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# Wildlife group studies birds, carnivores

**Beringia South recently examined the decline of red tail hawk populations, and increase in ravens.**

*Robert Stuart*

After years of studying red-tailed hawks and ravens in Jackson Hole, one thing is certain, says Derek Craighead of Beringia South – “We have more questions than answers.”

As most scientific researchers will readily admit, nature does not reveal her secrets easily.

Kelly-based Beringia South is a non-profit research center founded by Craighead in 1998, providing information to resource managers to better manage our natural resources and wildlife. It's named after the land bridge that has appeared intermittently between Alaska and Northeastern Siberia over the last 30 million years.

Scientists say humans crossed over



*Nestlings are just a few hours old.*

to North America about 30,000 years ago and spread south. Since their arrival, 75 percent of the 45 genera of large mammals have become extinct. They include mammoths, mastodons, saber tooth cats, and giant sloths.

Most scientists believe that human population growth and activities have been a factor in those extinctions. And of

*See Beringia South, p25*

course, that growth and activity, and the attendant environmental changes, are accelerating today.

Back in the 1940's, Craighead's father and uncle studied birds of prey around Black Tail Butte. They docu-

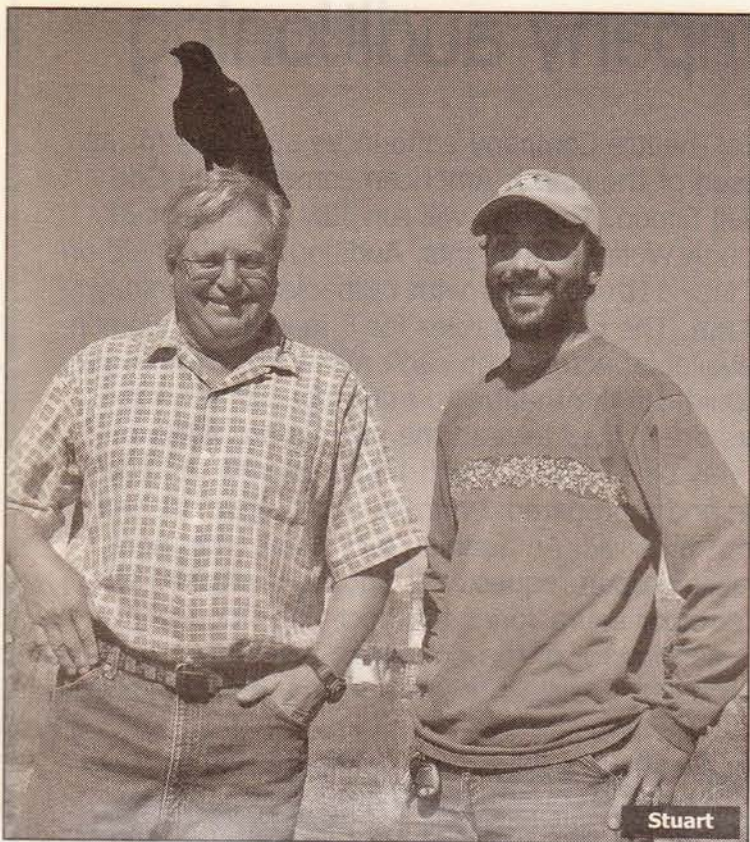
mented a relatively low number of ravens, and a higher number of red-tailed hawks. Today, those ratios have been reversed. Six years ago, Craighead set out to investigate why the productivity of red-tailed hawks had decreased.

"Their living environment here was a healthy one," said Craighead, "so we thought their winter migration habitat might provide some answers."

About 20 red-tailed hawks were trapped and equipped with satellite transmitters. Craighead thought they'd go as far south as Kansas or possibly Texas, but to his surprise they all flew to Mexico and one went as far as Nicaragua.

"We went down and located them," said Craighead, "and did an environmental analysis of their habitat."

