
March 28th; Descriptions of New Species of Fishes Collected in Texas, New Mexico and Sonora, by Mr. John H. Clark, on the U. S. and Mexican Boundary Survey, and in Texas by Capt. Stewart Van Vliet, U. S. A; Rectification of the Generic Names of Tertiary Fossil Shells; Notes on Shells, with Descriptions of Three Recent and One Fossil Species; Note on the Genus *Amblychila*, Say

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JSTOR

March 7th, 1854.

DR. ELWYN in the Chair.

Letters were read :

From the American Philosophical Society, dated Feb. 17th, 1854; from the Lyceum of Natural History of New York, dated Feb. 21, 1854, and from the Royal Academy of Sciences of Stockholm, dated Nov. 2, 1854, severally acknowledging the receipt of the Publications of the Academy.

From the Royal Academy of Sciences of Stockholm, dated Nov. 2, 1853, transmitting the volumes acknowledged this evening.

The Corresponding Secretary read a printed circular from the Portland (Maine) Natural History Society, dated Jan., 1854, giving an account of the destruction by fire of their entire Cabinet and Library, and soliciting donations in aid of a renewal of the same.

Referred to the Curators and Library Committee, with power to act.

A paper, intended for publication in the Proceedings, was read, entitled "Descriptions of new species of Fishes collected in Texas, New Mexico and Sonora, by Mr. John H. Clark, on the U. S. and Mexican Boundary Survey, and in Texas by Capt. Stewart Van Vliet, U. S. A., Part 2; by S. F. Baird and C. Girard." Referred to Dr. Le Conte, Dr. Hallowell and Mr. Cassin.

Dr. Le Conte presented a paper for publication in the Proceedings, entitled "Note on the genus *Amblychila*, Say; which was referred to Dr. Zantzing, Mr. Ashmead and Dr. Leidy.

Mr. Conrad presented the following papers, viz., "Rectification of the generic names of Tertiary Fossil shells," and "Notes on Shells, with descriptions of three recent and one fossil species," both of which, being intended for publication, were referred to Dr. Leidy, Mr. Hanson and Dr. Le Conte.

Mr. Cassin announced the decease of Mr. John Speakman, one of the few remaining founders of the Academy.

March 14th.

Vice-President BRIDGES in the Chair.

A letter was read from George Dock, M. D., dated Harrisburg, Penna., March 4th, 1854, acknowledging the receipt of his notice of election as a member.

Also a letter from G. H. Kuntz, of Leipzig, dated Feb. 11, 1854, in reference to a collection of Birds' Eggs for sale in that city, with a catalogue of prices. Referred to the Curators.

March 28th.

Vice-President BRIDGES in the Chair.

The Committees, to which were referred papers read March 7th, by Prof. Baird and Charles Girard, by Dr. Le Conte, and by Mr. Conrad, severally reported in favor of their publication in the Proceedings.

*Descriptions of new species of Fishes collected in Texas, New Mexico and Sonora, by Mr. John H. Clark, on the U. S. and Mexican Boundary Survey, and in Texas by Capt. Stewart Van Vliet, U. S. A.**

By F. S. BAIRD and CHARLES GIRARD.

Second Part.

PERCOIDÆ.

1. *POMOTIS SPECIOSUS*, B. and G.—Body ovate, gibbous on the nape; snout small. Head forming the fourth of the total length. Eyes large, their diameter one fourth of the length of the side of the head. Mouth small, posterior extremity of intermaxillary extending to a vertical line passing in advance of the orbit. Peduncle of the tail well developed; caudal with its posterior margin emarginated, and forming little less than the fifth of the total length. Pectorals elongated, their tips reaching as far backwards as those of the ventrals, and to the anterior margin of the anal. Scales of lateral line, 43.

D X. 11. A III. 11. C 4. I. 8. 7. I. 3. V I. 5. P 11.

Ground color, as preserved in alcohol, brownish; lighter beneath. A narrow blackish vitta on each side near the dorsal line, following the curve of the back. Posterior portion of soft dorsal provided with a large subcircular black spot. Anal and ventrals blackish. Pectorals yellowish. Opercular flap moderate, black.

Brownsville, Texas.—Capt. Van Vliet. J. H. Clark.

2. *POMOTIS FALLAX*, B. and G.—Body short and high, thicker, and head and mouth larger than in *P. speciosus*. Body depressed at the nape. Outline of head more oblique, at an angle of about 45 degrees with the axis of the body. A vertical line erected at the posterior extremity of the maxillary, would pass along the anterior edge of the pupil to the line of insertion of head and body. Opercular flap very large and black. Peduncle of the tail shorter than in *P. speciosus*, as also the pectorals, which do not reach as far back as the filamentous tips of the external soft ray of the ventrals. Scales of lateral line, 39.

