

***STRIGEIA QADRI* SP.N. (TREMATODA: STRIGEIDAE) FROM A NEW HOST  
*EGRETTA ALBA* (LINNEAUS) IN SINDH, PAKISTAN**

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**Abstract**

A new trematode *Strigeia qadri* sp.n. parasitizing *Egretta alba* (Linnaeus) Great Egret or Large Egret syn. *Ardea alba* (Ciurea, 1927) is described in present study. *Strigeia qadri* sp.n. is characterized in having: Different body size and dimensions, different shapes and sizes of gonads, different size of eggs, different host and locality.

**Introduction**

Fairly good numbers of species of the genus *Strigeia* Abildgaard, 1790 are reported from various avian hosts from nearly all over the globe. A single species of the genus *S. glandulosa* Dubois, 1937 originally reported from *Haliastur sphenurus* in Australia and redescribed and figured by Dubois and Pearson (1965) has been reported by Bhutta and Khan, 1975 in *Spizaetus cirrhatus* in Pakistan. Present new species is therefore a second species of the genus reported in Pakistan from a new host *Egretta alba*.

**Materials and Methods**

Twenty two birds *Egretta alba* (Linnaeus) were purchased from Empress bird market, Karachi, at random intervals. These were anesthetized in the Laboratory; viscera were cut open in different petri dishes containing saline. Thirty three small specimens of trematodes were recovered from small intestine of sixteen infected hosts. These were fixed in F.A.A. solution, dehydrated in graded series of alcohol, stained with Mayer's Carmalum and mounted permanently in Canada balsam. Measurements are given length by width in millimeters. Drawings were prepared with the aid of a Camera lucida. Holotype and paratype specimens were deposited in the collection of senior author.

***Strigeia qadri* sp.n.**

(Figs. 1–4)

Host: *Egretta alba* (Linnaeus) Great Egret or Large Egret (syn. *Ardea alba*)  
Location: Small intestine  
Number of hosts examined/ infected: 22/16  
Number of specimens recovered: 33

**Description is based upon thirty three, stained, permanently mounted, egg bearing, mature specimens.**

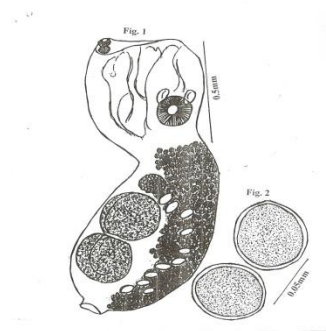
Small trematodes, body divided into two regions, a short fore body and a longer hind body. Total body length 1.65–2.91 (2.28) and maximum width is 0.46–0.51 (0.48) at the mid of fore body. Fore body funnel or cup shaped, clearly separated from the hind body 0.57–0.75 (0.66) by 0.41–0.51 (0.46).

Hind body comparatively longer, cylindrical, curved dorsally 1.07–2.16 (1.61) long and 0.41–0.43 (0.42) wide at the posterior testis level. The tegument is without spines or tubercles. The tribocytic organ is well developed and bilobed, reaching up to the anterior margin of the fore body. Oral sucker small, terminal and spherical 0.05–0.07 (0.06) by 0.085–0.09 (0.087) followed by a smaller pharynx 0.041–0.06 (0.050) by 0.068–0.075 (0.071). The ventral sucker is comparatively larger 0.14–0.15 (0.14) by 0.12–0.14 (0.13) situated some distance behind the pharynx. The esophagus is short. The intestinal caeca extend to a short distance in front of the posterior end of the hind body.

The gonads are in the hind body. Testes are oval and expanded, nearly bulging laterally, tandem, situated in the posterior region of the hind body; anterior testis 0.23–0.24 (0.23) by 0.28–0.29 (0.28) and the posterior testis is 0.23–0.28 (0.25) by 0.41–0.42 (0.41). The vitelline duct is evident in all the specimens studied; it appears to lie between the two testes.

