

MARTES WORKING GROUP

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## Habitat Use by Fisher in the Aspen Parkland of Alberta

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In the spring of 1990, a fisher (*Martes pennanti*) re-introduction program was initiated in the aspen parkland region of central Alberta. This area is characterized by a large diversity of habitats, ranging from the typical boreal-mixed forest to mature deciduous forest, greatly interspersed with agricultural and natural clearings, woodlots, and wetlands. Twenty radio-collared animals (8 males and 12 females) were monitored from March 14, 1990 to September 15, 1992 and over 1000 locations were obtained. Habitat selection by fishers was identified by comparing habitat characteristics at fisher locations to those at random points within the study area. Locations were plotted on air-photo mosaics and classified as to their forest type, stand size, and overstory density. The slope, aspect, and proximity to water bodies and roadways was determined for each location using a geographical information system program. Detailed characteristics of the overstory and understory were also sampled within fisher home ranges and compared to areas adjacent to home ranges that were never known to be occupied by radio-collared fishers.

Results indicate that aspen parkland habitat can support fishers. They likely do not require the extensive coniferous cover found in northern regions to cope with the relatively mild temperatures and snowfalls of central Alberta. Fishers inhabited the deciduous-dominated stands prevalent in the study area and used the mosaic of woodlots to travel between forested blocks. During the spring breeding season fisher were more active, more tolerant of roads and human activity, and utilized smaller woodlots, presumably due to the search for mates and/or to take advantage of the increased prey populations. During the fall and winter movements were restricted to contiguous forest stands. The density of understory vegetation appears to be a critical factor for fisher habitat suitability in deciduous forests.

Since the conclusion of this study fisher sighting have been reported from several locations within the study area. No conclusive evidence of reproduction have been obtained but two observations of juveniles (one of unknown sex sighted by a local resident and one male inadvertently trapped in a beaver set) were reported in the fall of 1993.

Although the establishment of a viable fisher population in the aspen parklands of Alberta is far from certain it does look hopeful. With the cooperation of land owners and developers to retain large woodlots and travel corridors, and the elimination of indiscriminate trapping and poisoning, we may be successful in re-establishing fishers into this portion of their former range.