D X. 11. A III. 9. C 3. I. 8. 7. I. 2. V I. 5. P 14.

Deep blackish brown above, yellowish beneath. Bluish dots on the sides of head, sometimes confluent into irregular lines. A small dark spot at the posterior and basal portion of the soft dorsal fin. Ventrals blackish.

Elm Creek, Texas.—J. H. Clark.

3. *POMOTIS CONVEXIFRONS*, B. and G.—Allied to the two preceding species in general appearance. The nape is little if at all depressed. A vertical line erected from the posterior extremity of the maxillary, would pass along the anterior border of the pupil and fall considerably behind the line of junction of head and body; angle of outline of head with the axis of body, more than 45°. Scales in lateral line, 37. Peduncle of tail short. Opercular flap black and larger than in *P. fallax*. The spiny dorsal is highest upon its middle, and the external soft ray of ventrals not prolonged into a thread.

D X. 11. A III. 9. C 3. I. 8. 7. I. 2. V I. 5. P 13.

Color uniform reddish brown; fins light greyish. Posterior and basal portion of soft dorsal provided with a small roundish spot. Ventrals blackish.

Rio Cibola, trib. of Rio San Antonio, Texas.—J. H. Clark.

4. *POMOTIS NEFASTUS*, B. and G.—General form more elongated than in *P. convexifrons*, and less so than in *P. aquilensis*. Outline nearly straight along nape. Opercular flap small, black, narrowly margined with blue. Head forming two-sevenths of the total length. Eyes rather large, their diameter forming the fourth of the length of side of head. Mouth rather small; a vertical line erected from the posterior extremity of the maxillary, would pass between the anterior edge of the orbit and the pupil, and fall considerably anterior to the

* The species described in this paper from the waters of western Texas and those emptying into the Gila, were collected while the Boundary Survey was in charge of Col. J. D. Graham; the others while under Major W. H. Emory.

nuchal line. Caudal fin posteriorly emarginated. Spiny dorsal comparatively low. Soft part of dorsal and of anal well developed. Tip of ventrals reaching the anterior margin of anal. Pectorals not extending quite as far back. Scales along lateral line, 45.

D XI. 10. A III. 10. C 3. I. 8. 7. I. 2 V I. 5. P 14.

Uniform reddish brown, lighter on lower part of flanks. A small black spot at the posterior basal part of the soft dorsal. Dorsals, caudal and anal greyish, with a darker margin. Ventrals and pectorals yellowish.

Rio Cibolo and Rio Salado, Texas.—J. H. Clark.

5. *POMOTIS HEROS*, B. and G.—General outline subelliptical. Nape depressed. Head forming the third of the length, not including the caudal fin. Caudal entering for about five times in the total length. Eyes large, and contained four times, by their diameter, in the length of side of head. Mouth small; posterior extremity of intermaxillaries not extending beyond a vertical from the anterior rim of the orbit. Pectorals very long, their tip reaching backwards as far as the second soft ray of anal fin. Tip of ventrals extending to the first spine of the anal. Caudal crescent-shaped. Spiny dorsal elevated.

D X. 12. A III. 11. C 3. I. 8. 7. I. 2. V I. 5. P 13.

Color uniform blackish brown. Pectorals yellowish; other fins greyish. Opercular flap black with a whitish border.

Rio Cibolo, trib. of Rio San Antonio, Texas.—J. H. Clark.

6. *BRYTTUS LONGULUS*, B. and G.—*Pomotis longulus*, B. and G. Proc. Acad. Nat. Sc., Philada. vi. 1853, 391; and in *Marcy's Expl. Red River, La., 1853*. Pl. xii., page 245.

The specimens are larger than those previously described. The coloration is likewise better preserved.

D X. 11. A III. 9. C 3. I. 8. 7. I. 2. V I. 5. P 13.

The ground color, as preserved in alcohol, is reddish brown with minute impunctures of greyish, the dorsal and anal being provided posteriorly, the first with a subcircular, large black spot, the second with an elongated spot of the same color, and extending nearly to the whole base of the soft part of that fin. The pectorals and caudal are uniform greyish, the latter having a yellowish border. Ventrals and external half of anal yellowish.

Rio Cibolo, trib. of Rio San Antonio, Texas.—J. H. Clark.

7. *GRYSTES NUECENSIS*, B. and G.—Head forming four-thirteenths of the entire length. Mouth deeply cleft; its angle reaching a vertical passing backwards of the eye; lower jaw longer than the upper. Eyes rather large; their diameter contained six times in the length of side of head. Scales on the cheeks a little smaller than those on the opercular apparatus. First dorsal lower than the second. caudal subcrescentic posteriorly. Anal extending a little further behind the second dorsal, though shorter and less deep.

