

Assessing Community Options

The fishing-based economy of Alaska's Pribilof Islands is on the brink of collapse.

The billion-dollar fishery, built in the 1980s with federal assistance, was intended to replace the declining fur seal harvest — the islands' economic mainstay for more than 200 years. But now climate change and the disruption of the Bering Sea ecosystem are impacting both the Pollock and halibut fisheries.

In 2004, the Pribilof Islands Collaborative, a group of fishing industry representatives, tribal entities and environmentalists, invited Ecotrust to perform a socioeconomic and ecological analysis. Ecotrust assembled and analyzed local, state, regional, national and international data and conducted an on-island survey to create a socioeconomic baseline. These studies are now moving forward as part of the \$50 million Bering Sea Integrated Ecosystem Research Program — a joint venture of the North Pacific Research Board and National Science Foundation — which seeks greater understanding of the productive Bering Sea ecosystem and of the fishing communities that it supports.

Learn more:
www.ecotrust.org/beringsea

SOCIOECONOMIC BASELINE INFORMATION FOR THE PRIBILOF ISLANDS

AUTHORS

SARAH A. KRUSE (SKRUSE@ECOTRUST.ORG), ASTRID J. SCHOLZ, HENRY HUNTINGTON,
ROBIN S. PETERSEN LEWIS, SARAH KLAIN, AND JOSH AHMANN

ecotrust 721 NW NINTH AVE, SUITE 200
PORTLAND, OREGON 97209
WWW.ECOTRUST.ORG

PROBLEM

Since 2004, the Pribilof Islands Collaborative (PIC) has been working to address a series of Bering Sea fishery and marine resource management issues in a proactive and collaborative setting. The PIC is an effort to develop a consensus-based approach among diverse stakeholders who work together to determine areas of common interest, identify information gaps, develop strategies protect biological resources, and preempt undesirable regulation. Efforts of the group are focused primarily on the Pribilof Islands and the surrounding sea.

Issues of common concern include declines in fur seal and seabird populations, diminishing halibut catches and the attendant effects on the economic and cultural health of the local communities. At an August 2004 meeting on St. Paul Island, the PIC identified several social and economic data gaps, for which further knowledge would help inform decision-making on eventual fishery management measures and enhance the local environmental and economic stewardship of marine resources. These knowledge gaps showcased the need for further socioeconomic research to establish:

1. the value of halibut and other fisheries in the Bering Sea;
 2. community and island-specific impacts of changes in fisheries;
 3. the history of and potential for local environmental and economic stewardship of marine resources; and
 4. the economic importance of subsistence harvests
- Using a variety of new and existing data sources, Ecotrust assembled and analyzed socioeconomic data to address these research needs and to provide a baseline for understanding the islands' economies.

METHODS

1. Compiled key information from existing data sources
 - Local: Tribal Governments of St. Paul and St. George, CBSFA
 - Regional: Southwest Alaska Municipal Conference, APICDA
 - State: ADF&G
 - National: NOAA, NMFS, U.S. Census
 - International: IPHC, Institute for Circumpolar Health Studies
2. Conducted an on-island survey
Ecotrust, in collaboration with tribal entities, a local knowledge specialist and the PIC, designed and executed a local knowledge study component to engage Pribilof Island residents in the project.
During late fall 2005 and early spring 2006, Ecotrust distributed a survey to all individuals over the age of 18 currently living on St. George and St. Paul. The survey had five subsections: subsistence, environment, fisheries, demographics and technical skills. Approximately 75 and 235 surveys were distributed to residents of St. George and St. Paul respectively. In total, 141 surveys were returned (i.e. 51 from St. George and 90 from St. Paul), resulting in response rates of approximately 70% on St. George and 40% on St. Paul.
3. Combined and analyzed new and existing data to create baseline

ACKNOWLEDGEMENTS:
THIS PROJECT WAS FUNDED THROUGH THE GENEROUS SUPPORT OF THE NORTH PACIFIC RESEARCH BOARD.
WE WOULD ALSO LIKE TO THANK THE RESIDENTS OF ST. GEORGE AND ST. PAUL, THE TRADITIONAL COUNCIL OF ST. GEORGE, THE TRIBAL GOVERNMENT OF ST. PAUL AND OUR ON-ISLAND PROJECT PARTNERS, MAX MALOVANSKY JR., AQUILINA LESTENKOF, PHILLIP ZAVADIL AND HARETINA PORATH. ADDITIONAL THANKS TO LARRY COTTER, PHILLIP LESTENKOF AND AQUILINA LESTENKOF INVESTING EXTRA TIME IN THIS PROJECT. FINALLY, WE THANK THE MEMBERS OF THE PRIBILOF ISLANDS COLLABORATIVE FOR THEIR INSPIRATION AND ASSISTANCE.

