

Eimeria vilasi Dorney, 1962.

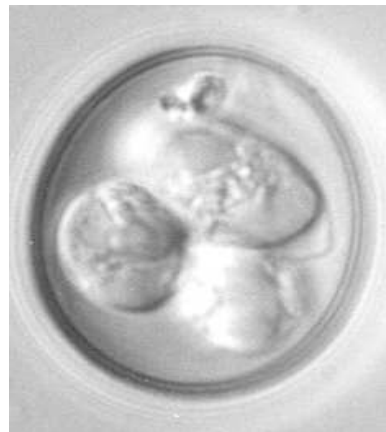
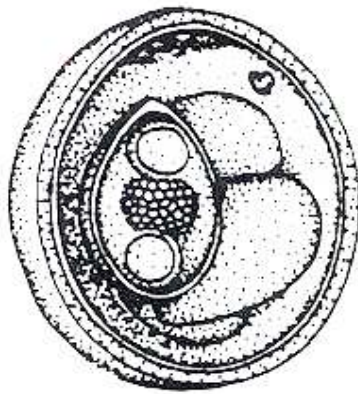
Synonyms: *E. dorsalis*; *E. morainensis*; *E. perforoides*.

Type host: *Eimeria adaensis*.

Other hosts: *Cynomys leucurus*; *C. ludovicianus*; *Marmota monax*; *Spermophilus mexicanus*; *S. townsendii*; *Tamias canipes*; *T. dorsalis*; *T. merriami*; *T. obscurus*; *T. striatus*; *T. townsendii*.

Type locality: North America: USA, Wisconsin, Vilas County, Trout Lake.

Other localities: Central America: Mexico, Baja California; North America: USA, Arizona, California, Idaho, Illinois, Massachusetts, New Mexico, New York, Pennsylvania, Texas, Washington.



Description of oocyst: Oocyst shape: subspheroid to ellipsoid; wall thickness: 0.7-1.3; layers: 2; outer layer proportion of total thickness: $\sim 3/4$; outer layer colour: yellow-green; outer layer texture: smooth; inner wall characteristics: smooth, dark tan; micropyle: absent; OR: absent; PG: sometimes present; number of PGs: 0-6; PG shape: bilobed (in drawing); PG L x W: ~ 1.5 ; size: 17.6 x 14.3 (12-23 x 7-19); L/W ratio: 1.2. Distinctive features of oocyst: inner wall thins at one end; PGs distributed irregularly throughout oocyst; shadow at tapered end (Wilber et al., 1994; Hill & Duszynski, 1984).

Description of sporocysts and sporozoites: Sporocyst shape: ellipsoid; size: 10.1 x 5.6; SB: present; SB L x W: not given; SB characteristics: small, can be inconspicuous; SSB: absent; PSB: absent; SR: present; SR characteristics: well-defined, tight sphere or elongated mass of granules; SR size: not given; SP: posterior end slightly curled, clear RB in posterior end. Distinctive features of sporocyst: none.

Material deposited: USNPC No. 82931 (phototype).

Remarks: *Eimeria vilasi* was described from *T. striatus* by Dorney (1962). In 1965, Dorney found what he called *E. perforoides* in *M. monax*, but we believe the form he saw was *E. vilasi* because he did not observe an oocyst residuum, and the measurements and qualitative features are similar to those of *E. vilasi* (12-23 x 7-19 vs. 20-25 x 16-20). Fleming et al. (1979) and McQuistion & Wright (1984 later reported *E. perforoides* from *M. monax*, but they used Dorney (1965) to aid their identifications; thus, they probably saw *E. vilasi*. Hill & Duszynski (1986) described *E. dorsalis* (17-24 x 14-20) in several *Tamias* spp., but their photomicrographs and mensural data suggest it is best to synonymize that name with *E. vilasi*. Likewise, Wilber et al. (1994) described *E. adaensis* (18-26 x 16-22) from *S. townsendii*. However, *E. adaensis* and *E. vilasi* are so similar that the former should become a junior synonym. Wilber et al. (1994) suggested that the eimerian species described as *E. morainensis* by McAllister et al. (1991) was *E. adaensis* (= *E. vilasi*) because key features of *E. morainensis* were absent from the oocysts of McAllister et al. (1991). In summary, we suggest that *E. adaensis*, *E. dorsalis*, and *E. perforoides* (*sensu* Dorney, 1965) are the same as *E. vilasi* and should be considered junior synonyms because there is significant similarity in: 1) size of their oocysts and sporocysts; 2) wall characteristics (dark inner layer, thinning and shadow at tapered end; this was not reported in *E. vilasi*, but there was no photomicrograph and the drawing is of marginal quality); and 3) the sporocyst residuum (compact mass of granules).

References: Dorney (1962, 1963, 1965, 1966); Duncan (1968); Fleming et al. (1979); Hill & Duszynski (1986); McAllister et al. (1991); McQuistion & Wright (1984); Seville (1997); Wilber et al. (1994).