

Habitat Conservation Fund
Wildlife Division
Nova Scotia Department of Natural Resources
136 Exhibition Street
Kentville, N.S.
B4N 4E5

February 16, 2006

RE: 2005 Final Report for River Otters and Mercury

To Whom it May Concern:

This year has been a great success for the otter project. With the help of a local trapper (Paul Tufts), we have successfully live captured five more otter from inland habitats in southwestern Nova Scotia, bringing our total to eleven. These otter have been implanted with radio telemetry devices and are currently being tracked by helicopter on a weekly basis. The home range data we have collected thus far on the implanted otter will help to pinpoint mercury sources in contaminated waterways. Fur and blood samples taken from the captured otter have been sent away for mercury analysis. All Hg results have been returned and are currently being analyzed. Mercury levels of up to 92 parts per million (ppm) have been found in the fur of inland river otter, the criterion for toxicity is 20ppm. Mercury is significantly higher in inland otter when compared to those from the coast.

River otter carcasses were collected from across Nova Scotia; reproductive tracts were removed from female otter carcasses and analyzed for reproductive condition. Canine teeth were removed from the same carcasses in order to age the otter. Potential relationships among reproductive condition, age and mercury are being explored.

Fur samples were collected from otter carcasses across the province and analyzed for mercury. I am studying areas with high mercury concentrations to see if they have similar features, both natural and manmade that may help to pinpoint mercury sources.

I have had the opportunity to attend various workshops and meetings in order to network and discuss as well as receive feedback on the various aspects of this study. The groups I have met with include the Trappers Association of Nova Scotia, The Fur Institute of Canada, the Nova Scotia Federation of Anglers and Hunters and the Collaborative Mercury Research Network. These discussions allow valuable information to be exchanged between local communities and scientists.

This year, during the spring trapping season I was able to hire a youth intern, Angela McMeekim. Angela is currently completing the second year of the Fish and Wildlife Technician Program at Sir Sandford Fleming College. She proved invaluable in the field and was a hard worker. I was glad for the opportunity to hire her. In return she was able to gain wildlife experience that will be important for future employment in the wildlife field.

With the continuing support of sponsors such as yourself, I would like to live trap three or four more otter this spring in backcountry inland habitats of south western Nova Scotia in order to further study the elevated mercury concentrations in inland habitats.

Thank you for continued support of this study.

Sincerely,

Sarah Spencer
MSc. candidate
Acadia University