

Pantoreites cretatus.

P. ferrugineus, supra interrupte, subtus dense albo-squamosus; rostro breviusculo; scrobibus magis arcuatis, supra fere transversis; antennis paulo validis; funiculo articulo basali parum incrassato, quam secundo paulo longiore, tertio manifeste brevior; prothorace subconico, utrinque leviter rotundato, basi dilatato et bisinuato, confertissime punctato, punctis singulis squamulam albam gerentibus, vittis quinque e squamis ovatis formatis, notato, punctis cæteris squamulis minutis piliformibus instructis; scutello ovato; elytris humeris prominulis, lateribus gradatim angustioribus, apice rotundatis, substriato-punctatis, punctis subremotis, interstitiis angustulis, vix convexis, lateribus suturaque irregulariter dense squamosis, reliquis denudatis; mesosterno producto; pedibus validis; tibiis intus fortiter dentatis. Long. $3\frac{1}{2}$ lin.

Hab. Champion Bay.

The mesosternum is also produced in *P. scenicus*, from which this species may be known, *inter alia*, by its prominent shoulders and more lightly sculptured elytra.

Pantoreites Breweri.

P. rufo-testaceus, squamulis piliformibus, aliis ovatis intermixtis, albis, plerumque sat dense tectus; rostro antice leviter tricarinato; funiculo articulis duobus basalibus parum elongatis, fere æqualibus, tertio multo brevior; prothorace utrinque rotundato, basi quam apice haud latiore, illa truncata, in medio squamulis piliformibus, ad latera squamulis ovatis magis condensatis, tecto; scutello ovato; elytris humeris rotundatis, lateribus parallelis, apicem versus cito gradatim angustioribus, striato-punctatis, punctis elongatis, interstitiis latis, subplanatis, tertio postice leviter tuberculato; corpore infra minus squamoso; mesosterno haud producto; pedibus parce pilosis; femoribus in medio crassioribus, tibiis anticis intus bisinuatis. Long. $2\frac{3}{4}$ lin.

Hab. Swan River.

The tricarinated rostrum and narrow base of the prothorax will at once differentiate this species, which must be considered an aberrant form if retained in the genus. It is dedicated to Mr. Brewer, who has done so much by his collections to elucidate the entomology of Swan River.

[To be continued.]

XXXI.—*Report on a Collection of Fishes from China*. By Dr. ALBERT GÜNTHER, F.R.S., Assistant Keeper of the Zoological Department, British Museum.

MR. R. SWINHOE, H.M. Consul at Shanghai, having sent to the

British Museum a collection of freshwater fishes made at that place, I have thought it worthy of a separate report, as it contains an unusually large proportion of new species or such as are but imperfectly known. Their number would have been still larger if a great part of the collection had not unfortunately perished during transit to Europe. Only too frequently specimens are sent off by collectors before they are thoroughly saturated with strong spirits; and the inevitable consequence is that they are softened by internal decomposition and knocked to pieces by the rough treatment to which packages are subjected during a long journey. All specimens collected in a hot climate and placed in spirits ought to be retained by the collector for at least four weeks before they are sent off, and the spirits changed two or three times.

I have included in the following list only a few species obtained from other sources, which are therefore specially mentioned. Where no locality is given, the species is from Shanghai, and collected by Mr. Swinhoe.

1. *Siniperca chuatsi*, Basil.

2. *Siniperca chuatsi*, Basil.

This species has a much lower body than the first.

3. *Percalabrax japonicus*, C. & V.

D. 12 | $\frac{1}{13-14}$. A. $\frac{3}{8-9}$.

Præoperculum with four or five spinous hooks.

4. *Haplogenyx nigripinnis*, Rich.

5. *Dentex hypselosoma*, Blkr.

6. *Cottus pollux*, sp. n.

D. 9 | 19. A. 13.

Skin smooth. No spines on the head, except on the præoperculum (which is armed with a small, flat, and slightly curved spine) and on the suboperculum, the spine of which is still smaller. Lateral line reaching to the caudal fin. The vent is conspicuously nearer to the root of the caudal than to the end of the snout. First dorsal very low. Origin of the anal opposite to the fourth dorsal ray. The ventrals extend somewhat beyond the vent. In general appearance and in colour very similar to *Cottus gobio*.