D X. 13. A III. 11. C 4. I. 8. 8. I. 3. V I. 5. P 15.

Ground color of back black, clouded with greyish brown. Sides dull yellow-grey, with an interrupted darker band. Beneath light yellow.

Rio Frio and Rio Nueces, Texas.—J. H. Clark.

LABRIDÆ.

HERICHTHYS, B. and G.—Body compressed; outline subelliptical; frontal region convex. Teeth small, subconical, simple, anterior row the most conspicuous. Lower lip entire. Five branchiostegal rays. Ventrals, dorsal and anal fins acuminate; caudal rounded. Five or six spiny rays to the anal. Scales large; lateral line interrupted posteriorly.

Obs.—This genus has strong affinities with *Heros* of Heckel, from which it chiefly differs by the structure of the anterior row of maxillary teeth, which are simple, instead of being provided with lateral hooks. The relative size of the scales will likewise afford another generic feature of no small importance.

8. *HERICHTHYS CYANOGLUTTATUS*, B. and G.—Head forming about two-sevenths of the entire length. Snout subconical, detached from the frontal line by a de-

pression in advance of the eye. Jaws equal. Three irregular rows of minute teeth situated behind an anterior and more conspicuous row. Eyes rather large and circular, their diameter being contained four times and a half in the length of side of head. Posterior part of cheeks scaly; large scales on the opercular apparatus. Anterior margin of dorsal situated in advance of the insertion of ventrals; tip of posterior rays extending a little beyond the tip of those of anal. Insertion of ventrals backwards of base of pectorals; external soft ray much longer than the others. The caudal forms about the two-ninths of the entire length.

D XVI. 9. + 1. A V. 6 + 1. C 2. I. 7. 7. I. 3. V I. 5. P 14.

The scales are quite large; there being 19–20 rows of them across the line of greatest depth, and eighteen in the lateral line, from upper angle of operculum to where it is interrupted, and eight more beneath on the peduncle of the tail. Ground color brownish, with small bluish spots scattered all over the body and fins.

Brownsville, Texas (fresh water).—Capt. Van Vliet and John H. Clark.

SILURIDÆ.

AILURICHTHYS, B. and G.—Head depressed, subrounded, smooth and unarmed. Two pairs of flattened barbels,—a maxillary pair, sometimes very much elongated, and a submaxillary one, always shorter. Velvet teeth on the maxillaries, and a band of similar teeth immediately behind the upper maxillary. Anterior margin of both dorsal and pectoral fins prolonged into a membranous thread, more or less elongated according to the species. An adipose fin opposite the anal. Caudal more or less forked.

9. **AILURICHTHYS MARINUS**, B. and G.—*Silurus marinus*, Mitch.—*Galeichthys parrae*, Cuv. and Val., Hist. Nat. Poiss. xv. 1840, 33.—*Galeichthys marinus*, Storer, Synops. 1846, 149.

Indianola, Texas.—J. H. Clark.

Obs.—We refer to the same genus; *Galeichthys gronovii*, *G. eydouxi* and *G. blochii*, of Cuvier and Valenciennes.

10. **ARIUS EQUESTRIS**, B. and G.—Maxillary barbels extending to the middle of length of pectorals. Head contained four times and three-quarters in the total length. Adipose fin of medium size, and situated opposite to the middle of anal. The latter is concave upon its external margin, and deeper than long. The anterior margin of dorsal is equi-distant between tip of snout and adipose fin. Tip of pectorals extending as far back as the posterior margin of dorsal. Anterior margin of dorsal thrice as high as the posterior margin; superiorly that fin is subconcave. Longitudinal diameter of eye contained five times in the length of side of head.

Br. 5. D I. 7. A 16. C 13. I. 7. 7. I. 12. V 6. P I. 9.

Indianola, Texas.—J. H. Clark.

11. **PIMELODUS AFFINIS**, B. and G.—Very closely allied to *P. cærulescens*, Rafin. and distinguished from it by a more advanced position of the dorsal fin and a greater elongation of the barbels. The head is contained five times and a half in the entire length. The caudal is about the same length as the head. The length of the anal fin is a little more than the fourth of the length, as in *P. cærulescens*. The eyes are of medium size, and their diameter contained a little over six times in the length of side of head.

D I. 6. A 35. C 5. I. 8. 7. I. 6. V 8. P I. 10.

Color reddish brown above, silvery white beneath; occasionally marked with subcircular and small black spots.

Rio Grande del Norte.—J. H. Clark.

CHARACINI.

