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Two new species of *Leiocassis* (Teleostei: Bagridae), riverine catfishes from northeast Borneo

Heok Hee Ng* and Kelvin K. P. Lim**

Two new species of bagrid catfishes in the genus *Leiocassis* are described from northeastern Borneo. *Leiocassis collinus*, new species, is described from the Kalabakan and Segama River drainages in Sabah. It can be distinguished from congeners in having a unique combination of: pectoral spine length 11.4-14.6 % SL, length of adipose-fin base 19.3-22.4 % SL, body depth at anus 15.8-17.9 % SL, caudal peduncle depth 8.3-9.4 % SL, head length 26.3-28.8 % SL, eye diameter 14.5-16.1 % HL, posterior tip of supraoccipital process separate from nuchal plate, and color pattern of faint light patches on darker body. *Leiocassis tenebricus*, new species, is described from the Kayan River drainage in Kalimantan Timur. It can be distinguished from congeners in having a uniform medium brown coloration (vs. mottled brown with cream or yellow patches), shorter pectoral spine (9.2-12.8 % SL vs. 13.0-21.3) and more vertebrae (42 vs. 38-40), and a unique combination of: length of adipose-fin base 20.8-23.8 % SL, body depth at anus 14.0-15.1 % SL, caudal peduncle depth 6.9-7.6 % SL, head length 27.4-28.4 % SL, eye diameter 9.9-11.0 % SL, and posterior tip of supraoccipital process separate from nuchal plate.

Introduction

The bagrid catfish genus *Leiocassis* is diagnosed by an elongate narrow head, prominently protruding snout, origin of the adductor mandibulae extending onto the cranial roof, prominent anterior process of the hypurapophysis, hypertrophied posterior process of the cleithrum, third pharyngobranchial bearing flanges on posterior and medial surfaces, and the branch of the supraorbital canal leading to the infraorbitals exiting from the frontal (Mo, 1991). The genus is known only from Sundaic Southeast Asia, and its taxonomy has not been critically reviewed. Recent studies (e.g. Kottelat et al., 1993) recognize only two valid species: *L. poecilopterus* and *L. micropogon*, with a third species, *L. aculeatus*, being recently described (Ng & Hadiaty, 2005).

During recent ichthyological surveys of northeastern Borneo, specimens of *Leiocassis* species markedly different from material referable to any of the three currently recognized species were collected. The descriptions of this material as *L. collinus* and *L. tenebricus* form the basis of this study. During the course of this study, we have also found a sixth species to be distinct. This spe-

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cies is diagnosed by a very slender body (9.5-13.7 % SL) and caudal peduncle (4.9-6.1 % SL), and for which the name *L. hosii* is available.

Material and methods

Measurements were made point to point with dial calipers and data recorded to tenths of a millimeter. Counts and measurements were made on the left side of specimens whenever possible. Subunits of the head are presented as proportions of head length (HL). Head length and measurements of body parts are given as proportions of standard length (SL). Measurements follow those of Ng & Dodson (1999). Asterisks after meristic counts indicate values for holotype.

Material examined in this study is deposited in the Natural History Museum, London (BMNH), the collection of Maurice Kottelat, Cornol (CMK), the Field Museum of Natural History, Chicago (FMNH), the Museum Zoologicum Bogoriense, Cibinong (MZB), the Nationaal Natuurhistorisch Museum, Leiden (RMNH), the Sabah Museum, Kota Kinabalu (SBM), the Museum of Zoology, University of Michigan, Ann Arbor (UMMZ), the National Museum of Natural History, Smithsonian Institution, Washington (USNM), and the Zoological Reference Collection, Singapore (ZRC).

Leiocassis collinus, new species
(Fig. 1)

Leiocassis micropogon (non Bleeker, 1852): Inger & Chin, 1962: 144, fig. 72.

Holotype. ZRC 46154, 179.0 mm SL; Borneo: Sabah: Danum Valley, Segama River drainage, Sungai Palum Tambun, tributary of Sungai Segama, upstream of Danum Valley Field Center; H. H. Tan & Y. Y. Goh, 1 October 1996.