RESULTS

Results are loosely organized around four objectives, that is: fisheries, subsistence, the economy and the environment. Full results available at <http://project.nprb.org/view.jsp?id=5e9420b0-beab-43f4-8a28-f5f9db7c45bc>.

FISHERIES

Recent changes have reduced the role of fisheries

- A 2005 NOAA study established 11 criteria for Alaskan fishing communities. St. Paul met 3 and St. George did not meet any.
- Evidence suggests that both islands very much used to be fishing communities, but have undergone changes in recent years.
- This is evidenced by declines in 1) city operating revenues, 2) employment by CDQ groups and 3) individuals employed as fishermen.
- Examples:
 - In 1999, total revenues for the City of St. Paul were \$3.67 million. In 2005 they were only \$590,000. In 1999, total general fund revenues to the City of St. George were \$1.2 million. In 2004 they were only ~\$40,000.
 - In 1999, CBSFA employed 177 people. In 2004, they had 87 employees.
 - More survey respondents "used to be" fishermen (27%) than currently are fishermen (16%).
- Halibut fishery is still important
 - Evidenced by 1) contribution to personal income, 2) contribution to CDQ group revenues which are then used for local economic development and 3) use for subsistence purposes

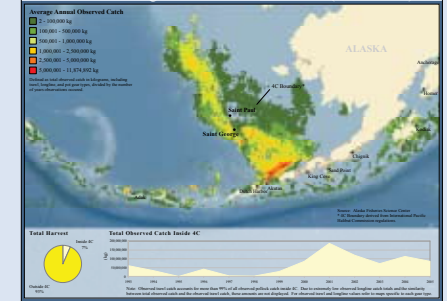


Figure 1: Pollock Average Annual Observed Catch (1993-2005)

SUBSISTENCE

- Subsistence harvests of marine mammals are declining (see Figure 2).
 - This is occurring at the same time as marine mammal populations are declining.
- Consumption of subsistence food is declining
 - A recent study from the Institute for Circumpolar Health Studies found that 43% of St. Paul study participants are consuming less subsistence food now than they were five years ago.
- Subsistence harvests are important for sustenance
 - 80% consume subsistence foods at least occasionally.
 - For 65%, subsistence foods account for 20% or more of overall consumption.
- They contribute to a sense of health and well-being
 - The majority of subsistence harvesters (81%) share their harvests at least occasionally.
 - The majority of individuals on St. George (70%) and St. Paul (84%) who do not participate in subsistence harvests receive subsistence food from others.
- There is considerable variability in participation, consumption and perceived importance between the two islands
 - Cost (St. George) and taste (St. Paul) are the primary reasons for consumption of subsistence foods. Other major reasons are health and culture/tradition.
 - Personal choice (St. George) and natural factors (St. Paul) are most likely to affect participation in subsistence harvests.

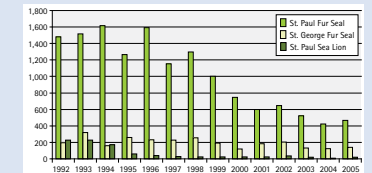


Figure 2: Marine Mammal Subsistence Harvests

THE ENVIRONMENT

- Perceptions of similar environmental signals differ between the two islands
 - 44% of St. Paul respondents feel the environmental quality is "very good" or "extremely good". Only 31% of St. George respondents feel similarly.
 - 81% of St. George respondents feel that, at least to some degree, the environmental quality of the islands is getting worse. Only 63% of St. Paul respondents feel similarly. (see Figure 3)

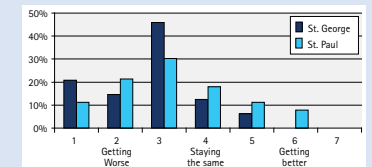


Figure 3: Perceptions of environmental quality over time (n=137)

THE ECONOMY

- Perceptions of the economy also differ
 - 31% of St. George respondents feel the economy is "not stable at all". Only 6% of St. Paul respondents feel similarly
 - 88% of St. George respondents feel that, at least to some degree, the economic stability of the islands is getting worse. Only 69% of St. Paul respondents feel similarly
- Less than half of St. George survey respondents (43%) had full-time employment, although another 20% worked part time. On St. Paul, 65% of respondents worked full-time, with an additional 7% working part time. While 31% of all respondents stated they were not currently employed, only 8% of those were actively looking for employment (see Figure 4).

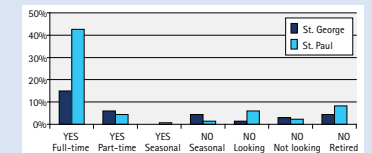


Figure 4: Employment (n=134)