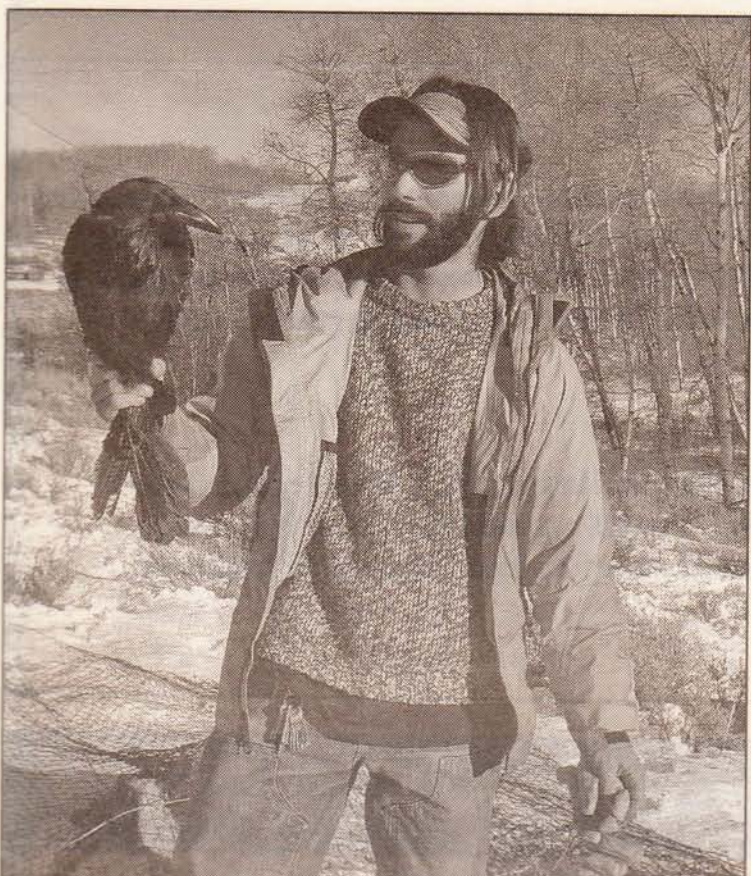
Although some were living in agricultural areas that were being sprayed with a variety of chemicals, many others were nesting in very healthy environments. Again, they had more questions than answers.



Beringia South founder Derek Craighead and his assistant Bryan Bedrosian are real 'bird brains.'

Craighead says, "A knowledge of what's been lost should spur us to greater efforts to protect what remains."

thought they'd go as far south as Kansas





*Bryan Bedrosian has sought to find out why the raven population has been increasing so much in the last 50 years.*

Beringia South's research focuses on birds of prey, and large carnivores like grizzly bears, wolves, and cougars, as they're at the top of the food chain and will often be the first to respond to environmental changes.

"They also serve as "umbrella species," said Craighead. "If you can manage an area for say, grizzly bears, then you're hopefully maintaining a healthy environment for the rest of the species in that area."

birds, and little understood.

"We learned that nearly 1/3 of red-tailed hawks died from various causes within two weeks of leaving the nest," Craighead said. "That's a high percentage, and we began to wonder if the cause of the decrease in productivity of red-tailed hawks was associated with the increase in ravens."

In 1992, graduate student Bryan

*See Beringia South, p27*

They decided to study the post-fledging mortality rate in red-tailed hawks. That's the short period of time after the hawk leaves the nest. It's a dangerous time for



Stuart

*The hood keeps the bird calm while it is banded by Craighead and Bedrosian.*

Bedrosian arrived at Beringia South to answer the question: Are ravens competing directly with red-tailed hawks?

He began with a post-fledging mortality rate study and found that only 10 percent of the ravens were dying – so they were doing well at that precarious stage.

Next, Bedrosian sought to discover why ravens

increased so much over the past 50 years. The answer seems to be an increased food supply.

“My analysis tends to indicate there is a relationship between fall elk hunting and the increase in the raven population,” Bedrosian said.

When elk are killed, most are field dressed, leaving piles of protein for the ravens to feed on. Many elk are shot, not recovered, and die. Elk also die on the refuge, providing food for the ravens.

The low post-fledging mortality rates in ravens might be explained by their access to this fall and winter food supply, while red-tailed hawks, since they migrate, miss out on this food bonanza.

Another food source for ravens is the increasing quantity of garbage that attends human population growth.

And so, while the ravens have it pretty good here, the questions remain – are they influencing the reduction of red-tailed hawks? Has human activity, resulting in an increase in raven population, adversely affected red-tailed hawks?

Once again, Bedrosian says, “There are more questions than answers.”

Craighead and Bedrosian intend to keep asking questions and seeking answers.

“We want to learn enough about wildlife species here to be a voice for them and their needs, in a world controlled by human need and greed,” said Craighead.



Courtesy

*Bird experts have to go into their field, which is often high up in Aspen trees, to find information about their subjects.*