

**A new endoparasitic gregarine genus, *Stomatocystis indica*
gen. nov., sp. nov. (Apicomplexa: Sporozoea: Stomatophorinae)
from the seminal vesicles of an Indian earthworm
(Annelida: Oligochaeta) *Amyntas diffringens* Baird**

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Abstract

During the exploration of acephaline gregarines from oligochaete hosts in India, unique forms were obtained from the seminal vesicles of the earthworm, *Amyntas diffringens* Baird in Midnapore of West Bengal and are being proposed as a new genus *Stomatocystis* gen. nov. under the subfamily Stomatophorinae Bhatia, 1930. This gregarine possess oblong body, a mucron transformed into a sucker, complex myocyte and navicular oocysts with truncated ends, thereby justifying its inclusion under the subfamily Stomatophorinae of the family Monocystidae. By possessing, at the anterior end of the body, a crater-like sucker, rimmed by a collar (4.8–7.1 μm), inside of which are parallel protoplasmic ridge-like processes (8.3–10.5 μm in length) which are separated by furrows (1.1–1.6 μm spaced apart), the gregarine can not be assigned to any of the 10 genera under the subfamily Stomatophorinae. Gamonts are oblong. Length and width of gamonts range from 44.0–96.0 (70.5 \pm 1.1) μm and 29.0–59.0 (44.0 \pm 1.2) μm respectively. Length and width of nucleus range from 11.5–20.0 (17.0 \pm 1.1) μm and 9.5–15.0 (13.0 \pm 1.2) μm respectively. Gametocysts are ovoidal and their diameter (GD) ranges from 72.0–102.0 (90.0 \pm 1.9) μm . Oocysts navicular. Length and width of oocysts range from 7.9–11.0 (9.0 \pm 1.1) μm and 3.0–4.0 (3.7 \pm 1.1) μm respectively. This species is described as *Stomatocystis indica* gen. nov., sp. nov. in this paper.

Key words: Acephaline gregarine, new genus, *Stomatocystis indica* gen. nov., sp. nov., earthworm, seminal vesicle, India