

NATURAL HISTORY NOTES

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CAUDATA

AMBYSTOMA TIGRINUM (Tiger Salamander) **COCCIDIA**. Although endoparasites from midwestern *Ambystoma* salamanders have been studied (Muzzall and Schinderle 1992. J. Helminth. Soc. Washington 59:201–205; Bolek 1997. J. Helminth. Soc. Wash. 64:292–295; Bolek and Coggins 1998. J. Helminth. Soc. Wash. 65:98–102; Bolek 1998. MS Thesis, Univ. Wisc. Milwaukee. 134 pp.; Yoder 1998. Ph.D. Thesis Univ. Wisconsin, Milwaukee. 138 pp.), no reports exist on their coccidians from this area. Here I report on *Eimeria* spp. from a tiger salamander in Indiana. During the evening of 11 February 1999 a male *Ambystoma tigrinum* (wet weight 30.41 g, SVL 94 mm) was collected in West Lafayette, Tipicanoo County, Indiana, USA while heading for a breeding pond. The salamander was returned to the laboratory and maintained in a 75.7-liter aquarium with moist paper towels and allowed to defecate. Fecal material was collected on 12 February and left in a thin layer of tap water at room temperature for three days for oocysts to sporulate. Oocysts were concentrated using coverslip flotation with Shether's sugar solution (sp. gr. 1.30), centrifuged at 1300 RPM for 5 minutes, and measured using an ocular micrometer. All measurements are reported in micrometers and given as a mean followed by a range in parentheses. Two species of coccidians, *Eimeria urodela* and *E. ambysomae*, were found to infect *A. tigrinum*. *Eimeria urodela* oocysts (N = 9) were spheroid in shape and had a smooth colorless wall 1 mm thick and possessed no micropyle. Average size of oocysts was 21.56 x 21.25 mm (20.03–23.06 x 19.84–23.31) with 4 lanceolate shaped sporocysts 14.88 x 5.8 mm (13.12–15.90 x 4.7–6.8) and a granular sporocyst residuum. *Eimeria ambysomae* oocysts (N = 5) were ellipsoid in shape 27.94 x 16.51 mm (27.02–29.76 x 14.88–17.36) and had a smooth colorless wall 1 mm thick and possessed no micropyle. Sporocysts were lanceolate in shape 15.37 x 5.1 mm (14.91–16.33 x 5.1–7). Both species were previously reported from *A. tigrinum* from northeast Colorado and northern New Mexico (Duszynski et al. 1972. J. Protozool. 19:252–256). Additionally, *E. ambysomae* has been reported from *A. tigrinum* from Iowa by Saxe (1955. Proc. Iowa Acad. Sci. 62:663–673) and *A. texanum* from Arkansas and Texas by Upton et al. (1993. Can. J. Zool. 71: 2410–2418). No reports of these species exist from Indiana (see Upton et al., *op. cit.*). Therefore, this observation extends the range of both species. Coccidia in caudate amphibians are relatively rare. However, as stated by Upton et al. (*op. cit.*), many species remain to be surveyed and resurveyed from different locations. Fourteen blue-spotted salamanders, *A. laterale*, collected in Waukesha County, Wisconsin, a two-lined salamander, *Eurycea bislineata*, and four red-backed salamanders, *Plethodon cinereus*, collected in Tipicanoo County, Indiana during April–May 1999 were negative for coccidians.

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