Black Bear Density In Glacier National Park, Montana

Jeff Stetz,* University of Montana, USGS Glacier Field Station, Glacier National Park, West Glacier, Montana 59936, jeff.stetz@gmail.com

Kate Kendall, Northern Rocky Mountain Science Center, USGS Glacier Field Station, Glacier National Park, West Glacier, Montana 59936

Amy Macleod, University of Montana, USGS Glacier Field Station, Glacier National Park, West Glacier, Montana 59936

No demographic information exists on the status of Glacier National Park's (GNP) black bear (*Ursus americanus*) population. In 2004, we sampled the black bear population within GNP plus a 10 km buffer using noninvasive hair collection methods as part of a 7.8 million–acre study of the regional grizzly bear (*U. arctos*) population. We collected 5645 hair samples from 550 baited hair traps, and 3807 samples from multiple visits to 1,542 natural bear rubs. Microsatellite analysis identified 601 (51% F) individuals from the 2848 samples identified as black bears. Data from individual bears were used in closed population mark–recapture models to estimate black bear population abundance. We developed an information-theoretic approach to estimate the effectively sampled area from which we calculated density for the 6600 km2 greater GNP area. Preliminary results suggest that the density of GNP's black bear population was equal to or greater than other interior populations sympatric with grizzlies, despite the high density of grizzlies. This project represents the first estimate of black bear density for this area, and demonstrates the efficiency of multi–species projects to inform management.