Fairbanks. Currently, he serves as the CES Community Development and Home Economics Program Leader. In addition, he is teaching a course on the Alaskan economy for the UAF Center for Distance Education. His previous extension educational projects include the "Upper Kuskokwim Input-Output Study" and "Identifying the Purchasing Preferences of Village Households." George Goldman is an extension economist with the University of California Cooperative Extension Service in Berkeley. Over the past 25 years, he has participated in or developed more than 50 local or regional input-output studies as part of his extension economics program. Currently, he serves on the Western Rural Development Center's Program Advisory Board and on the Western Extension Community Development Committee.

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Proposed State Legislation Defines What Subsistence Is Where It Happens Who Participates

McKie Campbell

Among the fifty states, only Alaska has a significant proportion of the population who live, for the most part, off the land. Because subsistence is important to Alaska, both the U.S. Congress and previous Alaska Legislatures have passed laws giving a preference to subsistence over other consumptive uses of the same resources.

The spirit of the Alaska National Interest Lands Conservation Act (ANILCA) and of previous state subsistence laws is that of protecting subsistence uses and users. While most people agree with this intent, many have problems with the mechanism used: discrimination among Alaskans based *only* on where they live. The law's lack of definitions has caused severe, ongoing problems. These difficulties have led to continuous political controversy since ANILCA's enactment.

In 1989 in a lawsuit brought by a group of urban Alaskans, *McDowell v. Collinsworth*, the Alaska Supreme Court held that discrimination among Alaskans based on a rural/urban split was so arbitrary that it violated the state's equal protection clause. In *McDowell* and subsequent decisions, the courts have indicated that it would be permissible to differentiate among Alaskans based on individual criteria.

After the *McDowell* decision, Alaska found itself in a Catch-22, with federal law requiring something the Alaska Constitution says the state cannot do. Because ANILCA requires the federal government to manage for subsistence on federal lands within Alaska, Alaskans are faced with dual management of fish and game.

There are two extreme approaches to solving this problem, neither of which Governor Hickel supports. One of these is simply to amend Alaska's constitution to comply with ANILCA by creating a special exception to the equal protection and common use clauses. The other is to sue to strike down Title VIII of ANILCA.

The governor has rejected both of these extremes for similar reasons. The outcome of each course is uncertain; each would require a lengthy process for resolution; and, in the meantime, either course would bitterly divide the state. While dual management is a very real and troublesome problem, the greater day-to-day management problems have been caused by the state's own crippled subsistence law. The chances of fixing the state's subsistence law while pursuing either a constitutional amendment or a lawsuit would be nil.

A lawsuit to strike down Title VIII, based either on federal equal protection grounds or on grounds that Title VIII violates our statehood compact, could take years to work its way through the courts and still might not produce a result. If the state were to lose a lawsuit based on statehood compact grounds, it could be adversely affected in a wide range of other issues relating to the federal government. If the state were to win such a lawsuit, it still would be confronted with the problem of how to manage and protect subsistence.

Unfortunately, many people have become conditioned to equating a constitutional amendment with subsistence and to viewing any other proposed solution as anti-subsistence. Such mental blinders can make it very difficult to craft a solution that protects subsistence while addressing some of the real problems that have developed.

A constitutional amendment that simply complies with ANILCA without fixing the problems doesn't work for several reasons. Such an approach will not remove subsistence as a source of major statewide controversy. The controversy is not about the law's intent; rather, it is about the federally mandated, straight rural/urban mechanism, and about ongoing problems caused by undefined terms. In the long run, the worst thing that could happen to rural Alaska would be to continue with a law that a large group of urban residents view as unfair. It is in the interests of rural



residents to have a subsistence law that is generally viewed as fair, and which, at the same time, protects subsistence rights.

Since the passage of ANILCA in December of 1980, there have been multiple lawsuits every year by groups on every side of the issue. Most of these lawsuits have been due not to disagreement with ANILCA's intent, but to its lack of definitions. We can identify problems with ANILCA, not because we are any smarter than the many people who labored to pass that law, but simply because, after a decade of living with the law, we have learned which parts work well and which parts, or gaps, cause repeated trouble.

To amend Alaska's Constitution without fixing these problems would subject us to a host of issues which have developed in court cases in recent years. Some examples are *Kenaitze Indian Tribe v. Alaska*, a federal court case that declared the Kenai Peninsula "rural;" another case that has seriously blurred the distinction between commercial fishing and subsistence (in which a federal judge held that a \$10,000 sale of herring roe to the Japanese was clearly within the limits of "customary trade"); and current cases which argue, based on the clear statutory preference for subsistence over other consumptive uses, that judges should apply the subsistence preference as they apply the Endangered Species Act, restricting or eliminating all downstream or marine consumptive uses where any amount of fish from an upstream subsistence use are part of the mixed stock, if there is any shortage of the upstream subsistence stock.

The last glaring problem with a constitutional amendment is: it won't pass. To take effect, a constitutional amendment proposal would have to be approved by two-thirds of both the Alaska House and Senate, and then by a majority of voters in the next general election. The governor strongly believes that the proposal would not pass in the general election, even if the legislature were to pass it. I have yet to find, even among the strongest proponents of a constitutional amendment, anyone who is able to show me where the votes are in the legislature to pass a constitutional amendment proposal. The combination of legislators who are disturbed by either the rural/urban mechanism or the problems associated with undefined terms, or both, form a very solid block.

When I discuss this issue with advocates of a constitutional amendment, they often respond, "Well, we will wait until things get so bad, the public will be forced to pass a constitutional amendment." That's irresponsible public policy; our fish and game management problems will get worse with inaction, and there is

no guarantee the result will be a constitutional amendment. The only guarantee is that we will all lose in the meantime.

Governor Hickel is committed to resolving this problem while protecting subsistence. On Monday, January 13, 1992, the first day of the next legislative session, the governor will introduce legislation designed to resolve subsistence on all state and private lands and all waters in Alaska. We released our effort to craft a solution four months before the start of the session to engage people across the state in the effort to solve this problem. We don't mind a bit when people criticize the plan, as long as they also offer practical alternatives to fix the problems.

In developing our proposal, we had extensive discussions with people and groups on all sides of the subsistence issue and from all parts of the state. There was very little disagreement over a preference for subsistence uses but sharp division over how to implement that preference. An area of general agreement, however, has been that subsistence is a way of life. It is not something that can be defined just by where you live, or by how much money you make, or what race you are, but rather by how you live.

We drafted the legislation based upon the concept of subsistence as a way of life. The proposal honors the spirit of ANILCA, but benefits from the decade of experience in working with that law. We have placed great emphasis on how the new statute will actually work and be in compliance with both the Alaska and United States constitutions. Extensive time was spent with resource users throughout the state and with the Alaska Departments of Fish and Game (ADF&G) and Law. The proposed statute has been designed for species protection, to function with a minimum of disruption for users, for ease of administration by the Boards of Fisheries and Game, for management by the ADF&G, enforceability by the Department of Public Safety, and defensibility in court.

The governor is committed to an eventual resolution of subsistence management on federal lands within Alaska. The new law will not, by itself, resolve the issue of federal game management on federal lands. Such resolution ultimately will require change beyond what is possible in a state statute; it will require a unified will among all Alaskans.

We hope that after people live with the new law, they will find it not only clearly protects subsistence, but that it is easier to deal with than the federal government's system. If Native Alaskans decide to take the initiative to amend ANILCA to allow the state to comply with federal law without violating the Alaska



Constitution, we would like to work with them and all Alaskans. It is explicitly clear, however, that ANILCA will not be amended over the objections of Native Alaskans or any other major group of Alaskans.

A capsule description of the draft legislation follows. We urge anyone who is interested in the proposed legislation to obtain a full copy of it and its sectional analysis from any branch of the governor's office or from a local Legislative Information Office. There is not a single word or line in this draft that is cast in stone. We want better improvements or alternatives. We seek your participation in solving this complex problem.

The draft we have developed has three main parts. It rests on a foundation of sustained yield, and clearly provides a preference for subsistence. The main parts are described below.

The foundation. The draft clearly establishes that protection of the resource is the bottom line under all circumstances. The Boards of Fish and Game will make allocations only if a surplus exists that can be harvested consistent with sustained yield. Definitions of sustained yield and other pertinent terms are part of the legislation.

The preference. The legislation provides a clear preference for subsistence over other consumptive uses. The Boards of Fish and Game use a combination of restrictions on other consumptive uses to ensure a reasonable opportunity for subsistence uses at all levels. This entire section is very similar to existing law.

First leg—What Subsistence Is. The draft legislation defines subsistence as the taking and use of wild fish and game as part of a way of life. The use of individual criteria, as indicated by the courts, is the single biggest change from the status quo. We believe, however, the situation is such that the very large majority of rural residents would qualify, and the very large majority of urban residents would not. The definition uses five criteria based on the customary and traditional criteria in existing regulations plus an additional criterion based on pounds of wild fish and game consumed. Subsistence is defined in the following excerpt from the draft legislation.

“Subsistence means the taking and use of wild fish or game, as set forth by statute and regulations, by a resident for whom subsistence is and has been a principal characteristic of his or her way of life for three of the last five years, as evidenced by the applicant showing a consistent and continuous pattern of taking and use:

(A) that is characterized by efficiency and

economy of effort, cost, and transportation,

(B) of wild fish and game which are near, or accessible in an efficient and economical manner, from the user's residence,

(C) which includes reliance for subsistence purposes upon a wide diversity of the wild renewable resources,

(D) which provides substantial economic, cultural, social, or nutritional elements of the subsistence user's life,

(E) which employs knowledge of fishing and hunting skills, values, and lore handed down from generation to generation, and

(F) as evidenced by the consumption by each subsistence user of 200 pounds or more of wild fish and/or game per year, which were harvested under hunting, or sport or personal use fishing, or subsistence regulations.

Previous state subsistence legislation has included the adjectives “customary and traditional” (C&T) to define subsistence. The Boards of Fish and Game then used a series of criteria to define the meaning of customary and traditional. This draft legislation does not use the term customary and traditional; rather, it directly uses the old C&T criteria, modified to apply to a way of life rather than to a use, to define subsistence.

Under ANILCA or existing state law, a person can move to Alaska and immediately become an eligible subsistence user. In almost every group with which we met while assembling this draft, some persons indicated they wanted an extended residency requirement for subsistence users. We felt we could not require a residency longer than one year without running afoul of the U.S. Constitution. The definition of subsistence, however, requires a pattern of living, as evidenced by compliance with the six criteria for three of the last five years. The multi-year requirement is included because subsistence is a way of life; a person does not wake up in the morning and decide that he or she is now a subsistence user, nor does one suddenly become a subsistence user, or cease to be one, by moving across a line on a map.

Compliance with the six criteria for three of the previous five years was selected as long enough to demonstrate that a person is truly living a subsistence way of life, but not so long as make it unfairly difficult to qualify, or to create a defacto closed class. The legislation uses the criterion of three out of five years, rather than a flat three, because there are circumstances, such as military service, going away to school, an extended hospital stay, or a out-of-state job, which may



cause a temporary break in a subsistence user's way of life. In such circumstances, it would not make sense to require that the person requalify. We are exploring exceptions, such as those used for applicants for Permanent Fund dividends, to see if they would work better than the two-year exemption.

While the requirement that subsistence is and has been a principle characteristic of an applicant's way of life is not a defacto three-year residency requirement, nor is that its purpose, the number of people who could qualify who have resided in the state less than three years would be very small. Only if a person truly had lived a subsistence way of life in another state, and could prove it, would he or she be eligible to do so in Alaska, after establishing one year of residency in the state.

Paragraph (F) of this subsection requires evidence of the consumption by each subsistence use applicant of 200 pounds or more of wild fish and/or game per year, which were harvested under hunting regulations, sport or personal use fishing regulations, or subsistence regulations in each of three of the past five years. In the effort to define subsistence as a way of life, the old C&T criteria were very useful, but subjective. In exploring for more objective criteria, possibilities eventually were narrowed down to the actual amount of wild fish and game consumed as the single most reliable indicator of whether or not a person is living a subsistence way of life.

The Subsistence Division of ADF&G has done extensive research on pounds of consumption of various wild resources. Research findings have revealed that the average yearly per capita consumption of wild meat, fish, and fowl by subsistence users in Alaska is 350 pounds. In contrast, in the U.S. western states, the average yearly per capita consumption of meat, fish, and fowl from all sources is 222 pounds. The difference in quantities consumed is primarily because alternate protein sources such as milk and dairy products are not as readily available in rural Alaska as in western states. The 200-pound consumption criterion was selected in an effort to provide an effective filter that would include subsistence users, but not large numbers of nonusers of subsistence. We are actively conducting research to determine whether this number needs to be lower.

The definition of subsistence is used to determine who can participate (second leg), and where subsistence taking and use could occur (third leg).

Second leg—Who May Participate. To harvest a subsistence resource would require a subsistence license which would supplant the current hunting license, harvest tickets, fishing permits, etc., currently required for subsistence use. We chose this method in an effort to reduce paperwork for subsistence users, to

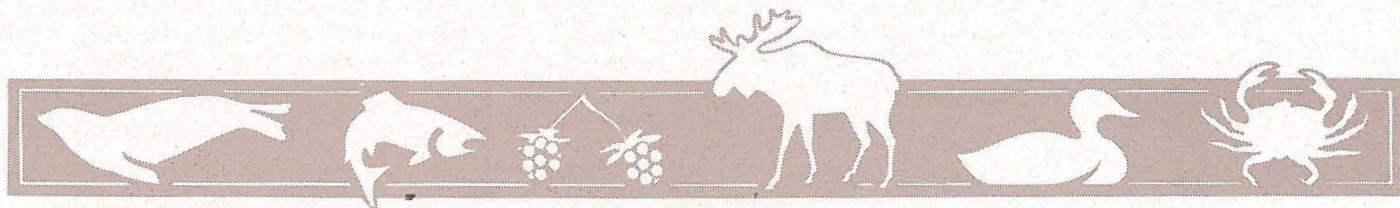
improve reporting, and to help management. The draft provides for transferability of bag limits within families or by persons who are over 60 years of age, or who have a physical disability. To be eligible for subsistence, a person would have to sign a statement on the license certifying that he or she is an Alaska resident who is living and has been living a subsistence way of life for three of the past five years, characterized by each of the six patterns set forth in the definition of subsistence. Licenses would not be required of persons under 16 or over 60 years of age, or of family members who help a head of household subsistence fish. The cost of licenses would be a negligible change from existing fees. As a general rule, licenses would be required only of those who already are required to have them.

Third leg—Where Subsistence Taking and Use Happens. The Boards of Fish and Game would delineate areas of the state where subsistence is no longer a principle characteristic of the area. The fish and game in those areas could be harvested under hunting or sport, personal use, or commercial fishing regulations. Resources in these areas would not be subject to harvesting under subsistence regulations.

In the rest of the state, based on the definition of subsistence, fish and game taken under subsistence regulations would be required to be used in the subsistence use area in which it was taken, except for non-commercial customary trade, barter, or sharing. The restriction on use would include a prohibition against removal of any parts of the animal, including hides or horns. Subsistence Use Areas would generally be based on the Game Management SubUnit (GMSU) in which the fish or game was harvested and the contiguous subunits. The boards would be charged with establishing different boundaries if a GMSU-based area is too small and interferes with traditional patterns of harvest or is too large to be consistent with the efficient and economical nature of subsistence.

As I said earlier, the governor is committed to the protection of subsistence and to resolving the current problems with which we are faced. We ask your help in this effort.

McKie Campbell is a Special Assistant to Governor Walter J. Hickel, and is working on subsistence. His background includes 10 years as a legislative staff member, during which he focused on natural resources issues. As staff to the Senate Resources Committee, he helped draft the state's 1986 subsistence law, and he was active in the 1990 regular and special sessions of the Alaska Legislature, during which subsistence issues were debated.



Subsistence Uses of Fish and Wildlife and the *Exxon Valdez* Oil Spill

James A. Fall

Introduction¹

The *Exxon Valdez* oil spill provides a prime example of the potential consequences of a major environmental disaster for the traditional subsistence-based ways of life of Alaska's rural communities. When the tanker *Exxon Valdez* ran aground off Bligh Reef on March 24, 1989, it dumped almost 11 million gallons of crude oil into eastern Prince William Sound. Eventually, the currents and tides carried oil, mousse, sheen, and tar balls more than 580 miles along Alaska's southern coast. Soon, images of oiled birds, dead and dying sea otters, and miles of ravaged coastline filled television screens and newspapers around the world. Although the full results of studies of the effects of the spill on natural resources are not yet available to the public, a summary of some of the damages was released by the federal government in March 1991. That summary estimated that, among other kinds of injuries, 3,500 to 5,500 sea otters, 200 harbor seals, and 350,000 to 390,000 birds (such as murres, eagles, and sea ducks), died as a direct result of the spill (U.S. Fish and Wildlife Service 1991).

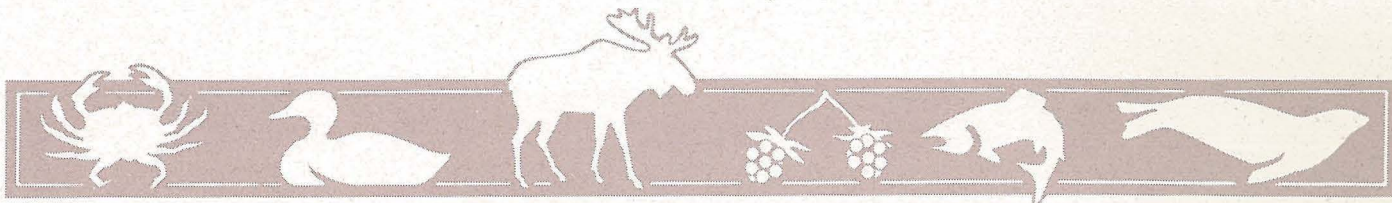
The oil spill also fouled waters and beaches used for subsistence hunting, fishing, and gathering by 18 rural communities with about 15,600 inhabitants,

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¹ **Acknowledgments.** This paper is based on research by the following Division of Subsistence staff: Janet Cohen, Philippa Coiley, Rachel Mason, Rita Miraglia, Craig Mishler, Deborah Robinson, Lisa Hutchinson-Scarborough, Ron Stanek, and Lee Stratton. Data management support has been provided by Louis Brown, Gretchen Jennings, Cheryl Scott, Sandy Skaggs, Robert Walker, and Charles Utermohle of the Division of Subsistence. Carol Barnhill, Division of Habitat, prepared the map. Assistance in research design and data analysis was provided by division research director Robert Wolfe. Also, 23 village residents were especially helpful in a variety of ways, including conducting interviews, translating, and introducing the project in their communities. Especially, we thank the governments of each village for granting us permission to conduct this research in their communities, and the hundreds of people who took the time to participate in the project.

