# BULLETIN ZOOLOGISCH MUSEUM

## NIVERSITEIT VAN AMSTERDAM

Vol. 6 No. 11 1978

#### GLYPTOTHORAX STOCKI, A NEW SISORID CATFISH FROM PAKISTAN AND AZAD KASHMIR

(SILURIFORMES, SISORIDAE)

#### M.R. MIRZA & H. NIJSSEN

#### ABSTRACT

A new catfish, *Glyptothorax stocki*, belonging to the family Sisoridae, is described and figured. The new species from Pakistan and Azad Kashmir is compared with *Glyptothorax platypogonoides* from Sumatra, with which it was confused.

#### INTRODUCTION

Sufi (1963: 25-27) recorded *Glyptothorax platypogonoides* (Bleeker, 1855) from the Swat River in Pakistan, a tributary of the Kabul River near Abazai, Peshawar Division, North West Frontier Province. It was subsequently reported on by other authors, as listed in the synonymy. While comparing specimens from Pakistan with specimens from Indonesia, the authors found several differences between the Pakistani population - wrongly assigned to *G. platypogonoides* - and specimens of *G. platypogonoides* from near its type locality in Sumatra, with which our new species seems closely related. We decided to name the new species from Pakistan G. stocki in honour of Professor Dr. J.H Stock of the Institute of Taxonomic Zoology, University of Amsterdam.

### Glyptothorax stocki new species (fig. 1, tab. II)

*Glyptothorax platypogonoides* (non Bleeker), Sufi, 1963: 25-27; Ahmad, 1963: 4; Ahmad & Mirza, 1963: 156-157; Mirza, 1970: 104-105; Mirza & Kashmiri, 1971: 88; Mirza, 1973: 141; Mirza & Hameed, 1974: 91; Mirza, 1975: 151, 161, 169, 173; Omer & Mirza, 1975: 208; Bashir & Mirza, 1975: 101; Sheri & Saied, 1975: 73; Mirza, 1976: 109, 117; Mirza & Waheed-ud-Din, 1976: 98; Ahmad, Khan & Mirza, 1976: 249.

Material examined: ZMA 114.763, holotype sl 54.6 mm, Pakistan: Bhed Nullah, small stream on G.T. road to Rawalpindi, about 7 miles from Lahore (=  $31^{\circ}34'$  N  $74^{\circ}22'$  E), coll. M. Ashraf Chaudhri,

16-VIII-1970. - ZMA 115.027, one paratype, sl 34.3 mm, same data as holotype. - GCM (NH) 15F, one paratype, sl 70.7 mm, Azad Kashmir, Punch River near Kotli (= 33° 13' N 73° 51' E), coll. Waheedud-Din, 24-VIII-1971. - ZSD 1782 F, five paratypes, sl. 52.0 - 73.5 mm, Pakistan, North West Frontier Province, Peshawar Division, Swat River near Abazai, about 0.5 mile South of Abazai Rest House, coll. S.M.K. Sufi, 9-XI-1955.

- GCM (NH) = Government College Museum (Natural History), Lahore.
- ZMA = Institute of Taxonomic Zoology (Zoölogisch Museum), Amsterdam.

ZSD = Zoological Survey Department, Karachi.

Description.-

D I, 6; P I, 10-11; V i, 5; A i, 10-11; C 16-18. A small-sized fish with slim and elongated body. Dorsal profile rising from tip of snout to commencement of dorsal fin and then becoming gradually straight; ventral profile almost straight.

Head depressed and longer than broad, its length (hl) contained 3.7 to 4.3 (holotype: 3.9) in standard length (sl), its width (hw) contained 1.2 to 1.3 (holotype: 1.3), and its height (hd) contained 1.9 to 2.2 (holotype: 1.9) in its length. Snout almost semicircular in outline and greatly depressed, its length (sn) contained 1.6 to 2.1 (holotype: 2.0) times in head length. Eyes small, dorsolateral in position and in the posterior half of head, its diameter (1bo) contained 6.5 to 7.8 (holotype: 7.8) times in head length. 3.5 to 4.2 (holotype: 4.0) times in length of snout, and 1.8 to 2.2 (holotype: 1.7) times in interorbital width (wi). Interorbital space slightly convex and contained 3.2 to 4.0 (holotype: 4.5) times in length of head. Four pairs of barbels: nasal barbels extending to pupil of eye, maxillary barbels extending to end of pectoral fin base, outer mandibular barbels just reaching the pectoral fin base, inner mandibular barbels much shorter. Nostrils nearer to tip of snout than to eye. Mouth ventral and crescentic, upper jaw longer than lower jaw. Teeth sharp, conical, and arranged in crescentic bands: one in the upper jaw and two in the lower jaw. Gill-apertures wide, extending to the ventral side but separated from each other in the middle by a narrow isthmus. Body deepest in front of the rayed-dorsal, its depth (bd) contained 5.6 to 6.5 (holotype: 6.1) times in standard length. Adhesive sucker well developed, prominent, and longer than broad, its width (suw) contained 1.1 to