Two specimens, $4\frac{1}{2}$ inches long, were found by Captain St. John in a river at Otarranai, Japan.

7. *Platycephalus japonicus*, Tiles.8. *Trigla kumu*, Less.9. *Lepidotrigla microptera*, sp. n.

D. 9 | 17. A. 17. L. lat. 75.

Scales regular, finely serrated. Lateral line without spines. Snout rather short, with the upper profile nearly straight. Præorbital terminating anteriorly in three or two conical spines. Dorsal spines rather strong, the first four fifths the length of the second, which is as high as the body. The pectoral reaches to the fourth anal ray. A large blackish spot between the fourth and seventh dorsal spines. The whole of the inner side of the pectoral black, with the exception of the four lower rays.

One specimen, $10\frac{1}{2}$ inches long.

10. *Gobius hasta*, Schleg.11. *Gobius stigmatias*, Rich.

LOPHIOGOBIUS (g. n. Gobiin.).

Body rather elongate, covered with scales of moderate size; gill-openings rather wide. Head large, depressed; cleft of the mouth wide; jaws with a series of rather large subhorizontal teeth distant from each other, and not covered by the lips. A series of very small teeth within the outer series. Palate smooth. The spinous is separate from the soft dorsal, and composed of seven spines, of which the first is stiff and pungent. Ventral fins united, not adherent to the belly. Pseudobranchiæ.

12. *Lophiogobius ocellicauda*, sp. n.

D. 7 | 17. A. 17. L. lat. ca 38.

Head much broader than the body, its width being nearly as much as the length of the postorbital part; eyes small, directed upwards, distant from each other, situated in the anterior part of the length of the head; lower jaw prominent, maxillary extending behind the eye. The length of the head is nearly one third of the total (without caudal). Tail very low; caudal pointed, elongate. Vent somewhat nearer to the root of the tail than to the end of the snout. Pectoral very large, extending to the vent in females and beyond it in males. Scales thin, rather deciduous, finely crenulated. Light greenish, each scale with darker margin; a black white-edged ocellus on the base of the caudal rays; lower parts white.

Several specimens, fully mature, from 4 to $4\frac{1}{2}$ inches long.

13. *Tricænophorichthys trigonocephalus*, Gill.14. *Tricænophorichthys barbatus*, Gthr.

This species has been collected by Mr. Swinhoe in considerable numbers; and many of the specimens have the head less broad than the types, the greater or lesser fulness of the cheeks depending apparently on the abundance of food.

15. *Eleotris potamophila*, Gthr.16. *Eleotris Swinhonis*, sp. n.

This species belongs to the group with compressed body and head (*E. cyprinoides*, &c.).

D. 7 | 12. A. 9. L. lat. 32.

Snout and interorbital space scaleless, the remainder of the head scaly. Body compressed, its depth being one fourth of the total length (without caudal), the length of the head two sevenths. The diameter of the eye is one fourth of the length of the head, equal to that of the snout, and more than the width of the interorbital space. Snout pointed, with the lower jaw longest. The maxillary extends to the vertical from the front margin of the eye. Greenish olive (in spirits), with more or less distinct darker markings on the side of the body; sometimes the markings are in the form of seven broad cross bands, some of which may be divided into two; sometimes a vertical band below the eye. Dorsal fins black, the second with series of lighter spots.

Several specimens, 2 inches long.

17. *Eleotris sinensis* (Lac.).18. *Periophthalmus Kœlreuteri* (Pall.).19. *Boleophthalmus viridis* (Buch. Ham.).20. *Callionymus olidus*, sp. n.

D. 3-4 | 9. A. 9.

Præopercular spine nearly as long as the orbit, cylindrical, slightly curved, terminating in from four to six hook-like processes directed upwards; a straight process at the base of the spine points forwards. Gill-opening a very small foramen at the upper surface of the neck. The length of the head is contained thrice and one fifth in the total length (without caudal). Vent in the middle between the end of the snout and the base of the caudal. Upper parts greyish, powdered with darker;

the first dorsal black, with the rays somewhat elongate in the male.

