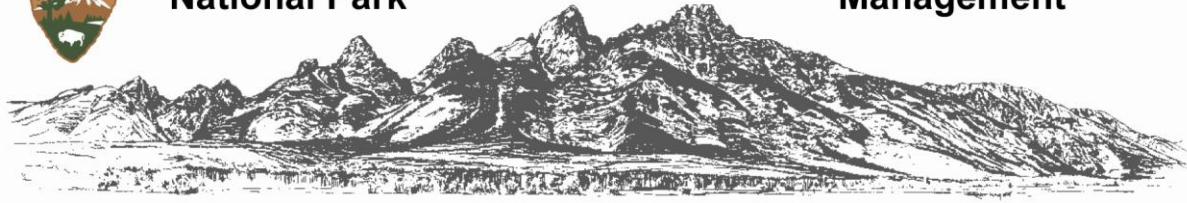




Grand Teton National Park

Science and Resource Management



2008 Wildlife Research: Black and Grizzly Bear Updates



G. Pollock photo

BACKGROUND

Two research projects on black and grizzly bears are on-going in the data analysis and manuscript preparation phase. The first was initiated in 2005 in collaboration with Dr. Chuck Schwartz, leader of the USGS Interagency Grizzly Bear Study Team in Bozeman, MT. Earlier park senior wildlife biologist Steve Cain and Dr. Schwartz secured funding through the NPS USGS-NRPP program to investigate grizzly bear (*Ursus arctos*)-black bear (*Ursus americanus*)-human interactions in Grand Teton National Park (GRTE) where grizzly bears recently recolonized former ranges in the north half of the park. Field work was conducted from 2005-2007.

A second concurrent study was initiated in 2006, also in collaboration with Dr. Schwartz, funded largely by private donations through the Grand Teton National Park Foundation. This study used the same field techniques but was focused on black bears in the southern half of the park where grizzly presence was rare. Data collection for this study was conducted in 2006 and 2007 by park biological technician Leslie Frattaroli. The concept was to be able to contrast and compare how black bears used the landscape and interacted with people in the high and low grizzly bear density areas.

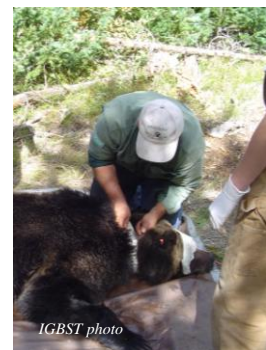
Both studies used new downloadable GPS radio collar technology to follow bears through the landscape on a near-real time basis. Telonics, Inc. spread spectrum collars deployed on bears were downloaded weekly by airplane. Field personnel then visited bear use sites while signs of their activities were still fresh, documenting bear activities and associated habitats.

PROJECT STATUS

Two manuscripts have been completed on the grizzly bear-black bear-human interactions study. One focuses on the use of the GPS-SST collars. This paper, titled “An Evaluation of Spread Spectrum Global Positioning System Telemetry on Grizzly and Black Bears” and authored by Chuck Schwartz, Shannon Podruzny, Steve Cain, and Steve Cherry was accepted for publication in the *Journal of Wildlife Management* in January 2008. It documents the successful use of this new technology in our study.

A second paper titled “Activity Patterns of Sympatric Black and Grizzly Bears in Grand Teton National Park” authored by Chuck Schwartz, Steve Cain, Shannon Podruzny, and Steve Cherry was completed and submitted for publication in December 2008. It is currently in review. Highlights from this paper include findings that both species of bears were largely diurnal, had daily bi-modal activity patterns, altered behavior in response to human activities (were more night active and less day active when near roads and developments), and that male grizzlies were more active at night than female grizzlies and black bears. Analyses of habitat use and response of bears to designated trails are on-going with additional papers expected.

Leslie Frattaroli will analyze and interpret data gathered in the southern study on black bears as part of her master’s degree program at Montana State University under the direction of Chuck Schwartz, Scott Creel, Andy Hansen, Steve Cherry, and Steve Cain. This project is ongoing, and Leslie expects to complete her degree program during 2009.



IGBST photo

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