Paratypes. FMNH 68005, 1, 91.5 mm SL; Borneo: Sabah: Kalabakan, Sungai Tawan, Sungai Tibas Camp, 4°25'N 117°28'E; R. F. Inger, 6 June 1956. – FMNH 68006, 3, 50.3-97.0 mm SL; Borneo: Sabah: Kalabakan, Sungai Tawan, Sungai Tibas Camp; R. F. Inger, 1956. – SBM uncat., 2, 115.6-153.0 mm SL; Borneo: Sabah: Danum Valley, Sungai Segama; K. Martin-Smith, 25 November & 7 December 1996. – BMNH 2005.11.2.1, 1, 86.9 mm SL; Borneo: Sabah: Danum Valley, Sungai Segama; K. Martin-Smith, 1 May 1996.

Diagnosis. *Leiocassis collinus* can be distinguished from *L. aculeatus* and *L. poecilopterus* in having the posterior tip of the supraoccipital process separate from (vs. in contact with) the nuchal plate. It further differs from *L. aculeatus* in having a shorter pectoral spine (11.4-14.6 % SL vs. 17.9-18.7), a slenderer body (15.8-17.9 % SL vs. 19.8-20.8) and caudal peduncle (8.3-9.4 % SL vs. 9.2-10.5), and from *L. poecilopterus* in having a longer adipose-fin base (19.3-22.4 % SL vs. 13.4-18.0). *Leiocassis collinus* is distinguished from *L. hosii* in having a deeper body (15.8-17.9 % SL vs. 9.5-13.7), deeper caudal peduncle (8.3-9.4 % SL vs. 4.9-6.1), and shorter head (26.3-28.8 % SL vs. 31.0-31.9), from *L. micropogon* in having a longer adipose-fin base (19.3-22.4 % SL vs. 14.0-18.0) and shorter head (26.3-28.8 % SL vs. 29.3-34.4) and from *L. tenebricus* in having a shorter pectoral spine (11.4-14.6 % SL vs. 9.2-12.8), deeper body (15.8-17.9 % SL vs. 14.0-15.1), larger eye (12.2-16.6 % SL vs. 9.9-11.0) and a color pattern of faint light patches on a darker body (vs. uniform brown).

Description. Morphometric data as in Table 1. Head and body somewhat compressed, body moderately slender; dorsal profile sloping evenly and ventral profile almost straight. Bony elements of dorsal surface of head covered with thick skin. Midline of cranium with elongate fossa extending from behind snout to base of supraoccipital spine. Supraoccipital spine elongate and narrow, not reaching nuchal plate. Eye ovoid, horizontal axis longest, with free margin; located entirely in dorsal half of head. Gill openings wide, extending from posttemporal to isthmus.

Mouth inferior, snout strongly projecting. Oral teeth small and viliform, in irregular rows on all tooth-bearing surfaces. Premaxillary tooth band rounded, of equal width throughout. Dentary tooth band much narrower than premaxillary tooth band at symphysis, tapering laterally. Vomerine tooth band unpaired, continuous across midline; smoothly arched along anterior margin, tapering laterally to point extending posteriorly well past level of premaxillary band; band width broader than premaxillary band at midline, and tapering posterolaterally.

Barbels short and in four pairs. Maxillary barbel extending to middle of orbit. Nasal barbel slender, extending to middle of orbit. Inner man-

Fig. 1. *Leiocassis collinus*, ZRC 46154, holotype, 179.0 mm SL; Borneo: Sabah: Sungai Palum Tambun.

dibular-barbel origin close to midline, extending to midway between barbel base and isthmus. Outer mandibular barbel originating posterolateral of inner mandibular barbel, extending to vertical through anterior orbital margin.

Body compressed. Dorsal profile rising evenly and steeply from tip of snout to origin of dorsal fin and sloping gently ventrally from origin of dorsal fin to posterior insertion of adipose fin. Ventral profile slightly convex to anal-fin base, then sloping slightly dorsally to end of caudal peduncle. Skin smooth. Lateral line complete and midlateral in position. Vertebrae 18 + 21 = 39* (1), 19 + 21 = 40 (2) or 20 + 20 = 40 (1).