Major Findings of the Study

- Before the *Exxon Valdez* oil spill, subsistence uses of fish and wildlife were central to the way of life of 15 Alaska Native villages of Prince William Sound, lower Cook Inlet, Kodiak Island, and the Alaska Peninsula. Subsistence harvests averaged from 200 to 600 pounds per person per year; a wide range of resources was used, and virtually every household participated in subsistence activities.
- After the oil spill, subsistence harvests of fish and wildlife in 10 of these villages declined from 14 percent to 77 percent compared to pre-spill averages.
- The range of resources used for subsistence and the number of households in these villages using various kinds of wild foods also went down markedly after the spill.
- By far the most common spill-related reason for low subsistence harvests was concern that subsistence resources had been contaminated by the oil and were unsafe to eat.
- An Oil Spill Health Task Force directed studies to determine the safety of using subsistence foods from the spill area. These studies found that most resources tested, including fish, marine mammals, shellfish, deer, and ducks, were safe to eat, but that shellfish from obviously oiled beaches should not be used.
- Despite this information, concerns about subsistence food safety remained in many villages up to a year or more after the spill.



(Continued from Page 12)

including 15 predominantly Alaska Native (Alutiiq) villages with about 2,200 people (Figure 1). These villages are Tatitlek and Chenega Bay in Prince William Sound; English Bay and Port Graham on lower Cook Inlet; Akhiok, Karluk, Larsen Bay, Old Harbor, Ouzinkie, and Port Lions in the Kodiak Island Borough; and Chignik Bay, Chignik Lagoon, Chignik Lake, Ivanof Bay, and Perryville along the Alaska Peninsula. For at least 7,000 years, Alaska Native people have depended upon these lands and waters for survival (Clark 1984). Also critical to this survival has been the people's knowledge about and observations of the natural world around them.

For people in Tatitlek, the community closest to Bligh Reef, one of the first signs that something terrible might be happening to fish and wildlife as a result of the spill was a report that a dead starfish had washed up on the beach near the village. Starfish are not eaten, but they, like other creatures, may act as signs or omens of unseen dangers throughout the ecosystem. Furthermore, as villagers traveled in their traditional harvest areas and worked on the spill cleanup, they experienced the spill's damages firsthand. As a person from English Bay recalled after working at a traditional harvest area south of the village:

I noticed in Windy Bay that the oil seemed to have smothered everything. I saw lots of dead ducks at Dogfish Bay, but most were washing out to sea. I think the ducks were killed by oil and washed away.

But the effects of the spill were discontinuous; some beaches were heavily oiled, others were not. Some animals, such as sea otters and sea ducks, were very vulnerable to oiling. Salmon and deer showed no outer signs of exposure to the oil, but as a hunter from Tatitlek explained:

I didn't go to the same places [as usual] to hunt [after the spill] because of oil on the beach. I've seen deer eating kelp. I don't want to shoot [a] deer and then find out it has been eating oil.

Thus, the major question for the villagers became: are our subsistence foods still safe to eat? If some beaches, waters, and animals were oiled, were *any* safe to use? Accordingly, when health officials advised villagers that if resources did not smell or taste oily,

they were "almost certainly safe to eat" (ADHSS 1989a), villagers responded with skepticism and disbelief. As a Chenega Bay resident explained,

We saw too much oil, and we didn't want nothing to do with [fish]. I guess if you didn't see the oil you wouldn't mind. We don't want to eat them until we find out what's really going on.

As the oil spread and wildlife died, anxiety over the safety of eating traditional foods rose so high that subsistence harvests in some villages virtually ceased. As a village official at Ouzinkie put it in June 1989, "No one's eating anything out of the ocean anymore."

The purpose of this paper is to present some of the findings of research by the Division of Subsistence of the Alaska Department of Fish and Game (ADF&G) concerning subsistence uses in these communities before and after the oil spill. The paper explores some of the reasons for the changes that occurred. It also describes efforts to address the issue of subsistence foods contamination.

Data Gathering Methods

The Division of Subsistence is, by Alaska statute, responsible for gathering information on all aspects of subsistence uses of fish and wildlife in the state (ADF&G 1985, Fall 1990). The division also disseminates this information to the public and applies the data in the context of fish and wildlife management and land and resource use planning.

Before 1989, the division had conducted baseline subsistence research in each of the 15 Native villages in the oil spill area, as well as in Cordova, Seldovia, and Kodiak. Results of this research appear in the division's *Technical Paper Series*.² For each community, there is comprehensive information for at least one year on harvest quantities; levels of participation in subsistence activities; the seasonal round of subsistence harvests; maps of areas used for hunting, fishing, and gathering; information about the distribution and exchange of subsistence products; methods and means

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² For more detailed discussions of contemporary subsistence uses in these communities, the reader should consult specific technical papers. These include Stratton 1990 on Tatitlek; Stratton and Chisum 1986 on Chenega Bay; Stanek 1985, forthcoming on English Bay and Port Graham; Schroeder et al. 1987 and Fall and Walker forthcoming on Kodiak communities; and Morris 1987 on the Alaska Peninsula communities.

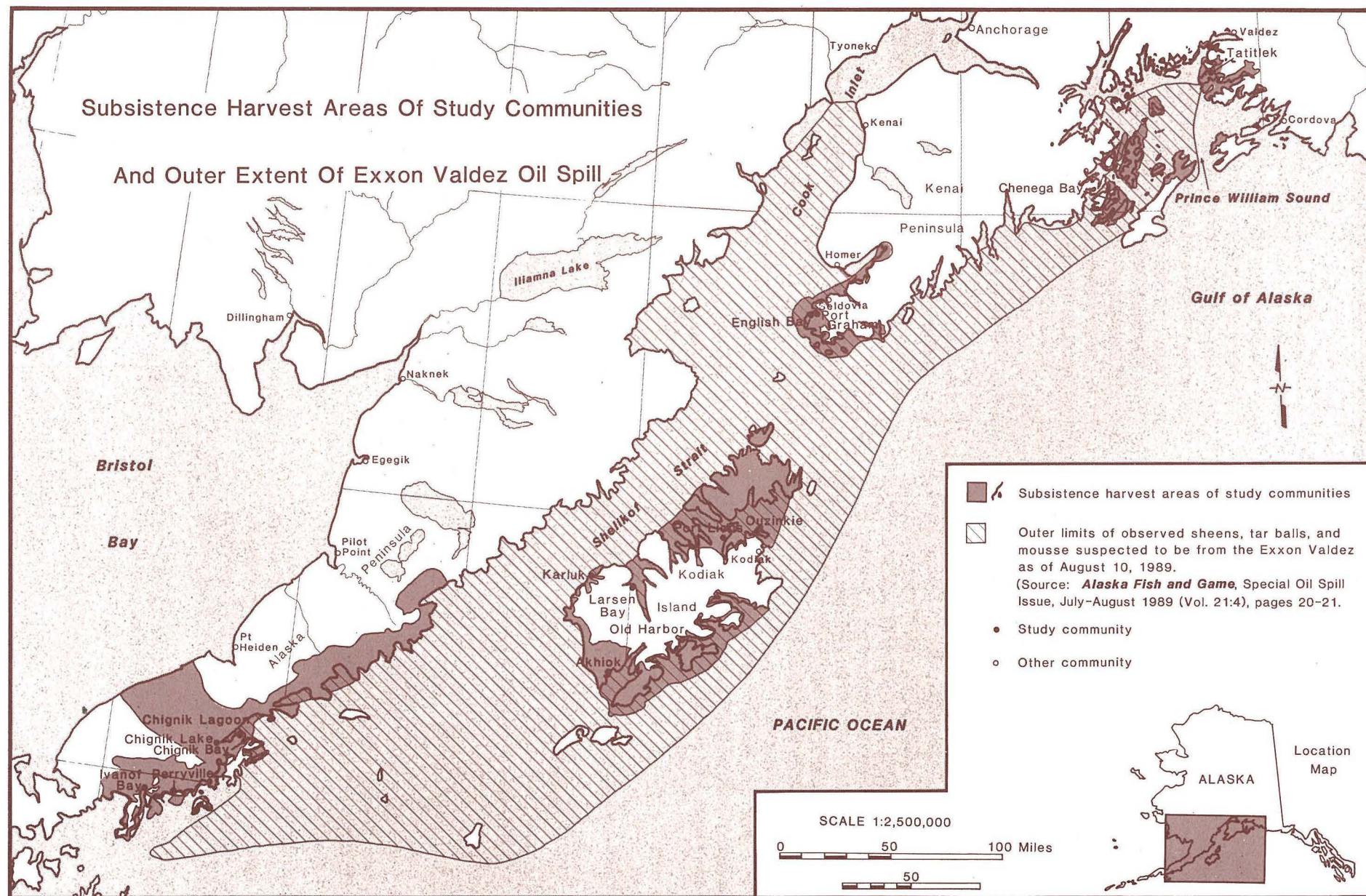


Figure 1. Subsistence Harvest Areas of Study Communities and Outer Extent of *Exxon Valdez* Oil Spill



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of harvest; and techniques for preparing and preserving wild foods, as well as demographic and other economic data.

After the spill, the division began a multi-component oil spill response program which included the systematic collection of data about subsistence uses of fish and wildlife resources in the oil spill area in the year following the spill. The primary method for gathering this information was a household survey administered in person in each village. The questionnaire was modeled after other division survey instruments. For the 12 smaller communities, we tried to interview knowledgeable representatives of every household, while in the three larger villages of Port Lions, Old Harbor, and Ouzinkie, we chose 50 percent random samples. In total, from January to April 1990 we interviewed 403 households, 88.2 percent of our goal (Table 1). Survey data were coded for computer entry and analysis. Harvest quantities in numbers of animals or fish were converted into pounds of useable weight using standard factors.

During the interviews, respondents compared their use patterns of various categories of fish and game and their overall uses in the post-spill year with those of other recent years. They were also asked to try to explain any changes that had occurred. These questions were general, and responses were open-ended. The responses are the source of most of the quotations in this paper.

The final study findings will be reported in a series of technical papers now in preparation (Fall et al. 1991; Mishler and Cohen 1991; Stanek 1991; Stratton et al. 1991). In addition to the household interviews, the division's response program included participation in studies to collect and test resources for oil contamination, and a public information program.

Patterns of Subsistence Uses before the Spill

Division of Subsistence research has demonstrated the continuing significance of subsistence hunting, fishing, and gathering for the communities of Prince William Sound, lower Cook Inlet, the Kodiak Island Borough, and the Alaska Peninsula. The same general categories of subsistence resources are available in all four regions. These are salmon; other fish such as halibut, rockfish, and Dolly Varden; marine inverte-

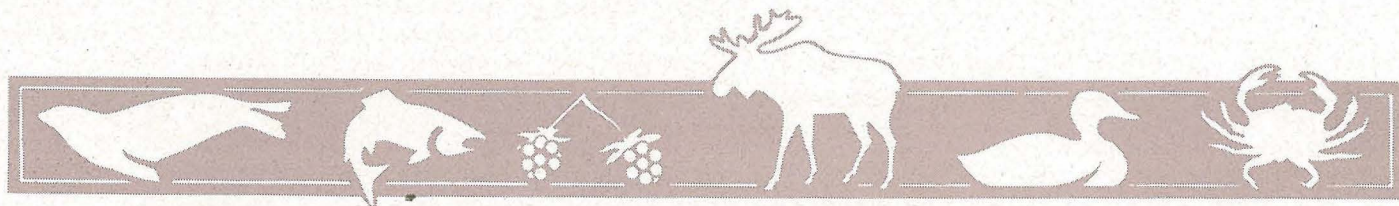
brates such as clams, crabs, and octopus; land mammals such as deer in Prince William Sound and Kodiak Island, black bear and goats on the lower Kenai Peninsula and Prince William Sound, and caribou on the Alaska Peninsula; marine mammals (harbor seals and sea lions); birds (ptarmigan, waterfowl, gull eggs); and wild plants. Consequently, subsistence harvests are diverse in these villages. For example, in study years before the spill, households in Tatitlek on average used 22.6 different kinds of wild foods, households in Perryville used 21.2 types, and families in Karluk used 19.1 varieties. These studies also show that participation in subsistence uses was almost universal in these villages in the 1980s. In other words, almost every household used and harvested wild foods.

Table 1. Sample Sizes, Oil Spill Area Household Surveys, 1990

Community	Number of Households			Percent of Target Completed ²
	Total	Target ¹	Completed	
Chenega Bay	21	21	18	85.7%
Tatitlek	28	28	22	78.6%
English Bay	41	41	33	80.5%
Port Graham	61	61	48	78.7%
Akhiok	13	13	10	76.9%
Karluk	17	17	14	82.4%
Larsen Bay	39	39	34	87.2%
Old Harbor	93	46	48	104.3%
Ouzinkie	69	35	35	100.0%
Port Lions	67	36	36	100.0%
Chignik Bay	39	39	35	89.7%
Chignik Lagoon	15	15	15	100.0%
Chignik Lake	28	28	21	75.0%
Ivanof Bay	7	7	7	100.0%
Perryville	31	31	27	87.1%
TOTAL	569	457	403	88.2%

¹ The goal was to interview all the households in the smaller communities and a 50% random sample in the larger villages of Old Harbor, Ouzinkie, and Port Lions.

² Households could decline to participate in the survey, and others were gone while the research was taking place. This is why a 100 percent sample was not achieved in some communities.



Also, in the 1980s each community followed a patterned seasonal round of harvest activities, largely conditioned by resource availability. Spring (March, April, May) is a period of renewed subsistence activities, during which harvests of herring, clams, birds, and other resources, occur. Summer is traditionally the busiest time, when people harvest and preserve large quantities of salmon for winter use. Fall is important for big game hunting, waterfowl hunting, and marine invertebrate gathering.

Another important characteristic of subsistence activities in rural Alaska villages such as those in the oil spill area is that they are usually organized around kinship. Harvesting and processing groups are generally composed of members of extended families, and subsistence foods are often shared with relatives, elders, and others in need. For example, in English Bay, one harbor seal was shared within a family of eight households and 25 people (Stanek 1985:170-171). Such extensive sharing is commonplace in all 15 villages.

Table 2 summarizes some information about subsistence uses in the 15 study communities in the 1980s. When these harvests are measured in useable

pounds per person, they far exceed those of more populated, urbanized areas of Alaska (Wolfe and Walker 1987). They range from about 200 pounds to over 600 pounds per person per year. These are substantial harvests, considering that the average family in the western United States purchases about 222 pounds of meat, fish, and poultry per person each year (U.S. Department of Agriculture 1983).

Response to Resource Contamination and Food Safety Concerns

As noted above, the first question that subsistence harvesters raised following the spill was whether subsistence foods were still safe to eat. When the people in Tatitlek first raised this issue, the Alaska Department of Environmental Conservation (DEC) responded that the best way to know if foods are free from oil is to smell and taste them (the "organoleptic" test). A health bulletin issued by the Alaska Department of Health and Social Services on May 5, 1989 (ADHSS 1989a) contained similar advice. But resi-

Table 2. Some Characteristics of Subsistence Uses in the Study Communities before the *Exxon Valdez* Oil Spill

Community	Year	Per Capita Harvest	Mean Number of Resources Used Per HH	Percent of Households that:				
				Used Resources	Attempted a Harvest	Harvested Resources	Received Resources	Gave Away Resources
Chenega Bay	1985-6	374.2 lbs	18.0	100	100	100	94	88
Tatitlek	1988-9	643.5 lbs	22.6	100	100	100	100	95
English Bay	1987	288.8 lbs	25.0	97	94	94	94	94
Port Graham	1987	227.2 lbs	21.5	100	100	100	98	82
Akhiok	1982-3	519.5 lbs	15.5	100	NA	100	86	76
Karluk	1982-3	863.2 lbs	19.1	100	NA	90	100	90
Larsen Bay	1982-3	403.5 lbs	16.3	100	NA	94	97	88
Old Harbor	1982-3	491.1 lbs	15.4	100	NA	100	82	78
Ouzinkie	1982-3	369.1 lbs	17.7	100	NA	97	91	84
Port Lions	1982-3	279.8 lbs	13.5	100	NA	95	84	76
Chignik Bay	1984	187.9 lbs	12.5	100	84	84	95	79
Chignik Lagoon	1984	220.2 lbs	10.4	100	88	88	82	71
Chignik Lake	1984	279.0 lbs	16.2	100	100	100	96	83
Ivanof Bay	1984	455.6 lbs	18.5	100	100	100	100	83
Perryville	1984	391.2 lbs	21.2	100	100	100	100	100

Sources: Paige et al. 1991; Stanek forthcoming; Stratton 1990; Stratton and Chisum 1986; Schroeder et al. 1987; Morris 1987



dents of the villages remained skeptical. Subsistence harvests in some villages, such as Tatitlek, Chenega Bay, English Bay, Port Graham, and Ouzinkie, virtually came to an end. And in every village as far as Perryville and Ivanof Bay, people observed and learned about spill damages and signs of oil, as well as noticed unusual behaviors in animals or suspect conditions in some subsistence foods. Clearly, the oil spill had created conditions that were completely unfamiliar to the hunters and fishermen of these villages. Their skills in understanding their environment and making informed decisions had been undermined. Consequently, in many cases they discarded traditional foods or refrained from harvesting entirely for fear that the resources had been poisoned.

The primary response to the issue of subsistence foods contamination was directed by the Oil Spill Health Task Force (OSHTF). This group began meeting biweekly at the Alaska Native Medical Center in Anchorage within a month of the spill. Regular participants in the OSHTF included the Indian Health Service; the Division of Subsistence; the ADHSS; DEC; the National Oceanic and Atmospheric Administration (NOAA); Exxon; and two regional Native service organizations, the North Pacific Rim for the Chugach villages and the Kodiak Area Native Association. The OSHTF served to coordinate and review research on subsistence foods safety, develop a consensus on health issues, and communicate the findings of the studies to the villages.

In 1989 two studies addressed the question of subsistence food safety after the oil spill. The first was a "pilot study" developed by the Division of Subsistence. The field portion of this project took place in May 1989. The second study was funded by Exxon, and occurred from July to September 1989. In both projects, samples of fish and marine invertebrates were taken from important subsistence harvest areas after consultation with village experts and Native organizations. In combination, the studies covered sites in Prince William Sound, lower Cook Inlet, and the Kodiak Island area. Village assistants were usually part of the sampling crews. Division researchers and NOAA personnel participated in the Exxon-funded project as well.

