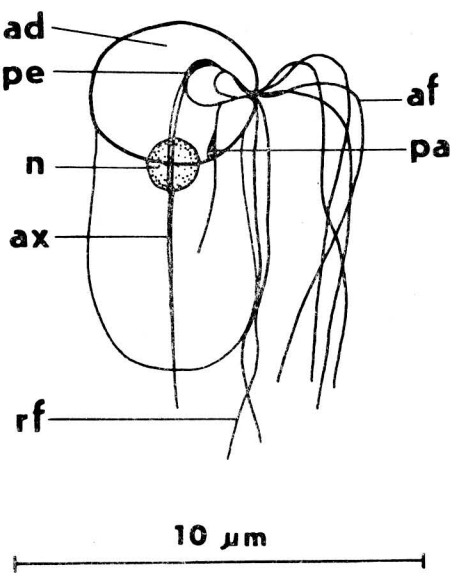
DOMESTIC GEESE (ANSER ANSER L.) AS A NEW HOST OF COCHLOSOMA ANATIS KOTLÁN, 1923

Cochlosoma is the single genus of the family Cochlosomatidae* included in the class Zoomastigophora as an independent family. However, the taxonomic position of this family in Zoomastigophora is still unclear. Grassé (1952: Traité de Zoologie, Vol. 1, Masson, Paris, 1071 pp.) placed Cochlosomatidae to the order Retortamonadida, although their morphology is different. A typical organelle of *Cochlosoma* is the adhesive disk the presence of which might suggest a relation to *Giardia*, but the remaining organelles do not indicate a relation to the order Diplomonadida. The presence of parabasal body, conspicuous pelta and axostyle led Kulda and Nohýnková (1976: In: J. P. Kreier (Ed.), Parasitic Protozoa. Academic Press, New York, Vol. 2, pp. 2—138) to the opinion about their possible relation to trichomonads.

Cochlosoma anatis was first described in Hungary (Kotlán A. 1923: Zentralbl. Bakteriol., Parasitenkd., Infektionskr. Hyg., Abt. I: Orig. 90: 24—28) from the small intestine of young ducks (*Anas platyrhynchos*) suffering from coccidiosis. The author found these parasites also in the ferruginous duck (*Aythya nyroca*) and in the coot (*Fulica atra*). Kimura (1934: Trans. Am. Micros. Soc. 53: 102—115) recovered from domestic ducks and the muscovy duck (*Cairina moschata*), a parasite which he described as *Cochlosoma rostratum*. Travis (1938: J. Parasitol. 24: 343—351) found *C. anatis* in mallards and domestic ducks (*Anas platyrhynchos*), in pintail (*Anas acuta tzitzihoa*), lesser scaup (*Aythya affinis*), and shoveler (*Anas clypeata*). Having compared the morphology of *C. anatis* and *C. rostratum* he came to the conclusion that *C. rostratum* is synonymous to *C. anatis*. Mc Neil and Hinshaw (1942: J. Parasitol. 28: 349) found this parasite in *Meleagris gallopavo*. In addition to *C. anatis*, other four species of *Cochlosoma* have been recorded in birds. Travis (1938: J. Parasitol. 24: 343—351) described *C. picae* from the magpie (*Pica pica hudsonia*) and *C. turdi* from the intestine of American robin (*Turdus migratorius*). Tyzzer (1930: Am. J. Hyg. 11: 56—73) reported *C. striatum* from the ruffed grouse (*Bonasa umbellus*) and Erhardová and Ryšavý (1952: Čs. Biol. 1: 134—136) found *C. scolopacis* in the woodcock (*Scolopax rusticola*). Two species have been recorded in mammals: *C. pipistrelli* (Carini A. 1939: Arquivos de Biologia 23: 1—2) in bats of the family Phyllostomatidae (*Stenoderma* sp.) and *C. soricis* (Watkins R. A. et al. 1989: J. Protozool. 36: 527—531) in shrews (*Sorex palustris* and *Sorex vagrans*).

During examinations of domestic geese (*Anser anser domesticus*) in South Bohemia, we found flagellates of the genus *Cochlosoma* only in one of the 60 geese examined. This indicates a low prevalence of this parasite in adult geese in breeding farms. Organisms resembling giardia were found in native preparations mainly from the large intestine and in some cases also from the caecum. Typical of these organisms was the sac-like shape of body with a conspicuous adhesive disk. Their motion was jerky and circling and they often tried to attach to the slide or cover glass. The wet smears made from the positive material were fixed by Bouin—Hollande's fixation and stained by Protargol after Nie (1950: J. Morphol. 86: 381—494). After staining the flagellates could be definitively placed to the family Cochlosomatidae on the basis of their morphology (Fig.). Their body measures 8.4—10.3 by 5.0—6.1 μm (mean 9.5 × 5.4 μm). On the anterior end of body, there is a conspicuous adhesive disk (ad — see Fig.) measuring 4.6—5.6 × 4.6—5.3 μm (mean 5.1 × 4.9 μm).



* The still used name Cochlosomidae does not correspond to the International Code of Zoological Nomenclature (third edition), 1985, chapter VII, article 29.

In its vicinity is located a spherical nucleus (n) measuring 1.8 μm in diameter, parabasal apparatus (pa) and conspicuous pelta (pe). A slender axostyle (ax) adheres to the polta and slightly overlaps the body. The adhesive disk is interrupted by a lateral groove on one side. Near it is situated a complex of kinetosomes of six flagella measuring 8 to 13 μm (mean 10.6 μm). Four of them are free (af), the fifth one is situated near the lateral groove, and the sixth flagellum, the recurrent one (rf), is attached to the body and is accompanied by a marginal fiber (Fig.) .

The flagellates found by us correspond in their morphology to the species *Cochlosoma anatis* Kotlán, 1923. The domestic goose was found to be another host for it.

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