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Seminal vesicle smears were examined for the presence of acephaline gregarines in 2 species of earthworms, *Pheretima hawayana* (n = 200) and *Eudrilus* sp. (n = 200) collected at Peradeniya from 2x3 m plots. Two acephaline gregarines, *Zeylanocystis burti* and *Stomatophora simplex* were found in *P. hawayana*, but not in *Eudrilus* sp.. *Zeylanocystis burti* had cup-shaped trophozoites (78 - 180 µm diameter), spherical gametocysts (122 - 292 µm diameter), and navicular sporocysts (8-12 x 4 µm); *S. simplex* has elongate trophozoites (36- 104 x 20-40 µm), oval-shaped gametocysts (64-112 x 44-69µm), and navicular sporocysts (8 x 2 µm). *Eudrilus* was infected only with an unidentified acephaline gregarine species with elongate trophozoites (52-220 x 20-144 µm), spherical gametocysts (68-180 µm), and navicular sporocysts (12-20 x 4-8 µm). Overall, 92% of *Pheretima* were infected with both *Z.burti* and *S. simplex*, 4% had *Z. burti* only and 4% had *S. simplex* only. *Zeylanocystis burti* occurred at a mean ± s.d. of 77.68 ± 54.21 trophozoites and 188.01 ± 165.17 gametocysts, and *Stomatophora simplex* at 7.35 ± 4.27 trophozoites and 277.02 ± 159.64 gametocysts per worm. The third gregarine species occurred at a mean ± s.d. of 35.08 ± 34.84 trophozoites and 53.43 ± 41.99 gametocysts per worm. *Pheretima hawayana* from Peradeniya was infected with the same 2 acephaline gregarines reported previously from *P. peguana* in Colombo. The third (unidentified) species discovered constitutes the first report of an acephaline gregarine from *Eudrilus* in Sri Lanka.