After collection of the samples, they were tested for signs of oil contamination. Primarily, these tests measure levels of polycyclic aromatic hydrocarbons (PAHs) in the bile and edible tissues of the samples. PAHs are among the most toxic components of petroleum, and some are known carcinogens. The U.S. Food and Drug Administration (FDA) performed these

tests for the pilot study, and NOAA's Northwest Fisheries Center conducted the tests on samples from the Exxon-funded project.

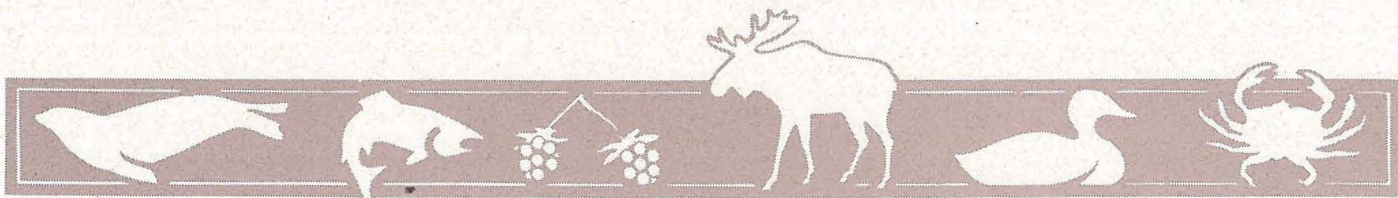
No results were available until late August 1989, when the FDA's findings from the pilot study were released (ADHSS 1989b). The FDA found that 10 "organoleptically clean" samples had no or very low levels of PAHs. Eating foods with those levels did not represent a health risk, according to the FDA. But two samples of shellfish taken at heavily oiled Windy Bay on the lower Kenai Peninsula and deemed oiled by local assistants in the field had higher PAH values than

Clearly, the oil spill had created conditions that were completely unfamiliar to the hunters and fishermen of these villages. Their skills in understanding their environment and making informed decisions had been undermined. Consequently, in many cases they discarded traditional foods or refrained from harvesting entirely for fear that the resources had been poisoned.

those usually found in areas not contaminated by oil. Insufficient tissue from these samples was available to perform the more detailed tests required for a health risk assessment.

As part of the second study, the Northwest Fisheries Center conducted 365 tests to measure the levels of PAHs in the bile and edible tissues of the samples (Varanasi et al. 1990). These tests are highly sensitive, measuring PAH levels down to less than one part per billion. The results of the first round of tests were also available by late August. At the request of the state epidemiologist, NOAA then assembled an "expert panel of toxicologists" which met in Seattle on September 14 to review the findings (ADHSS 1989c). The panel concluded that the levels of PAHs found in fish were low and of no health concern. Most shellfish tested were also safe, but some, such as those collected from the contaminated beaches at Windy Bay, had unacceptably high levels of oil contamination. Thus, the expert committee concluded that shellfish "should not be collected from obviously oil-contaminated areas."

After receiving the panel's report, the OSHTF reviewed the findings and developed plans to inform the villages of the results. Meetings took place in 10



communities in Prince William Sound, lower Cook Inlet, and the Kodiak Island Borough in September and October 1989.

Also, the State's Section of Epidemiology reported these findings in a health bulletin issued on September 22, 1989 (ADHSS 1989b). In part, the bulletin advised the public that:

Results of studies to date, combined with available scientific knowledge, provide powerful evidence that Alaskan finfish are and will continue to be safe to eat. Levels of aromatic hydrocarbons found to date in finfish are very low and are similar to levels in uncontaminated fish.

Village residents also pointed out that health bulletins and news releases often did not reach most of the families in their communities, leaving people uninformed and sometimes afraid. Finally, some community representatives wondered why a subsistence foods testing project was being funded by Exxon rather than the State, raising a question of a conflict of interest.

Because only a small number of crustaceans (crabs) and mollusks (clams and mussels) have been tested, our recommendations about their safety are more tentative and cautious. Specimens of mollusks taken from heavily oil-contaminated beaches have shown high levels of aromatic hydrocarbons. Shellfish tested from "clean beaches" have shown the presence of aromatic hydrocarbons in higher concentrations than found in uncontaminated areas but at levels that do not represent a serious health hazard. If mollusks are consumed, they should not be collected from areas that are obviously contaminated with oil.

Findings from a second and third round of tests performed at the NOAA laboratory on samples collected in August and September 1989 were consistent with those of the first round of tests, according to the conclusions of a second meeting of the expert panel in February 1990 (Varanasi et al. 1990; Walker and Field 1991).

Despite these efforts, many questions remained unanswered for the villages. For example, during the village meetings in September and October 1989,

residents asked why more samples had not been tested from more areas. How could they be sure that resources were safe based upon the limited number of samples and sites examined so far? Little or no information was available about other important resources, such as deer, waterfowl, and marine mammals. Village residents also pointed out that health bulletins and news releases often did not reach most of the families in their communities, leaving people uninformed and sometimes afraid. Finally, some community representatives wondered why a subsistence foods testing project was being funded by Exxon rather than the State, raising a question of a conflict of interest.

Subsequently, both Exxon and the State (through the Division of Subsistence) continued sampling and testing programs in 1990. The Northwest Fisheries Center agreed to conduct the tests for both programs. The division added collection sites near Alaska Peninsula communities. Generally, the purpose of these programs was to monitor conditions near each village to assess whether the earlier health advice remained valid. Results from these studies became available during the spring and summer of 1990. Findings continued to be consistent with those of the previous summer. Additionally, tests were run on samples of marine mammals, ducks, and deer. Results for some of the marine mammals were available by June 1990, and the remainder by October 1990. Although indications of exposure to oil were found in some of these samples, PAH levels were well below those considered to represent a health risk. These findings have been disseminated primarily through a series of newsletters and a videotape produced for the OSHTF by the Division of Subsistence (ADF&G 1990).

In summary, the first information available to subsistence harvesters to answer their questions about possible oil contamination of subsistence foods was limited and was released only by late August 1989. Complete results of the studies of fish and shellfish did not appear until February 1990, and test results concerning marine mammals, birds, and deer were not available until June 1990 or later. Findings from these studies, and the corresponding health advice, have been consistent: most resources taken from the oil spill area are safe to eat, but people should avoid harvesting at contaminated areas and should carefully inspect their harvests for signs of oil. But into the second year after the spill, household interviews found that many respondents still had doubts about the safety of subsistence foods. The next sections illustrate how subsis-



tence uses changed in the year following the spill, and how respondents explained these changes.

Subsistence after the *Exxon Valdez* Oil Spill

As shown in Table 3 and Figure 2, the subsistence harvests in the study communities in the year after the spill ranged from a low of 88.8 pounds per person in Ouzinkie to a high of 489.8 pounds at Ivanof Bay. All four Prince William Sound and Lower Cook Inlet villages, and four of the six in the Kodiak Island Borough, had lower harvest levels in the year after the spill than in the closest previous year for which data are available. In contrast, four Alaska Peninsula villages showed higher harvests, while the other (Chignik Lagoon) was only slightly lower than the previous

measurement.

Table 3 also compares the relative changes in subsistence harvests for each community across study years. Where two pre-spill measurements were available, they were averaged for this comparison. The comparison shows startling declines in subsistence harvests for all but the Alaska Peninsula villages. The Prince William Sound communities were down markedly in 1989-90, Chenega Bay by 56.6 percent and Tatitlek by 56.8 percent. The lower Cook Inlet communities also exhibited sharp declines of 51.3 percent for English Bay and 46.5 percent for Port Graham. Every Kodiak community also reported lower harvests in the post-spill study year compared to the average of previous measurements, ranging from 77.1 percent lower for Ouzinkie to 12.3 percent lower at Akhiok. With the exception of Karluk, the relative decline in

(Continued on Page 21)

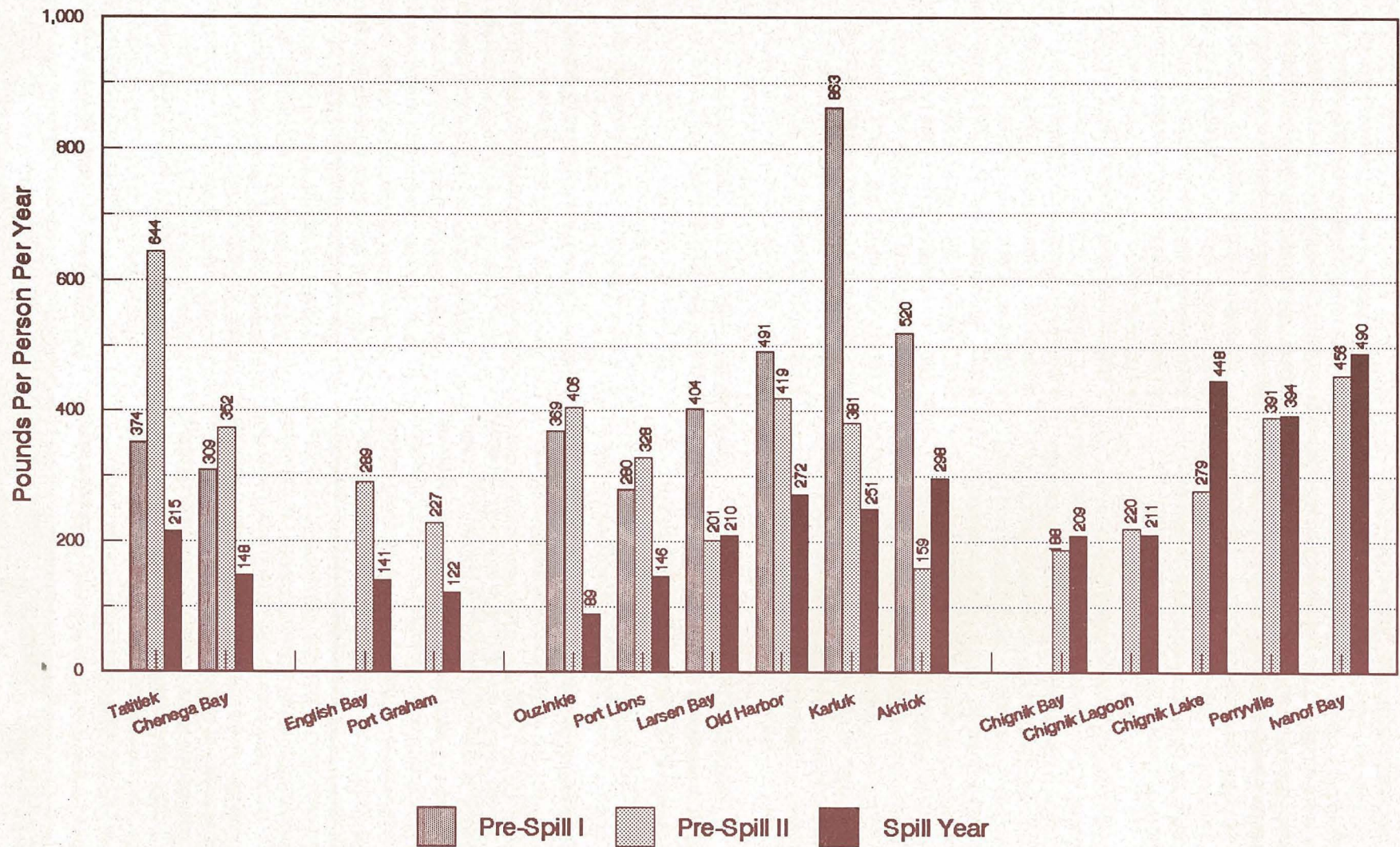
Table 3. Comparison of Subsistence Harvests of the Study Communities before and after the *Exxon Valdez* Oil Spill

Community	Per Capita Harvest in Pounds			Post-Spill Change	
	Year One	Year Two	Oil Spill Year ^a	Compared to Most recent Previous year	Compared to Average of all Previous years
Chenega Bay	308.8	374.2	148.1	- 60.4%	- 56.6%
Tatitlek	351.7	643.5	214.8	- 66.6%	- 56.8%
English Bay	288.8	b	140.6	- 51.3%	b
Port Graham	227.2	b	121.6	- 46.5%	b
Akhiok	519.5	159.3	297.7	+ 86.9%	- 12.3%
Karluk	863.2	381.0	250.5	- 34.3%	- 59.7%
Larsen Bay	403.5	200.9	209.9	+ 4.5%	- 30.5%
Old Harbor	491.1	419.3	271.7	- 35.2%	- 40.3%
Ouzinkie	369.1	405.7	88.8	- 78.1%	- 77.1%
Port Lions	279.8	328.3	146.4	- 55.4%	- 51.9%
Chignik Bay	187.9	b	208.6	+ 11.1%	b
Chignik Lagoon	220.2	b	211.4	- 3.7%	b
Chignik Lake	279.0	b	447.6	+ 60.1%	b
Ivanof Bay	455.6	b	489.8	+ 8.4%	b
Perryville	391.2	b	394.2	+ 1.0%	b

^a For Prince William Sound and Kodiak communities, two pre-spill measurements are available. Pre-spill study years are as follows: Tatitlek, 1987-88 and 1988-89; Chenega Bay, 1984-85 and 1985-86; English Bay and Port Graham, 1987; Kodiak Island Borough, 1982-83 and 1986; Alaska Peninsula, 1984. The "spill year" is 1989 for all communities but Chenega Bay and Tatitlek, for which it is April 1989 - March 1990. Source: Paige et al. 1991.

^b Only one previous measurement.

Figure 2. Per Capita Subsistence Harvests
Oil Spill Study Communities



Two previous study years exist for Kodiak and Prince Wm. Sound. One previous study year exists for AK. Peninsula and L. Cook Inlet.



(Continued from Page 19)

harvests in the Kodiak Island Borough decreased as the community's distance from the source of the spill increased.

In addition to declines in harvest quantities, the range of subsistence resources used in the year after the spill was down from pre-spill measurements in some communities. For example, the mean number of resources used per household at Tatitlek fell from 22.6 resources in 1988-89 to 11.6 in 1989-90; the mean for Chenega Bay was 18 in 1985-86 compared to 8.2 in 1989-90. Again in contrast, the mean number of subsistence resources used in the five Alaska Peninsula villages was higher or about the same in 1989 compared with 1984.

Furthermore, levels of participation in certain subsistence activities declined sharply in some commu-

nities in the oil spill area, especially in those villages nearest the origin of the spill. For example, while 94 percent of the households in Chenega Bay in 1985-86 used marine invertebrates, only 22 percent did so in 1989-90. In Tatitlek, this percentage dropped from 100 percent in the year before the spill to just 50 percent in the following year. In both villages, the percentage of households using salmon, other fish, marine mammals, and birds and eggs was also down. Levels of participation in subsistence activities in the Alaska Peninsula villages remained extremely high.

Assessment of Changes and Reasons for Change

As shown in Table 4, almost half the respondents (49.0 percent) reported that overall, their subsistence

Table 4. Assessment of Subsistence Reductions Resulting from Oil Spill Concerns

REGION Community	Households Surveyed*	Reductions Due to Any Oil Spill Reason				Reductions Due to Contamination Concerns			
		Overall		Any Resource		Overall		Any Resource	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
PRINCE WILLIAM SOUND	38	32	84.2%	37	97.4%	25	65.8%	35	92.1%
Chenega Bay	18	16	88.9%	17	94.4%	12	66.7%	16	88.9%
Tatitlek	20	16	80.0%	20	100.0%	13	65.0%	19	95.0%
LOWER COOK INLET	81	68	84.0%	76	93.8%	51	63.0%	63	77.8%
English Bay	33	30	90.9%	31	93.9%	22	66.7%	28	84.8%
Port Graham	48	38	79.2%	45	93.8%	29	60.4%	35	72.9%
KODIAK ISLAND	166	66	39.8%	83	50.0%	38	22.9%	49	29.5%
Akhiok	10	3	30.0%	3	30.0%	0	0.0%	1	10.0%
Karluk	14	7	50.0%	7	50.0%	4	28.6%	5	35.7%
Larsen Bay	31	15	48.4%	20	64.5%	9	29.0%	12	38.7%
Old Harbor	45	8	17.8%	14	31.1%	4	8.9%	10	22.2%
Ouzinkie	31	18	58.1%	19	61.3%	13	41.9%	14	45.2%
Port Lions	35	15	42.9%	20	57.1%	8	22.9%	7	20.0%
ALASKA PENINSULA	101	23	22.8%	42	41.6%	14	13.9%	23	22.8%
Chignik Bay	31	5	16.1%	12	38.7%	3	9.7%	4	12.9%
Chignik Lagoon	15	7	46.7%	7	46.7%	2	13.3%	2	13.3%
Chignik Lake	21	4	19.0%	9	42.9%	3	14.3%	8	38.1%
Ivanof Bay	7	3	42.9%	4	57.1%	3	42.9%	3	42.9%
Perryville	27	4	14.8%	10	37.0%	3	11.1%	6	22.2%
TOTAL	386	189	49.0%	238	61.7%	128	33.2%	170	44.0%

* Households not present during the pre-spill period were removed from analysis. These include two households from Tatitlek, three from Larsen Bay, three from Old Harbor, one from Port Lions, and four from Chignik Bay.



uses during the study year were lower because of the *Exxon Valdez* oil spill. These assessments varied substantially by region. Respondents attributed lower overall levels of subsistence use to the spill in 84.2 percent of the households in Prince William Sound, 84.0 percent in lower Cook Inlet, 39.8 percent in the Kodiak Island Borough, and 22.8 percent in the Alaska Peninsula. Higher numbers of households in each region, and 61.7 percent overall, said that their uses of at least one category of subsistence foods had declined because of the spill.

More specifically, as also reported in Table 4, fear of contamination of subsistence foods by the oil was the most common reason cited for lower levels of subsistence harvests. Overall, 33.2 percent of the households said that fear of oil-contaminated foods reduced their total subsistence harvests or uses. However, much higher levels of concern were recorded in communities in Prince William Sound (65.8 percent) and in lower Cook Inlet (63 percent) than in the Kodiak Island Borough (22.9 percent) or Alaska Peninsula (13.9 percent). Also, 44 percent of the households in the sample said that their uses of at least one type of subsistence food were down due to contamination concerns. They include the vast majority of the households in Chenega Bay, Tatitlek, English Bay, and Port Graham, and more than a third of the households in Karluk, Ouzinkie, Larsen Bay, Chignik Lake, and Ivanof Bay.

