

SHORT COMMUNICATIONS

REDESCRIPTION OF *ENCYCLOMETRA COLUBRIMURORUM*
(RUDOLPHI, 1819) WITH REMARKS ON THE SYNONYMY
OF *E. VITELLATA* GUPTA, 1954

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Abstract. *Encyclometra colubrimurorum* (Rudolphi, 1819) has been redescribed and *E. vitellata* Gupta, 1954 considered synonymous with *E. colubrimurorum*. A revised key to the species of the genus is given.

Twelve trematodes of the genus *Encyclometra* Baylis et Cannon, 1924 were collected from the gut of *Natrix piscator* (Schneider) from Kashipur (U.P.) by the present authors, and identified as *E. colubrimurorum* (Rudolphi, 1819) Dollfus, 1929. In view of the many variations in the morphological characters of these forms, this species is being redescribed in brief.

The variations observed also form a basis for discussion (vide infra) on the synonymy of *E. vitellata* Gupta, 1954 which the present authors regard as a synonym of *E. colubrimurorum* and not of *E. asymmetrica* Wallace, 1936 as considered by Dollfus (1963).

Encyclometra colubrimurorum (Rudolphi, 1819) Dollfus, 1929 Figs. 1—3.

Syn. *Distoma allostomum* Diesing, 1850, *D. colubrimurorum* Rudolphi, 1819, *D. subflavum* Sonsino, 1892, *D. caudatum* Polonio, 1859, *Odhneria bolognensis* Baer, 1924, *E. natricis* Baylis et Cannon, 1924, *Paraplagiorchis timotheevi* Dollfus, 1924, *Orthorchis natricis* Mödinger, 1925, *Encyclometra japonica* Yoshida et Ozaki, 1929, *E. microrchis* Yamaguti, 1933, *E. koreana* Park, 1940, *E. vitellata* Gupta, 1954.

Body, shape and size: somewhat lanceolate, 2.769—5.596 in length and 1.27—1.085 in maximum breadth, occurring across ventral sucker (all measurements in mm). Tegument aspinose. Suckers: well developed; oral subterminal, 0.487—0.585 × 0.546 to 0.633; ventral 0.614—0.782 × 0.643—0.78. Gut: prepharynx conspicuous in some specimens, 0.039—0.058 long. Pharynx muscular, 0.292—0.37 × 0.273—0.36. Oesophagus inconspicuous, up to 0.136 long. Prepharynx, pharynx and oesophagus surrounded by gland cells. Caeca running parallel to lateral margins, terminating symmetrically or left caecum going a little farther to the right. Reproductive system: testes tandem or slightly diagonally placed, entire or a little lobed; anterior testis 0.195—0.292 × 0.136—0.351 and the posterior, 0.107—0.389 × 0.214—0.292. Distance between the two testes increasing with egg production rate. Uterine coils intruding into intertesticular space, thus separating them quite apart from each other. Cirrus sac 0.39 to 0.78 × 0.136—0.214, anterolateral to ventral sucker, partially lying transversely to main axis of body. Genital pore sinistral, closely inner to left caecum in level with anterior half of the ventral sucker. Ovary median, sinistral or dextral, immediately behind ventral sucker or dorsal to it. Vitellaria in post-acetabular, lateral fields of body,

sometimes overlapping caeca, transverse vitelline ducts with only one-celled thick walls, posterior transverse vitelline duct conspicuous in some specimens. Eggs 0.083 to 0.098×0.0343 — 0.0514 .

Host: *Natrix piscator* (Schneider). Location: Gut. Locality: Kashipur (U.P.), India. Redescription based on 11 specimens and a series of sections deposited in the personal collection of the senior author.

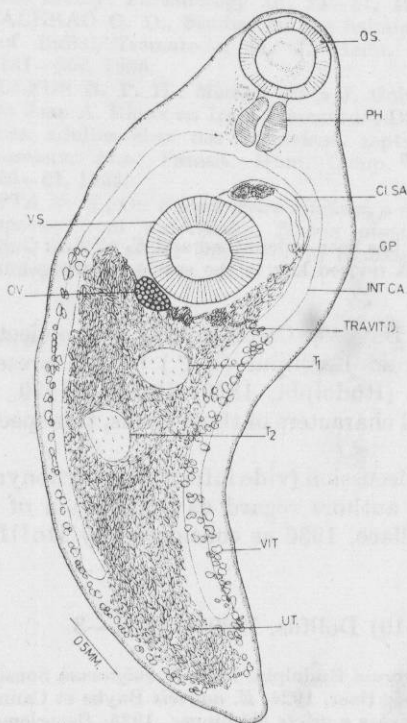


Fig. 1. *Encyclometra colubrimurorum* (Rudolphi, 1819), a whole mount (ventral view).

