

Occupational Health Program for Personnel Exposed to Vertebrate Animals East Tennessee State University

Field Studies or Working with Wild Vertebrate Animals

All wild animals are potentially dangerous to researchers either from traumatic injury due to direct contact or from infectious diseases that are carried by the animals or their parasites. Therefore, researchers as well as their staff and students dealing with wild-caught animals in the field or in the laboratory should work under the assumption that the animals they are handling pose some risk to their health and safety.

Field studies, especially when handling animals, may expose personnel to a variety of infectious agents. *Salmonella* spp. are frequently harbored by turtles and other reptiles and amphibians. Birds may transmit diseases such as ornithosis, avian tuberculosis, and campylobacteriosis. Mammals may serve as reservoirs for numerous rickettsial and bacterial agents causing diseases such as murine typhus, salmonellosis, histoplasmosis, toxoplasmosis, leptospirosis and pasteurellosis. A number of infectious diseases may be acquired without direct contact with the animals. Arthropod-borne diseases such as Lyme disease, relapsing fever, Ehrlichiosis, Rocky Mountain spotted fever, bubonic plague and encephalitis (caused by various arboviruses) are examples of these agents. Tularemia can be transmitted to humans by arthropoda or by handling or eating infected animals. Internal parasites may be transmitted from wild animals to humans, e.g. the ascarid causing raccoon round worm disease. The list of pathogens that humans can acquire directly or indirectly from wild animals continues to grow, principally because new technologies have become available to detect them.

The risk of injury and infection can be substantially reduced by common sense and good personal hygiene. Field workers should wash their hands frequently and definitely before eating, drinking and smoking. Appropriate training and wearing personal protective equipment (protective clothing, appropriate gloves) will minimize the chances of being bitten or scratched. Direct skin contact with blood and other body fluids or feces should be avoided as they may contain parasites or pathogens that affect humans. Protection against blood-sucking mosquitos and animal parasites (fleas, ticks, mites) is important as these can transmit a variety of infectious agents. Field clothes and tools that come in contact with animals or their blood or body fluids should be washed as soon as possible. Precautions should be taken to prevent contamination of food and living areas with droppings and urine .

All ETSU employees and students participating in field studies or handling wild animals must enroll in the Occupational Health Program and maintain up-to-date tetanus immunizations. Rabies can be a threat when working with carnivores or bats - personnel working with these animals or entering caves where bats might live, are advised to participate in the pre-exposure rabies vaccination program at ETSU (contact the DLAR, ext. 9-6292, for more information).

Individuals who are injured during or become ill after participating in a field study or after handling wild animals in the laboratory should seek medical help. It is important to inform the physician of the possible exposure to agents carried by the animals or their parasites, and the geographic region in which the field work was performed. This information may be critical to receiving prompt and appropriate testing and treatment. Registered ETSU students should report all field work, classroom or laboratory related injuries and illnesses to the instructor and seek medical treatment at the Student Health Clinic in Lamb Hall, tel. 439-4225. ETSU Employees should report all work related injuries and illnesses to the immediate supervisor and to the Office of Human Resources using the OSHA Form 301 (<http://www.etsu.edu/humanres/forms/OSHA301.pdf>). If medical treatment is needed, ETSU employees should select a health care provider who is authorized to treat injuries for the State of Tennessee from the directory at <http://www.etsu.edu/humanres/forms/workersdirector.pdf>. Accidents to visitors and volunteers should be reported immediately to the Office of the Comptroller. All patients needing emergency medical care should proceed immediately to an emergency rooms in one of the area hospitals or clinics.

More information on infectious diseases and the ETSU Occupational Health Program for Personnel Exposed to Vertebrate Animals can be found on the web site of the University Committee on Animal Care: <http://www.etsu.edu/animals/dlar/OHSP/OHSP.index.htm>