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### **Abstract**

On July 8, 1998, the U.S. Fish and Wildlife Service proposed listing the contiguous United States District Population Segment of the Canada lynx as a Threatened Species. Little information is available on Idaho lynx population dynamics, basic life history, habits, and habitat requirements. To quickly gain information on lynx in Idaho, a program was initiated in April 1997 to interview knowledgeable individuals. Over 75 people were interviewed throughout the state. Interview summaries and conclusions are presented in this report.

### **Introduction**

Canada lynx are something of a mystery in Idaho. Little is known about them and their habitat in the state. What is known covers not much more than the basics of the species: Canada lynx are medium-sized carnivores, reddish to gray-brown, with relatively long hind legs and a stooped posture. Males weigh up to 22 pounds, with females ranging to 19 pounds. The belly, legs and feet are grayish-white or buff-white. They have larger feet, a lighter color and fewer spots than bobcats. Their tails are completely tipped in black and they have long ear tufts. Canada lynx are noted for preying on snowshoe hares. Their traditional habitat in the continental United States extends from the Cascade Mountains of Washington, eastward to the Continental Divide, then roughly following the mountain chain south into Wyoming, northeastern Utah, and Colorado. Many populations in Alaska and Canada are considered stable; but the number of lynx in the continental United States is considered low. Questions about the most basic habits of the lynx in Idaho, such as their prey base, haven't been totally answered. The lack of lynx studies -- none have been done in Idaho -- only adds to the puzzling nature of the species.

Despite the paucity of information, in 1995 the Idaho Conservation Effort, a proactive species conservation program unique to the state, developed draft reports based on existing research describing the biology and status of lynx. Information for these reports was based on species research in other states and Canadian provinces, notably Yukon and Alberta. The landforms and vegetative plant communities in Idaho are different from boreal forest habitats in Canada and Alaska. It is likely, then, that behavioral responses of lynx to these factors are also different, so extrapolation of data is probably not a perfect fit.

An intensive interview process with individuals who are, or were, spending a great deal of time outdoors and were familiar with potential lynx habitat and local fauna in general was the basis for this document. Information obtained through the interviews provide clues about where lynx lived and how they survived in Idaho.

In 1998, using the observations of lynx obtained from the interviews, the conservation assessment was updated. Obtaining valuable information on historical and current distribution is a step forward in our knowledge. However, because it is a scientific report does not capture the insights provided by those who were interviewed. Because no studies have ever been conducted in Idaho, this report captures the insights of those who are most knowledgeable about Canada lynx in Idaho.

### **Methodology**

Interviews began in April 1997. The first interviews came from references provided by employees of the Idaho Department of Fish and Game (IDFG) and contacting individuals whom the agency documented as having harvested lynx. During the interviews, these individuals were asked to provide references for others who were knowledgeable about lynx in Idaho. This process continued until many of the same people who had formerly been interviewed were being referred by those currently being interviewed. Still, there is little doubt that not all people in Idaho familiar with lynx were contacted in the process.

Followup interviews were conducted with individuals who provided key information. In some cases, between six and ten interviews were conducted with the same person. To the extent allowed by time and evidence, documentation such as lynx full body mounts, tanned hides, or photographs was examined or obtained. In one case, a field trip was made with an individual to areas where he had trapped lynx. Another field trip was made to photograph areas and habitats where 13 lynx were harvested.

Although there was no set "list" of questions, interviews concentrated on locations, times, and habitats where lynx observations were made; potential prey in areas where lynx were observed; and perceived threats to lynx.

### Lynx Interviews

*"The past is always gone, retrieved only, ultimately, in the filaments of memory."*

-- Scott Turow, "The Laws of Our Fathers"

## CENTRAL IDAHO

**Daryl Alred, Grand Jean, Id.** - Daryl observed one set of lynx tracks about 1993 several miles from Grand Jean, and ran the track with his hound dogs. He gave up at dark and gathered his dogs. He saw several other sets of lynx tracks in northern Idaho in 1994 or 1995.