1.7 times (holotype: 1.6) in its length (sul), its pit poorly developed, showing an elongate depression. Lateral line complete and prominent. Skin covered with round tubercles. Caudal peduncle long and compressed, its least depth (cd) contained 2.0 to 2.6 (holotype: 2.6) times in length (cl).

Dorsal fin commencing nearer to the tip of snout than to the origin of adipose fin, its spine finely serrated behind, its longest ray just equal to or slightly longer than the body depth. Last ray of dorsal fin almost completely devided to its base in some specimens. Pectoral fin shorter than the head length, its spine flattened and servated internally with 9 to 11 large retrorse serrations. Pelvic fin originating below the level of the last dorsal fin ray and extending beyond the anal aperture. Anal fin not reaching the caudal fin. Adipose fin longer than high, its base just equal to the base of dorsal fin, the distance between the last ray of dorsal fin and origin of adipose fin twice its length. Caudal fin deeply forked and longer than the head.

Colour in alcohol: Brown on back and sides, pinkish-tan ventrally. A tan median dorsal band emerging from base of occipital spine to caudal spine, forming saddle-shaped spots on occipital spine and dorsal fin base. Dorsal, adipose, and caudal fin with dark bands. A fine whitish streak running from posterior margin of eye to caudal fin base, along lateral sides. An oblique, pinkish coloured area between angle of mouth and posterior margin of eye on each side.

#### Glyptothorax stocki versus G. platypogonoides

Material examined. - ZMA 115.520: four specimens, sl 45.1 - 89.8 mm, W. Sumatra, Pagaralem (= 03° 59'N 103° 26'E), coll. Ouwens, 23-XI-1918. ZMA 115.521: one specimen, sl 63.2 mm, W. Sumatra, Lake of Kerinthi, alt. 733 mm, coll. E. Jacobson, VII-1915. ZMA 115.522: one specimen, sl 53.7 mm, W. Sumatra, Batang Harau (cleft of Harau), alt. 500m, coll. E. Jacobson, 1932.

Bleeker (1855: 272) described his *Pimelodus platy*pogonoides, based on four specimens from Lahat, Sumatra: "diep in de binnenlanden van Palembang" ("far inland of Palembang"). It was figured by Bleeker in 1862 (our fig. 2). Since Bleeker's description was very brief, Weber & De Beaufort (1913: 267) and Menon (1954) redescribed *G. platypogonoides*, the former authors having examined four specimens from Pagaralam, 40 km upstream of the type locality Lahat. We have measured these four specimens, together with two other specimens from West Sumatra (cf. list of material, given above, and table I) and have compared them with the holotype and seven paratypes of *G. stocki* (cf. table II).

G. stocki has a larger eye and a more slender caudal peduncle compared to G. platypogonoides. Our new species has long nasal barbels, reaching the eye (halfway the eye in G. platypogonoides) and long maxillary barbels, reaching the end of pectoral fin base (to pectoral spine in G. platypogonoides). The pectoral fin has 10 to 11 thin soft rays, and its spine has 10 to 11 large retrorse serrations (8-9 thick rays and 8-9 retrorse serrations in *G. platypogonoides*). In *G. stocki* the lower caudal lobe is evidently longer than the upper caudal lobe (equal or slightly longer in *G. platypogonoides*). The body form of *G. stocki* is more slender, the basis colour lighter, whereas it tends to have a slightly shorter and more depressed head and a longer snout than *G. platypogonoides*. Both species share the number of dorsal, ventral, anal, and caudal fin rays, as well as the prominent slender occipital process, which distinguishes them from many members of the genus.

#### REFERENCES

AHMAD, M.F., S.A. KHAN & M.R. MIRZA, 1976. A checklist of the freshwater fishes of the Indus Plain, Pakistan.- Biologia, Pakistan, <u>22</u>(2): 229-259.

AHMAD, N., 1963. Fish fauna of West Pakistan: 1-5. Government Printing West Pakistan, Lahore. AHMAD, N.D. & M.R. MIRZA, 1963. Hill streams fishes of Kaghan and Swat.- Scientist, Karachi, <u>6</u> (4): 153-161.

