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***Eimeria pseudemydis* LAINSON, 1968, FROM THE  
RED-EARED TURTLE, *Pseudemys scripta elegans*,  
IN ARKANSAS**

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*Eimeria pseudemydis* Lainson, 1968, was found in the feces of a red-eared turtle *Pseudemys scripta elegans* from Lonoke County, Arkansas. One of eight turtles was infected with this parasite. *E. pseudemydis* was described originally from oocysts found in the feces of *Pseudemys ornata* from British Honduras. Lainson<sup>1</sup> reported one of two *P. ornata* was infected with this eimerian, but failed to describe the sporulation time. Oocysts collected in this study sporulated in 24-48 hours at room temperature (20-22°C) in 2.5% potassium dichromate.

The description of *E. pseudemydis* based on the present study is as follows:

Oocysts spherical with a wall of two layers 1.4  $\mu\text{m}$  thick. The inner layer was smooth, clear and averaged 0.7  $\mu\text{m}$  in thickness while the outer layer was more opaque. Fifty sporulated oocysts measured 16-20 by 13-19  $\mu\text{m}$  (mean 16.7 by 17.7) with a length-width ratio of 1.0-1.2 (mean 1.05). Micropyle absent. Polar body and oocyst residuum present. Oocyst residual body composed of many granules of various sizes, usually bound by a thin membrane; residuum scattered occasionally. Sporocysts pyriform with a pointed Stieda body at the narrow end. Fifty sporocysts were 9-13 by 4-7  $\mu\text{m}$  (mean 10.4 by 5.4). Length-width ratio 1.4-2.6 (mean 1.9). Sporocyst residuum present as numerous granules in the central region of sporocyst, usually surrounded by membrane. Sporozoites vermiform, generally not intertwined or overlapping. Spherical refractile body approximately 3  $\mu\text{m}$  in diameter present in the broad end of the sporozoite with a smaller refractile body present occasion-

ally in the narrow end. The sporozoite nucleus was spherical and about 1.5  $\mu\text{m}$  in diameter.

*E. pseudemydis* reported in this study differed from the original description in the presence of a polar granule, a two-layered oocyst wall, and the spherical refractile bodies at one or both ends of the sporozoite. Slight differences in size were also noted. These differences are considered insufficient for separation of the two parasites into distinct species.

In addition to *E. pseudemydis* from *P. ornata*, one other eimerian species is reported from the genus *Pseudemys*. Sampson and Ernst<sup>2</sup> described *E. scriptae*



FIGURE 1. Sporulated oocyst of *Eimeria pseudemydis*.

from *P. scripta elegans* in the United States. *E. scriptae* differs from *E. pseudemydis* in the presence of a micropyle and the absence of an oocyst residuum.

The present study extends the geographic range of *E. pseudemydis* to the United States and reports *P. scriptae elegans* as a natural host for this coccidian.

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