**Ray Baird, Carey, Id.** - Ray remembers when the major jackrabbit explosions occurred, in 1941, in 1957 and 1958, and 1966 and 1967. He also remembers large numbers of jackrabbits in the vicinity of Jerome in the late 1960s and early 1970s. He mentioned there were always snowshoe hares in Upper Fish Creek and that their numbers didn't fluctuate like jackrabbits. He stated that snowshoe hare numbers were in decline and had reached about the lowest level he had ever seen.

**Bud Batchelder, Carey, Id.** - Bud said there were a lot of jackrabbits around Carey in the late 1960s. His wife recalled hearing of a lynx that was killed along the highway near Bellevue in the early 1970s.

**Ken Daws, Hansen, Id.** - Ken's son shot a lynx in farming country five miles south of Hansen in 1972. It was opening day of pheasant season and his son saw the lynx walk out of a ditch and climb the only tree in the area. The lynx was an adult female weighing between 25-30 pounds. A newspaper story reported the incident. He said that a number of pets had disappeared about that time and he speculated that the lynx may have been responsible.

**Kirk Eberhard, Salmon, Id.** - Kirk recalled lynx observations, road kills and trapping incidents were fairly common during the late 1960s and early 1970s in the Hailey area while working as a conservation officer (CO) for the IDFG. He checked one lynx that was trapped near Malad in the mid-1960s. During the late 1970s, Cecil Samford trapped 3 lynx near St. Maries which Kirk also checked.

**Ken Higgs, Meridian, Id.** - Ken observed a lynx track on the west side of the Sawtooth Mountains in 1989 or 1990 near Methodist Camp. The lynx was traveling into some very steep, rocky country and had come out of the river floodplain bottom and rolling hills of Douglas fir and aspen. He knew of a lynx trapped about 20 years ago near Alturus Lake.

**Roger Jackson, Idaho City, Id.** - Roger trapped a lynx in Bear Valley near Sack Creek in 1971 or 1972.

The lynx was incidental to trapping bobcat and coyote.

**Tim Kemry, Richfield, Id.** - Tim observed lynx tracks in the Middle Fork Rapid River November of 1996. He described the habitat as scrawny Douglas-fir with cold draws of spruce coming into the creek. He observed a set of lynx tracks in 1985 about 18 miles from Cape Horn.

**Ray Lyon, Boise, Id.** - Ray checked a lynx that had been trapped in Stanley Basin in the winter of 1969-70 while working as a CO for IDFG. He saw a lynx on the road while traveling in Stanley Basin in the winter of 1976-77.

**Stu Murrell, Jerome, Id.** - Stu recalled a lynx shot near Jerome in 1972, near a big feedlot for cattle on the west side of the highway between Eden and Hazelton. Stu said there was a jackrabbit explosion in about 1972, in 1983, and again in 1993. He said the incident was reported in the Times-News.

**Carl Nellis, Jerome, Id.** - Carl confirmed a lynx was shot by Ken Daws, south of Hansen in 1972. Carl completed research on the interactions of lynx, coyote, and snowshoe hares in Alberta in the early 1960s. He observed that lynx cycles correspond to snowshoe hare cycles. When snowshoe hare populations are low, he noted that coyotes can find other sources of food. If the opportunity presents itself, Carl said that pack coyotes would prey on lynx kittens, although he had no data or evidence to prove it. He has found some lynx with porcupine quills in their forelegs.

**Craig Rember, Stanley, Id.** - Craig trapped and harvested 4 lynx in the Stanley Basin. Although he had not seen any lynx kills, he thinks that lynx prey mostly on snowshoe hare and occasionally on grouse and squirrels. He thinks that lynx occasionally travel long distances, even through sagebrush. When that occurs Craig believes they probably use other rabbits for prey. Craig rarely has seen bobcats in Stanley Basin attributing this to hard winters.

