Use of an Electro-Optic/Infrared Imaging System for Grizzly Bear Management in Northwest Montana

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Aerial monitoring of grizzly bears in the dense forests and shrub fields of northwest Montana can be difficult. It is important to get visuals on grizzly bears to count cubs, locate dens, and to find injured or dead bears. Even from the air, radio-collared grizzly bears can be difficult to observe. During 2013 and 2014, we had the opportunity to use the services of the Two Bear Air Bell 429 Helicopter and their L-3 WESCAM MX-10 Electro-Optic/Infrared (EO/IR) imaging system. Two Bear Air provides philanthropic aviation support for search and rescue teams in Flathead County and other agencies. We partnered with Two Bear Air to help provide targeted training for their camera operator and they provided us with the opportunity to locate and monitor grizzly bears. During flights we located and observed radio-collared and non-collared grizzly bears and their offspring, pinpointed den sites, and found grizzly bears that had been shot. The advantages of the EO/IR camera system allowed us to locate and monitor grizzly bears from a long distance, record locations, switch between daylight and infrared camera mode to locate bears under the forest canopy. We were able to locate a dead female grizzly bear almost 24 hours after she had been shot. In one case, we were able to look into a grizzly bear den with the infrared camera and see both the female one cub. In addition to grizzly bears, the EO/IR system could be used for monitoring and recording many other species of wildlife.