ASTYANAX, B. and G.—Adipose fin present. Abdominal line not serrated. A double row of teeth on both the upper and lower jaw, and flattened with several conical spines or processes upon their edge. Neither canine nor palatine teeth. Dorsal fin above the ventrals. Scales large.

12. *ASTYANAX ARGENTATUS*, B. and G.—Body very much compressed. Head short, forming about the fifth of the entire length. Eyes large and circular. Mouth of medium size, its angles not extending to the vertical of the pupil. Opercular apparatus quite narrow. Dorsal fin subquadrangular, higher than long, slightly concave upon its upper margin, its origin being midway between tips of snout and base of caudal fin. Adipose slender, opposite the posterior portion of anal. Caudal deeply forked and longer than the head. Anal very long, exteriorly concave, much deeper anteriorly than posteriorly, and situated behind the dorsal. Ventrals immediately under the dorsal, and rather slender. Pectorals likewise slender, their tips, however, do not reach the base of ventrals.

D I. 10. A I. 20+1. C 5. I. 9. S. 1. 4. V 8. P 13.

Scales higher than long, somewhat truncated anteriorly; their surface exhibiting several very marked diverging striæ. Lateral line conspicuous, slightly inclined downwards.

Back deep reddish brown. Sides silvery. Belly reddish. Fins reddish yellow. An elongated black spot at the base of the tail, extending along the central ray of caudal fin.

Upper tributaries of Rio Nueces.—J. H. Clark.

CYPRINIDÆ.

13. *CATOSTOMUS CONGESTUS*, B. and G.—At first sight this species calls to mind *C. gibbosus*, by its short and contracted shape; it differs from it, however, in the scales and form of the fins. The head is contained five times and a half in the total length. The snout is blunt, abruptly truncated, and the mouth very small. The eyes are large, subelliptical, and their longitudinal diameter contained four times in the length of the head from the tip of snout to posterior margin of opercular apparatus. The dorsal fin is subquadrangular, its anterior margin being nearer to the tip of snout than to the base of caudal. The caudal is semilunar, with the lobes rounded. The anal is narrow, its length less than the half its height. The ventrals are inserted under the middle of the dorsal. The tip of pectorals does not reach the base of ventrals.

D II. 12; A I. 7+1; C 4. I. 8. S. 1. 3; V 9; P 17.

The scales are large, there are fourteen rows across the line of greatest depth of body. The lateral line, which runs straight along the middle of the side, contains about forty-six scales.

The color as preserved in alcohol is uniform reddish brown above, lighter beneath, sides silvery. The fins are all unicolored, and of the tint of the region to which they belong.

Rio Salado, Texas.—John H. Clark.

14. *CATOSTOMUS CLARKII*, B. and G.—A rather small and short species, in shape subfusiform and compressed. The dorsal line is gently arched. Head small, subconical, truncated anteriorly, forming a little less than the sixth of the total length of the fish. The eyes are subcircular, of medium size, their diameter being contained about four times in the length of side of head. The mouth is larger than in *C. congestus*, and surrounded with more developed lips. The upper margin of dorsal fin is slightly concave, its anterior margin as high as long. The caudal is subcrescentic posteriorly, with rounded lobes. The insertion of the anal is narrow, its height is twice and a half the width. The insertion of ventrals is under the posterior third of the dorsal. The pectorals are elongated and of medium development.

D II. 11+1; A II. 7; C 5. I. 8. S. 1. 4; V 10; P 17.

The scales are rather large; about twenty rows across a line from base of ventrals to anterior margin of dorsal. Sixty-eight to seventy scales in the lateral line, which extends to caudal fin.

Colors in alcohol: greyish brown above, with scattered darker nebulous spots; sides greyish; belly whitish; fins unicolor, vertical ones greyish; horizontal ones yellowish.

Rio Santa Cruz, Gila.—John H. Clark.

15. *CATOSTOMUS PLEBEIUS*, B. and G.—Body subfusiform, compressed. Head elongated, subconical, forming the fifth of the entire length. Mouth of medium size. Eyes large, subelliptical, their longitudinal diameter being contained about five times in the length of side of head. Dorsal fin subquadrangular, its anterior margin being equi-distant between the tip of snout and the first rudimentary rays of the upper lobe of the caudal. The latter is slightly concave posteriorly, and the lobes rounded off. The base of the anal is contained nearly three times in its height, and when brought backwards its tip extends to the rudimentary rays of the inferior lobe of the caudal fin. The ventrals are inserted under the posterior third of the dorsal, bent backwards their tip does not reach as far as the anus. The pectorals are of medium development, subovate, pointed posteriorly.

D I. 9+1. A I. 7. C 3. I. 8. 8. I. 2. V 8. P 14.