Abbreviations: CI. S. A. — cirrus sac; EX. P. — excretory pore; EX. VE. — excretory vesicle; G. P. — genital pore; INT. CA. — intestinal caecum; O. S. — oral sucker; OV. — ovary, PH. — pharynx; T1 — anterior testis; T2 — posterior testis; TRA. VIT. D. — transverse vitelline duct; U. T. — uterus; V. S. — ventral sucker, VIT. — vitellaria.

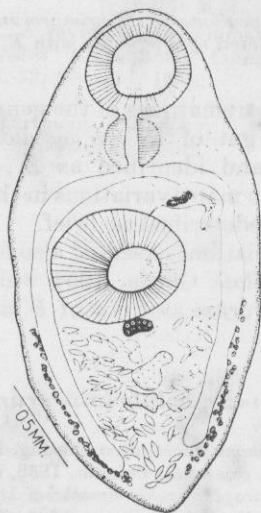


Fig. 2. *Encyclometra colubrimurorum* (Rudolphi, 1819) another specimen, showing variation in the size of the body, shape and position of the gonads and the caecal termination.

Remarks: Variations in the termination of the intestinal caeca (ending symmetrically or slightly asymmetrically), the position of the ovary (median, submedian, immediately posterior or dorsal to the ventral sucker), and the shape and position of the testes (entire or slightly lobed and tandem or diagonally placed) have been observed.

This species has been recorded several times from the Indian subcontinent. Bhalerao (1936) reported it from *Ptyas* (= *Zamensis*) *mucosus* at Calcutta; Mehra (1931), from *Natrix piscator* and *P. mucosus* at Allahabad (U.P.); Gupta (1954) and Agrawal (1966) from *N. piscator* at Ludhiana (Punjab) and Lucknow (U.P.), respectively.

Synonymy of *Encyclometra vitellata* Gupta, 1954

Yeh (1958) reviewed the genus *Encyclometra* Baylis et Cannon, 1924 and recognized *E. colubrimurorum* (Rudolphi, 1819), *E. japonica* Yoshida et Ozaki, 1929, and *E. asymmetrica* Wallace, 1936, as the only valid species of the genus and held *E. vitellata* Gupta, 1954 as synonymous with *E. japonica*. Dollfus (1963) regarded the latter species as synonym of *E. colubrimurorum* but also considered *E. vitellata* identical with *E. asymmetrica*.

The authors agree with the views of Dollfus (1963) in considering *E. japonica* synonymous with *E. colubrimurorum* because the intestinal caeca in the latter, as earlier pointed out by Baer (1924) and Park (1940) too, vary from being equal to subequal, the left intestinal caecum being slightly longer than the right one. They, however, do not agree with Dollfus (1963) in regarding *E. vitellata* as a synonym of *E. asymmetrica* in which the intestinal caeca are considerably asymmetrical, the right intestinal caecum being only two-thirds of the left one in length. In their opinion, *E. vitellata* should be regarded as synonym of *E. colubrimurorum*, since in the former species also the intestinal caeca are subequal (a fact which has been confirmed from the study of the original slides).

E. japonica, as reported by Srivastava and Ghosh (1968) from the snakes, namely *Ptyas mucosus*, *Natrix piscator*, *N. stolata* and *Atrietium schistosum* from Calcutta (West Bengal) and Patna (Bihar), should now be taken as *E. colubrimurorum*.



Fig. 3. *Encyclometra colubrimurorum* (Rudolphi, 1819), a median sagittal section, showing the terminal excretory pore and ovary dorsal to the ventral sucker.

KEY TO THE VALID SPECIES OF *ENCYCLOMETRA* BAYLIS ET CANNON, 1924 (EMENDED)*

1. Testes almost symmetrically placed *E. bungara* Srivastava et Ghosh, 1968
- Testes tandem or obliquely tandem 2
2. Intestinal caeca equal or subequal *E. colubrimurorum* (Rudolphi, 1819)
- Intestinal caeca very unequal *E. asymmetrica* Wallace, 1936

*) The key given by Yeh (1958) has been emended so as to bring it up to date.

ПЕРЕОПИСАНИЕ ТРЕМАТОДЫ *ENCYCLOMETRA COLUBRIMURORUM* (RUDOLPHI, 1819) С ПРИМЕЧАНИЯМИ О СИНОНИМИКЕ *E. VITELLATA* GUPTA, 1954

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Резюме. Дано переписание вида *Encyclometra colubrimurorum* (Rudolphi, 1819). *E. vitellata* Gupta, 1954 считается синонимом вида *E. colubrimurorum*. Составлена определительная таблица видов этого рода.

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