Numerous adult specimens, 2–3 inches long.

21. *Mastacembelus sinensis*.

Rhynchobdella sinensis, Bleek. Versl. & Meded. Ak. Wet. Amsterd. 1870, p. 249, c. fig.

D. 30–34 | 60. A. 3 | 70.

Præoperculum without spines. Rostral appendage extremely short. The maxillary extends to below the front margin of the eye. Vertical fins continuous. Brownish, with a broad, straight, blackish-brown band along the side of the body; the parts below the band marbled and reticulated with brown.

	inches.
Total length.....	7½
Length of the head.....	1¼
Length of the tail.....	3½

Differs from *M. maculatus* in having the cleft of the mouth wider.

22. *Polyacanthus opercularis*, L.

23. *Mugil soiwuy*, Basil.

A very slender species, with adipose eyelids, nine anal rays, and forty-four scales in the lateral line.

24. *Cynoglossus robustus*, sp. n.

? *Cynoglossus oligolepis*, Steindachner, Wien. Sitzsb. lv. 1867, p. 587 (not Bleek.).

D. 131. A. 102. L. lat. 83.

Two lateral lines on the left side; when counted at the end of the abdominal cavity, the upper line is separated from the middle by ten longitudinal series of scales. One lateral line on the right side. One ventral united with the anal. Two nostrils—one anteriorly between the eyes, the other in front of the lower margin of the lower orbit. The upper eye is scarcely in advance of the lower; the width of the interorbital space is less than the diameter of the eye, which is a little nearer to the end of the snout than to the gill-opening. Lips not fringed. Length of the snout contained twice and a fourth in that of the head. The angle of the mouth is opposite to the posterior margin of the eye, and exactly in the middle of the length of the head. The rostral hook terminates behind the symphysis of the mandible. The height of the body is two ninths of the total length, the length of the head one fifth. Uniform light brownish.

One specimen, 12½ inches long.

25. *Cynoglossus abbreviatus*, Gray.26. *Cynoglossus gracilis*, sp. n.

D. 139. A. 106. V. 4. L. lat. 150.

Three lateral lines on the left side. On the level of the end of the abdominal cavity the upper line is separated from the middle by 21 rows of scales, and the lower from the middle by 24. One lateral line on the right side. Scales ctenoid on both sides. One ventral united with the anal. Two nostrils—one between the eyes, the other opposite to the lower margin of the lower eye. Eyes extremely small, the upper not in advance of the lower; interorbital space much wider than the orbit. Lips not fringed. The length of the snout is contained twice and one third in that of the head. Angle of the mouth a little nearer to the end of the snout than to the hind margin of the gill-cover, below the eye. The rostral hook terminates behind the symphysis of the mandible. Tail much tapering behind. The height of the body is scarcely more than the length of the head, which is one fifth of the total (without caudal). Uniform light brownish; basal half of the vertical fins darker than the outer half.

One specimen, 9 inches long, and several young ones.

27. *Silurus asotus*, L.

MACRONES, LIOCASSIS, and PSEUDOBAGRUS.

In my systematic arrangement of the Siluroid fishes, I refused to acknowledge the presence or absence of a thin integument on the upper surface of the head as a generic character, whilst I admitted Bleeker's generic divisions of *Liocassis*, based on the absence of an orbital fold, and of *Pseudobagrus*, based on the many-rayed anal fin. However, the discovery of a few new forms shows that, also, the two latter characters are quite useless for a generic arrangement of the species, and that *Liocassis* and *Pseudobagrus* should not be separated from *Macrones*.

28. *Macrones (Pseudobagrus) fulvidraco*.

Pimelodus fulvidraco, Richards. Ichth. Chin. p. 286.

Silurus calvarius, Basilewsky.

Pseudobagrus fulvidraco, Gthr. Fish. v. p. 85.

Pelteobagrus calvarius, Bleek. Ned. Tydschr. Dierk. 1864, p. 9.

Numerous examples.

29. *Macrones (Pseudobagrus) tenuis*, sp. n.

