

MARINE DEBRIS WORK IN ALASKA

Erika Ammann, NOAA Fisheries

Alaska has about 44,000 miles of mostly uninhabited coastline. Alaska's marine and freshwater ecosystems support the largest array of commercial fisheries in North America. Alaska's oceans also serve as major national and international cargo transportation routes and tourist destinations. These coastlines are all affected, directly or indirectly, by marine debris through its impacts to tourism, fishing, subsistence, human health, fish and wildlife populations, and ecosystems. It is a complex problem with land and sea, foreign and domestic, and accidental and intentional debris sources. Limited infrastructure and road access to the affected coastlines further complicate assessment and response. Coastal landfill erosion also transports debris into the marine environment.

Very little is known about the derelict fishing gear, trash, and debris in Alaska's marine waters. Most of the information originates from coastal residents, scientists, fishermen and recreational visitors who have observed the accumulation of derelict fishing gear, trash and debris on local and remote shorelines around the state. Effective outreach and education is difficult because debris sources are often unknown; however, the bulk in weight and volume of marine debris collected on shore is derelict fishing gear.

The complexity of Alaska's coast, communities, climate, marine debris deposition rates, and marine debris sources clearly suggest that no solution will be applicable to all regions. This is exemplified by the three longest running debris clean-up and removal programs. The programs originated in Homer, St. Paul Island, and Prince William Sound. All three originated using volunteer labor, but slowly diverged for a number of reasons.

The Center for Alaskan Coastal Studies coordinated the CoastWalk program in Homer. CoastWalk uses citizen-scientists to collect environmental data. The environmental observations resulted in the identification of debris, and its collection and removal by CoastWalk volunteers, some of whom have surveyed the same sections of Kachemak Bay every spring or fall for over 20 years. This 20 year program has created a time series of observed and collected debris.

On the Pribilof Islands (St. Paul and St. George) community members and scientists have observed northern fur seals entangled in small pieces of derelict fishing gear and other marine debris for over 50 years. In addition, derelict fishing gear and other marine debris circulates on and around the islands. St. Paul and St. George are the primary breeding and resting grounds for northern fur seals. Community members have, in the past, collected and burned or disposed of debris. Subsequent volunteer efforts were replaced by paid staff after the 1990's.

Concerned citizens began coordinating, an annual marine debris clean-up on remote islands and coasts in Prince William Sound after the 1989 Exxon Valdez Oil spill. The cleanups were coordinated by Prince William Sound Keeper. The coordinating group focused solely on marine debris reorganized as Gulf of Alaska Keeper in 2001. Tour and charter operators from the region donate vessel time to transport volunteers to and from

clean-up sites. Vessels are also needed to transport collected debris from these remote sites to landfills. The clean-up program has added paid laborers in recent years.