New Locality Records of Coccidian Parasites (Apicomplexa: Eimeridae) of the Hispid Cotton Rat *(Sigmodon hispidus)* From Oklahoma.

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Few published reports exist concerning the distribution of *Eimeria* species infecting the hispid cotton rat, *Sigmodon hispidus* (*1,2*). In the present note we report the first records of *Eimeria* species infecting cotton rats in Oklahoma. The *Eimeria* were obtained from cotton rats collected April 24th, 1996 in a Johnsongrass *(Sorghum halapense)*-dominated field on the western edge of the city of Stillwater, Payne County, Oklahoma (N 36°7'7.0" W 97°7'20.5").

MATERIALS and METHODS

A total of 30 cotton rats were trapped with Sherman live traps and returned to the laboratory where they were maintained in polystyrene cages with wood-shaving bedding. Animals were provided water *ad libitum* during their confinement, and after being confined for approximately 24 hours, were released back at the trapping area. Fecal pellets produced during confinement were removed and processed as per Wilber et al. (*3*). The samples were maintained in $K_2Cr_2O_7$ solution for two weeks due to the long (11 -12 days) sporulation time of *Eimeria tuskegeen*sis (*1*). Two replicate coverslips were prepared for each sample and each coverslip was examined for oocysts using an Olympus light microscope at 100× magnification. Individual cysts were measured under oil immersion with a calibrated ocular micrometer at a magnification of 1000 ×.

RESULTS and DISCUSSION

A total of 4 species of coccidia were obtained, all from the genus *Eimeria* (Table 1). All 4 species have been previously described by Barnard et al. (*1*) in Alabama and by McAllister et al. (*2*) in Texas. Twenty-one of the 30 animals captured (70%) were hosts for at least one species of *Eimeria.* Of these, 15 hosts were infected with one *Eimeria* species and six were infected with two. None of the animals sampled were found to be infected with *Isospora masoni,* which has been reported previously in cotton rats from Alabama (*4*). Furthermore, none of the cotton rats were found to harbor the *Eimeria* sp., *Isospora* sp., or *Adelina* sp., which have also previously been reported in cotton rats in Alabama (*1*). However, these are not believed to be true parasites of cotton rats (*1*), so their absence in cotton rats in Oklahoma was most likely due to the lack of true hosts of these *Eimeria* species in the area. This report represents a significant northern range extension for the four species of *Eimeria* which we detected in our survey.

TABLE 1. Overall prevalence of four species of *Eimeria* from hispid cotton rats collected April, 1996, in Payne County, Oklahoma.

Species	No. inf.[a]	No. exam.[b]	% prev.[c]
Eimeria sigmodontis	15	30	50.0
Eimeria webbae	2	30	6.7
Eimeria tuskegeensis	3	30	10.0
Eimeria roperi	4	30	13.3

a Number infected.
b Number examined.
c Percent prevalence.

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