

Fisher (*Pekania pennanti*) Inventory within the Headwaters Forest Reserve, BLM

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The West Coast Distinct Population Segment of the fisher (*Pekania pennanti*) was recently considered for listing as threatened under the Endangered Species Act by the U.S. Fish and Wildlife Service. The fisher is a member of the mustelid family and a wide ranging, territorial forest carnivore. Its population has declined in western Washington, Oregon and northern California over the last century initially from extensive fur trapping and recently from loss of habitat primarily from the harvesting of mature forests.

The Headwaters Forest Reserve (Reserve) is part of the Bureau of Land Management's National Conservation Lands in Humboldt County, California. The Reserve's approximately 7,500 acres consists of 3,000 acres of mixed conifer old growth forest and 4,400 acres of previously harvested forest stands of varying ages.

The goal of this study was to determine how many individual fishers occupied the Reserve from September 2013 through May 2014 by DNA analysis of their hair. Fishers were attracted to baited sample sites where a hair sample was collected by adhering to a glue strip. Motion activated cameras were also located at each sample site to verify any animal present. A total of 23 sample sites were established primarily in the old growth portion of the Reserve. Sample sites were placed in selected areas for a mean of 65 days with six sites active at any given time. Sites remained at each location until at least 2 hair samples were collected or until sufficient time passed to feel confident that a site would not attract a fisher. Fishers were present at 16 sample sites and 44 hair samples were sent to a genetics laboratory to determine individual and gender. The hair analysis revealed the presence of five female and four male fishers over the approximately 5,000 acre (20.23 sq km) study area. A fisher home range varies in size across North America but in its western range a female has a home range averaging 18.8 sq km (4,645 acres) whereas the male's home range may be up to 3 times larger and overlaps the range of multiple females. This study reveals a high density of fishers utilizing the Reserve possibly indicating an abundance of desirable foraging, denning and resting habitat along with a high prey density that allows for a smaller home range. The results of this inventory also revealed a spatial separation or possible territoriality between the fishers.