Dorsal fin with spinelet, spine, and 7 (8) rays. Dorsal fin margin convex, usually with anterior branch of fin rays longer than other branches. Dorsal fin spine moderately long, straight and slender, posterior edge with 5-7 serrations. Nuchal plate narrow, tapering to pointed tip anteriorly.

Pectoral fin with stout spine, sharply pointed at tip, and 9* (7) or 10 (1) rays. Anterior spine margin smooth; posterior spine margin with 10-17 large serrations along entire length (serrations fewer in smaller specimens). Pectoral fin margin straight anteriorly, convex posteriorly.

Pelvic-fin origin at vertical through posterior end of dorsal-fin base, with i,5 (8) rays and slightly convex margin; tip of adpressed fin reaching anal-fin origin. Anus and urogenital openings located at vertical through middle of pelvic fin. Males with a short genital papilla not reaching to base of first anal-fin ray.

Adipose fin with convex margin for entire length and with deeply-incised posterior portion; length of base approximately equal to length of anal-fin base. Anal-fin base roughly in line with adipose fin, with v,9 (1), v,10* (3) or v,11 (4) rays and curved posterior margin.

Caudal peduncle moderately slender. Caudal

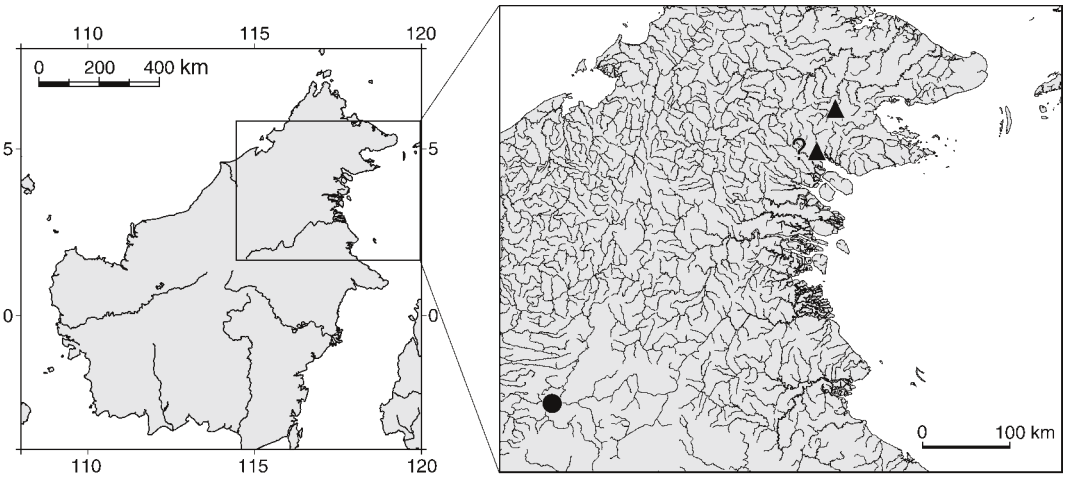

Fig. 2. Map showing distribution of *Leiocassis collinus* (▲) and *L. tenebricus* (●).

fin deeply forked, with i,7,8,i(8) principal rays; lobes slender and pointed, with upper lobe slightly longer than lower. Procurrent rays extend only slightly anterior to fin base.

Coloration. In 70 % ethanol: Dorsal and lateral surfaces of head and body light brown, with a cream band encircling nape. Lateral surfaces of body with pairs of irregular cream patches located dorsal and ventral to midaxial stripe: one at region between dorsal and adipose fins, another at caudal peduncle. Ventral surfaces of head and body cream; adipose fin light brown. Dorsal, caudal and all paired fins hyaline, with faint transverse light brown bands; anal fin with subdistal light brown band. Barbels cream.

