

# East Kootenay Fisher Reintroduction Program

Anna J. Fontana

British Columbia Ministry of Environment, Lands and Parks  
205 Industrial Road G., Cranbrook, BC, V1C 6H3, Canada

Irene E. Teske

Box 442, Marysville, BC, V0B 1Z0, Canada  
iteske@cyberlink.bc.ca

**Key words:** East Kootenays, fisher, *Martes pennanti*, reintroduction.

## EXPANDED ABSTRACT

In 1994, the East Kootenay Fisher Reintroduction Program was initiated by the British Columbia Habitat Conservation Trust Fund to re-establish fisher (*Martes pennanti*) populations in southeastern British Columbia. The transplant area is south of Cranbrook and west of Kimberley. The overall objectives of the program are:

1. To reintroduce the fisher into vacant but suitable habitat.
2. To expand the existing range of the fisher in British Columbia.
3. To establish a connective corridor between isolated fisher populations in Montana and populations in British Columbia.
4. To provide legal trapping opportunities when the populations are dispersed and sustainable.

According to the habitat feasibility assessment conducted by Apps (1995), suitable fisher habitat exists in areas adjacent to the Rocky Mountain Trench in southeastern British Columbia. Historical trapping records for the Kootenay Region from 1931 onward were reviewed. The last fisher trapped was in 1982. No other documented evidence of this species was encountered until 1997, when a fisher was live-trapped in the Revelstoke area during a research project on wolverine.

Fishers were live-trapped near Williams Lake and transported to a holding facility in the East Kootenay. Average time in captivity, excluding pregnant females, was 43.6 days. Fishers were immobilized for data collection and radio-collaring. Upon release, the animals were monitored bimonthly until they disappeared out of the study area, lost their collar, or died.

Between 1996 and 1998, 61 adult fishers and 23 kits were released. In spring in 1997 and 1998, 23 kits were born while in captivity. The family units were released when the kits were approximately 3 months old. The annual mortality rate was approximately 20% for adult fishers and at least 50% for kits.

In 1998, 5 fishers reduced their movements and established home ranges after 2.1 months. In 1997, home ranges

were established by 2 females, 2.3 months after release. In 1996, home ranges were established by 2 females, 2.7 months after release.

In 1998, once transient movements were discontinued, home ranges were determined using the 90% Minimum Convex Polygon method (Kie et al. 1996). The growing season (May–October) home range of 1 adult male was 12,470 ha ( $n = 15$ ), while growing season home ranges of 2 adult females (without kits) were 3,399 ha ( $n = 19$ ), and 1,403 ha ( $n = 18$ ), respectively. These data correspond well with home-range data documented in Weir (1995). In 1998, movements from their release sites to the centre of their home ranges ranged from 8 to 47 km for the 3 fishers that established home ranges.

Habitat use data were collected between May and October for 3 years. The fishers primarily used conifer forests with >40% canopy closure ( $\bar{x} = 53\%$ ), and open forested and riparian habitats an average of 17% each. Utilization of open habitats, such as burns, clearcuts, and alpine, averaged a total of 8%.

Of all the different forested habitat types used, 47% utilization occurred in mature forests (>121 yr old), with use of in-growth (61–120 yr old), and immature forests (<60 yr old) averaging 29% and 22%, respectively. The fishers tended to use elevations between 760 and 1,980 m, with the average being 1,340 m.

Future plans include: monitoring the success of the transplant; pursuing habitat protection in key areas; refining the fisher habitat suitability assessment; and improving public awareness of the fisher and other mustelids.

## LITERATURE CITED

- Apps, C. 1995. East Kootenay fisher reintroduction habitat feasibility assessment. B.C. Minist. Environ., Lands and Parks, Cranbrook, BC. Unpubl. rep. 23pp.
- Kie, J. G., J. A. Baldwin, and C. J. Evans. 1996. Callhome: a program for estimating animal home ranges. Wildl. Soc. Bull. 24(2):342–344.
- Weir, R. D. 1995. Diet, spatial organization, and habitat relationships of fishers in south-central British Columbia. M.Sc. thesis, Simon Fraser Univ., Burnaby, BC. 139pp.

