The Black Bear in a Changing Environment

Dr. Lynn L. Rogers USDA Forest Service

The black bear (Ursus americanus), one of the most wide-ranging land mammals in North America, is one of the first mammals lost when forests become fragmented or occupied by too many people. Construction of retirement homes, vacation homes, and recreation facilities in bear habitat has increased dramatically in the last two decades and will probably continue to increase until about the year 2030. Black bear survival will depend increasingly upon human tolerance. To meet the challenge of humans coexisting with bears in a changing environment, several developments are needed: a better understanding of black bear behavior and habitat needs, better methods for protecting garbage and repelling bears, and a more realistic public image of the black bear to reduce needless killings by intolerant landowners. In addition, forested corridors between enclaves of bears must be developed or maintained as forests become more fragmented. In Minnesota, researchers and Earthwatch volunteers are using a "Diane Fossey" approach to bear research to obtain detailed information needed for modern bear management. Researchers and volunteers walk, rest, and sleep with researcher-habituated bears to obtain detailed information on bear activities and to identify forest components important to black bears. Specifically, observers record information that will reveal habitat use, activity patterns, diet, foraging strategy, food consumption, passage rate, digestibility, communication methods, and responses to insects, weather, predators, and potential prey. The bears are followed closely (0-5 meters) as they forage for natural foods, take naps, nurse their cubs, and sleep through the night. The habituated bears show behavior patterns (i.e., they mate, raise cubs, maintain territories, and show seasonal travel and activity patterns) similar to those of 103 other bears that previously were radio-tracked remotely in the same study area. Other aspects of this study involve researchers and volunteers developing new ways for recreationalists to deal with bears and reduce encounters.

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