Distribution. Known from the Kalabakan and Segama river drainages in Sabah, northeastern Borneo (Fig. 2).

Habitat. *Leiocassis collinus* has been collected in forested hillstreams consisting of both pool and riffle habitats. The water was clear and the substrate consisted of sand, gravel and rocks in the riffles and fine silt and dead leaves in the pools (Inger & Chin, 1962). The reader is referred to Inger & Chin (1962: 202-204) for a list of fish species occurring in this habitat.

Etymology. From the Latin collinus, which means pertaining to a hill, in reference to the habitat (hillstreams) of this species. The word is particularly associated with the hills in the northeastern

Table 1. Morphometric data for *Leiocassis collinus* (n=8) and *L. tenebricus* (n=4).

	L. collinus			*L. tenebricus*			
	holotype	range	mean±SD	holotype	paratypes		
Standard length				65.0	90.2	62.7	52.9
% of standard length							
Predorsal length	39.7	39.7-43.6	40.9±1.39	40.6	43.1	40.7	38.4
Preanal length	66.6	63.2-69.4	65.9±1.83	64.6	65.7	66.0	62.8
Prepelvic length	50.8	48.1-53.6	50.5±1.56	49.2	50.8	50.2	47.8
Prepectoral length	25.4	21.7-25.4	24.0±1.46	25.4	25.1	25.4	23.3
Length of dorsal-fin base	10.3	10.3-12.0	11.2±0.87	12.0	10.9	12.0	12.1
Dorsal-spine length	14.7	12.2-16.0	14.5±1.15	13.8	14.4	14.7	13.6
Anal-fin length	14.4	14.4-20.5	17.5±2.79	16.5	13.9	15.9	18.3
Pelvic-fin length	12.0	11.4-12.7	12.2±0.54	13.2	13.2	12.0	13.0
Pectoral-fin length	16.3	14.9-18.3	16.4±1.07	17.1	12.7	18.3	17.0
Pectoral-spine length	13.1	11.4-14.6	12.9±0.92	11.2	9.2	12.8	11.5
Caudal-fin length	21.4	20.7-23.4	21.4±1.02	21.4	21.2	23.1	21.7
Length of adipose-fin base	21.2	19.3-22.4	21.1±1.07	22.3	22.0	20.8	23.8
Adipose maximum height	5.0	4.0- 5.8	4.8±0.57	5.8	4.3	5.3	5.7
Dorsal to adipose distance	13.0	13.0-19.1	15.8±2.24	12.9	12.7	14.8	9.8
Post-adipose distance	16.7	15.7-17.6	16.7±0.64	17.5	16.4	16.9	15.7
Caudal peduncle length	20.8	17.4-20.8	19.7±1.22	19.1	19.7	20.4	17.8
Caudal peduncle depth	8.3	8.3- 9.4	8.9±0.39	6.9	7.6	7.5	7.2
Body depth at anus	15.8	15.8-17.9	16.9±0.96	14.0	15.1	14.4	14.0
Head length	27.9	26.3-28.8	27.6±0.85	28.0	28.2	28.4	27.4
Head width	15.7	15.2-19.1	17.2±1.36	18.2	17.4	18.0	15.7
Head depth	14.5	12.6-16.3	14.7±1.21	13.8	14.0	13.9	14.9
% of head length							
Snout length	32.3	32.3-39.2	35.3±2.76	32.4	34.6	34.3	33.1
Interorbital distance	24.0	24.0-30.4	26.6±2.47	25.3	25.6	25.3	24.8
Eye diameter	14.6	12.2-16.1	14.4±1.74	9.9	10.6	10.1	11.0
Nasal barbel length	8.0	8.0-13.3	9.8±2.43	17.6	12.6	19.1	18.6
Maxillary barbel length	22.2	22.2-32.5	28.0±5.30	45.6	37.0	46.6	50.3
Inner mandibular barbel length	10.2	10.2-14.9	12.3±1.96	16.5	16.5	19.7	15.2
Outer mandibular barbel length	14.0	14.0-24.8	20.6±4.78	30.8	22.8	28.1	21.4

Fig. 3. *Leiocassis tenebricus*, MZB 10718, holotype, 65.0 mm SL; Borneo: Kalimantan Timur: Sungai Nah.

part of Rome (the Quirinal and Viminal), and the choice of the name also alludes to the distribution (northeast Borneo) of this species. An adjective.