D. 17. A. 22.

Head smooth above, covered with a thin skin, but the occi-

pital process and the basal bone of the dorsal spine are exposed and finely granular*. Occipital process narrow, four times as long as broad; basal bone of the dorsal spine elongate, triangular, two thirds as long as the occipital process, from which it is separated by an interspace. Body much elongate, its depth being one eighth of the total length (without caudal), the length of the head being one fifth. Snout depressed, obtuse, rather broad, twice as long as the eye, which is of moderate size, one seventh of the length of the head. Mouth inferior, as wide as the broad snout. Teeth on the palate in an uninterrupted crescentic band, which is not much narrower than that of the intermaxillaries. Barbels very short and thin, the nasal filaments extending not beyond, and those of the maxillaries but little behind, the orbit; chin-barbels still shorter. Dorsal spine not serrated, at least as high as the body; pectoral spine stronger, strongly denticulated interiorly. Adipose fin at least as long as anal. Caudal rounded. Uniformly dark-coloured.

One specimen, $10\frac{1}{2}$ inches long.

30. *Macrones (Liocassis) longirostris*.

Liocassis longirostris, Gthr. Fish. v. p. 87 (1864, Febr.).

Rhinobagrus Dumerilii, Bleek. Ned. Tydsch. Dierk. (1864, April) p. 7.

See Zool. Record, i. p. 165.

The outer wall of the air-bladder is thicker than I have seen it in any other fish; it is comparatively thicker in old examples (20 to 24 inches) than in younger ones.

31. *Macrones (Liocassis) taeniatus*, sp. n.

D. $1\frac{1}{6}$. A. 18.

Head nearly entirely covered with a thin skin above; but a portion of the occipital process and basal bone of the dorsal spine is exposed and finely granular. Occipital process short, not longer than, and separated by an interspace from, the triangular basal bone of the dorsal spine. Body rather elongate, its depth being one sixth of the total length (without caudal); the length of the head is one fifth. Snout depressed, broad, obtuse, twice as long as the eye, which is rather small, one sixth of the length of the head. Mouth anterior, the upper jaw being but little longer than the lower. Teeth on the palate in an uninterrupted crescentic band, which is rather narrower than that of the intermaxillaries. The nasal barbels extend somewhat behind the eye, those of the maxillaries to the gill-opening; and the chin-barbels are about half as long as

* Thus offering additional evidence of the trivial nature of the genus "*Pelteobagrus*."

the head. Dorsal spine not serrated, lower than the body; pectoral spines as long as, but stronger than, that of the dorsal fin, strongly denticulated interiorly. Adipose fin shorter than the anal. Caudal rounded. Dark brown, with a broad blackish band along the side of the body.

One specimen, 6 inches long.

32. *Carassius auratus*, L.

Original form, with the colours as in *Carassius vulgaris*. L. lat. 28.

33. *Gobio nigripinnis*, sp. n.

Although this species lacks barbels, I nevertheless refer it to the genus *Gobio*—because it has one, and probably sometimes two small pharyngeal teeth in an inner series, whilst *Pseudogobio* has only one series of pharyngeal teeth.

D. 10. A. 8. L. lat. 37. L. transv. $4\frac{1}{2}/5$.

The height of the body is nearly equal to the length of the head, and one fourth of the total (without caudal). Snout rather compressed, obtusely conical, longer than the diameter of the eye, which is one fourth of the length of the head. Mouth small, inferior; the lower jaw with the lips well developed, interrupted at the symphysis. Suborbitals (with the exception of the præorbital) very narrow. The origin of the dorsal fin is considerably nearer to the end of the snout than to the root of the caudal; ventrals inserted below the hinder half of the dorsal. Caudal forked. Pectorals rather shorter than the head, not extending to the ventral. There are three series of scales between the lateral line and ventral fin. Light yellowish brown, with or without large, dark, irregular, cloudy spots. Nearly all the fins are black, or at least partly black. Generally a vertical deep-black spot on the shoulder. Head and throat of males during the spawning-season orange-coloured.

Numerous examples, up to 5 inches long.

34. *Gobio nitens*, sp. n.

Without barbels, like the preceding species, and with the same dentition.

