

Standard 3' X 3' panels were purchased from Wilderness Graphics of Tallahassee, Florida portraying the U.S. Fish and Wildlife Service responsibilities, the National Wildlife Refuge system, and the waterfowl flyways. Future plans include another display case, an area for revolving interpretive photo displays, and mounted waterfowl species.

With the funding of the Botanical Garden Challenge Cost Share Project, a large area in front of the new headquarters building was planted in native plants. The area has been divided into four major habitat types: bog, black spruce uplands, white spruce lowlands, and marsh. Each habitat area will have an interpretive sign describing local plants and animals that use that particular habitat. The first plants were added during the summer of 1993 in both the black spruce and white spruce areas. The bog and marsh liners were ordered and are ready to be added next summer. The garden will continue to be added to over the next few summers.

#### 7. Other Interpretive Programs

The Refuge is interested in documenting the historical uses of the Refuge including gold mining of the lands within and adjacent to the Refuge boundaries. Much of the library research and personal interview work completed to date, has been carried out by AT Collins, much on her own time and at her own expense. ROS Skinner applied for an Alaska Gold Rush Centennial Task Force Historical Resources Grant to help fund further research time for AT Collins to visit the libraries in Juneau and Fairbanks. Regional Office Archeologist Debra Corbett spent a week in McGrath during August, waiting for the weather to clear and a plane to be free so she and AT Collins could visit known sites on the Refuge. Many of these sites have been visited by AT Collins and her husband Ray Collins, Coordinator for the University of Alaska-Fairbanks/McGrath. When last seen by the Collins', many of these sites were in danger of being lost due to river erosion. Sites are to be documented and photographed as well as collections made in areas in danger of being lost due to river erosion. Materials collected will be displayed in the Refuge headquarters interpretive area. Plans are for another attempt during the summer of 1994.

As a recognized authority on local history, AT Collins is always in great demand for public programs. As well as several classroom programs at the McGrath school, she presented to the McGrath community an historical sketch on the McGrath area for the McGrath Library's 50 year celebration in May. During March, she was interviewed by McGrath's public radio station, KSKO, on the history of the Refuge and the Historic Iditarod Trail.

#### 8. Hunting

Essentially all public use on the Innoko Refuge occurs in September during moose hunting season. Upland game bird, small mammal, and migratory waterfowl hunting are incidental to moose hunting, as are camping, river floating, and wildlife

observation. Use of the area seems divided with sport hunters concentrating along the upper reaches of the Innoko River. Sport hunters access the area via air taxi operators out of Anchorage, Galena or McGrath, contracts with outfitters and guides, or in private aircraft. Subsistence use occurs mostly along the Yukon River, which forms the refuge's west boundary, and on the lower Innoko River. The confluence of the Innoko and Iditarod Rivers appears to be as far upriver as subsistence hunters usually travel. Subsistence use is primarily by residents of Holy Cross, Anvik, Grayling, and Shageluk, although Yukon Delta residents have been known to travel over 300 river miles to access the area.

Determining how many people hunt moose and obtaining accurate harvest data is difficult, and probably impossible, given current capabilities. Reports from state harvest ticket returns are at best a crude index, at least with regard to the subsistence take, because many hunters do not return their harvest tickets. Village traditional hunting methods include party hunting, and individual hunters exceeding bag and possession limits. The take is opportunistic and game taken is generally shared. Many traditional subsistence hunters fear that harvest ticket information will be used as a means for prosecution so compliance is low.

Under the newly developed guide allocation process implemented in 1993, the Innoko NWR was divided into four "sole-use" areas for commercial big-game guiding. AT Collins and WB Skinner were detailed to Anchorage to assist in the design and implementation of the region-wide program. Those guides issued a Special Use Permit (SUP) for Innoko NWR were:

Robert Magnuson, Innoko River Guides and Outfitters  
Reinhold Thiele, Year Round Hunting  
Jake Gaudet, Alaska Wilderness Outfitters  
Thomas McGuire, Trail Ridge Guide and Outfitters

Unfortunately, prior to the moose season, Thomas McGuire was killed in an aircraft accident. Since the permit was not transferrable, there was no guide hunting activity in one unit this fall.

Three SUP's were issued to air taxi operators:

Tom Ratledge, Yukon Helicopters Inc. Yukon Aviation  
Jeff McMillian, Willow Air  
Steve Williams, Ptarmigan Air.

Permittees are required to provide information pertaining to their operations such as descriptions of aircraft to be used, tail numbers, number of client use days, and species and number of animals harvested. Hunter use data furnished by permittees indicated that 83 clients harvested 41 moose and one black bear. No other harvest data are available.

## 9. Fishing

Waters within the boundaries of the Innoko Refuge support a trophy northern pike fishery which is probably unsurpassed anywhere in Alaska. In addition, good numbers of sheefish are available in some areas. Both species are taken by sport users as an incidental activity while hunting. Other fish populations, primarily used by subsistence harvesters, use Refuge waters for migration and spawning. These include chum salmon and whitefish, both of which are significant subsistence species to the village of Shageluk, which is located approximately 30 miles downstream from the Refuge boundary on the Innoko River.

The potential for overuse of the pike fishery is of real concern. Northern pike are slow growing and trophy size fish tend to be quite old and therefore easily over-harvested.

A guided sport fishing SUP was issued to Unalakeet River Lodge, Ron and Tiffany Hyde, Jr., managers. The Unalakeet River Lodge is a subsidiary of Unalakeet Native Corporation. Their operations on the Refuge basically centered around trophy catch and release northern pike fishing.