The following comment from Ouzinkie is typical of those households which reduced their subsistence harvests after the spill because of concerns about oil contamination of their traditional food supply.

I can't go out and get what I want off my beach just to eat without worrying if it is contaminated or I'll get poisoned. . . That's why I don't eat nothing off the beach. I don't eat clams no more.

A very active subsistence harvester from Chignik Lake expressed a similar sentiment when he said, "We won't touch clams after that oil was floating around. Not our family anyway."

These findings likely underestimate the level of concern about contamination in the communities, because some households used subsistence foods, despite their misgivings, for cultural and nutritional reasons. As a respondent from Tatitlek explained,

We were totally against people eating stuff that hadn't been tested. We told people it was ludi-

crous to eat food that hadn't been tested. [But] eventually the craving for those foods took over. And they ate them anyway.

Other major reasons for lower harvests were the time harvesters spent on the oil spill cleanup, and the perception that less resources were available because of spill-induced mortality. As a Tatitlek hunter explained regarding waterfowl, "When you hear thousands of them are dying everyday, it's tough to harvest them. We didn't know what the number would be coming back this year."

Subsequent Division Research

Between September 1990 and March 1991 the division conducted 88 follow-up interviews with household heads who had earlier reported decreased subsistence harvests because of concerns about hydrocarbon contamination (Fall and Mishler 1991:8-9). We found that the closer the community was to the origin of the spill, the higher the level of concern remained. This was especially clear regarding salmon and shellfish. For salmon, concern remained high at Chenega Bay and Tatitlek, but dropped off sharply past Ouzinkie. We found higher levels of concern remaining about oil-contaminated shellfish, especially in communities such as Chenega Bay and English Bay. Overall, the follow-up interviews showed that for many households in some communities, especially those most heavily hit by the oil, questions remained about the damages that the spill might have caused to subsistence foods.

In 1991, in part supported by funding from the U.S. Fish and Wildlife Service, the division conducted a second round of 221 subsistence harvest surveys in seven villages, including Tatitlek, Chenega Bay, English Bay, Port Graham, Ouzinkie, Larsen Bay, and Karluk. Findings from this research should be available by the end of 1991.

Observations and Conclusions

This paper discussed the subsistence uses of fish and wildlife in 15 Alaska Native communities whose harvest areas were affected by the *Exxon Valdez* oil spill. The research found that subsistence harvests in 10 of these communities were substantially lower than in previous years in the 1980s. Especially, subsistence harvests in villages of Prince William Sound, lower Cook Inlet, and some in the Kodiak Island Borough



showed stark declines. In contrast, subsistence production in five Alaska Peninsula villages was relatively similar to earlier measurements or higher.

When asked to assess their subsistence uses in the post-spill study year compared with other years, most households in the Prince William Sound and lower Cook Inlet villages confirmed that harvests were down because of the spill, as did smaller numbers of households in the Kodiak Island Borough and Alaska Peninsula communities. The dominant reason for lower total harvests or lower takes of particular resources was fear that subsistence foods had been contaminated by the oil. The majority of the households in most of 15 communities had direct contact with the effects of the spill through their employment on oil cleanup jobs, as well as during other travel through their traditional use areas. They saw oil on the beaches, in the water, and on certain animals and birds. Others suspected oiling when they inspected resources they had harvested or had been given. In addition, reports of dead wildlife and other signs warning of danger led many people to doubt that their traditional harvest areas were safe to use and that traditional foods were safe to eat.

By the time reliable information based on tests of resources from specific traditional sites was available to these communities, all of the spring and most of the summer opportunities for subsistence harvesting in 1989 had passed. Furthermore, after months of observing the damage caused by the spill, many villagers were skeptical that foods could be safe. They demanded more tests from more places on a wider range of species. With oil still present, they argued that the tests should continue and be expanded.

Follow-up interviews suggested that respondents in most communities had returned to eating fish again in 1990, but many still distrusted the safety of shellfish and deer. Overall, those communities closest to the source of the spill were most likely to express continuing concerns about resource contamination.

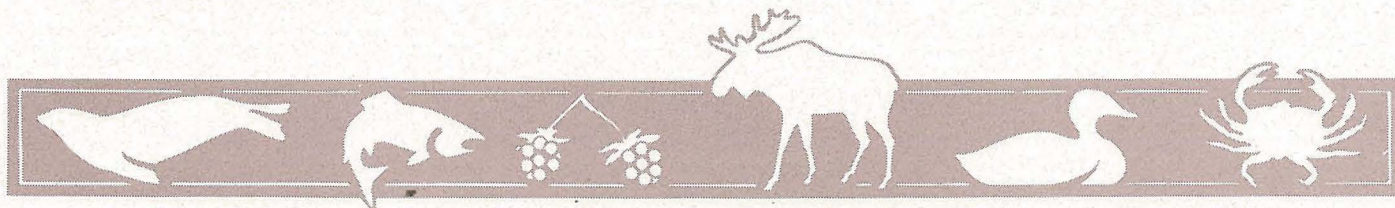
Indeed, it appears that as long as residents of the Native communities of the areas affected by the *Exxon Valdez* oil spill believe that significant amounts of oil remain in their environment, many will continue to refrain from using subsistence foods. The following report appeared from Chenega Bay in October 1990,

more than 18 months after the spill (Evanoff 1990). The report indicated that the people of the village

Have eaten only a small fraction of the foods they ordinarily live on daily. They reported that indications from wildlife around them make the people very uncomfortable, and they are afraid to harvest subsistence food. An abnormal seal liver, ordinarily firm, was soft and runny. The arm of a starfish fell apart when pulled from the rocks. They have reported several dead eagles and sea gulls, a dead bear and a blind sea lion found during the past month, highly unusual occurrences prior to the spill.

For a people whose survival has long relied upon their observations of the natural environment, such signs continue to warn of danger. And people have continued to respond in a culturally appropriate manner—with caution. Our analysis of data about subsistence uses in Alaska Native communities following the *Exxon Valdez* oil spill suggests that while these signs have persisted, certain traditional foods have been avoided by many households. Until such signs disappear and people are able place confidence in their own abilities to again interpret and understand their environment, recovery from the *Exxon Valdez* disaster will likely remain incomplete.

James A. Fall has served as Regional Program Manager for the Division of Subsistence, Alaska Department of Fish and Game, in Anchorage since 1981. He has done research on historic and contemporary subsistence in the Yukon Territory and Alaska, and he is the author and co-author of more than a dozen technical reports issued by the division. Fall also has done research with upper Cook Inlet Dena'ina Athabaskan elders on their traditional way of life and their stories and other oral traditions. He is the co-editor and compiler of *Shem Pete's Alaska*, an annotated collection of Dena'ina place names in the Cook Inlet region. Fall earned a B.A. degree from the University of Pennsylvania, and M.A. and PhD degrees in cultural anthropology from the University of Wisconsin-Madison. He has taught anthropology courses at the University of Alaska Anchorage and Alaska Pacific University.



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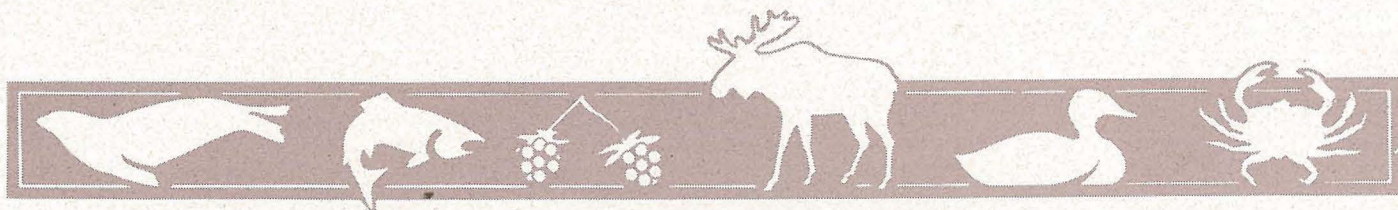
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Subsistence and Self-Determination: Can Alaska Natives Have a More "Effective Voice?"

David S. Case

The following is a revised and updated version of an article by David Case that originally was published in the University of Colorado Law Review in 1989 (Vol. 60, No. 4, pages 1009-1035).

I. Introduction

A. Subsistence and Self-Determination: The Concepts and Policies

To many people the term "subsistence" connotes the bare eking out of an existence, a marginal and generally miserable way of life. That is not, however, the standard dictionary definition of the term,¹ nor is it the way in which the word is used in Alaska. There "subsistence" has come to stand for a class of hunting and fishing rights that, under federal and state laws, enjoy a legal preference superior to competing sports, commercial, and personal use rights.²

For Alaska Natives, "subsistence" became a political and cultural rallying cry some years before it became a law. The term is a foreign one to many Natives, because it is used by non-Natives to capsuleize what is for Natives an entire way of life. Thus, subsistence has come to symbolize unique hunting and fishing rights as well as the complex web of cultural practices, social relationships, and economic rewards associated with those rights.³

In Alaska, the term has come to stand for the traditional Alaska Native way of life. Accordingly, the ability of Alaskan Natives to maintain subsistence as a way of life is a measure of their ability to achieve self-determination. Without subsistence, the way Alaska Natives live would inevitably be defined by standards external to their own cultural values. As wage employment and the accumulation of wealth compete with Native values associated with hunting, gathering, and sharing, the evolution of Native cultures will tend to be determined by forces outside those cultures rather than "self-determined" from within. Forestalling that possibility by promoting self-determination is the official policy of the federal government.

The federal government's self-determination policy is perhaps best stated in President Nixon's July 8, 1970, special message to Congress on Indian affairs. There he urged and subsequently proposed legislation to build federal Indian policies "on the capacities and insights of the Indian people."⁴ "The time has come," he said, "to break decisively with the past and to create the conditions for a new era in which the Indian future is determined by Indian acts and Indian decisions."⁵

The new policy was followed by a host of legislative enactments,⁶ of which the Indian Self-Determination and Education Assistance Act of 1975 is the centerpiece.⁷ The specific congressional findings enacted as part of the Self-Determination Act concluded in part that:

(1) the prolonged Federal domination of Indian service programs . . . has denied to the Indian people an effective voice in the planning and implementation of programs for the benefit of Indians which are responsive to the true needs of Indian communities; and

(2) the Indian people will never surrender their desire to control their relationships both among themselves and with non-Indian governments, organizations and persons.⁸

Thus, American domestic policy and law acknowledge that Native Americans should have an "effective voice" in developing and operating programs that benefit Native communities.⁹ Under the Self-Determination Act, the policy is manifested in, *inter alia*, requirements that the Secretaries of the Interior and Health and Human Services contract with "Indian tribe[s]" or "tribal organization[s]" for the provision of Native services and programs.¹⁰ These self-determination era statutes¹¹ have all been specifically applied to the Alaska Native villages and corporations "defined in



or established" under the Alaska Native Claims Settlement Act (ANCSA).¹²

The purpose of this article is to consider the extent to which three regulatory regimes—the Alaska National Interest Lands Conservation Act,¹³ the Marine Mammal Protection Act,¹⁴ and the Alaska Eskimo Whaling Commission¹⁵—afford Alaska Natives an "effective voice" in the planning and implementation of programs that protect or promote subsistence hunting and fishing by Natives and, consequently, the extent to which they serve the federal policy of self-determination.¹⁶ This article does not discuss the extent to which the exercise of tribal authority in Alaska might also lead to a more effective voice over Native hunting and fishing.¹⁷ Rather, it examines the opportunities under each of the three subject regimes for "comanagement" of wildlife,¹⁸ and the extent to which each regime furthers the goal of self-determination.

Comanagement of wildlife has been documented in numerous instances in both Canada and Alaska.¹⁹ In comanagement regimes, "public authorities share power with indigenous user groups" as a means of resolving conflicts between what have been characterized as "state" and "indigenous" systems of wildlife management.²⁰ The conflicts between the two systems are perhaps cultural as much as anything else.

The state system relies on the results of scientific research to develop written rules administered by government bureaucracies. Within the bureaucracy the people who do the research and develop and enforce the regulations are organizationally segregated from each other.²¹ By contrast, in the indigenous system, research and management of the resource are organically connected to the act of harvesting, and enforcement is largely a matter of adherence to community values.²² The research and information gaps between the two systems are greatest when it comes to respecting the validity of each other's knowledge and understanding their alternative approaches to regulation and enforcement.²³ The thesis presented here is that the extent to which comanagement regimes bridge these gaps is a measure of whether these regimes afford Natives an "effective voice" in wildlife management.

B. The Dilemma of Regulating Subsistence

Alaskan Native fishing and hunting has, until relatively recently, been governed solely by indigenous systems of unwritten customs, beliefs, and practices that, as a practical matter, ensured the survival of

families and villages.²⁴ These unwritten rules were generally effective from a conservation standpoint. Moreover, and equally important, they dovetailed with the complex web of social, cultural, and economic aspects of Alaska Native societies. The more recent, formal regulations of the state and national governments often have the effect (perhaps unintended) of tearing this web of relationships.²⁵ The effect is perhaps unintended because, from the standpoint of those doing the regulating, the intent is not to infringe on subsistence practices but to protect wild, renewable resources by imposing bag limits, seasons, and other scientifically "routine" methods. The problem is that these artificial limitations often clash with the natural hunting and fishing practices of Native people, who generally perceive such limits as unnecessary.

For a variety of reasons, it became politically necessary to afford Alaska Natives (and non-Natives) a preference for the subsistence taking of fish and game.²⁶ In 1980, this led to the enactment of Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA).²⁷ Moreover, in 1972 (less than a year after the enactment of ANCSA), Congress had enacted the Marine Mammal Protection Act (MMPA).²⁸ This act imposed a nearly absolute moratorium on the taking of marine mammals,²⁹ but allowed a broad and virtually unregulated exemption for Alaska Natives who took marine mammals in a nonwasteful manner for "subsistence purposes" or for the manufacture and sale of Native handicrafts.³⁰

Any regulation of subsistence generally has an adverse effect on subsistence practices and culture, but the ban on aboriginal hunting of the bowhead whale is perhaps the most extreme example of the adverse effect regulation can have on an indigenous system of subsistence management. In 1977, apparently acting in the belief that the bowhead whale population was nearing extinction, the International Whaling Commission (IWC), unilaterally and with no advance notice to the affected Alaska Natives, ordered a complete ban on all hunting of the bowhead whale.³¹ Within a few weeks, the Alaska Natives (principally Inupiat residing on the North Slope) established their own whaling commission, the Alaska Eskimo Whaling Commission (AEWC). They mounted an effective political and scientific campaign to obtain relief from the ban and are now active participants in the study and management of the bowhead whale as well as the development and enforcement of whaling regulations.³²

ANILCA, the MMPA and the AEWC present three contrasting subsistence comanagement regimes. In the



following discussion, I will examine these regimes with a view to determining the extent to which each provides Alaska Natives with an "effective voice"³³ in research and management of subsistence resources and the regulatory control of those who harvest these resources. I will also attempt to define the features of each regime that frustrate or facilitate its effectiveness in serving that purpose.

II. The Alaska National Interest Lands Conservation Act (ANILCA)

A. The Federal Law

Alaska Native aboriginal hunting and fishing rights were extinguished as a matter of federal law in 1971 with the passage of the Alaska Native Claims Settlement Act (ANCSA).³⁴ Of course, the cultural, social, and economic activities associated with the extinguished rights did not cease, but subsistence users were thereafter at a political and economic disadvantage when it came to asserting their interests in the state regulatory system. For one thing, the Alaska state boards of fish and game were dominated by sport and commercial interests. Moreover, funding for much of the activity of the Alaska Department of Fish and Game came from license fees paid by sport and commercial users of the resources. As a result, rural Native people had little economic or political influence on the Alaskan fish and game regulatory process.³⁵

Although ANCSA formally extinguished aboriginal hunting and fishing rights in Alaska, it was clear from the Joint Senate and House Conference Committee Report accompanying the Act that Congress intended the State of Alaska and the U.S. Secretary of the Interior to make provision for Native subsistence.³⁶ By 1980, however, it had become obvious that neither the State nor the Secretary was going to take any significant action. The result was the enactment of Title VIII of ANILCA.³⁷

Title VIII was intended to be a comprehensive approach to the political and economic problems that plagued the state's subsistence fish and game policies. By the time the issue got to Congress it was also no longer exclusively a Native issue. Natives were not the only people who lived off the land in rural Alaska, and the state argued that it could not enforce an exclusive "Native" preference on state land without violating the state constitutional provision against racial discrimination.³⁸

In what was to prove an ironic political compromise, Congress established a preference for "subsistence uses" of "wild renewable resources" by "rural Alaska residents."³⁹ The congressional "Findings" of the Act state the legal justification for federal protection of both Native subsistence "culture" and non-Native subsistence "society."⁴⁰ ANILCA's administrative scheme requires the state to provide for the subsistence uses of rural Alaskan residents with a priority for those uses and a system of local advisory committees and at least six regional advisory councils.⁴¹ Title VIII also restricted the authority of the Alaska fish and game boards to make policy contrary to the recommendations of the regional advisory councils with respect to subsistence uses.⁴²

Typical of "cooperative" American federalism, Title VIII did not compel the State of Alaska to do anything, but it made the state an offer it couldn't refuse. The law Congress enacted provided "rural Alaska residents" a subsistence preference only on "public lands"—defined elsewhere in ANILCA to be federal "lands, waters and interests therein."⁴³ ANILCA did not require the state to adopt a subsistence preference or establish advisory councils and committees for regulation of fish and game on state or even Native lands. But the price of not doing so was that the state would not be able to regulate fish and game on the more than one-half of the lands in the state still in federal ownership.⁴⁴ Alaska had one year to establish a subsistence preference and committee/council structure for state and private lands identical to those required under ANILCA for federal public lands. If the state did that, then the Interior Secretary could not set up a competing system to regulate public lands, and state regulatory authority would encompass all public lands (except parks and park monuments).⁴⁵

B. State Implementation and Frustration

Prior to 1980, the state already had enacted legislation establishing a subsistence preference.⁴⁶ After ANILCA became law, the state Department of Fish and Game adopted regulations establishing a "rural resident" subsistence preference as required under ANILCA.⁴⁷ It also went about the task of setting up the necessary advisory committees and councils throughout the state. Then in 1985, the Alaska Supreme Court held that the state subsistence statute on which the Department of Fish and Game had based its "rural resident" subsistence preference regulations did not limit subsistence fishing and hunting to rural residents.⁴⁸



Since the federal law required that the preference be limited to rural residents, the state (by the decision of its own supreme court) appeared to be in violation of federal law. Faced with the prospect of federal takeover of fish and game management on more than half the land in the state,⁴⁹ Alaska passed a new law.⁵⁰ The new statute did limit the subsistence preference to residents "domiciled in a rural area of the state," but in 1989 the State Supreme Court held in *McDowell v. Collinsworth* that the state "rural resident" preference was unconstitutional under equal access to resource clauses of the state constitution.⁵¹

Ironically, in *McDowell* the state's Supreme Court rejected the very "rural resident" compromise which the state had insisted was necessary for the ANILCA subsistence preference to pass Alaska constitutional muster. The court held that the automatic inclusion of all rural residents and exclusion of everyone else from the preference in the state law implementing ANILCA was inconsistent with provisions of Article VIII of the state constitution guaranteeing equal access to fish and game. The full scope of the decision is still to be litigated, but the immediate effect was a flurry of failed legislative activity followed by a federal takeover of subsistence fish and game management on federal lands. This left the state with responsibility for subsistence fish and game management on state and private (including Native) lands.