D. 10. A. 8. L. lat. 35. L. transv. $3\frac{1}{2}/5$.

The height of the body is one fifth of the total length (without caudal), the length of the head one fourth. Snout not compressed, obtusely conical, scarcely as long as the diameter of the eye, which is two sevenths of the length of the head. Mouth very small, inferior. Suborbitals (with the exception of

the præorbital) very narrow. Origin of the dorsal fin considerably nearer to the end of the snout than to the root of the caudal; ventrals inserted below the middle of the dorsal. Caudal deeply forked. Pectorals rather shorter than the head, extending to the ventrals. There are two series of scales between the lateral line and the ventral fin. Back with a light reddish tinge, below silvery; a silvery blue band along the middle of the side. Dorsal and caudal faintly dotted with blackish.

Three specimens, $2\frac{3}{4}$ inches long.

35. *Pseudogobio sinensis* (Kner).

Whether this species or one of the other gudgeons common in China has been mentioned by Basilewsky under the name of *Gobio rivularis*, will be a question open to discussion, although of but little importance. The fact is, Basilewsky was unable to characterize the fishes observed by him; whilst Kner has given a scientific description of this species. Therefore I adopt the name given by the latter. Neither Kner nor Bleeker has had adult examples; but Mr. Swinhoe has sent immature as well as mature individuals in considerable number. This species attains to a length of $5\frac{1}{2}$ inches. In adult males the dorsal fin becomes very high, higher than the body, with rounded upper margin; like the caudal, it is ornamented with numerous short black streaks, arranged in bands. The anal extends to the caudal. Most of the scales have a brownish dot at the base, and also the snout is dotted. The blackish spot at the base of the caudal fin disappears.

36. *Pseudorasbora parva*, Schleg.

37. *Myloleucus æthiops*, Basil.

The *Leuciscus æthiops* of Basilewsky is clearly the type of a distinct genus, for which I propose the name of *Myloleucus*, and which is characterized by extremely broad, molar-like pharyngeal teeth, in a single series.

38. *Ctenopharyngodon idellus*, C. & V.

39. *Acanthorhodeus tænianalis*, sp. n.

D. 18. A. 15. L. lat. 36. L. transv. $5\frac{1}{2}/6$.

Barbels none. The height of the body is contained twice and one fourth in the total length (without caudal), the length of the head four times. Snout shorter than the eye, the diameter of which is one third of the length of the head, and a little less than the width of the interorbital space. The origin

of the dorsal fin is midway (or nearly so) between the end of the snout and the root of the caudal ; its last ray is opposite to the fourteenth of the anal fin. The second ray of the dorsal and anal fins is a strong spine ; but sometimes the dorsal spine terminates in a flexible top*. Pectoral extending nearly to the ventral. There are five longitudinal series of scales between the lateral line and ventral fin. Dorsal and anal fins with two rows of white spots, which are on the rays themselves, and particularly distinct in males on the dark ground-colour of the anal fin, which has also a white margin.

Four examples, up to 5 inches in length.

40. *Acanthorhodeus atranalis*, sp. n.

D. 14-15. A. 12-13. L. lat. 35. L. transv. $5\frac{1}{2}/6$.

Barbels none. The height of the body is two fifths, or a little less than two fifths, of the total length (without caudal), the length of the head a little less than one fourth. Snout shorter than the eye, the diameter of which is rather more than one third of the length of the head, and somewhat less than the width of the interorbital space. The origin of the dorsal fin is midway between the snout and the root of the caudal ; its last ray is opposite to the eighth of the anal fin. The second ray of the dorsal and anal is a strong spine. Pectoral extending nearly to the base of the ventral. There are five and a half longitudinal series of scales between the lateral line and ventral fin. Dorsal and anal rays longitudinally edged with black, these black streaks being interrupted by two whitish bands crossing the rays. Males with a more or less extensive deep-black broad margin of the anal fin.

Numerous examples, males and females with the egg-tube, upwards of 3 inches long.

41. *Achilognathus barbatulus*, sp. n.