Leiocassis tenebricus, new species
(Fig. 3)

Holotype. MZB 10718, 65.0 mm SL; Borneo: Kalimantan Timur: Kayan River drainage, Sungai Nah, tributary to Kayan River ca. 20 minutes upstream of confluence with Iwan River, 1°57'43.2"N 115°6'35.4"E at 550 m asl; H. H. Tan et al., 27 Nov 1999.

Paratypes. ZRC 46155, 3, 52.9-90.2 mm SL; data as for holotype.

Diagnosis. *Leiocassis tenebricus* differs from congeners in having a uniform medium brown coloration (vs. mottled brown with cream or yellow patches), shorter pectoral spines (9.2-12.8 % SL vs. 13.0-21.3) and more vertebrae (42 vs. 38-40). It further differs from *L. aculeatus* and *L. poecilopterus* in having the posterior tip of the supraoccipital process separate from (vs. in contact with) the nuchal plate. *Leiocassis tenebricus* further differs from *L. hosii* in having a deeper body (14.0-15.1 % SL vs. 9.5-13.7), deeper caudal peduncle (6.9-7.6 % SL vs. 4.9-6.1) and shorter head (27.4-28.4 % SL vs. 31.0-31.9), from *L. micropogon* in having a longer adipose fin (20.8-23.8 % SL vs. 14.0-18.0) and shorter head (27.4-28.4 % SL vs. 29.3-34.4), and from *L. collinus* in having a slenderer body (14.0-15.1 % SL vs. 15.8-17.9), and smaller eye (9.9-11.0 % SL vs. 12.2-16.6).

Description. Morphometric data as in Table 1. Head and body somewhat compressed, body moderately slender; dorsal profile sloping evenly and ventral profile almost straight. Bony elements of dorsal surface of head covered with thick skin. Midline of cranium with elongate fossa extending from behind snout to base of supraoccipital spine. Supraoccipital spine elongate and narrow, not reaching nuchal plate. Eye ovoid, horizontal axis longest, with free margin; located entirely in dorsal half of head. Gill openings wide, extending from posttemporal to isthmus.

Mouth inferior, snout strongly projecting. Oral teeth small and viliform, in irregular rows on all tooth-bearing surfaces. Premaxillary tooth band rounded, of equal width throughout. Dentary tooth band much narrower than premaxillary tooth band at symphysis, tapering laterally. Vomerine tooth band unpaired, continuous across midline; smoothly arched along anterior margin, tapering laterally to point extending posteriorly well past level of premaxillary band; band width broader than premaxillary band at midline, and tapering posterolaterally.

Barbels short and in four pairs. Maxillary barbel extending to middle of orbit. Nasal barbel slender, extending to middle of orbit. Inner mandibular-barbel origin close to midline, extending to midway between barbel base and isthmus. Outer mandibular barbel originating posterolateral of inner mandibular barbel, extending to vertical through anterior orbital margin.

Body compressed. Dorsal profile rising evenly and steeply from tip of snout to origin of dorsal fin and sloping gently ventrally from origin of dorsal fin to posterior insertion of adipose fin. Ventral profile slightly convex to anal-fin base,