BASHIR, K.A. & M.R. MIRZA, 1975. Fishes of the river Sutlej in Lahore District, Pakistan, with the description of a new subspecies.- Bull. Hydrobiol. Res. Grodon College, 1(9): 91-104. BLEEKER, P., 1855. Nalezingen op de vischfauna van Sumatra - visschen van Lahat en Sobogha.-Natuurk. Tijdschr. Ned. Indië, <u>9</u>: 257-280. ------, 1862. Atlas Ichthyologique des Indes orientales Neêrlandaises II. Siluroides, Chacoīdes et Héterobranchoīdes: 1-112, pls. 49-101. (F. Muller, Amsterdam).

MENON, M.A.S., 1954. Notes on fishes of the genus Glyptothorax Blyth.- Rec. Indian Mus., <u>52(1)</u>: 27-54.

MIRZA, M.R., 1970. A contribution to the fishes of Lahore including revision of classification and addition of new records.- Biologia, Pakistan, 16(2): 71-118.

-----, 1973. Aquatic fauna of Swat, Part I: Fishes of Swat and adjoining areas.- Biologia, Pakistan, 19(1 & 2): 119-144.

-----, 1975. Freshwater fishes and zoogeography of Pakistan.- Bijdr. Dierk., <u>45</u>(2): 143-180.

MIRZA, M.R., 1976. Fish and fisheries of the northern montane and submontane regions of Pakistan.- Biologia, (Pakistan), 22(1): 107-120. MIRZA, M.R. & K. HAMEED, 1974. Sisorid fishes (Osteichthyes, Sisoridae) of Pakistan and Azad Kashmir.- Biologia, (Pakistan), 20(1): 83-97. MIRZA, M.R. & K.M. KASHMIRI, 1971. A note on the fishes of the genus Glyptothorax Blyth (Osteichthyes, Sisoridae) from Pakistan with the description of a new subspecies.- Biologia, (Pakistan), <u>17(2)</u>: 67-93. MIRZA, M.R. & WAHEED-UD-DIN, 1976. A note on the fishes of the river Punch in Azad Kashmir.-Pakistan J. Zool., <u>8</u>(1): 98-99. OMER, T. & M.R. MIRZA, 1975. A checklist of the fishes of Hazara District, Pakistan, with the description of a new subspecies .- Biologia, (Pakistan), 21(2): 199-209. SHERI, A.N. & T. SAIED, 1975. Revised list of freshwater fish fauna of Pakistan .-Pakistan J. agri. Sci., <u>12</u>(1-2): 69-76. SUFI, S.M.K., 1963. Checklist of the fishes of the genus Glyptothorax Blyth of West Pakistan with record of Glyptothorax platypogonoides (Blkr.) from Peshawar Division (West Pakistan).- Biologia, (Pakistan), 9(1): 23-27. WEBER, M. & L.F. de BEAUFORT, 1913. The fishes of the Indo-Australian archipelago II. Malacopterygii, Myctophoidea, Ostariophysi:

I. Siluroidea: i-xx, 1-404, (E.J. Brill, Leiden).

			4A •520	ZMA 115.521	ZMA 115.522	mean	
sl in mn	45.1	55.7	63.2	89.8	53.6	53.7	
hl in mm	12.9	14.6	17.0	23.7	15.4	14.0	
sl/hl	3.5	3.8	3.7	3.8	3.5	3.8	3.68
hl/hw	1.3	1.2	1.3	1.2	1.2	1.2	1.23
hl/hd	1.7	1.7	1.7	-	2.0	1.7	1.76
hl/sn	2.3	2.2	2.0	2.0	2.3	2.1	2.15
hl/lbo	9.9	9.1	9.4	10.8	9.1	8.8	9.52
sn/lbo	4.4	4.1	4.7	5.3	3.9	4.2	4.43
wi/lbo	2.5	2.2	2.3	2.6	1.9	2.4	2.32
hl/wi	4.0	4.2	4.2	3.6	4.7	3.7	4.07
sl/bd	5.1	5.6	4.9	5.4	6.5	5.5	5.50
sul/suw	1.3	1.3	1.4	-	-	2.1	1.53
cl/cd	1.8	2.0	1.9	1.7	1.7	1.5	1.77

Table I: Ratios and means of some measurements of six specimens of *Glyptothorax platypogonoides* from the west coast of Sumatra (explanation of abbreviations in text).

Table II: Ratios and means of some measurements of holotype (ZMA 114,763) and seven paratypes of *Glyptothorax stocki* from Pakistan (explanation of abbreviations in text).