D. 13. A. 11. L. lat. 36. L. transv. $6/6$.

A pair of very short barbels. The height of the body is two fifths of the total length (without caudal), the length of the head a little less than one fourth. Snout a little shorter than the eye, the diameter of which is one third of the length of the head, and equal to the width of the interorbital space. The origin of the dorsal fin is somewhat nearer to the root of the caudal than to the end of the snout, a little behind the root of the ventral ; its last ray is opposite to the ninth of the anal fin ; its second ray is stiff in its basal half, but flexible in its

* I have no doubt that the *Acanthorhodeus*-species will be referred to *Achilognathus* before long.

upper half. The second anal ray is stronger than the second of the dorsal, spine-like, but flexible at the top. Caudal fin forked. The pectoral fin extends nearly to the root of the ventral. Lateral line but slightly bent downwards. There are four longitudinal series of scales between the lateral line and ventral fin. Silvery, a narrow bluish band along the middle of the side of the tail. Each dorsal ray longitudinally edged with black; anal fin with two bands composed of short vertical blackish markings.

An adult female is 3 inches long.

42. *Rhodeus ocellatus*, Kner.

43. *Opsariichthys acutipinnis*, Blkr.

44. *Opsariichthys bidens*, sp. n.

D. 10. A. 13. L. lat. 44. L. transv. 9/5.

Mouth wide, the maxillary extending beyond the front margin of the eye. The end of the lower jaw is received in a notch of the upper, and has on each side, in front, a notch to receive a strong projection of the upper jaw. The diameter of the eye is contained nearly five times in the length of the head, and once and two thirds in that of the snout. Anterior anal rays rather elongate, but not extending to the caudal if laid backwards. Origin of the dorsal opposite to that of the ventral, and nearer to the root of the caudal than to the end of the snout. Caudal deeply forked. The pectoral does not extend to the ventral. The length of the head is contained thrice and two thirds in the total (without caudal), the height of the body five times. Sub-orbital ring broad, its width below the orbit being rather more than one half that of the eye. Snout without grooves or pores. Uniform silvery.

One specimen, 4 inches long.

45. *Squaliobarbus curriculus*, Rich.

46. *Hypophthalmichthys nobilis*, Gray.

47. *Chanodichthys pekinensis*, Basil.

48. *Hemiculter leucisculus*, Basil.

TOXABRAMIS (g. n. Abramidin.).

Body elongate, much compressed, the entire abdominal edge being trenchant. Scales of moderate size; lateral line bent downwards behind the pectoral, and rising again to the

middle of the tail behind the anal. Mouth oblique, lower jaw prominent; barbels none. Dorsal fin short, *with a strong serrated spine*, placed above the interval between ventral and anal; anal fin long, many-rayed; caudal forked; pectorals long. *Pharyngeal teeth in a double series* (5 . 2).

49. *Toxabramis Swinhonis*, sp. n.

D. 10. A. 20. L. lat. 62. L. transv. 9/4.

The height of the body is contained four times and two thirds in the total length (without caudal), the length of the head four times and a half. Snout shorter than the eye, which is two sevenths of the length of the head, and more than the width of the interorbital space. Upper profile of the head and nape straight; tip of the snout nearly on the same level with the upper margin of the eye. Mouth narrow, not extending to the front margin of the orbit. Origin of the dorsal midway between the root of the caudal and the eye. Pectoral just reaching the ventral. Silvery.

Numerous examples, to 4 inches in length.

50. *Culter brevicauda*, Gthr.

51. *Misgurnus anguillicaudatus*, Cant.

52. *Coilia nasus*, Schleg.

53. *Salanx chinensis*, Osbeck.

54. *Monopterus javanensis*, Lac.

55. *Anguilla bengalensis*, Gray.

56. *Triacanthus brevirostris*, Schleg.

57. *Tetrodon ocellatus*, Osbeck, var. *bimaculata*.

58. *Acanthias vulgaris*, Risso.

59. *Psephurus gladius*, Martens.

An example nearly five feet long, sent by Mr. Swinhoe, and several others obtained nearly at the same time have enabled me to make an autoptical comparison of *Polyodon gladius* with *P. folium*; and I have convinced myself that there are sufficient grounds for separating the former in a distinct genus, for which I propose the name *Psephurus**, and which is distinguished by comparatively short gill-rakers in moderate number, and by enormously developed fulcra; they are of larger size and in less number than in any fossil Ganoid.

* From ψήφος, pebble.



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