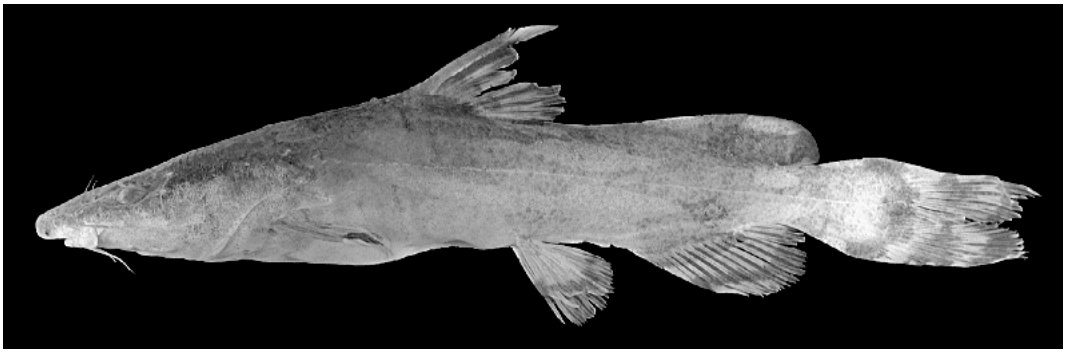

Fig. 4. *Leiocassis hosii*, ZRC 38704, 89.9 mm SL; Sumatra: Jambi.

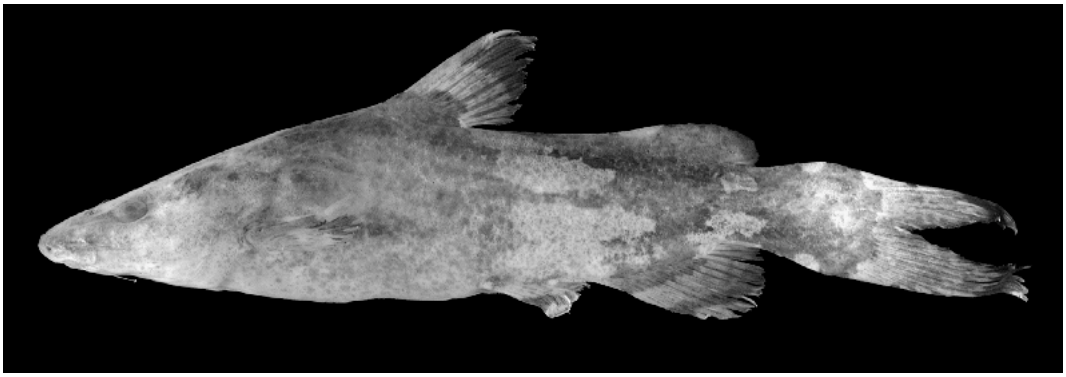

Fig. 5. *Leiocassis micropogon*, BMNH 2001.1.15.2142, 94.8 mm SL; Borneo: Kalimantan Tengah: Sungai Mongkumuh/Sungai Bahadeng.

then sloping slightly dorsally to end of caudal peduncle. Skin smooth. Lateral line complete and midlateral in position. Vertebrae 19 + 23 = 42* (1), or 20 + 22 = 42 (3).

Dorsal fin with spinelet, spine, and 7 (4) rays. Dorsal fin margin convex, usually with anterior branch of fin rays longer than other branches. Dorsal fin spine moderately long, straight and slender, posterior edge with 0-7 serrations. Nuchal plate narrow, tapering to pointed tip anteriorly.

Pectoral fin with stout spine, sharply pointed at tip, and 9 (3) or 10* (1) rays. Anterior spine margin smooth; posterior spine margin with 9-11 large serrations along entire length (serrations fewer in smaller specimens). Pectoral fin margin straight anteriorly, convex posteriorly.

Pelvic-fin origin at vertical through posterior end of dorsal-fin base, with i,5 (4) rays and slightly convex margin; tip of adpressed fin reaching anal-fin origin. Anus and urogenital openings located at vertical through middle of pelvic fin. Males with a short genital papilla not reaching to base of first anal-fin ray.

Adipose fin with convex margin for entire length and with deeply-incised posterior portion; length of base approximately equal to length of anal-fin base. Anal fin base roughly in line with adipose fin, with v,9 (1), v,10 (2) or v,11* (1) rays and curved posterior margin.

Caudal peduncle moderately slender. Caudal fin deeply forked, with i,7,8,i (4) principal rays; lobes slender and pointed, with upper lobe slightly longer than lower. Procurrent rays extend only slightly anterior to fin base.