Craig spent a lot of time in the East Fork of the Salmon River and had never seen a lynx there, claiming that it was country mostly inhabited by mountain lions. He doesn't think fox would affect lynx, but that coyotes could have an impact. He thinks that the high country around Trail Creek pass and Mackay had lots of rabbits and could contain lynx. He also thinks the area around Ashton, Idaho, could hold lynx. Craig believes elk numbers are at an all-time high in the Stanley Basin and snowshoe hare numbers are at an all-time low.

Craig said there are not many trappers left. Most are after marten and beaver. Very few people would be out in the winter if it weren't for the snowmobiles. He said that snowmobiles are everywhere. Some of the elk wintering areas are closed to their use to keep them from harassing elk, but the closures are regularly violated. The snowmobiles are getting more popular every winter.

**Skip Schaeffer** - Skip observed two sets of lynx tracks in Beaver Creek between 1976-1978. These lynx crossed Beaver Creek one day and Smiley Creek the next day. He believed snowshoe hare populations were on the upswing as were the jackrabbits.

**J. R. Scholls, Jerome, Id.** - J. R. saw a lynx while duck hunting near Milner Dam along a canal in the early 1970s. J.R. said the last jackrabbit explosion that covered the entire Snake River Plain was in the late 1960s. The jackrabbit explosion in the 1980s was spotty, with many rabbits in some places and few in others.

**Ron Sherer, Eagle, Id.** - Ron observed two sets of lynx tracks near the main Middle Fork (Boise River) Road in November of 1996. In February 1997, he saw two sets of tracks in the same general area. It is possible these were the same animals.

He observed a set of lynx tracks in the South Fork of the Clearwater about ten years ago in Nacomas Meadows. While guiding out of the Shep Ranch on the Salmon River, he saw a set of lynx tracks in Sheep Creek.

**Harold Wadley, St. Maries, ID** Harold began hunting raccoons with dogs at an early age in Eastern Oklahoma. He spent the majority of his professional career working for the U.S. Forest Service as a forester and district ranger. He worked in the Uinta Mountains in Wyoming as a forester in 1957 and 1958 and in Stanley as the district ranger from 1959 to 1967. He was in very good physical condition and, on one occasion, snowshoed from Stanley to Seafoam. Pursuit of lynx usually involved plowing through thigh deep snow over long distances for extended periods of time.

When Harold first moved to Stanley, Idaho, he was told there were no Canada lynx in the area. He not only found lynx, but found them in significant enough numbers that allowed him to pursue them with hound dogs. A typical successful hunt was to turn his hounds loose on a fresh lynx track the afternoon of one day and tree the lynx about noon the next, running the lynx all night. In a few instances he ran lynx with his hounds for two full days and nights, catching the lynx on the second day. Harold estimated that about one-third of the time that he turned his dogs loose on a lynx track, they would be unable to catch the lynx, either because of a storm during the chase or the great distances that the lynx traveled.

He treed an average of 10-12 lynx per year over the ten year period while working in the Uintas and Stanley. Sometimes, an individual lynx was treed on a number of occasions. Harold caught a big, smoky-blue colored tom three times during a one-week period. He estimated that there were about 15 lynx on the breaks of the Sawtooths from Alturas Lake to Heyburn Lake. He knew that of the 15 lynx in this area, four were large toms. The majority of his hunting time was spent in this area, but he occasionally hunted elsewhere.

Based on his knowledge of observing lynx or lynx tracks while in Stanley, he assumed there were lynx all along the Sawtooth Mountains to Galena Pass. He observed lynx or lynx tracks on the breaks of Grand Jean and down into Cape Horn Meadows. He made no lynx observations on the Seafoam side down into the Middle Fork of the Salmon, attributing it to habitats incapable of supporting lynx populations. He made lynx observations in the White Cloud Mountains south of Clayton above Robinson Bar, the East Fork of the Salmon, and north of Clayton in Squaw Creek and Basin Creek. He rarely hunted in the White Cloud Mountains, because of the distance from his home in Stanley and the greater risk of avalanches, but assumed, based on lynx observations on the periphery of the mountain range, that a lynx population similar to what he found in the Sawtooth Mountains existed there.