## 10. Trapping

The need to gather data pertaining to both furbearer populations and trapping activity has become critical with expanded federal responsibilities for subsistence management. Unfortunately, the capability to monitor subsistence trapping has never been sufficient given the small staff and limited dollars available, and no additional capability appears likely any time soon. We have no Refuge-specific data pertaining to trapping reportable for 1992-93.

One SUP was issued to Connie Demientieff for construction of a tent frame and floor, to be used for subsistence trapping.

## 17. Law Enforcement (LE)

Like many refuges in the system, LE efforts at the Innoko Refuge fluctuate throughout the year. Currently, two staff have LE credentials, RM Merritt and WB/P Finley. Additional assistance is provided by special agents during the hunting seasons. This year during the September moose season, Special Agent (SA) Kim Speckman, from Nome, assisted Refuge Officer (RO) Finley in field checking moose hunters. Region 7 is fortunate to have Special Agents like Kim who are always willing to provide assistance. Not only are they helpful in the field, but support is always just a phone call away.

The most demanding time of the year for law enforcement activities is the September moose season. The Refuge is well known for its trophy bull moose, and hunters from all over the world hunt the Refuge at this time. Very few local residents hunt moose on the Refuge due to the exorbitant expense of gaining access to the Refuge by floatplane. The general moose season on

the Refuge is from September 5 through the 25th. A five day subsistence season directly follows the general season from 9/26 through 9/30. Approximately 80 hunters were field checked by RO Finley or SA Speckman. Verbal warnings were given to approximately 10 hunters for minor infractions, e.g. not having harvest ticket validated correctly, while two citations were issued for 1) taking a bull moose with less than a 50-inch spread, and 2) same day airborne hunting. All patrols were conducted using aircraft or boat.

In addition to the regular state moose season, there is a federal subsistence hunt on the Refuge in November. Historically, this hunt has had minimal use. This was especially true this year due to unseasonably warm weather resulting in very poor ice conditions hampering access by aircraft or snowmachine.

The intensity of LE efforts drop off once the moose season has ended. However, there are three specific activities that need to be monitored during the remainder of the year: spring waterfowl hunting, aerial wolf hunting, and sport fishing.

Native Alaskans have a tradition of hunting waterfowl in the spring when they are available in the greatest numbers. Technically this is illegal, but it is their traditional hunting pattern. It is a very delicate subject that is currently being addressed by the USFWS and the Native people, primarily through education. This year trips were made to local villages including Grayling, Holy Cross, and Shageluk, whose people use the Refuge to subsistence hunt and fish. Topics discussed included the current effort to amend the Migratory Bird Treaty Act, and species of special concern.

In February and March, longer days and firmer snow pack conditions provide opportunities for land and shoot wolf hunting. The Refuge has substantial numbers of wolves, thereby providing an opportunity for violators. Routine aerial patrols were made with no illegal activity noted.

## I. EQUIPMENT AND FACILITIES

### 1. New Construction

Volunteer Joe Reid and BT Mallek constructed an addition to the cache at the Refuge field camp in September. This addition will increase our storage capacity by one third, making room for a work shop in previously used storage space. The addition was built with supplies brought in on our annual fuel barge delivery, existing materials, and lumber milled on site. The workshop will provide space for maintaining outboard motors, chainsaws, snowmobiles, etc., indoors.

### 3. Major Maintenance

Snow and cold caused major problems during last years winter. The snow blower developed engine trouble while being used on the seasons first major snow storm. It was not repairable and a replacement motor was ordered and installed.

In February, heavy snowfall and moderate temperatures caused several feet of snow to slide off the roof of Quarters #2 taking the chimney and depositing it under tons of snow. Quarters #2 was originally designed as a bunkhouse and the chimney was constructed next to an outside wall. This is different from most local residences where the chimney is constructed at or near the peak of the roof to avoid this problem. Temporary repairs were made until a more permanent solution could be completed during the summer.

Our other residence, Quarters #1, was plagued in February with furnace problems and frozen pipes, which occurred while the Merritts were away on vacation. Fortunately, the residence was occupied by a house sitter and the problem was corrected before any major damage could be done. By month's end, the old unreliable burner was replaced, alleviating any further trouble. Quarters #1 also had water problems associated with ground heaving and house shifting, causing the water main to become disconnected, creating some minor flooding problems.

Work, by the building owner, continued on the Refuge headquarters facility in McGrath. The building's exterior siding received two coats of log oil in May. Other improvements included office dividers, finishing the kitchen, and work on an upstairs bathroom.

When the snow melted in the spring, it was discovered that someone had hit the float plane dock with snow removal equipment, putting a rather large hole in one end. The dock was repaired locally at minimal cost.

Flood preparation began in March at the Refuge well before spring break-up. This entailed securing all floatable objects (shower house, tent frames, outhouse, etc.) and the raising of all equipment which could be damaged by water (refrigerator, outboards, generators, etc.) above anticipated flood levels. Flood preparation work was also completed in McGrath including moving all motors and equipment out of our temporary storage facility (weather port) to higher ground at the office garage. Although the flooding in McGrath was minor, the pre-flood preparation at the field headquarters paid off. Upon returning in the spring, WB/P Finley and RAPS student Snow found 2 1/2 feet of water inside the cabin! All light structures needed to be repositioned and boats, float docks, and fuel drums needed to be gathered, but after everything was cleaned up, nothing was lost or destroyed.