The scales are of medium size, considerably the largest on the peduncle of the tail. Twenty-eight to thirty rows from the base of the ventrals to the dorsal fin. About eighty in the lateral line, which is not discernible as far as the base of caudal fin.

The color, as preserved in alcohol, is dark brown on the upper regions, faintly mottled with blackish patches. The sides and belly exhibit traces of orange in some of the specimens, in others it is pale yellowish. The fins are unicolor, the dorsal, caudal, and pectorals blackish brown; the anal and ventrals yellowish.

Rio Mimbres, trib. of Gila.—John H. Clark.

16. *CATOSTOMUS INSIGNIS*, B. and G.—Subfusiform, elongated, compressed. Head forming two-ninths of the total length. Mouth of medium size, surrounded with considerably developed lips. Eyes large, subelliptical; their longitudinal diameter contained almost six times in the length of side of head. The dorsal fin is subquadrangular, its anterior margin is situated midway between the snout and base of caudal fin. The latter is posteriorly forked, with its angles subacute. The anal is quite narrow and elongated, its base enters three times in the length of its anterior margin. The ventrals are inserted under the posterior half of the dorsal, their tip posteriorly does not reach the vent. The pectorals are elongated, their tips not extending as far back as the anterior margin of the dorsal.

D II. 11. A II. 7+1. C 3. I. 8. 8. I. 3. V 10. P 18.

The scales are large, there are twenty rows between the base of ventrals and the dorsal line. The lateral line takes a straight course along the middle of the sides and is composed of about sixty scales.

The color, as preserved in alcohol, is dark reddish brown above and on the sides, lighter beneath. There is a black dot at the base of each scale, giving a dotted appearance to the body. The fins are unicolor.

Rio San Pedro of the Rio Gila.—John H. Clark.

17. *CARPIODES TUMIDUS*, B. and G.—Head forming four-nineteenths of the total length. Snout conical. Mouth very small and protruding. Lips small. Eyes very large, their diameter contained four times in the length of side of head. Anterior margin of dorsal equi-distant between the tip of snout and base of caudal, the posterior portion of which is very low. Tip of anal extending to base of caudal. Tip of ventrals reaching as far back as the vent. Tip of pectorals extending almost to base of ventrals. Caudal fin forked, and about the same length as the head.

D II. 27. A II. 9. C 5. I. 8. 8. I. 4. V II. 9. P 16.

Thirteen rows of scales may be counted on the line of greatest depth, and thirty-seven or thirty-eight scales on the lateral line.

Color light reddish brown above and yellowish white beneath.

Near Fort Brown, Texas.—John H. Clark.

18. *GILA GIBBOSA*, B. and G.—Body rather thick; dorsal region between dorsal and occiput more arched than generally observed in the genus. Head forming a little less than the fourth of the entire length; greatest depth nearly equal to the length of head. Eyes quite large, their diameter contained five times in the length of the side of head. Anterior margin and dorsal nearer to the base of

caudal than to the tip of snout. Ventrals, as usual, in advance of the dorsal, and anal behind the latter. Greatest length of caudal constituting nearly the seventh of the entire length. The scales assume a greater uniformity according to the regions than in the other species hitherto described.

D I. 8+1. A I. 9. C 5. I. 9. S. I. 4. V 9. P. 17.

Color in alcohol; dark reddish brown above, and on the side; dull yellow beneath.

Rio Santa Cruz, tributary of the Gila.—John H. Clark.

19. *GILA PULCHELLA*, B. and G.—Allied to the preceding species, from which it can be distinguished by the more slender body and head. The head is shorter. The mouth smaller. The greatest depth is contained about five times in the entire length; in *Gila gibbosa* but four times. Diameter of the eye entering five times and a half in the length of the side of head. Length of caudal forming about the sixth of the entire length. Two rudiments of spines at the anterior margin of dorsal, instead of one.

D II. 9. A I. 9. C 4. I. 9. S. I. 3. V 9. P. 17.

Color, greyish brown above and on the side; dingy yellow beneath.

Rio Mimbres, tributary of the Gila.—John H. Clark.

Rectification of the generic names of Tertiary Fossil Shells.

By T. A. CONRAD.

Since the publication of several papers on Tertiary fossils, I have, with the aid of more numerous works of reference, been enabled to rectify the nomenclature of some genera, selecting the earliest authority, whether the author had published a diagnosis or only indicated a genus by reference to a typical species.

GLYCIMERIS, Lam.

G. americana, Con. ; *G. reflexa*, Say ; *G. elongata*, Con., 1835 ; *G. goldfussii*, Wagner ; *G. elongata*, Con. ; *G. porrecta*, Con. ; (PANOPÆA.)