Coloration. In 70 % ethanol: Dorsal and lateral surfaces of head and body medium brown. Ventral surfaces of head and body cream; adipose fin medium brown. Dorsal, caudal and all paired fins hyaline, with faint transverse medium brown bands; anal fin with subdistal medium brown band. Barbels cream.

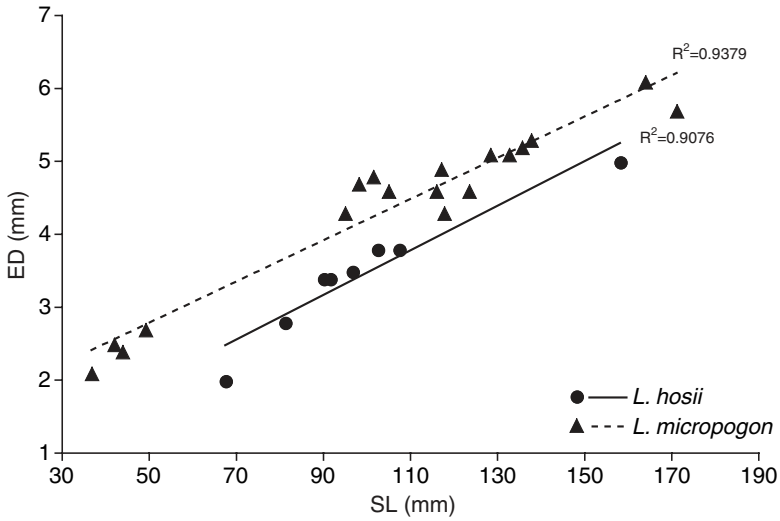

Fig. 6. Scatterplots of eye diameter (ED) against standard length for *L. hosii* and *L. micropogon*.

Habitat. The type locality is a fast flowing forest stream with 80 % canopy cover, cascades up to 4 m high, and a substrate consisting of sand, silt and rock. The water was clear with pH 7.4. Syntopic species include *Barbonymus schwanenfeldii*, *Hampala sabana*, *Nematabramis* sp., *Osteochilus enneaporos*, *Paracrossochilus* sp., *Systomus sealei* (Cyprinidae), *Pangio* cf. *mariarum* (Cobitidae), *Clarias* cf. *anfractus* (Clariidae), *Channa lucius* (Channidae), *Betta unimaculata*, and *Osphronemus septemfasciatus (Osphronemidae)*.

Distribution. Known from the Kayan River drainage in Kalimantan Timur, northeastern Borneo (Fig. 2).

Etymology. From the Latin tenebricus, meaning dark, in reference to the uniform brown coloration of this species. An adjective.

Discussion

The confused taxonomy and uncertainty surrounding the number of valid species of *Leiocassis* (sensu Mo, 1991) has discussed by Ng & Hadiaty (2005). According to Mo (1991), East Asian bagrid catfishes previously placed in *Leiocassis* (e.g. *L. longirostris*) are shown to possess synapomorphies of *Pseudobagrus* and lack synapomorphies that diagnose the Southeast Asian members of *Leiocassis* (=*Leiocassis* sensu stricto); the East Asian species have therefore been transferred to *Pseudobagrus*. Our study of the types of all nominal species and fresh material indicates that there are four species found in Southeast Asia: *L. aculeatus*, *L. hosii*, *L. micropogon* and *L. poecilopterus*.

Leiocassis hosii is here considered a distinct species occurring in the Banjuasin River drainage in Sumatra and the Rajang River drainage in Borneo, diagnosed from *L. micropogon* (with which it had been previously synonymized, e.g. see Roberts, 1989) in having a very slender body and caudal peduncle (body depth at anus 9.5-13.7 % SL vs. 14.3-18.0, caudal peduncle depth 4.9-6.1 % SL vs. 6.3-9.6; compare Figs. 4 and 5), and a smaller eye (9.3-11.7 % HL vs. 11.8-18.8). It is conceivable that the difference in body depth observed may be due to nutritional status (i.e. a slenderer body being a sign of emaciation), but this is considered unlikely to be the case here, as the two species are additionally diagnosed by the differences in eye diameter (which is independent of the nutritional status). Although eye diameter is generally a size-related measure (smaller fish have larger eyes), we note that scatterplots of eye diameter against SL for *L. hosii* and *L. micropogon* (Fig. 6) produce significantly different regression lines (ANCOVA, $p < 0.05$).

