## Chasing grizzlies: A career in wildlife protection

Oregon State University researcher Katherine McArthur will hike more than 750 miles this summer in Montana's Glacier National Park. But she won't be on any vacation.

In fact, the graduate student in fisheries and wildlife almost qualifies for hazardous-duty pay.

McArthur, like she did last summer, will be looking for grizzly bears.

Financed by a \$16,000, two-year National Park Service grant she is investigating how different environmental circumstances -- specifically, the current number of park visitors to Glacier -- affect bear behavior.

Results of her study will be used to help develop new bear--management techniques, not only at Glacier but at other parks, such as Alaska's Mount McKinley, which are inhabitied by grizzlies.

The number of Glacier visitors has nearly doubled in the past 13 years, from approximately 800,000 in 1968 to almost 1.5 million in 1960. The number of hikers in the park's back country has increased even more, from several thousand in the late 60s to about 25,000 last year.

Coupled with this rise in park visitors has been an increase in human injuries and deaths caused by the bears.

Last year was the grisliest on record. Although no injuries were reported, three hikers were killed by bears. That equals the total number of bear-caused fatalities recorded in Glacier's previous 71-year history.

"We've been observing changes in the behavior of the animals, such as bears following hikers, since about 1975," said McArthur, who was a park employee at Glacier for four years before entering graduate school at

"These can be pretty scary encounters," she added.
"People will be walking down a trail, minding their own

business, and suddenly a bear will start following them. We use to tell people that if you give a bear half a chance it will go away. That doesn't always work."

The researcher is focusing her investigation on a behaviorial process called habituation.

"This means the bears are learning to respond to an inconsequential stimulus," explained McArthur. "When an animal is exposed to a stimulus and it repeatedly sees that this stimulus -- for example, a human -- is of no consequence, then it learns not to respond to it. Habituation is losing any sort of response, whether it's curiosity or fear.

"We want to know how this type of behavior affects confrontation rates. Does it tend to mitigate injuries or increase injuries? It could possibly do either one or both," she added.

"You might have fewer injuries if bears are becoming more tolerate of people because the animals might be less likely to get upset when they encounter humans. Or you might have more injuries as bears and humans have more contact, because throughout history it's been up to bears to keep their distance from humans. With more contact, more injuries could occur because bears are such dangerous animals."

The researcher said habituation is related to the changes in the nature of bear-inflicted injuries that park officials have been observing since the early 70s.

Mother bears with cubs, which rarely become habituated, used to inflict approximately 75 percent of the reported injuries to hikers. But in the past several years adolescent and lone adult grizzlies, which frequently become habituated, now account for about 75 percent of the injuries.

"We don't know why mothers with cubs rarely become habituated," said McArthur. "This was first observed at salmon streams and garbage dumps. Bears would become habituated to other bears, but the mothers never learned to tolerate other grizzlies. The mothers would come into these areas and get the food they needed by aggressive behavior, not by tolerance like the adolescents and loners," she said.

McCathur emphasized that bears, habituated or not, are dangerous creatures.

"But persons planning visits to parks with grizzles can reduce the chance of injury with a few simple measures," she said. "Common sense precautions, like hanging food in a tree and not scattering garbage around the campsite, helps discourage bears."

She also stressed the importance of learning park rules, since each park has different regulations depending on the problems it is experiencing with its particular bears.

Persons who violate rules, especially those pertaining to food, may cause injury to other visitors," McArthur added. "People who do foolish things may not get hurt themselves, but their actions may lead to innocent people being injured."

McArthur, when she is looking for bears, said, "My first thought is my own safety, I put myself in a secure position.

"Most often when I see a bear, it's up on a hillside. So I have a seat on the trail right where I am, pull out my data sheets and start making observations."

Last summer, when the study began, McArthur hiked more than 750 miles to make 24 observations on 12 grizzly bears. That's an average of 60 miles per bear.

"It takes a lot of time and a lot of hiking to see one," she said. "You just can't go out and plan on observing a few bears. I had 10 trails in my study area -- in many Glacier Valley in the park's northeastern section -- and I covered one complete set of trails every 15 days."

## Make People Your Career

Gertrude Rae believes in people. As wife, mother and community volunteer, they're her major concern. As business professional, Gertrude's confidence in people has been frequently challenged — and often confirmed. She knows their ability to develop potentials and achieve new goals in her position as Personnel Manager for KPTV, she understands the risks involved when choosing a career. And the rewards

as well
Born in Canada and raised in Oregon,
Gertrude's own background reflects the
persistence of a woman unafraid of transitions. She learned skills and responsibility
blending work, marriage and study Dedicated years on the staff of the Portland
Urban League familiarized her with prob-



lems of education and employment facing a wide range of people. Exploring individualized solutions became her occupation.

Not all the solutions were only for others. A decision to change careers in mid-life brought Gertrude to Channel 12. Working within the media means people are her business more than ever. Whether

advising applicants, guiding house employees toward farther horizons, updating station policies or conferring with outside agencies. Gertrude is depended on to realize people's needs. She must draw from her past experience to meet the goals set before her a process that anyone with determination can learn to achieve. Regardless of their sex, race, age or nationality. In Gertrude's words, "The same effort you use to maintain your present condition can be redirected to new knowledge and accomplishment."

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KPTV (12)

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