GLOSSUS, Poli.

G. rusticus, Sowerby ; *G. Markoei*, Con. (ISOCARDIA.)

SYNDOSMYA, Recluz.

S. æquata, Con. ; *S. constricta*, Con. ; *S. linosa*, Con. ; *S. mississippiensis*, Con. ; *S. nuculoides* Con. ; *S. protexta*, Con. ; *S. subobliqua*, Con. ; *S. subreflexa*, Con. (AMPHIDESMA.)

MYTILUS, Lin.

M. incurvus, Con. (MYOCONCHA INCURVA, Con.)

NAVICULA, Blain.

N. Marylandica, Con. ; *N. cuculoides*, Con. ; *N. lima*, Con. ; *N. mississippiensis*, Con. ; *N. protracta*, Con. (BYSSOARCA.)

LEDA, Schum. NUCULA, Lam.

L. acuta, Con. ; *L. æqualis*, Con. ; *L. bella*, Con. ; *L. calcarensis*, Con. ; *L. carolinensis*, Con. ; *L. cœlata*, Con. ; *L. concentrica*, Say ; *L. cultelliformis*, Rodgers ; *L. lævis*, Say ; *L. liciata*, Con. ; *L. limaluta*, Say ; *L. mucronata*, Con. ; *L. opulenta*, Con. ; *L. parva*, Rodgers ; *L. serica*, Con. ; *L. subtrigona*, Con. ; *L. tellinula*, Con. ; (NUCULA.)

MERCENARIA, Schum. VENUS, Lin.

M. capax, Con. ; *M. Ducatellii*, Con. ; *M. Mortonii*, Con. ; *M. permagna*, Con. ; *M. Rileyi*, Con. ; *M. staminea*, Con. ; *M. tetrica*, Con. ; *M. tridacnoides*. Lam. (VENUS.)

MERETRIX, Lam. CYTHEREA, Lam.

M. æquorea, Con. ; *M. albaria*, Say ; *M. astartæformis*, Con. ; *M. carolinensis*.

sis, *M. discoidalis*, *Con.*; *M. elevata*, *Con.*; *M. eversa*, *Con.*; *M. floridana*, *Con.*; *M. imitabilis*, *Con.*; *M. lenticularis*, *Con.*; *M. liciata*, *Con.*; *M. Marylandica*, *Con.*; *M. metastrata*, *Con.*; *M. Mississippensis*, *Con.*; *M. Mortoni*, *Con.*; *M. Nuttallii*, *Con.*; *M. obovata*, *Con.*; *M. ovata*, *Rodgers*; *M. pandata*, *Con.*; *M. perbrevis*, *Con.*; *M. perovata*, *Con.*; *M. Poulsoni*, *Con.*; *M. pyga*, *Con.*; *M. reposta*, *Con.*; *M. Sayana*, *Con.*; *M. semipunctata*, *Con.*; *M. sobrina*, *Con.*; *M. subimpressa*, *Con.*; *M. subnasuta*, *Con.* (CYTHEREA.)

SCHIZODESMA, *Gray*. MACTRA, *Lin.*

S. delumbis, *Con.*; *S. ponderosa*, *Con.* (MACTRA.)

MACTROPSIS, *Con.*

M. æquorea, *Con.*; *M. rectilinearis*, *Con.* (TRIQUETRA, *Con.*)

ARCOPAGIA, *Leach*. TELLINA.

A. biplicata, *Con.* (TELLINA.)

NEITHEA, *Drouet*.

N. Humphreysii, *Con.*; *N. Poulsoni*, *Con.* (PECTEN.)

CYCLAS, *Klein*.

C. acclinis, *Con.*; *C. alveata*, *Con.*; *C. anodonta*, *Say*; *C. carinifera*, *Con.*; *C. contracta*, *Say*; *C. crenulata*, *Con.*; *C. cribraria*, *Say*; *C. dolabra*, *Con.*; *C. Foremani*, *Con.*; *C. Jamaicensis*, *Lam.*; *C. metastrata*, *Con.*; *C. mississippensis*, *Con.*; *C. modesta*, *Con.*; *C. multistriata*, *Con.*; *C. pandata*, *Con.*; *C. perlevis*, *Con.*; *C. pomilia*, *Con.*; *C. radians*, *Con.*; *C. squamosa*, *Lam.*; *C. subobliqua*, *Say*; *C. subplanata*, *Con.*; *C. subvexa*, *Con.*; *C. symmetrica*, *Con.*; *C. trisulcata*, *Con.*; *C. undula*, *Con.* (LUCINA.)

DOSINIA, *Scopoli*.