The *McDowell* decision was handed down in December 1989, one month prior to the convening of the Alaska Legislature in January 1990. Elements of the legislature mounted an effort to push a constitutional amendment before the voters to preserve the rural preference. However, the legislators could not garner the votes to propose the amendment. The result was that on July 1, 1990 the federal government announced the resumption of federal management of subsistence on federal lands in Alaska.⁵² On federal lands, rural residency is the standard for applying the subsistence preference, while the standard under state law is uncertain and still evolving.

C. Other Recent Litigation

Prior to *McDowell*, most of the subsistence litigation was brought in federal court, because section 807 of ANILCA granted federal court jurisdiction to hear complaints brought by "[l]ocal residents, other persons and organizations aggrieved by a failure of the state" to provide for the subsistence priority.⁵³ Consistently, the failure of the state fish and game boards to

accord a true subsistence preference was struck down. The state has not fared any better after *McDowell*, even though the battle has now shifted to state courts.

Prior to *McDowell* and faced with the possibility of losing statewide fish and game jurisdiction following the *Madison* decision,⁵⁴ the state amended its subsistence statute to apply only to rural residents. The new statute also defined "rural area" to mean "a community or area of the state in which the noncommercial, customary, and traditional use of fish or game for personal or family consumption is a principal characteristic of the economy of the community or area."⁵⁵ The new definition was challenged by Natives residing on the Kenai Peninsula, in *Kenaitze Indian Tribe v. Alaska*.⁵⁶

The Ninth Circuit Court of Appeals held that even though its economy was "no longer dominated by subsistence and barter," the Kenai Peninsula was nevertheless "rural" under the ordinary meaning of the term.⁵⁷ The court also concluded that the state, in trying to define "rural," was simply trying to find a way to "take away what Congress has given, adopting a creative redefinition of the word rural, or redefinition whose transparent purpose is to protect commercial and sport fishing interests."⁵⁸

The state fared no better when it tried to impose seasons and bag limits on subsistence moose and caribou hunters in remote Lime Village.⁵⁹ Lime Village had applied to the board of game through the appropriate regional advisory council to adopt regulations permitting village residents to hunt moose and caribou without any season or bag limits. The board found that residents customarily harvested moose and caribou on an "opportunistic" basis throughout the year and that, "the moose populations were stable and that the caribou population in the area was at a high level and growing."⁶⁰ The board relaxed the seasons and somewhat increased the bag limits, but did not eliminate them. Dissatisfied, village residents appealed the board's decision to federal court.

Noting the role that sharing of the harvest plays in subsistence hunting, the court in *Bobby v. State* held that the board of game must take into account the fact one hunter may take animals for use by many people.⁶¹ As to seasons, the court found:

The subsistence hunter who is without meat during a closed season or who has with his family consumed a fixed bag limit will go hungry unless some other game or fish are available and in season. Hunger knows nothing of seasons, nor is it



satisfied for long after one's bag limit has been consumed.⁶²

The court went on to caution the state: "If bag limits and seasons are imposed on subsistence hunting, there must be substantial evidence in the record that such restrictions are not inconsistent with customary and traditional uses of the game in question."⁶³

The state courts have faced and similarly resolved the same issues in the two years following *McDowell*. Although no case has yet been reviewed by the state Supreme Court, the lower state trial courts have reached consistent results in at least four cases.⁶⁴ In general, there appear to be two main issues emerging in the courts: (1) who is entitled to the subsistence preference in the absence of the "rural resident" criteria and (2) whether in implementing the state subsistence preference the boards of fish and game must consider the effect of regulation on the methods and means of subsistence or only the amount of resources harvested.

After the *McDowell* decision, the boards of fish and game were first confronted with the question of who now qualified for the subsistence preference. The *McDowell* decision suggested that residents might be eligible for subsistence who were able to satisfy a "classification scheme employing individual characteristics."⁶⁵ However, on October 28, 1990, acting on the advice of the Alaska Department of Law, the joint boards of fish and game announced as its policy that: "all Alaskans are now eligible for subsistence." The policy has resulted in regulations which arguably treat subsistence users the same as sportsmen.⁶⁶

The boards of fish and game have also been advised that the state law requirement that subsistence hunters be afforded a "reasonable opportunity to satisfy subsistence uses"⁶⁷ means only a reasonable opportunity to obtain a sufficient amount of subsistence food. This has resulted in regulations which admittedly do not take into account the effect the regulation may have on subsistence methods, means, and values. The lower courts have responded by requiring subsistence regulations to use the "least intrusive" means available to fulfill the legitimate management goals of "conservation, development and utilization" of fish and game resources.⁶⁸

D. "Effective Voice" or Regulatory Muzzle?

McDowell caused bifurcation of what was already a complex regulatory scheme, and the continuing

litigation, policy pronouncements and proposed legislation do not seem likely to simplify the issues very soon. The ANILCA subsistence preference is the product of a rather unwieldy compromise between the partial recovery of the Native hunting and fishing rights, extinguished under ANCSA,⁶⁹ and the attempt to maintain centralized regulatory authority over fish and game by the State of Alaska.

The post-*McDowell* transfer of authority to federal management reportedly has resulted in some tentative approaches to federal comanagement with Native nonprofit organizations. There is no evidence of similar efforts on the state side, and it remains to be seen if the present confusion will generate opportunities for comanagement under either the state or federal systems.

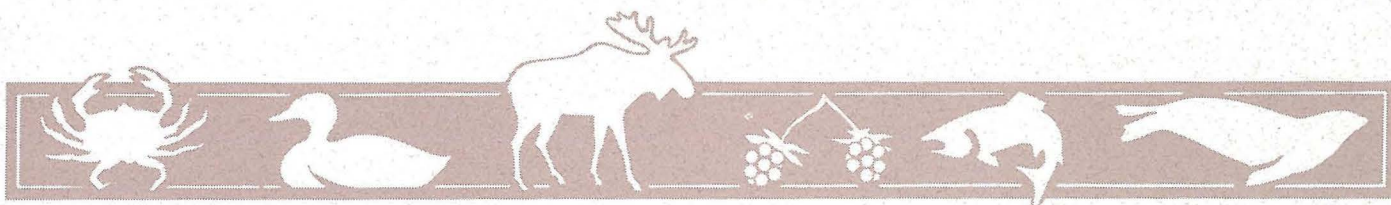
III. The Marine Mammal Protection Act (MMPA)

A. Purpose of the Law and Its Effect on Subsistence

The Marine Mammal Protection Act (MMPA),⁷⁰ as presently implemented, appears to offer a greater opportunity for Native comanagement and self-determination than is currently afforded by the confused ANILCA regime. The MMPA was enacted in 1972 in response to widespread concern that marine mammals⁷¹ were being hunted to extinction or (in the case of dolphins and porpoises) wantonly killed in the course of commercial fishing operations.⁷²

Congress declared an indefinite and near absolute moratorium on the taking or importing of all marine mammals or their parts in or into the United States. However, the Act exempts Alaska Natives from the general prohibition, essentially granting them an exclusive right to take marine mammals, so long as it "is not accomplished in a wasteful manner," for any "subsistence purpose" or to create "authentic Native" handicrafts or clothing.⁷³ Finally, the Act prohibits all state regulation of marine mammal hunting, unless the state meets certain federal requirements relating generally to the maintenance of healthy marine mammal populations.⁷⁴

Although intended primarily as a conservation measure, the immediate effect of the MMPA from the Native perspective was the substantial deregulation of Native marine mammal subsistence hunting. Native taking can be regulated under the Act, but only on a species-by-species basis in the event the particular species ever becomes "depleted."⁷⁵ Otherwise, the



federal government can require Natives to mark, tag, and report marine mammals taken under the exemption even if there is no "depletion."⁷⁶ Recently, however, agency enforcement has sought to narrow the definition of what constitutes "authentic Native" handicrafts to those specific types of items Alaska Natives were making in 1972, when the MMPA was enacted.⁷⁷ Native groups have successfully challenged these measures in the courts.⁷⁸

That the relative lack of regulation under the MMPA has been advantageous to the Natives is evidenced by Native resistance to the State of Alaska's attempts to reassume jurisdiction over walrus and other marine mammals. In the late 1970s, the state petitioned for the return of walrus management. Included in its proposed regulations were provisions that had the effect of prohibiting Native walrus hunting in certain areas, including the coastal region near the southwestern Alaskan community of Togiak. When the Department of the Interior issued regulations⁷⁹ purporting to transfer walrus jurisdiction to the state, the people of Togiak filed a lawsuit.⁸⁰

The Togiak residents contended that the MMPA's Native exemption preempts any state regulation of Native marine mammal hunting and that the federal regulations were therefore invalid. The court agreed and denied the government's motion to dismiss, in part because it found the Native exemption to be an exercise of federal authority in the field of Indian affairs and an outgrowth of the federal government's unique responsibilities toward Native Americans. The court held:

These various responsibilities impose fiduciary duties upon the United States, including the duties so to regulate as to protect the subsistence resources of Indian communities and to preserve such communities as distinct cultural entities against interference by the States. It is presumably to implement these various powers and duties that Congress adopted the Native exemption from the general moratorium established by the MMPA, and an abandonment of those responsibilities should not be lightly presumed.⁸¹

B. Regulation Today: Natives Assert a Policy-Making Role

Following the Togiak lawsuit, the federal government withdrew its regulations, and the state abandoned its plans to assume jurisdiction over walrus and other marine mammals. Congress amended the law in 1981,

however, to permit the state to reassume marine mammal jurisdiction so long as it provided marine mammal subsistence protection for "rural Alaska residents."⁸² After extensive hearings throughout the state and in the face of concerted Native opposition, the state has, for the time being, abandoned further efforts to assume jurisdiction over marine mammals.⁸³ Given the *McDowell* decision, it seems unlikely that the state will reassume marine mammal jurisdiction soon so long as the "rural resident" preference is a feature of the federal law and unconstitutional under state law.

The 1979 federal court decision in *People of Togiak v. United States* had the overall effect of stymieing any effective state or federal regulation of marine mammal hunting—state regulation was not politically possible and federal regulation was underfunded.⁸⁴ Prior to the decision in *Togiak*, but perhaps due to the conflict over state regulation of walrus, Alaska Natives had formed the Eskimo Walrus Commission "to represent the walrus hunting villages and to aid State and Federal agencies in their attempts to develop a suitable walrus management plan."⁸⁵

In 1979, the Eskimo Walrus Commission proposed that a "cooperative management agreement" be established between it and the U.S. Fish and Wildlife Service. The Service initially declined to enter into such an agreement until better census data and data on the overall health of the walrus herds were available.⁸⁶ Such an agreement was finally concluded among the Service, the Walrus Commission and the Alaska Department of Fish and Game in 1987.⁸⁷ All parties to the agreement confirm that the Fish and Wildlife Service is "the agency with legal responsibility for the management of the Pacific Walrus."⁸⁸ The general thrust of the agreement is that both the Walrus Commission and the state will cooperate with the Fish and Wildlife Service in studying the walrus and educating Native hunters about the value and necessity of their compliance with applicable statutes, laws, regulations, and agreements.⁸⁹

Meanwhile, the Marine Mammal Commission, charged with overall implementation of the MMPA, has moved ahead with efforts to implement the Act, "including provisions for the protection of the Indians, Eskimos, and Aleuts whose livelihood may be adversely affected by actions taken [under the Act]."⁹⁰ Its efforts have included the creation of seven working groups composed in part of scientists and representatives of Native and non-Native coastal communities as well as environmental interests and state and federal agencies. In years past the Marine Mammal Commis-



sion has also funded the Eskimo Walrus Commission to set up a monitoring system for the Native harvest.⁹¹

The Alaska Eskimo Walrus Commission exercises no rule-making or enforcement authority. Nonetheless, the Commission does have potential influence on the regulatory process. It meets regularly with representatives of the Fish and Wildlife Service and presented testimony at the 1988 hearings on the successful reauthorization of the MMPA for an additional five years.⁹² Moreover, the Commission and the Fish and Wildlife Service are engaged in ongoing discussions regarding the development of a joint walrus management plan. It is possible that these activities eventually may produce some sort of joint federal-Native regulations of marine mammals.⁹³

The Eskimo Walrus Commission appears to have been a direct response to the threatened state regulation of walrus hunting.⁹⁴ Whether the Eskimo Walrus Commission will ever assume a more active regulatory role is also undetermined, but the example of the Alaska Eskimo Whaling Commission, discussed below, provides a useful model of what is possible.

IV. The Alaska Eskimo Whaling Commission

A. Culture, Economy, and the Bowhead Whale

Called "ahgvik" in Inupiaq, the bowhead whale is a genuine leviathan, up to sixty feet long and weighing one-half to one ton per foot of length.⁹⁵ It is the basis of the social and cultural existence of the North Slope coastal Inupiat people and the centerpiece of the Inupiat subsistence economy.⁹⁶ The preparations for spring and fall whaling extend throughout the year in a continuous cycle that includes the hunting of bearded seal (ugruk) in the spring and summer for its skins, which are used to cover the skin boats (umiaqs) used in whaling.⁹⁷ Spring is also the time of the whaling festival (nalukatak), hosted by the successful whaling captains and their crews. During this time and again at Thanksgiving and Christmas, the meat and blubber (maktak) of the whale are shared with the entire village.⁹⁸

Beyond its significance to these specific events, bowhead whaling is the single most important activity in North Slope coastal Inupiat culture, knitting together extended families and even people outside the family in a whole system of collective and cooperative economic and social relationships. The whaling captain and his

crew of six to twenty-five people are the primary socioeconomic unit.⁹⁹ Each captain's family also plays an important supporting role, with some members being employed in the local cash economy to support the captain's whaling preparations.¹⁰⁰ The activities of the entire whaling fleet in each village are often coordinated through a village association of whaling captains,¹⁰¹ which may have been the model for the Alaska Eskimo Whaling Commission (AEWC).

B. Origin of the Alaska Eskimo Whaling Commission

The AEWC was born out of a crisis. The bowhead whale has been totally protected from commercial whaling for more than forty years under the terms of two successive international conventions.¹⁰² Moreover, in 1970 the species was designated as "endangered" under the Endangered Species Act;¹⁰³ in 1977 it was determined to be "depleted" under the MMPA.¹⁰⁴ Also in 1977 the International Whaling Commission (IWC), the entity charged with implementing the current whaling convention, imposed a total ban on all bowhead whaling. If the ban had been enforced successfully it would have terminated, suddenly and catastrophically, Inupiat cultural practices that had evolved over millennia. Within weeks the AEWC came into existence, solely in response to the whaling ban.

The AEWC was established by a resolution of the Inupiat Community of the Arctic Slope, a region-wide tribe organized under the federal Indian Reorganization Act.¹⁰⁵ Subsequently the AEWC was reorganized as a nonprofit corporation under the laws of Alaska.¹⁰⁶ Following the 1977 ban, the newly formed AEWC mounted a court challenge to compel the United States government to prevent the ban from taking effect.¹⁰⁷ The court held that it had no jurisdiction to compel the government to take any action in the field of foreign affairs.

The AEWC then turned to direct political pressure on the federal government and the IWC to lift the ban, with some success.¹⁰⁸ The IWC relented from an outright ban and in 1978 established a Native quota of twelve whales taken or eighteen struck, an allotment later enlarged to fourteen taken or twenty struck and increased at every subsequent IWC meeting.¹⁰⁹ The effects on the Inupiat of the ban followed by the limited quota ranged from reduced food supplies to restrictions in the number of crews participating in the hunt and a consequent reduction in the social and economic interaction of the people who would normally partici-



pate in whaling.¹¹⁰ From the standpoint of cultural adaptation, however, perhaps the most significant development arising from the bowhead crisis was the consolidation of the AEWc itself.

C. Organization and Function of the AEWc

The AEWc is composed of ten commissioners, one elected from each of the ten village whaling associations.¹¹¹ Voting membership in the AEWc is limited to registered whaling captains and co-captains resident in any of the ten whaling villages. The structure thus preserves the traditional leadership role of the umialik, although any member of a whaling crew in the ten villages can become a non-voting member.¹¹² On March 4, 1981, the AEWc adopted its own bowhead whale management plan. In the same year it entered into a cooperative agreement with the National Oceanic and Atmospheric Administration (NOAA) for the cooperative enforcement of the IWC quotas and to assist NOAA in inspecting and reporting on the bowhead whale harvest.

The overall effect of the AEWc Management Plan and the AEWc/NOAA Cooperative Agreement was to interpose the AEWc between the village whaling captains and the representatives of the federal government responsible for enforcing the international whaling convention and the MMPA.¹¹³ The AEWc allocates the annual whaling quota among its member villages, resolves disputes between whaling captains, and imposes sanctions on its members who violate the terms of the quota.¹¹⁴ Politically, the AEWc represents the interests of the whaling villages at the annual meetings of the IWC, which in 1982 established separate management principles and procedures to govern Native subsistence whaling.¹¹⁵ The IWC also has established a standing subcommittee to review Native¹¹⁶ subsistence whaling to advise the IWC in much the same way the IWC's scientific committee does on biological matters.¹¹⁷

These political developments are positive in that they afford the AEWc a truly "effective voice" in the international political process and carve out a separate status for Native whaling to be taken into account in decisions relating to the conservation of the bowhead whale. Continuously since the 1977 ban, the AEWc has participated in the deliberations of the IWC as part of the official American delegation. It is probably the first time since before the American Revolution that

Native Americans have been direct participants in international negotiations affecting their rights.¹¹⁸

D. The AEWc and the North Slope Borough—Jointly Raising an "Effective Voice"

It is questionable that the AEWc would have been so effective had it not been for the political backing and financial support of the North Slope Borough. The borough has established an active Department of Wildlife Management, whose chief project is the scientific study of the bowhead whale.¹¹⁹ In addition, the borough sponsors a series of biennial conferences on the biology of the bowhead whale, which are attended by scientists from all over the world.¹²⁰ The borough also sponsors The Arctic Science Prize, awarded every two years to "distinguished scientists who have made significant contributions to man's understanding of natural processes in the Arctic."¹²¹ To advise it on scientific matters, the borough has formed its own Science Advisory Committee.

