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April 1995

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Brett G. Dunlap

U.S. Department of Agriculture, Animal Plant Health Inspection Service, Texas Animal Damage Control

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Dunlap, Brett G., "INCIDENCE OF *GIARDIA* IN BEAVER AND NUTRIA IN SOUTHEAST TEXAS" (1995). *Great Plains Wildlife Damage Control Workshop Proceedings*. 429.

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INCIDENCE OF *GIARDIA* IN BEAVER AND NUTRIA IN SOUTHEAST TEXAS

BRETT G. DUNLAP, U.S. Department of Agriculture, Animal Plant Health Inspection Service, Texas Animal Damage Control, Bryan, TX. 77806

Abstract: Beaver (*Castor canadensis*) have long been associated as carriers of *Giardia*, a flagellated protozoan parasite that inhabits the gastrointestinal tract of its host species. However, very few studies have been conducted on *Giardia* occurrence in beaver populations of southeastern United States. Nutria (*Myocastor coypus*) are similar to beavers but have not been researched with regard to *Giardia* infection and transmission. From October 1992 through September 1993, 100 beaver and 30 nutria were collected from areas throughout southeast Texas as part of wildlife damage management activities. Fecal samples from each individual were examined for the occurrence of *Giardia* using the Merifluor® immunoassay detection kit. Duodenal mucoid samples were examined for *Giardia* trophozoites using a trichrome staining method. Results were compared by species, sex, age, habitat, and season. The immunoassay technique indicated that 30.0% of beaver and 66.7% of nutria tested positive for *Giardia*. Results for the trichrome staining method were similar, with 26.0% of beaver and 66.7% of nutria testing positive. A combination of both methods indicates that 33.0% of beaver and 73.3% of nutria tested positive. No relationship was found between presence of *Giardia* in nutria by age, habitat, river system, or season. An apparent relationship between infection of nutria and sex was discovered. Only 46.4% of female nutria were infected versus 87.5% of male nutria. No relationship was found between presence of *Giardia* in beaver by age, sex, habitat, river system, or season.

Page 73 in R.E. Masters and J.G. Huggins, eds. Twelfth Great Plains Wildl. Damage Control Workshop Proc., Published by Noble Foundation, Ardmore, Okla.

Key words: beaver, *Castor canadensis*, *Giardia*, *Myocastor coypus*, nutria, Texas.