D. (venus) concentrica? *Born*; (*D. acetabulum*, *Con.*); *D. elegans*, *Con.*; *D. (cytherea) lenticularis*, *Rodgers*; *D. (cytherea) excavata*, *Morton*; *D. discus*, *Reeve*. (ARTEMIS.)

The last is a recent species, and the two preceding Cretaceous. D'Orbigny makes *D. acetabulum* distinct from *D. concentrica*.

UNIVALVES.

ANCILLA, *Lam.*

A. altilis, *Con.*; *A. lymneiodes*, *Con.*; *A. scamba*, *Con.*; *A. subglobosa*, *Con.*; *A. tenera*, *Con.* (ANCILLARIA.)

CRUCIBULUM, *Mont.*

C. constrictum, *Con.*; *C. costata*, *Say*; *C. dumosa*, *Con.*; *C. grandis*, *Say*; *C. multilineata*, *Con.*; *C. ramosa*, *Con.* (DISPOTÆA.)

GALEODIA, *Link.* MORIO, *Mont.*

G. lintea, *Con.*; *G. (cassis) Hodgii*, *Con.*; (CASSIDARIA.)

STOMATIA, *Browne*.

S. (cryptostoma) perspectiva, *Say*; *S. arctata*, *Con.*; *S. bilix*, *Con.*; *S. canaliculata*, *Sow.*; *S. declivis*, *Con.*; *S. fragilis*, *Con.*; *S. mississippensis*, *Con.*; (SIGARETUS.)

BUSYEON, *Bolton*.

Linne confounded *Murex aruanus* with a shell described afterwards by Lamarck under the name of *Fusus proboscidiiferus*, by references to figures in Rumphius and Gualtieri, but his description applies only to the former (*Pyrgula carica*, *LAM.*) The generic name Busyeon founded on this shell has priority over FULGUR.

Busyeon *canaliculatum*, *Lin.*; *B. aruanum*, *Gmel.*; *B. contrarium*, *Con.*; *B. coronatum*, *Con.*; *B. excavatum*, *Con.*; *B. fusiforme*, *Con.*; *B. incile*, *Con.*;

B. maximum, *Con.* : *B. perversum*, *Lam.* ; *B. rugosum*, *Con.* ; *B. tuberculatum*, *Con.* ; *B. gibbosum*, *Con.* The last is a recent species. (*FULGUR.*)

SYCOTYPUS, *Browne.* *Ficus*, *Bolton.*

S. Mississippensis, *Con.* ; *S. (pyrula) penita*, *Con.*

PORCELLANA, *Adans.*

P. crassilabra, *Con.* ; *C. denticulata*, *Con.* ; *C. eburneola*, *Con.* ; *C. larvata*, *Con.* ; *C. limatula*, *Con.* : *C. perexigua*, *Con.*

Recent species. *P. succinea*, *Con.* ; *P. albilabris*, *Con.* (*MARGINELLA.*)

AMPHICERAS, *Gronovius.*

A. iota, *Con.* (*OVULA.*)

DISTORTRIX, *Link.*

D. crassidens, *Con.* (*TRITON.*)

GYRINEUM, *Link.*

G. Maclurii, *Con.* (*RANELLA.*)

VOLUTILITHES, *Swains.*

V. Sayana, *Con.* ; *V. petrosa*, *Con.* (*VOLUTA.*)

Swainson includes in this genus the volutes with a callus, as *V. rarispina*, of which I have proposed the genus *ATHLETA*.

TURRIS, *Humph.*

Gray refers *PLEUROTOMA*, *Lam.* to this genus, but Hermannsen, *TURRITELLA*. Where there is no diagnosis, and such discrepancy of opinion exists, *TURRIS* can hardly be acknowledged.

Notes on Shells, with descriptions of three recent and one Fossil Species.

By T. A. CONRAD.

GNATHODON FLEXUOSUM, *Con.* *Amer. Journal of Science and Arts*, Vol. 39, p. 93, (figured,) 1840.

G. rostratum, *PETIT.* 1853. *Rev. et Mag. de Zool.*, p. 552.

G. TRIGONUM, *Petit*, is probably identical with *G. Lecontei*, *CON.*, fossil in California. *Journ. Acad. Nat. Sc.*, Jan., 1853. *Petit's* description was published July, 1853.

Note on the genus Trigonella, CON.

This name being superseded, I propose to substitute that of *PACHYDESMA*.

Description of a new Dolium.

D. ALBUM. Oblong-suboval, with convex ribs, which are closely arranged, except on the shoulder; about 18 on the body whorl; spire conical, with rounded volutions, columella perforated at base; lip simple, margin acute.

This species most nearly resembles *D. perdix* in form, but is proportionally much narrower, with the ribs more distant and prominent on the shoulder, and with a channel round the suture which the other does not possess. The spire is less elevated, the species much smaller, and the color nearly white without spots.