Established in 1981 to advise the AEWc, the Science Advisory Committee became the borough's advisory committee in 1982. It is composed of twenty-five scientists and academics, mainly from the University of Alaska, who are available to review research proposals submitted to the borough for funding as well as to provide the borough with an unbiased review of state, federal, and private studies related to development and other technical matters of interest to the borough. The borough's active involvement in and support of science have put it in a position to master the information gap that is often the difference between influence and lack of influence on developmental change.¹²²

Nowhere has this been more important than with respect to the scientific data regarding the population of the bowhead whale. The original reason for the 1977 ban was a determination that the bowhead population had dropped dramatically.¹²³ The borough has pioneered new acoustic census techniques that, in conjunction with other methods, have yielded a current reliable estimate of about 4,400 whales.¹²⁴ Reliable scientific data are also important to the political efforts of the AEWc in national and international forums. Finally, the borough also provides substantial direct funding to the AEWc to support its preparation for and attendance at the annual meetings of the IWC at locations around the world.¹²⁵

The AEWc is emerging as an example of successful adaptation and modification of Native cultural and



social practices in the face of a significant challenge to their existence. The very structure of the AEWEC incorporates the role of the umialik as a traditional leader. The AEWEC has been used effectively to assert that leadership in both the national and international arenas. The result, on the political front, is genuine comanagement of the resource and the gradual reversal of what might otherwise have been a cultural catastrophe.

The borough and the AEWEC quickly grasped that science was their ally in the struggle to maintain the Inupiat culture, and have readily called on this alliance to serve that purpose.¹²⁶ Both science and politics, however, are expensive. The North Slope Borough's political, scientific, and economic support have, no doubt, been essential to the success of the AEWEC. Without them, the AEWEC would not likely have been able to attend the international meetings of the IWC, much less influence its technical debates and policy decisions.

V. When Is Comanagement a More "Effective Voice?"

Each of the three regimes I have described is an example of comanagement of wildlife resources.¹²⁷ Comanagement arises out of the conflicts between what have been characterized as the "indigenous" and "state" systems of wildlife management and the potential solutions to those conflicts offered by a management regime "in which public authorities share power with indigenous user groups."¹²⁸ I have suggested that the extent to which comanagement amounts to a more effective voice for Natives depends on the extent to which a particular comanagement regime bridges the gaps between the state and indigenous systems of wildlife management.¹²⁹

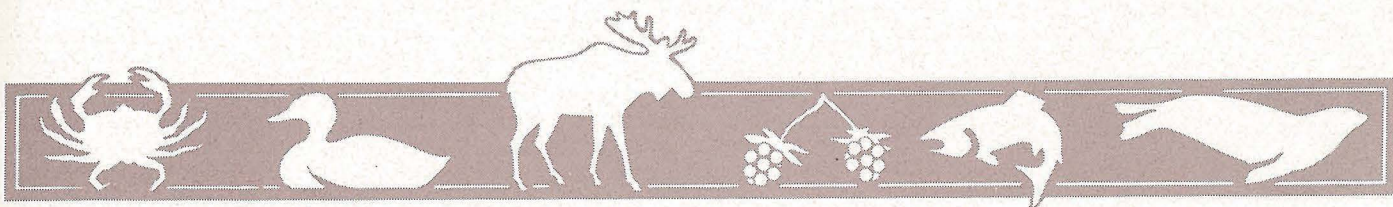
The gaps in understanding between the participants in the two systems are predominantly cultural, but can be capsulized as the differences that arise between bureaucratic and organic forms of organization. Bureaucracies rely on people with specialized skills working in a hierarchy. In "state" fish and wildlife management systems, biologists do research, which is used by rule makers to promulgate regulations, which are enforced by yet other officials. In contrast, organic forms of organization rely on participants who have roughly the same types of skills and participate equally in all activities, in the absence of any readily identifiable hierarchy. In "indigenous" systems of fish and wildlife management, the harvesters are also the ones

who have the greatest level of knowledge about the resources they harvest. The rules based on that knowledge are in reality community values, which are enforced only because they are generally accepted as correct.

The researchers, rule makers, and enforcement officers of the state system are often perceived by the participants in the indigenous system as being out of touch with reality as the indigenous participants know it. In the north, this perception has often been correct.¹³⁰ It is not surprising that Native people want to find ways in which they can more effectively influence state systems of wildlife management. To the extent that comanagement regimes allow Natives to influence research, rule making, and enforcement, they afford Natives a more "effective voice"¹³¹ in fish and wildlife management.

Of the three regulatory regimes considered here, the AEWEC has had the most success in asserting an "effective voice" in planning, implementing, and enforcing a workable subsistence policy controlled by the people most affected by it. The state/ANILCA regime suffers from too much influence by unpredictable judicial determinations, a complicated and ultimately distant regulatory process, and relatively underfunded local initiatives, as the post-McDowell developments amply demonstrate. But neither ANILCA nor the state subsistence regime offers Natives any certain role in either research or enforcement. At best, they afford local users of subsistence resources only an enhanced consultative role when it comes to rule making. That is the regime's biggest and, ultimately, debilitating flaw.

In contrast, the advantage of the MMPA is that it favors little regulation by the state. In fact, it has led to substantial deregulation of Native taking of marine mammals for subsistence purposes. As a result, Native subsistence practices are left theoretically undisturbed, except in those rare instances when regulatory intervention is truly necessary for conservation purposes. Compared to the AEWEC, however, the Alaska Walrus Commission currently plays a lesser role in research, rule making, and enforcement of marine mammal subsistence policy. Moreover, the current agreement with Fish and Wildlife Service offers little more than a vague assurance of cooperation in research and education, both of which appear directed toward promoting research sponsored by the state system and educating Native users to follow Fish and Wildlife Service regulations.¹³² This is perhaps due to the absence of a current crisis requiring active participation and a relative lack of funding even if there were a need.¹³³



In effect, then, both ANILCA and the MMPA allow for individual self-determination only by default. That is, both these regimes are federally created or mandated systems that encourage minimal regulation of subsistence hunting and fishing. In the absence of regulation, individual subsistence users (Natives in the case of the MMPA and God knows who in the case of ANILCA) are free to determine for themselves when, where, and how much they will hunt and fish. While this does not amount to an "effective voice" in subsistence fish and game management, it does reduce the potential for conflict between the state and indigenous systems of wildlife management by reducing the opportunity for regulation by the State.¹³⁴

Of the three regimes examined here, the AEWC currently affords Natives the most "effective voice" in the management of subsistence resources. Ironically, considering that self-determination is a federal policy, this is due hardly at all to the implementation of any federal law. Rather, it has been the result of the ability of the North Slope coastal Inupiat to perceive the leverage points in an international policy-making and regulatory regime and to apply pressure to them. The role played by the North Slope Borough in this process has been crucial. By funding sustained scientific research, political action, and litigation, the borough has enabled the AEWC to be heard in the national and international forums where the fate of the bowhead whale would no doubt otherwise have been decided without the wisdom of the Inupiat.

David Case is a 1974 graduate of the University of Washington School of Law. He has practiced law for 17 years in Alaska. During that time, he has worked for the Alaska Federation of Natives and the Alaska Native Foundation, as an attorney for the Interior Department in the Alaska Regional Solicitor's Office, and as an Associate Professor of Political Science and Alaska Native Studies at the University of Alaska Fairbanks. He is in private practice with an Anchorage law firm, emphasizing representation of Alaska Native corporations, tribes, and municipal governments. His publications include *Twenty-Four Ordinances For the Enforcement of Local Laws Under the Alaska "Village" Council* (Alaska Federation of Natives); *The Special Relationship of Alaska Natives to the Federal Government*, Alaska Native Foundation, 1978; *Alaska Natives and American Laws* (University of Alaska Press, 1984); "Listen to the Canary: A Reply to Professor Branson" (*Alaska Law Review*, 4:209 [1987]); and "Subsistence and Self-Determination: Can Alaska Natives Have a More 'Effective Voice'?" (*University of Colorado Law Review*, 60(4):1009 [1989]).

Notes

1. E.g., "means of supporting life; a living or livelihood." THE RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE at 1417 (1966).

2. The Alaska Supreme Court's decision in *McDowell v. Collinsworth*, 785 P.2d 1 (Alaska 1989) held the state law implementing the federal rural resident preference to be invalid under the state constitution. The result, discussed further in Part II B, *Infra* has been a division between the federal administration of the preference on federal lands and state administration of the preference on state and private lands. Nonetheless, at this writing, both federal and state law require a subsistence preference, albeit according to different and uncertain standards.

3. See T. BERGER, VILLAGE JOURNEY: THE REPORT OF THE ALASKA NATIVE REVIEW COMMISSION (1985), at 48-72 for an extended discussion of the social, cultural, and economic importance of subsistence to contemporary Alaska Natives. See also D. CASE, ALASKA NATIVES AND AMERICAN LAWS 275-330 (1984), for a discussion of the various legal regimes that regulate subsistence in Alaska.

4. PUB. PAPERS, 1970, 564-76 at 565 (1971).

5. *Id.* See also 2 F. PRUCHA, THE GREAT FATHER, THE UNITED STATES GOVERNMENT AND THE AMERICAN INDIANS, Vol. 2, 1085-1208 (1984), discussing the self-determination policy and quoting Nixon at 1112.

6. Indian Financing Act of 1974, 25 U.S.C. §§1451-1543 (1982 & Supp. V 1987) (originally enacted as Act of Apr. 12, 1974, Pub. L. No. 93-262, 88 Stat. 77); Indian Health Care Improvement Act, 25 U.S.C. §§ 1601-1680 (1982) (originally enacted as Act of Sept. 30, 1976, Pub. L. No. 94-437, 90 Stat. 1400); Indian Child Welfare Act, 25 U.S.C. §§ 1901-1963 (originally enacted as Act of Nov. 8, 1978, P.L. 95608, 92 Stat. 3068).

7. 25 U.S.C. §§ 450-458(e) (1988) (originally enacted as Act of Jan. 4, 1975, Pub. L. No. 93-638, 88 Stat. 2203).

8. 25 U.S.C. § 450(a) (emphasis added).

9. Self-determination of aboriginal peoples is also a developing concept in international law, notably under article VIII of the Helsinki Accords and article 27 of the United Nations' International Covenant on Civil and Political Rights. See T. BERGER, *supra*, note 3 at 179-180, discussing the possible application of international concepts of self-determination to aboriginal populations of existing nation states.

10. See 25 U.S.C. § 450 b(e), (i) and (l) defining "Indian tribe," "Secretary" and "Tribal organization," respectively and 25 U.S.C. § 450f, describing contracting procedures.

11. See *supra* statutes cited in note 6.

12. Pub. L. No. 92-203, 85 Stat. 688 (codified at 43 U.S.C. §§ 1601-1629e (1988)). The Indian Self-Determination Act, 25 U.S.C. §§ 450b(b), defines "Indian tribe" to include "any Alaska Native village or regional or village corporation as defined in or established" under ANCSA.

13. 16 U.S.C. §§ 3101-3233 (1988). See *infra* part II.



14. 16 U.S.C. §§ 1361-1407 (1988). See *infra* part III.

15. See *infra* part IV.

16. Nothing in the Self-Determination Act specifically requires Native Americans have a voice in fish and game regulation, although such a requirement would exist in the context of an Indian fish or game program administered by the Secretary of the Interior or the Secretary of Health and Human Services. Rather, it is general, federal Indian policy that logically encourages the involvement of Native Americans in all phases of any policy that affects them. The point of this analysis is to consider the extent to which programs regulating subsistence in Alaska do or do not promote this general policy goal.

17. See T. BERGER, *supra*, note 3, at 162-166; D. CASE *supra*, note 3 at 310-13; Conn and Langdon, *Retribalization as a Strategy for Achievement of Group and Individual Social Security in Alaska Native Villages—with a special focus on subsistence*, in BETWEEN KINSHIP AND THE STATE: SOCIAL SECURITY AND LAW IN DEVELOPING COUNTRIES (F. von Benda-Beckman E. Casio, F. Hirtz, G.R. Woodman & H.F. Zacher eds. 1988); Noble, *Tribal Powers to Regulate Hunting in Alaska*, 4 ALASKA L. REV. 223 (1987).

18. See Osherenko, *Can Comanagement Save Arctic Wildlife?* ENV'T, July/Aug. 1988, at 7 (discussing several comanagement regimes in Alaska and Canada).

19. *Id.* at 10. Osherenko tabulates eight such regimes, ranging from the comprehensive James Bay and Northern Quebec regime of 1975 (involving the management of all species of marine and terrestrial animals in James Bay and Northern Quebec by the governments of Canada and Quebec and the Inuit, Cree, and Naskapi Native peoples) to the more limited 1987 cooperative research regime among the Alaska Eskimo Walrus Commission, the Alaska Department of Fish and Game, and the U.S. Fish and Wildlife Service discussed *Infra* at note 87 and accompanying text.

20. *Id.* at 7. Peter Usher coined the terms "indigenous system" and "state system" to contrast and compare the two approaches to wildlife management in *The Devolution of Wildlife Management and the Prospects for Wildlife Conservation in the Northwest Territories* (1986) (Policy Paper No. 3, Canadian Arctic Resources Comm., Ottawa). See Osherenko *supra* note 18, at 7 n. 1. A short version of Usher's paper appears in Usher, *Indigenous Management Systems and the Conservation of Wildlife in the Canadian North*, 1 ALTERNATIVES 3 (1987). See Osherenko, *supra* note 18, at 7 n. 1.

21. Osherenko, *supra* note 18, at 9.

22. *Id.* at 11.

23. *Id.* at 11-12.

24. T. BERGER, *supra*, note 3 at 59. See also, Langdon, *Alaska Native Subsistence: Current Regulatory Regimes and Issues*, in 19 ROUNDTABLE DISCUSSIONS OF THE ALASKA NATIVE REVIEW COMMISSION, 14-20 (Oct. 10-13, 1984) (paper presented on subsistence). Transcripts of the proceedings of the Alaska Native Review Commission are archived at the Rasmuson Memorial Library, University

of Alaska, Fairbanks. Steve J. Langdon is an associate professor of anthropology, University of Alaska, Anchorage.

25. 15 ROUNDTABLE DISCUSSIONS [ON SUBSISTENCE] OF THE ALASKA NATIVE REVIEW COMMISSION 1522-42 (Oct. 10, 1984) (remarks of T. Lonner). Transcripts of the discussions are archived at the Rasmuson Memorial Library, University of Alaska, Fairbanks. Thomas Lonner is the former Chief of the Subsistence Division, Alaska Department of Fish and Game.

26. See text accompanying notes 34-52, *infra*, discussing the difficulties in implementing a state subsistence hunting and fishing preference after ANCSA's abolition of aboriginal hunting and fishing rights and in the face of entrenched opposition from commercial and sports interests.

27. P.L. 96-487, Title VIII, 94 Stat. 2371, 2422 (codified as amended at 16 U.S.C. §§ 3111-3126 (1988)).

28. P.L. 92-522, 86 Stat. 1027 (codified as amended at 16 U.S.C. §§ 1361-1407 (1988)).

29. "Marine mammals" are defined by the MMPA as "any mammal which . . . is morphologically adapted to the marine environment. . . or primarily inhabits the marine environment." 16 U.S.C. § 1362(5) (1982). The term thus includes sea otters, walrus, seals, whales, and polar bears.

30. 16 U.S.C. § 1371(b) (1982). The earliest versions of the legislation that was to become the MMPA exempted Native subsistence hunting from the moratorium. As originally introduced, the legislation permitted subsistence hunting for food and clothing, but prohibited sale of any marine mammal products—including traditional Native handicrafts. The congressional debate over the scope of the Native exemption is analyzed and excerpted in *Katelnikoff v. U.S. Dept. of the Interior*, 657 F. Supp. 659, 663-665 (D. Alaska 1986).

31. The IWC is the decision-making body established under the Convention for the Regulation of Whaling, Dec. 2, 1946, 62 Stat. 1716 T.I.A.S. No. 1849, 161 U.N.T.S. 72, amended effective May 4, 1959, 10 U.S.T. 952, T.I.A.S. No. 4228.

32. D. CASE, *supra*, note 3 at 283-284.

33. 25 U.S.C. § 450(a)(1) (1988).

34. P.L. 92-203, 85 Stat. 688, (codified at 43 U.S.C. §§ 1601-1629e (1988)). Section 4(b) of ANCSA, 43 U.S.C. § 1603(b), provides: "All aboriginal titles . . . including any aboriginal hunting or fishing rights that may exist, are hereby extinguished."

35. See generally, D. CASE, *supra*, note 3 at 295-98 (describing the effect of state regulation prior to ANILCA).

36. The report stated:

The conference committee, after careful consideration, believes that all Native interests in subsistence resource lands can and will be protected by the Secretary through the exercise of his existing withdrawal authority The conference committee expects both the Secre-



tary and the State to take any action necessary to protect the subsistence needs of the Native.

S. REP. NO. 581, 92d Cong., 1st Sess., 37 (1971).

37. Alaska National Interest Lands Conservation Act, Pub. L. 96-487, Title VIII, 94 Stat. 2371, 2422 (codified as amended at 16 U.S.C. §§ 3111-3126 (1988)).

38. ALASKA CONST., art. 1, §1, 3. The state's argument does not acknowledge the probable effect of Article IV, clause 2 (the supremacy clause) of the U.S. Constitution. Federal laws enacted pursuant to constitutional authority are the "supreme law of the land" notwithstanding contrary provisions of state constitutions. *E.g.*, *Worcester v. Georgia*, 31 U.S. (6 Pet.) 515 (1832). Federal laws benefiting Native Americans are consistently held not to violate equal protection. *E.g.*, *Morton v. Mancari*, 417 U.S. 535 (1974).

39. 16 U.S.C. § 3113.

40. 16 U.S.C. § 3111 (1).

41. 16 U.S.C. § 3115.

42. 16 U.S.C. § 3115(d).