Leiocassis chaseni has been considered a synonym of *L. micropogon* (see Roberts, 1989: 117), but we place it in synonymy with *L. poecilopterus* instead. The holotype of *L. chaseni* is in very poor

condition, with the head partially disintegrated and the tip of its apparently long and narrow supraoccipital spine broken off. However, the musculature beneath where the supraoccipital spine has broken off bears a very narrow depression. This indicates that the spine extends to (and comes into contact with) the nuchal plate, which is diagnostic for *L. poecilopterus*.

Comparative material. *Leiocassis aculeatus*: MZB 8715, holotype, 121.9 mm SL; Sumatra: Aceh, Sungai Soraya, tributary of Sungai Alas. – MZB 5628, 1 paratype, 112.5 mm SL; ZRC 46416, 1 paratype, 90.7 mm SL; Sumatra: Aceh, Sungai Serembaning, Rundang Aceh Selatan.

L. hosii: BMNH 1906.10.29.18-22, 5 syntypes, 79.9-158.0 mm SL; Borneo: Sarawak, Rajang River at Sibu. – ZRC 38704, 1, 89.9 mm SL; Sumatra: Jambi. – UMMZ 245968, 1, 67.3 mm SL; Sumatra: Sumatera Selatan, Sungai Sentang in the vicinity of Desa Sukajaya.

L. micropogon: RMNH 6873, 3 syntypes, 64.1-164.3 mm SL; Biliton Island: Tjirutjup River. – BMNH 1868.1.28.30, holotype of *L. doriae*, 171.0 mm SL; Borneo. – BMNH 1893.3.6.170-171, 2 syntypes of *L. merabensis*, 132.5-135.5 mm SL; Borneo: Sabah, Beaufort District, Marabah. – BMNH 1893.3.6.168-169, 2 syntypes of *L. saravacensis*, 115.8-123.3 mm SL; Borneo: Sarawak, Senah. – BMNH 1894.11.14.1, holotype of *L. baramensis*, 163.8 mm SL; Borneo: Sarawak, Baram River. – USNM 35732, holotype of *L. regani*, 161.5 mm SL; Borneo: Sarawak, Sadong. – BMNH 2001.1.15.2138-2144, 7, 36.6-101.3 mm SL; Borneo: Kalimantan Tengah, Sungai Mongkumuh and Sungai Bahadeng, 0°37'22"S 114°44'8"E. – ZRC 43611, 2, 116.9-128.2 mm SL; Borneo: Sarawak, Bau, Serikin area. – ZRC 43716, 2, 95.3-104.8 mm SL; Borneo: Kalimantan Barat, Kapuas River drainage, Sungai Embaloh.

L. poecilopterus: RMNH 3004, holotype, 148.8 mm SL; Java: Lebak. – ZRC 290, holotype of *L. chaseni*, 67.0 mm SL; Malaysia: Pahang, Ulu Jelai. – CMK 11487, 1, 115.1 mm SL; Sumatra: Sumatera Selatan, Lematang River between Muara Niru and Tanjung Dalam. – UMMZ 243330, 3, 81.7-105.0 mm SL; Sumatra: Sumatera Barat, market at Kiliranjao. – UMMZ 243346 50, 34.7-145.0 mm SL; ZRC 41544, 7, 76.3-114.0 mm SL; Sumatra: Sumatera Barat, market at Sungaidareh. – ZRC 43816, 2, 86.3-98.4 mm SL; Malaysia: Trengganu, Sungai Brang, tributary of Trengganu River, outside Sekayu Waterfall Park.

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Lentipes rubrofasciatus, adult male
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(this volume pp. 187-191)

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