Ovary is roughly rounded, pretesticular, smaller than the testes 0.12–0.13 (0.12) by 0.14–0.16 (0.15). In the

fore body, vitellarium extends into the body wall and the hold fast lobes and in the hind body it aggregates mostly in the anterior region and reach up to the copulatory bursa, posterior to the hind testis. Copulatory bursa large with genital cone delimited from body parenchyma and surrounded by a muscular ring. Eggs large, oval, measuring 0.08–0.09 (0.085) by 0.035–0.041 (0.038).



**Figures 1-4 *Strigea qadri* sp.n.**  
 Figure 1. Holotype, entire. Lateral view.  
 Figure 2. Eggs enlarged



**Fig. 3. Holotype, entire, lateral view. Photomicrographs 75 X.**



**Fig. 4. Paratype, lateral view. Photomicrographs 71 X.**

#### Explanation of Figures

#### Figures 1-4 *Strigea qadri* sp.n.

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| Figure 1. | Holotype, entire. Lateral view.                        |
| Figure 2. | Eggs enlarged  |
| Figure 3. | Holotype, entire, lateral view. Photomicrographs 75 X. |
| Figure 4. | Paratype, lateral view. Photomicrographs 71 X.         |

#### Discussion

Several species of the Genus *Strigea* Abildgaard, 1790 (syn. *Gongylura* Lutz, 1933) are known from various avian hosts from all over the globe.

A single species of the Genus *S. glandulosa* Dubois, 1937, originally reported from *Haliastur sphenurus* in Australia, and redescribed and figured by Dubois and Pearson (1965) has been reported in Pakistan by Bhutta and Khan, 1975 in *Spizaetus cirrhatus*. The present forms differ from the originally reported species and that reported in Pakistan, in having a larger body size and different avian host.

The present forms also differ from *S. glandulosa* (Dubois, 1937) Bhutta and Khan, 1975 in having different body dimensions including larger size of eggs, it further differ in having different shape and size of the gonads, in present forms the testes are quite bulging laterally and the ovary is roughly oval, while in *S. glandulosa* these are roughly kidney shaped and the ovary is laterally elongated.

The present forms also differ from the type species *S. strigis* in having bulging testes with smooth walls, where as in *S. strigis* the testes are although massive but are multilobed and the ovary is roughly rounded,

present forms also differ in having smaller body size, different avian host and locality.

The present forms also differ from *S. raabei* Bezubik, 1958 reported in *Querquedula querquedula*, *Nyrocanyroca* in Poland in having smaller body size, different shape of testes and ovary, and in having different host and locality. The size in *S. raabei* ranges from 2.8–5.0 by 1.5 and the anterior testis is roughly pentagonal in shape while the posterior testis is roughly averted-u-shaped as it appears in the sagittal section. The ovary appears to be elongated.

The present forms also differ from *S. falconis* Szidat, 1928, recovered from various birds such as: *Accipiter*, *Aegypius*, *Milvus*, *Buteo* etc, in Europe, U.S.A., Africa, Japan and India, in having smaller body size, shape of the fore and hind body, shape of the testes and ovary. *S. falconis* appears to have comparatively longer hind body and shorter fore body, the ovary is oval in shape with one or two lobes, the testes are situated in the posterior most region of the hind body, the anterior testis is lobed and oval to rounded where as the posterior testis is irregularly lobed and appears larger than the anterior testis.

The present forms are closer to *S. macroconophora* Dubois et Rausch, 1950 recovered in *Buteo jamaicensis borealis*, *B. p. platypterus* in N. America in having nearly equal body size, strongly arched, sub cylindrical hind body and in having sub equal massive testes, but it can be distinguished in having an oval-shaped ovary and smooth-walled testes, in *S. macroconophora* the ovary is ventrally convex and the testes are lobed. A different host *Egretta alba* and locality i.e Karachi, Sindh, Pakistan serve present specimens different from *S. macroconophora*.

Keeping in view the specific differences a new species *Strigea qadri* is proposed. The species is designated in honor of late Professor Emirates Dr. Afzal Hussain Qadri, Head Department of Zoology, University of Karachi, Karachi-75270.

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