43. 16 U.S.C. § 3102(2).

44. *See* 16 U.S.C. § 3115(d).

45. 16 U.S.C. § 3115(d). Under 16 U.S.C. § 3118, separate nine-member "subsistence resource commissions" were appointed by the Secretary, the Governor, and the regional advisory council for each park or park monument.

46. Ch. 151, SLA 1978.

47. ALASKA ADMIN. CODE tit. 5 § 01.597, reprinted in *Madison v. Alaska Dept. of Fish & Game*, 696 P.2d 168, 172 (Alaska 1985).

48. *Madison v. Alaska Department of Fish and Game*, 696 P.2d at 176.

49. *See supra* text at note 44.

50. ALASKA STAT. §16.05.258 (1987).

51. *McDowell v. Collinsworth*, 785 P.2d 1, (Alaska 1989) n. 2 at 5-9, interpreting and applying art. VIII, §§ 3, 15, and 17 of the Alaska Constitution.

52. Temporary Subsistence Management Regulations for Public Lands in Alaska, 55 Fed. Reg. 23, 522 (1990) (to be codified at 50 CFR, part 40).

53. 16 U.S.C. § 3117(a).

54. 696 P.2d 168 (Alaska 1985).

55. ALASKA STAT. §16.05.940(25),

56. 860 F.2d 312 (9th Cir. 1988).

57. 860 F. 2d at 314-18.

58. *Id.* at 318.

59. *Bobby v. Alaska*, 718 Fed. Supp. 764 (D. Alaska 1989). The court's opinion contains a description of the difficulty the state had in implementing the ANILCA subsistence preference prior to McDowell. *See Bobby* at 766-768.

60. *Id.* at 773.

61. *Id.* at 779-780.

62. *Id.* at 777.

63. *Id.* at 778.

64. *McDowell v. State*, 3AN-83-1592 Civ. (3rd Jud. Dist., Palmer, Memorandum of Decision, June 20, 1990); *Morry v. State*, 2BA-83-87 Civ. (2nd Jud. Dist., Barrow,

Memorandum of Decision, October 16, 1990 and May 23, 1991); *United Cook Inlet Drift Assoc. v. State*, 3KN-91-596 Civ. (3rd Jud. Dist., Kenai, Decision on Motion for Declaratory Judgment, August 9, 1991) and *Kluti Kaah Native Village of Copper Center v. State*, 3AN-91-4554 Civ. (3rd Jud. Dist., Anchorage, Memorandum of Decision, Aug. 19, 1991).

65. 785 P.2d at 61.

66. *See Kluti Kaah*, n. 64 at 4, invalidating limited moose season for village residents who hunted "opportunistically" and therefore could not be limited to a "sport hunter's seven-day 'vacation'." *See generally Morry* n. 64, Memorandum of May 23, 1991 denying validity of "all Alaskan" policy.

67. ALASKA STAT. § 16.05.258(c), reprinted In *Morry*, n. 64, Memorandum of October 16, 1990 at 20.21.

68. *See e.g. Id.* at 31, noting that:

If the state is allowed to issue complex regulations for subsistence uses—violation of which can result in substantial fines or jail time—the protection given to subsistence uses can be eroded just as surely as if the numbers of game available for subsistence uses were sharply reduced or eliminated. When the state undertakes such regulation, it must show that the requirements fulfill the goals of "conservation, development, and utilization" of the game resource and that the regulations are the least intrusive means available to accomplish these goals.

69. 43 U.S.C. § 1603 (1988).

70. 16 U.S.C. §§ 1361-1407 (1988).

71. *See supra* note 29 (defining "marine mammals"). Oceanic marine mammals (e.g., whales and seals) are regulated under the MMPA by the National Marine Fisheries Services (NMFS) of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA). Other marine mammal species (i.e., sea otters, walrus, and polar bears) are regulated by the U.S. Department of the Interior, Fish and Wildlife Service. *See* NMFS, NOAA, ANNUAL REPORT 1984/85 MARINE MAMMAL PROTECTION ACT OF 1972, at 1 (June 1985).

72. Dolphins and porpoises feed on tuna and often became entangled in the nets of tuna fishermen and drown.

73. 16 U.S.C. § 1371(b).

74. 16 U.S.C. § 1379(b), (c).

75. "Depleted" is defined in 16 U.S.C. § 1362(1) and relates to "optimum sustainable population," defined in § 1362(8).

76. 16 U.S.C. §1379(i).

77. On November 14, 1988, the Service published a proposed rule that would prohibit the taking of sea otters by Natives for any handicraft purposes. *See* 53 Fed. Reg. 45,788 (amending 50 C.F.R. § 18.3, which defines "Authentic native articles or handicrafts and clothing"). Under the proposed rule, Natives could take sea otters for "subsistence uses" such as food and personal clothing, but articles created from sea otter fur could not



be sold. The recently formed Alaska Sea Otter Commission and others opposed the proposed regulation on the grounds that it is inconsistent with the intent of the MMPA to protect and promote Native culture, based on faulty historical information, and inconsistent with sound biological management.

78. *Didrickson v. U.S. Dept. of the Interior*, ____ F.Supp. ____, Slip Op. No. A85-336 Civil (D.C. Alaska, July 27, 1991).

79. 50 C.F.R. § 18.94(a), 41 Fed. Reg. 14,373 (1976).

80. *People of Toglak v. United States*, 470 F. Supp. 423 (D.D.C. 1979).

81. *Id.* at 428 (citations omitted). *Accord North Slope Borough v. Andrus*, 486 F. Supp. 332, 344 (D.D.C.), *aff'd*, 642 F.2d 589, 612 (D.C. Cir. 1980) *North Slope Borough* affirmed a similar trust responsibility under the Endangered Species Act and noted: "Every statute and treaty designed to protect animals or birds has a specific exemption for Native Alaskans who hunt the species for subsistence purposes." 486 F. Supp. at 455. 642 F.2d at 612.

82. 16 U.S.C. § 1371(b). The amendment was part of the enactment of the general reauthorization of the MMPA. As with ANILCA the year before, the state contended that it could not regulate subsistence for Natives only. *See* H. REP. NO. 228, 97th Cong., 1st Sess. 28 reprinted in 1982 U.S. CODE CONG. & ADMIN. NEWS 1458, 1478. No Senate report was submitted with the 1981 amendments.

83. *C.f.* 1985 THE MARINE MAMMAL COMMISSION ANNUAL REPORT 56 (Jan. 31, 1985) at 56.

84. COMPTROLLER GENERAL U.S. GOV'T ACCOUNTING OFFICE, CONGRESSIONAL GUIDANCE AND BETTER FEDERAL COORDINATION WOULD IMPROVE MARINE MAMMAL MANAGEMENT 18-28 (May 11, 1981) [hereinafter COMPTROLLER GENERAL REPORT] (report to the Subcommittee on Fisheries and Wildlife Conservation and the Environment of the House Committee on Merchant Marine and Fisheries).

85. *Id.* at 25.

86. *Id.*

87. Memorandum of Agreement (May 21, 1987).

88. *Id.* at 4, 6.

89. *Id.* at 4.

90. 16 U.S.C. § 1402(a)(7)(1988).

91. Comptroller General Report, *Supra* note 84, at 28.

92. Eskimo Walrus Commission Meeting Minutes, Fairbanks, Alaska 13 (Oct. 19, 1988).

93. *Id.* at 18.

94. Similarly, the Sea Otter Commission was formed in response to threatened federal regulation. *See supra* note 77.

95. Worl, *The North Slope Inupiat Whaling Complex*, ALASKA NATIVE CULTURE AND HISTORY 306 (Y. Kotani and W.B. Workman, eds. 1980) (National Museum of Ethnology, Senri Ethnological Studies 4, Osaka, Japan).

96. *Id.* There are seven Inupiat whaling villages:

Barrow, Kaktovik, Kivalina, Nuiqsut, Point Hope, Wainwright, and Wales. The Siberian Yupik villages of Gambell and Savoonga on St. Lawrence Island are also bowhead whaling villages. Since time immemorial, Inupiat people have inhabited the arid geographic plain between the Brooks Range of mountains and the Arctic Ocean—the North Slope of Alaska. Principally residing along the shore of the Arctic Ocean, they have hunted the bowhead whale for thousands of years. Although other species of marine mammals are also taken, whaling is a virtual hallmark of the coastal Inupiat of the North Slope. SMITHSONIAN INST., 5 HANDBOOK OF NORTH AMERICAN INDIANS 320 (1984).

97. Walrus skins are used instead of sealskins in the St. Lawrence Island villages.

98. *See Alaska Eskimo Whaling Commission, 1987 Whaling Captains' Convention, Barrow, Alaska (Feb. 11-13, 1987) (introduction to program)*. *See also*, Worl *supra* note 95, at 316-320 (describing the distribution laws for the village of Point Hope).

99. Worl, *supra* note 95, at 308-11.

100. *Id.* at 310.

101. *Id.* at 311. *See also*, Ahmoagak, *Spring Whaling*, ALASKA NATIVE NEWS, Apr. 1983, at 9, for an engrossing narrative of a spring bowhead whale hunt.

102. COMPTROLLER GENERAL REPORT, *supra* note 84 at 30. The current convention is the Convention for the Regulation of Whaling, Dec. 2, 1946), 62 Stat. 1716, T.I.A.S. No. 1849, 161 U.N.T.S. 72, *amended effective* May 4, 1959, 10 U.S.T. 952, T.I.A.S. No. 4228, *superseding* the Convention for the Regulation of Whaling, *opened for signature* September 24, 1931, 49 Stat. 3079, T.S. No. 880, 155 L.T.S. 349.

103. 16 U.S.C. § 1533 (1988).

104. COMPTROLLER GENERAL REPORT, *supra* note 96 at 30. The National Marine Fisheries Service (NMFS) estimated the 1977 bowhead population at 600 to 1,800 animals. In 1978 its estimate was 2,264. Inupiat whalers said the population in 1980 was between 6,000 and 10,000 animals, although NMFS adhered to its 1978 estimate of 2,264. *Id.* at 32.

105. 25 U.S.C. §§ 461-479 (1988).

106. Interview with Ronald Nalaiklak, AEWC Administrative Director (Jan. 27, 1986).

107. *Adams v. Vance*, 570 F.2d 950 (D.C. Cir. 1977).

108. In addition to filing suit in *Adams v. Vance*, *supra*, note 107, the Inupiat also attended the December 1977 meeting of IWC held that year in Tokyo. There, with assistance from the United States IWC delegation, they were successful in persuading the IWC to relax the ban in favor of a (albeit inadequate) quota of 12 whales taken or 18 whales struck. R. Worl, *supra* at 8. The quota has subsequently been increased at each subsequent IWC meeting, with the AEWC always in attendance.

109. R. Worl, *Sociocultural Assessment of the Impact of the 1978 International Whaling Commission Quota on the Eskimo Communities* 1 (Dec. 1979) (unpublished paper prepared by the University of Alaska, Arctic Environmental Information and Data Center, for the U.S.



Department of the Interior). Because of the U.S. domestic moratorium on all marine mammal hunting under the MMPA, the quotas permitted only Natives to take bowhead whales.

110. *Id.* at 76-79.

111. Bylaws of Alaska Eskimo Whaling Commission, Art. V, § 5.3 (1981). In addition to the seven Inupiat Whaling villages, the AEWK also includes representation from the Siberian Yupik village of Gambell and Savoonga on St. Lawrence Island.

112. *Id.* art. III § 3.2. Subsection 100.22 of the AEWK Management Plan sets out the procedures for registering as a whaling captain.

113. Interview with Benjamin Nageak, Director, and Thomas F. Albert, D.V.M., Ph.D., Senior Scientist, North Slope Borough Department of Wildlife Management (Mar. 19, 1987).

114. Personal communication with Benjamin Nageak (April 3, 1989) *Accord* AEWK Management Plan, subpart B, §§ 1000.11(b) ("Powers"), 100.25 ("Traditional Proprietary Claim"), 100.26 ("Level of Harvest"), 100.31 ("Denial of Participation in Harvest and Fines") (Mar. 4, 1981). The plan is implemented under the terms of the 1985 Cooperative Agreement between the National Oceanic and Atmospheric Administration and the Alaska Eskimo Whaling Commission, as amended.

115. In 1982 the IWC formally recognized a distinction between aboriginal whaling and commercial whaling. The Commissioners also established separate management principles and procedures to balance the needs of the aboriginal people who take the whales for subsistence with the need for conservation of the whales. D. CASE, *supra* note 3, at 283-84.

116. The IWC uses the term "aboriginal" to describe Alaska Native subsistence whaling and to distinguish it from commercial whaling. Because of the Native exemption under the MMPA, only Natives can engage in "aboriginal" subsistence whaling. It is not clear whether the term could include non-Natives if the state were allowed to exercise jurisdiction over whaling. Because of the international significance of whale conservation, it seems unlikely that the state will soon request (or the federal government grant the state) jurisdiction over whaling.

117. D. CASE, *supra* note 3, at 284.

118. *Id.*

119. Interview with Benjamin Nageak and Thomas F. Albert, *supra* note 113.

120. The fourth such conference was held in Anchorage, Alaska on March 4-6, 1987, and featured 46 invited papers.

121. North Slope Borough Announcement (rev. 1985). The prize consists of a certificate and a gift of \$10,000.

122. Interview with Benjamin Nageak and Thomas F. Albert, *supra* note 113.

123. *See supra* notes 2-105 and accompanying text.

124. *See* C. Clark & W. Ellison, Numbers and Distributions of Bowhead Whales Based on 1985 Acoustic Studies Off Pt. Barrow, Alaska (Mar. 1987) (paper presented at the Fourth Conference on the

Biology of the Bowhead Whale, Mar. 4-6). This is about two times the 1978 estimate of 2,264 whales used to justify the first bowhead quota. *See supra* note 104.

125. Interview with Benjamin Nageak and Thomas F. Albert, *supra* note 113.

126. Tom Albert suggests this may be due in part to the long and comfortable exposure of the Inupiat over a period of years to the scientific work conducted at the Naval Arctic Research Laboratory (NARL) at Point Barrow. *Id.*

127. *See supra* notes 18-23 and accompanying text.

128. Osherenko, *supra* note 18, at 7.

129. *See supra* note 23 and accompanying text.

130. For example, Osherenko, *supra* note 18, at 8-9, describes the conflicts between the indigenous and state systems as to managing and estimating the populations of the Kaminuriak and Beverly caribou herds. The Inupiat experience with the ban on bowhead whale hunting discussed in this article is another example.

131. 25 U.S.C. § 450(a)(1) (1988).

132. *See supra* note 89 and accompanying text.

133. The controversy over the use of sea otter products for handicrafts may prove to be such a crisis, but it remains to be seen whether the Alaska Sea Otter Commission will be able to effect regulatory change. *See supra* note 77 and accompanying text.

134. For the individual subsistence user this may amount to the realization of the greatest right of all—"the right to be let alone." *See Griswold v. Connecticut*, 381 U.S. 479, 494 (1964) (Goldberg, J., concurring, quoting *Olmsted v. United States*, 277 U.S. 438, 478 (1928) (Brandeis, J. dissenting)).



The Politics of Self-Determination: Subsistence and Alaska Natives

David C. Maas

"We are of the same opinion with the people of the United States; you consider yourselves as independent people; we, as the original inhabitants of this country, and sovereigns of the soil, look upon ourselves as equally independent and free as any other nations or nations."—Joseph Brant, Mohawk chief, April 21, 1794

The movement for self-determination by Alaska Natives is essentially a struggle for power and independence; for the right to manage their land and resources, to make their own decisions, and to develop their communities. Native leaders have therefore sought recognition of their dominion over the land; they have worked to redevelop their governments and administer their affairs; and they have fought for protection of their subsistence way of life.

The issues that surround the subsistence controversy are very telling. They offer insight into the relations between those at the highest level of influence and those at the margins, the difficulty of building strong local governments, and the friction between a large industrial economy and a democratic society. The essay that follows will consider first the structure of power in the United States; then the place of local governments and, lastly, the obstacles to self-determination within a market system.

Structure of Power in the United States

The American political process may be viewed as having a center where proposals are offered, agendas are established, and policy decisions are made. Here one finds the committees and subcommittees of Congress, the upper echelons of the bureaucracy, key lobbyists, corporate boards, military councils, and the federal judiciary. All are institutions controlled by a few people with substantial wealth, status, and prestige. According to one study they

... control over one half of the nation's industrial assets; one half of all assets in utilities; over one half of all U.S. banking assets; over three quarters of all insurance assets; and they direct Wall Street's largest investment firms. They control the television networks, the influential news agencies, and the major newspaper chains. They control nearly 40 percent of all the assets of private foundations and two thirds of all private university endowments. They direct the nation's largest and best-known New York and Washington law firms as well as the nation's major civic and cultural organizations. They occupy key federal governmental positions in the executive, legislative, and judicial branches. And they occupy all the top command positions in the Army, Navy, Air Force, and Marines (Dye 1990, 12-13).

Those at the bottom or the periphery of society have little influence or power. It is true that individuals are free to elect better representatives, to form organizations to advance their interests, and to join political parties to promote their programs and their candidates. Few, however, are part of the system of politically active groups, a system that favors commercial and financial interests. Elections have become theatrical exercises increasingly manipulated by public relations firms and campaign specialists. Political parties, at best, mobilize large and sometimes exclusive sectors of the population; at worst, they are used as instruments to further the careers of ambitious elites. As one historian commented on the formation of first national party in the United States:

In 1828 Martin Van Buren, . . . recreated the New York-Virginia alliance of 1800 and joined with Andrew Jackson, the leading candidate of 1824, to capture the presidency, thereby creating the first national party organization, the Van Buren-Jackson national (North-South) Democratic party. Van Buren achieved his national alliance, and overcame problems of sectionalism, by supporting slavery as vigorously as any southern planter, or, rather slave trader could wish, thus taking the only road open to northern politicians with national ambitions, given the sectionalism of the South (Shapiro 1976, 13).

The implications of this conceptualization of power are that changes in American society, be they administrative, political, cultural, or economic, will reinforce the dominant position of those at the center, and be detrimental to those at the periphery. The 1971 Alaska Native Claims Settlement Act (ANCSA), well illustrates this proposition. In one sense, ANCSA was a unique legislative compromise, because unlike previous, past federal-Indian agreements, no reservations were established, public administration entanglements were minimized, private ownership was recognized, and unusually large amounts of money and land were exchanged.

