science & environment

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keep the centre alive, and in their research of non-invasive techniques, the Canadian Centre for Wolf Research (CCWR)is determined to keep humans out of the lives of wolves.

The centre, located in Shubenacadie, lost its funding from Dalhousie last April. Since then, a group of dedicated volunteers have worked to ensure that the wolves living at the centre never have to be put in zoos or destroyed. 'We're fund raising as we

go along," says Jenny Ryon, the caretaker for the wolves. "We've been able to stay six months ahead of the devil."

funds through events such

Nominations Wanted.

For the faculty/department that has made an outstanding effort to make Dalhousie University more accessible to ALL students.

The Student Accessibility Fund (SAF) would like to recognize these faculty/departments with an award on March 20, 1997 at our Annual Faculty/Student Luncheon.

Please submit nominations to SAF

Observing wolves from a distance

BY KEN SMITH

The men and women at the Canadian Centre for Wolf Research are dedicated to not disturbing the animals. Both in their efforts to

The centre has raised

as an art auction dinner and t-shirt sales at the Island Beach Company

'Eventually we would like to set up a trust fund, and support the wolves on the interest," says Ryon.

In the meantime, the wolves

have remained oblivious to the changes going on at the centre. The CCWR has ensured that life goes on as usual for the wolves despite the funding cuts. Researchers continue to study the wolves in an observational, caretaker for the non-invasive manner. This wolves. ongoing work shows promise

of reducing the invasive research that is often done on wolves in the wild.

Eric Barr, a graduate student at Acadia University, and his advisors, Dr. Peter McLeod and Dr. Marlene Snyder, are trying to develop a new way to take DNA samples from the pack. They hope to recognize individual wolves from DNA found in their feces. This would mean that scientists could DNA-fingerprint wolves without having to disturb them.

'Non-invasive analyses of DNA has a lot of advantages," says McLeod. "It doesn't stress the wolves. And, more importantly, you could use it to identify wolves in the wild."

Currently, researchers often need to interfere with wolves in the wild in order to study them. For example, DNA has to come from blood samples. In addition, recognizing individuals in natural settings usually involves trapping the animals and tagging them.

The research being done at the CCWR, however, offers a way of fingerprinting

wolves without "We've been having to trap them. Scientists from able to stay six Yellowstone National Park months ahead are interested in this method of the devil." as a new way to estimate the size of their wolf popula-

- Jenny Ryon,

ure out how many males and females there are, and who is mating with whom.

tion. The infor-

mation from

the DNA sam-

ples could also

be used to fig-

"This hasn't been done with wolves before, but it has been done with other species," says McLeod. "It has been done successfully with other animals, so we're pretty confident it will work.'

A possible concern, according to McLeod, is distinguishing the wolf DNA from other DNA in the feces, such as the genetic material from prey or from bacteria. However, the researchers are using proteins called primers, which bind to very specific sequences of DNA. These proteins have been used by other scientists to fingerprint the DNA of dogs.

"The primers are specific. They make it unlikely to pick up DNA from other species. We know that we have successfully extracted the DNA. Now the trial and error is to make the results as clear as we can." says McLeod.

McLeod believes that the most exciting results of this research will be what other scientists decide to use it for once the technique becomes workable.

"Once people figure out that we can do it, there will be a lot of clever ideas," according to McLeod.

McLeod - along with Ryon, Dr. Will Moger, Dr. John Fentress and Simon Gadbois of Dalhousie University - has already shown in previous research how wolves can be studied non-invasively. Their work has illustrated that the amount of a common stress hormone, called cortisol, can be detected in the wolves' urine. Eventually, the scientists at the CCWR would like to be able to identify the levels of reproductive hormones in wolves using similar non-invasive techniques.

You can determine from yellow snow some behavioral aspects of the pack," said McLeod. "Eventually, (using this research method) we could figure out how reproduction gets suppressed in subordinate females. Whether they are so stressed that they do not come into estrus, or whether they are so stressed that they actually abort."

Thanks to the volunteers and researchers at the Canadian Centre for Wolves, scientists may yet learn how to keep our remaining wolf populations intact without having to disturb them in the process

Visit the CCWR web site at http://jis.nstn.ca/wolves/ the_pack.html



at the SUB Enquiry Desk by February 17, 1997. Be sure to include your name, e-mail address/phone number and reasons for nominating your chosen faculty/department.



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