	ZMA 114.763	ZMA 115.027	GCM(NH) 15 F	ZSD 1782 F					mean
sl in mm	54.6	34.3	70.7	52.0	53.5	55.5	58.9	73.5	
hl in mm	14.1	÷ 9.3	16.4	14.0	13.5	13.0	15.0	18.5	
sl/hl	3.9	3.7	4.3	3.7	3.9	4.2	3.9	3.9	3.94
hl/hw	1.3	1.3	1.2	1.2	1.2	1.2	1,3	1,2	1,24
hl/hd	1.9	2.0	1.9	2.0	2.2	2.1	2,1	2.0	2.03
hl/sn	2.0	2.1	1.7	1.7	1,9	1.6	1.8	1.7	1.81
hl/lbo	7.8	7.8	7.4	7.0	6.7	6.5	7.1	7.1	7.18
sn/lbo	4.0	3.8	4.2	4.0	3.5	4.0	3.8	4.1	3.93
wi/lbo	1.7	1.9	2.2	2.0	2.0	2.0	1.9	1.8	1.94
hl/wi	4.5	4.0	3.3	3.5	3.3	3.2	3.7	3.9	3.68
sl/bd	6.1	6.2	6.0	6.5	5.9	6.1	5.8	5.6	6.03
sul/suw	1.6	1.7	1.3	1.1	1.3	1.4	1.4	1.6	1.43
cl/cd	2.6	2.6	2.5	2.0	2.6	2.6	2.2	2.0	2.39

#### 82

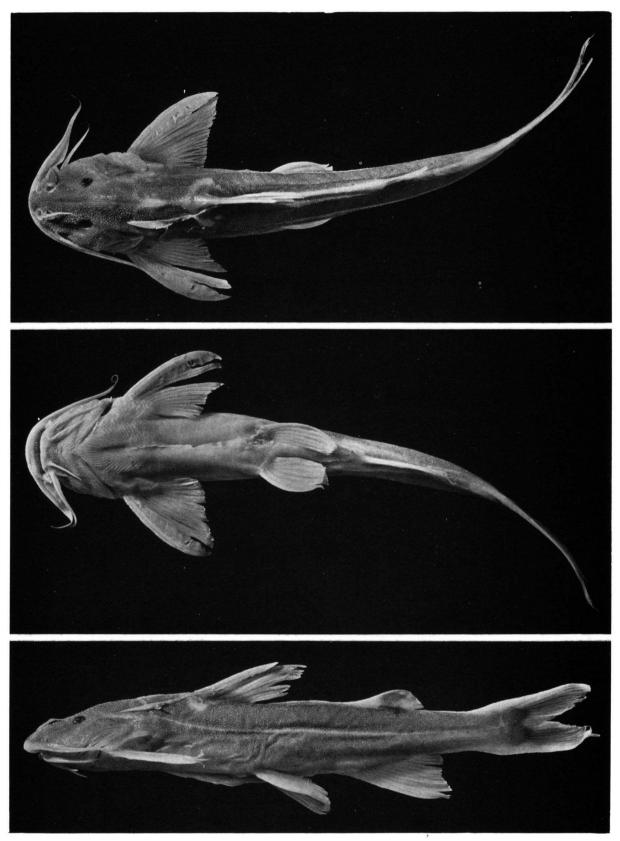


Fig. 1. Holotype of *Glyptothorax stocki* spec. nov. from Pakistan, in dorsal, ventral, and lateral view.

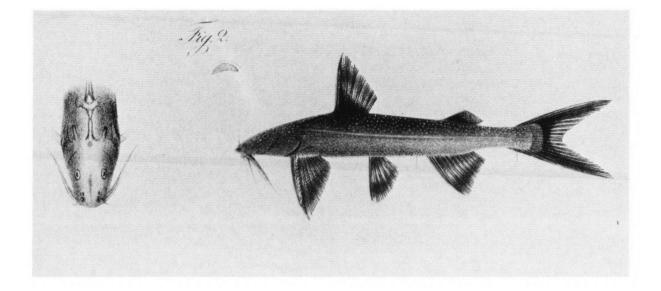


Fig. 2. *Glyptothorax platypogonoides* (Bleeker, 1855) from Sumatra. Reproduction of Bleeker's 1862 plate 83, fig. 2.

Dr. M.R. Mirza 17 - Mohammedi Park, Rajgarh LAHORE - Pakistan.

Received : 21 July 1977 Maling date: 12 april 1978 Dr. H. Nijssen Instituut voor Taxonomische Zoölogie (Zoölogisch Museum) Plantage Middeniaan 53 1018 DC Amsterdam - The Netherlands.