Harold found two denning sites in Iron Creek basin, a primary or natal den site and a secondary den site. Several times he was within three feet of what he referred to as the primary or natal den. He saw kitten tracks at the den site about every other year. The natal den was located on the south side of a ridge that was described as having big boulders, gnarly Douglas-fir trees, bluebunch wheatgrass, and sagebrush. The actual den site was at the base of a big boulder and a Douglas-fir tree. The "primary" den site was described as more secluded and about a mile from the secondary den site.

Sometime before the kittens reached three months of age, they were moved by the female to a secondary

den site that was about a mile from the primary den site. He determined this after spotting three-month old lynx kittens sunning on a rock at the secondary den site. The two den sites were similar, but the Douglas-fir trees in the vicinity of the natal den had a gnarly growth form instead of the more typical straight growth form found at the secondary den site. He found evidence that the subadults produced on the Sawtooth Mountain side of the Stanley Basin would disperse into the Boulder Mountain side, usually onto the big ridge between Big Casino and Little Casino Creeks. He thinks that successful dispersal by these subadult lynx was probably the result of the lack of coyotes in the Stanley Basin and surrounding areas.

The kittens were usually born in May, when north slopes were still completely snow covered and south slopes were patchy with snow. He found that the kittens would stay with the female until the winter of the following year and then disperse.

Snowshoe hares were the dominant prey for Canada lynx during the time Harold lived in Stanley. He said snowshoe hare numbers were variable from year-to-year, with several years of very low density. He found that lynx would also prey on porcupines, pine squirrels, voles and an occasional grouse. Porcupines were numerous in the area at that time. Every lynx he harvested had porcupine quills in its forelegs. Of the lynx he harvested, the wounds from the quills were calloused and completely healed. Harold determined that the lynx were skilled at eating porcupines with a minimum of physical harm. No lynx he harvested or treed had evidence of quills in their mouth. Tracks and other sign in the snow near lynx-killed porcupines showed that the lynx would reach under the porcupine when on snow and flip it over. Porcupines were on their back with all four feet in the air. The hams or legs were untouched, but the quill-free stomach area of the porcupine was eaten to the extent it could without ingesting or touching the quills.

Harold harvested seven lynx. All of them were killed by his dogs when they stopped to fight. Most of these animals were two-year olds. Once trappers found out he was catching lynx, they started following his snowshoe tracks into the mountains on snowmobiles and trapping lynx. These trappers harvested about ten lynx in a short time. He stopped running lynx with his hound dogs so that the trappers would think there weren't any more lynx to discourage additional trapping for the remaining animals. He said the first couple of years he was in Stanley there were no snowmobiles and the majority of trappers did not snowshoe into areas frequented by lynx.

When pursued by dogs, lynx would readily swim. One lynx that was treed in Basin Creek swam the Salmon River near the confluence of Basin Creek, east of Stanley, while being pursued. Harold only saw one coyote, one wolf and three bobcats in the seven years he was in Stanley. He observed the wolf near Seafoam. Of the three bobcats he saw, his dogs killed two of them. It appeared to Harold that the coyote and one of the bobcats had followed sheep bands into the Stanley Basin. Mountain lions were a rarity in the Stanley Basin and Harold thought their increase would negatively impact lynx.

His impression was that lynx didn't like a lot of roads, vehicle traffic, or snowmobile traffic. He felt that snowmobiles would be a problem in lynx conservation attempts if: (1) complete protection from all types of direct or indirect trapping (including marten) was not provided; (2) snowmobile activity was not limited to day-use only; and (3) snowmobile trails didn't cause coyotes and bobcats to access areas normally only utilized by lynx.

The farthest he ever pursued a lynx was from Alturus Creek to Goat Creek, then across the highway and into Big Casino and Little Casino Creeks. It was the only lynx he pursued that crossed the highway in the Sawtooth Valley. It was surprising because where the lynx crossed is wide and devoid of trees and it occurred during the day. He said lynx that were run out of their normal home range were more likely to