In a more general sense, however, the Alaska settlement is well within the tradition of American politics and economic practice. Faced with the failure of past Indian policies and the need for the exploitation of Alaska's oil fields, lawmakers acted within the only frame of reference they understood—American capitalism. Legislators insisted that Natives be integrated into the national economy. That is why ANCSA provides for regional and village corporations, stock ownership, fee title, and all the other appendages of a western market economy.

While ANCSA allotted a modicum of land to private corporations and a small sum of money to individual



Natives, it was a financial and environmental bonanza for others. For example, the settlement cleared the path for construction of the oil pipeline. It permitted the Interior Department to withdraw utility and transportation corridors across public lands and to prohibit state and village selections on these lands. By 1988 the oil and gas industries had gained profits in excess of \$52 billion from North Slope oil development. ANCSA served the interests of environmental groups, in that Section 17(d) (2) authorized the Secretary of Interior to withdraw 80 million acres of land to be studied for possible additions to the systems of National Parks, National Wildlife Refuges, National Wild and Scenic Rivers, and National Forests. Section 17(d) (2) of ANCSA led to the Alaska National Interest Lands Conservation Act (ANILCA) in 1980. As a result of ANILCA, 70 percent of all wilderness lands in the United States are in Alaska. ANCSA also satisfied the demands of state representatives in that lands that had been patented prior to the date that ANCSA became law were not subject to Native selection; land grants were set aside for municipalities; and officials were permitted to acquire the remainder of the state's entitlement under the Alaska Statehood Act. In addition, by 1986 the state had collected more than \$26 billion in royalties and taxes from the development of the North Slope oil fields.

In contrast, Alaska Natives lost 375 million acres of land and more than 2,000 miles of coastal waters. Native governments were not mentioned in ANCSA, and their authority was weakened. Aboriginal lands were crisscrossed by artificial boundaries; 13 regional and 200 village corporations were added to an already overwhelming number of state, federal, and traditional organizations; and most importantly, 44 million acres of land was separated from tribal ownership. Implicit in ANCSA was an assumption that Natives would be drawn away from a communal subsistence orientation and assimilated into the American mainstream, into a system based on private ownership, individualism, a theoretically competitive market, limited government, and popular passivity. While village land could be used for subsistence, this was only a transitional measure in the inexorable march toward a modern life-style. There was no need for embedded rights to hunt and fish, so they were eliminated.

The legal system has little impact on the structure of power described above. American constitutionalism insists on the equality of all individuals before the law and forbids discrimination and unequal protection. The Fourteenth Amendment prohibits states from "deny(ing) to any person within its jurisdiction the equal protection of the law." (Section I) The Alaska Constitution says the "Laws and Regulations governing the use of natural resources shall apply equally to all persons similarly situated with reference to the subject matter and purpose to be served by the law or regulations." Nevertheless, while laws may be applied equally, they are developed unequally; thus, the judiciary rules that exclusive access to a resource is unlawful, yet commercial enterprises take 95 percent of the total harvest of fish and game in Alaska (Fall 1990, 81). Subsistence users take only 4 percent of the total harvest (Fall 1990, 81), and they generally take less than 1 percent of the salmon harvest (Wolfe 1990, 4). Courts defend the equal rights of individuals, yet refuse to

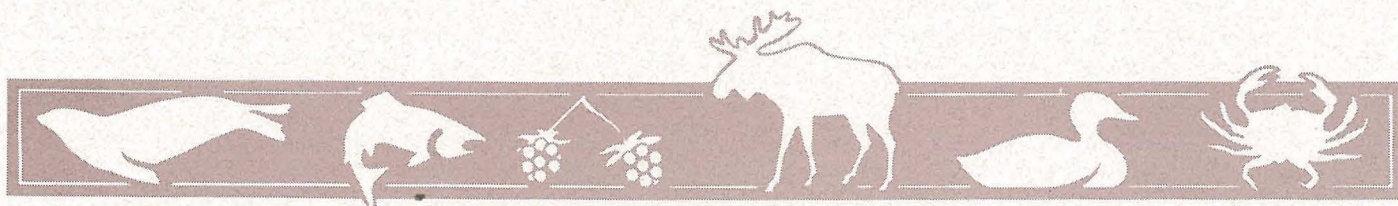
address the political and socioeconomic circumstances which insure that groups and individuals will be unequal; they have had little effect on a decision-making process dominated by those with wealth and status.

✓ The centralization of power in the United States also widens the gap between the way people live and the regimes which govern them. Increasingly, the actions of the national legislature and executive are irrelevant to the way people actually live. Congress, for example, recognized subsistence in the Alaska National Interest Lands Conservation Act (ANILCA), but it has done nothing to further the health and prosperity of subsistence economies. In 1990 the U.S. Fish and Wildlife Service (FWS), issued new guidelines that prohibited hunting caribou on snowmachines, imposed individual bag limits, and required harvest tickets for each animal killed. These restrictions may be useful in regulating sport hunting, but they are nonsensical in a subsistence economy. As the Arctic Regional Fish and Game Council argued: "... placing limits on the amount of game that hunters can take individually ignores the fact that some hunters provide game for large numbers of people and also ignores the fact that snowmachines are the prime mode of transportation by caribou hunters in the North." (*Anchorage Daily News*, October 18, 1990).

Dilemmas of Local Governments

Local governments in the United States are weak and dependent institutions. They lack the resources, the jurisdiction, and the collective will to solve society's most pressing problems. They rely on the states and the federal government for much of their revenue. They are usually municipal corporations with no intrinsic rights. State governments may take away their powers, modify their responsibilities, or mandate particular actions, all without their consent. One study suggested: "... by comparison with national politics local politics is most limited. There are crucial kinds of public policies that local governments simply cannot execute. They cannot make war or peace; they cannot issue passports or forbid outsiders from entering their territory; they cannot issue currency; and they cannot control imports or erect tariff walls" (Peterson 1981, 4).

Unlike other local institutions, tribes do have an inherent right of self-government which Felix Cohen has called "... the most basic principle of all Indian law ... the principle that *those powers which are lawfully vested in an Indian tribe are not, in general, delegated powers granted by express acts of Congress, but rather inherent powers of a limited sovereignty which has never been extinguished*" (1975, 122). Therefore, tribes may form their own governments, determine their own membership, administer their own resources, regulate their property, adjudicate their own disputes, and so on. Under the current policy of self-determination, the Secretary of the Interior and the Secretary of Health and Human Services are authorized to provide grants for the "... strengthening and improvement of tribal government, to improve the capacity of a tribal organization to enter into a contract, to acquire land, and to develop health facilities or services." (*U.S. Code*, Title 25, 450h, page 1367).



Despite the legal and statutory support for tribal self-determination, the powers of tribes are significantly restricted in practice. First, they are subject to the plenary or full power of Congress. Thus, Native rights to hunt and fish were taken away by the ANCSA in 1971. These rights were partially restored in the ANILCA, which established a preference for rural subsistence: "... the taking on public lands of fish and wildlife for non-wasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes." (16 *United States Code*, 3114). Congress, then, unilaterally decides what rights to recognize and what rights to discard.

A second restriction on tribal influence lies in the legislative language of federal laws that pertain to Native Americans and Alaska Natives, all of which contain a retention clause which gives ultimate authority to the Secretary of the Interior. Section 16 of the Indian Reorganization Act is typical of such clauses:

Any Indian tribe or tribes, residing on the same reservation, shall have the right to organize for its common welfare, and may adopt an appropriate constitution and bylaws, which shall become effective when ratified by a majority vote of the adult members of the tribe, or of the adult Indians residing on such reservation, as the case may be, at a special election *authorized and called by the Secretary of the Interior under such rules and regulations as he may prescribe* (The Indian Reorganization Act, Public Law No. 383, 73rd Congress. Section 16). (Emphasis added.)

Even the cooperative management agreement between the Alaska Eskimo Whaling Commission and National Oceanic and Atmospheric Administration contains a clause that the federal government may withdraw the authority of the AEWC if it fails to carry out its responsibilities.

Contrasting perceptions often surround policies that supposedly support self-determination. For example, tribal leaders see self-determination as an opportunity to organize their own institutions, control their land, defend their communities, and provide the services to which they are entitled. The views of federal officials in regard to the federal policy of self-determination for Native Americans tend to differ markedly from those of tribal leaders. To a former Commissioner of the Bureau of Indian Affairs, for instance, self-determination meant:

The new program will turn over to tribal government, as rapidly as possible, a maximum amount of administration for Indian affairs. Minimum control will be retained in Washington; policy will be set here, but administration of that policy will be in the hands of tribal representatives or Bureau superintendents (Forbes 1981, 120).

Such paternalism is evident in the new Federal Subsistence Board created in 1990 to manage subsistence hunting and fishing on federal public lands in Alaska. It is composed of the Alaska directors of the FWS, the National Parks Service, Bureau of Land Management, U.S. Forest

Service, and Bureau of Indian Affairs, and a chairman appointed by the Interior Secretary. The board sets regulations for subsistence on federal lands, decides what resources are protected, and determines which villages are eligible for subsistence hunting. If villages are dissatisfied with a decision by the board, they may, as did five villages on the Kuskokwim River area, appeal to the courts for permission to hunt (*Anchorage Daily News*, March 28, 1991).

There are also the disadvantages of incorporation into a large administrative system. Because of legislation like the Indian Self-Determination and Educational Assistance Act, the Indian Financing Act, the Indian Health Care Improvement Act, and the Indian Child Welfare Act, the influence of tribal governments has grown. However, they are subject to institutional control. As one observer explains:

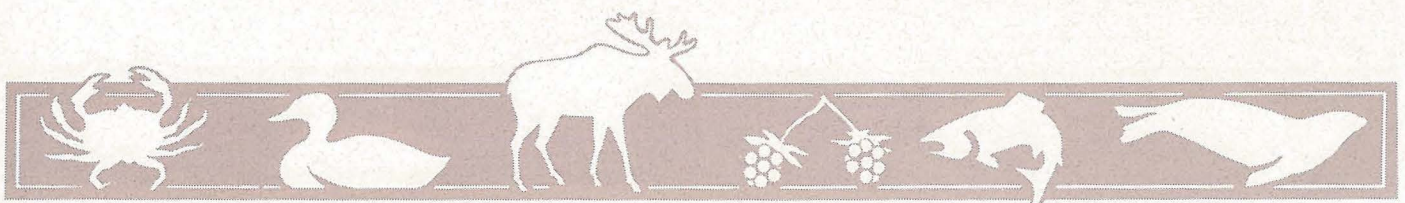
The increases in Indian political power and political access have been concentrated almost wholly in tribal governments. Indians have been encouraged to play an expanded role in Indian/white relations, but only through already established institutional structures (Cornell 1988, 205).

Another difficulty facing tribal governments is the fragmentation of governmental responsibility in villages. ANILCA, for example, provides for rural participation in community and regional advisory councils which have authority to review proposed regulations, express opinions about subsistence, and make policy recommendations, thereby creating one more organization in areas which already have too many. Rural Alaska currently is "governed" by federal and state authorities, regional boroughs and nonprofit associations, and 11 forms of local government which include first and second class cities, Indian Reorganization Act and traditional tribal councils, village and regional corporations, educational boards, and coastal resource councils. Such fragmentation leads to a lack of control and coordination, poor planning, popular confusion, disinterest, and irresponsibility.

A final problem that confronts all local governments is the lack of financial resources. There are particularly effected by inflation, rising costs, a shrinking proportion of lands to tax, popular resistance to increased taxes, and a decrease in federal aid. Villages in rural Alaska are even more vulnerable. They are largely dependent on state and national funds for employment, income, services, and organizational development. A recent study concluded: "... state and federal governments can be regarded as the financiers of local government. In effect more than half of all local employment depends upon intragovernmental revenues from federal and state governments" (Institute of Social and Economic Research 1988, 42).

Conclusion: Markets and Self-Determination

In *Politics*, Aristotle makes an important distinction between the production of material goods for household use and production for gain and exchange. Subsistence economies were independent and self-sufficient household



economies. Fishing streams, hunting grounds, berry patches, beaches, and the sea provided the substance and nourishment for a complete life. There were incidences of hunger and starvation, as a result of which people would either move or die. Nevertheless, these societies sustained themselves for thousands of years with little or no external assistance or interference. Economic independence did not imply isolation. Among coastal and interior Inupiat, for example, there was considerable interdependence.

"Each focus had its own special products, much in demand by the other. Pokes of sea mammal oil were traded for caribou skins; meaning that food and fuel from the coasts were brought inland while caribou skins for clothing and bedding were required on the coastal side" (Spencer 1984, 282).

While there were many alliances for trade, marriage, or war, each village, band, or clan was politically autonomous. Decisions about residency, ceremony, movement, trade, and war were made locally. Although the structure of authority might vary from village to village, all were responsible for the protection of their territories, the control of their behavior, the resolution of disputes, and the vitality of their economies. Self-determination was constrained only by nature.

Market economies are very different from subsistence economies. Markets are places for individuals to pursue their own interests, to compare values, and buy or sell what they can afford. In the market system, individuals produce not only for survival and domestic contentment but for the domestic or international market, to make profit. In traditional society, man was the aim of production; in the modern world "... production is the aim of man and wealth the aim of production" (Marx 1964, 45).

The inception of the capitalist market structure has far-reaching political consequences. First, there is a change in dimension; local aboriginal economies are merged with more universal economies, which have different requirements. Ownership and production are separated; individuals no longer own what they produce. They either sell their labor to those who have accumulated wealth or capital, or they are left unemployed and dependent on a niggardly social welfare system. They therefore cannot decide how valuable resources will be distributed or what will be produced.

While market economies are more productive than subsistence economies, they also lead to greater inequalities. In 1960 the difference between the incomes of the lower fifth of the United States population and the upper fifth was \$14,745; in 1985 it was \$40,000. Five percent of the people own 50 percent of all the wealth in the United States; 40 percent owe more than they own. These economic inequalities lead to the inequalities of power discussed above. The American economic system, then, like the American political system, is centralized and responsive to those with position, status, and wealth.

Given the political economy of the United States, is village self-determination possible? The controversy over subsistence would suggest a negative reply. Important decisions about management, resource development,

regulations, and so on, are made in Washington, in Seattle, and in Anchorage—not in rural Alaska. Perhaps, though, in the effort to gain political independence and economic self-sufficiency, Alaska Natives will discover a more permissive and democratic order. Perhaps in their struggle for self-determination, there is a lesson for all of us.

David Maas is an Associate Professor of Political Science at the University of Alaska Anchorage. He has taught a wide variety of courses in politics and government, and has conducted research in Alaska, Australia, Ecuador, and Peru. Maas has written numerous articles and book chapters on the Alaska Native Claims Settlement Act, federalism, Indian self-determination, village government planning, rural Alaska, economic development, and land policy. He earned a PhD degree from the University of Colorado.

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...The Voice of Many

On a Way of Life and the Right to Be Let Alone

1898

"We have been living here a long time. Our ancestors used to live here and had possession of different creeks and different places. Since white men came to this country, things have changed. They take things away from us for the purpose of enriching themselves. There are lots of things here which white men make money out of. There is lots of gold in this country. We do not know anything about mining. White men can mine. We do not want them to interfere with us. We make our living by trapping and fishing and hunting, and white men take all these places away from us; they constantly interfere with us."

—Remarks by Chief Koogh-see of Hoonah, from the transcript of a meeting between Governor John Green Brady of Alaska and a group of Tlingit chiefs in Juneau, December 14, 1898, as edited by Ted C. Hinckley in "The Canoe Rocks—We do Not know What Will Become of Us," *The Western Historical Quarterly*, 1(3):275. The meeting was held to address a crisis created by the Klondike Gold Rush for Tlingit Indians in the region from Juneau to Skagway, which was flooded by gold seekers.

1915

"When the United States purchased Alaska from Russia we heard that we were in somebody's hands who would do us good... When the United States purchased the land the Government left us to live by ourselves, and did not interfere, and I hope that the Government will not do anything to hurt us as we are the natives of the country. They left us alone before and we hope they will do so now."

—Remarks by Chief Alexander Williams of Fort Gibbon, Alaska, during a meeting of the Tanana chiefs and Judge James Wickersham, Alaska's delegate to Congress, July 5-6, 1915, in Fairbanks, as cited by Stanton H. Patty in "A Conference with the Tanana Chiefs," *Alaska Journal*, Spring 1971:9. Wickersham called the meeting to inform the chiefs that the federal government planned to build a railroad in their area that would attract hordes of newcomers who would take up good lands under the Homestead Act.

1972

"Native Americans are proud. They do not ask for special treatment from the Federal Government. But, nonetheless, they, too, have the right to be left alone, to follow their traditional way of life. It is the way of life I seek to protect in this bill."

—Remarks by Sen. Ted Stevens of Alaska, in explaining the Native exemption to the Marine Mammal Protection Act (118 Cong. Rec. 25,258 [1972]), as cited by David Case in "Subsistence and Self-Determination: Can Alaska Natives Have a More 'Effective Voice'?" *University of Colorado Law Review*, 60(4): 1014.

1990

"When outsiders ask Kuskokwim Eskimos how their culture can be strengthened, they commonly say that this goal can be achieved if they are left alone."

—Excerpt from *Bashful No Longer: An Alaska Eskimo Ethnohistory, 1778-1988*, by Wendell H. Oswalt, University of Oklahoma Press (1990), 190.

1990

What is the younger generation going to do if the state puts a stop to subsistence? All Alaska [Native] people live off the ground [i.e. on subsistence foods] and we want it to stay like that.... We've lived our whole lives here and we don't disturb anything. We want to keep it [subsistence] the way it is and we don't want to get bothered. We don't want it for us, but for the younger generation. They're the ones that will be suffering."

—Comments by an Alutiiq elder in Perryville on the decision by the Alaska Supreme Court in the *McDowell* case, which declared the state law granting a rural subsistence preference to be unconstitutional, as quoted in "Fish and Wildlife Harvest and Use in Five Alaska Peninsula Communities, 1989," a soon to be published technical paper of the Division of Subsistence, Alaska Department of Fish and Game. The elder volunteered the remarks during an interview conducted to understand how subsistence harvests in his village had changed after the *Exxon Valdez* oil spill of March 24, 1989. He also said he resented that following the spill, "people came in and tried to tell us what to do."

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Bethel, AK 99559

Delta Junction District895-4215

P.O. Box 349
Delta Junction, AK 99737

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Sitka, AK 99835

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Soldotna, AK 99669

Anchorage State Office279-6575

2221 E. Northern Lights Blvd., Suite 118
Anchorage, AK 99508-4143

Anchorage State Office276-2433

Community Development Program
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