Description of a new Conularia.

C. indentata. Elongated, quadrate, tapering very gradually, angles somewhat truncated and crossed by numerous indentations; surface minutely granulated by fine equal decussated lines.

Locality.—Galena, Ill. Mr. Germain.

This species has distant septa, and the middle of each side has an obsolete, slightly impressed, longitudinal line; on the east there are two carinated approximate lines, with an impressed line on each side of them.

Description of a new Bulinus.

B. lineolatus. Oblong-ovate, thin, slightly umbilicated; whorls 6, smooth; columella reflected, very narrow; lip reflected, very thin and acute; color white and fulvous, variegated, with dark brown stripes, aperture more than half the length of the shell; spire conical.

Inhabits Volcano of Cartago, Costa Rica.

This species approximates *B. pazianus* of D'Orbigny, but is more ventricose, has a shorter spire, broader bands, narrower columella, and the lip is somewhat reflected, which is not a character of the allied species. That shell has the aperture less than half the length of the shell, whilst the other has it more than half its length.

Description of a new Alasmodonta.

Subovate, thin, slightly contracted medially; umbonal slope rounded, slightly ventricose; ligament margin elevated; posterior margin obliquely truncated, the extremity subangulated and much above the line of the base; epidermis olivaceous, with a few obscure rays; cardinal tooth single in the right valve, long, compressed, elevated, triangular; in the left valve widely trifid, the posterior lobe obsolete, and situated posterior to the apex; within bluish. Length $1\frac{1}{2}$, nearly; height $\frac{1}{2}$.

Locality.— J. G. Anthony.

Exteriorly this shell closely resembles *U. collinus*, Con., when young and without spines,

Note on the genus AMBLYCHILA, Say.

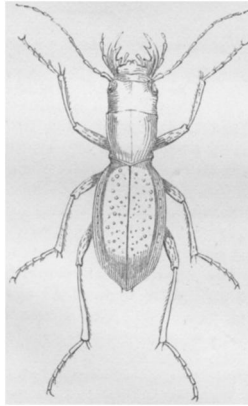
By JOHN L. LE CONTE, M. D.

In a small bottle of specimens of Coleoptera, collected in New Mexico by Major Sibley, U. S. A., recently sent me through my kind friend Prof. Baird, was fortunately contained a specimen of *Amblychila*; as some confusion seems still to exist with regard to this very rare insect, a few remarks may not be out of place.

Fort Union is about seventy miles E. N. E. from Santa Fe, and consequently near the base of the Rocky Mountains; it will be remembered that Say's specimen was also obtained near the same chain, although at a point farther north. This fact, as well as the complete agreement of the specimen with Say's description, fixes it as an authentic type of *A. cylindriciformis*. The outline (Plate I) wood cut appended to this note was made by Mr. W. Van Ingen, from a drawing by G. G. White, and is very accurate in form. It will readily enable the necessary comparison to be made with the Californian specimen described by Mr. Reiche, which I believe was afterwards purchased by Baron Chaudoir.

On comparing the New Mexican specimen with Mr. Reiche's figure, (*Am. Ent. Soc. Tr.*, vol. 8, pl. 19, also copied into *Chenus. Encyc. Hist. Nat.*) several important differences may be perceived: the head and thorax of his is proportionally narrower, and in the enlarged figure of the head, the labrum is represented as having a quite prominent tooth each side of the emarginate medial prolongation, and the lateral angles are rounded; in mine, the labrum each side of the prolongation is merely slightly sinuous, and the lateral angles are rectangular, so that the general outline each side of the middle is decidedly concave. The large punctures in the side figure seem to form a regular series between the costa and the suture, while in mine they are distributed irregularly.

In comparison with the description given by Mr. Reiche (*l. c.* p. p. 560), I have only to say, that my specimen shows a quite decided brownish tinge on the elytra, while the Californian specimen is described as entirely black; and that the smaller punctures of the elytra are by no means obsolete. Mr. Reiche's remark in the generic description, that the basal tooth of the mandibles is bifid, applies only to the right mandible: that of the left side has, it is true, a corresponding prominence, but it is so small and so far back, as not to alter the outline in any way, and therefore Mr. Reiche's observation tends to produce confusion.



Amblychila cylindriciformis Say.

I should not at all hesitate, therefore, to consider the Californian *A. Piccolomini* as distinct from Say's species, were it not for the preposterous collar which, in Mr. Reiche's figure, is appended to the base of the thorax, and for the very inaccurate representations given by his draughtsman of the two species of *Omus* found in Oregon, (l. c. 7, pl. 10.) Such figures might be excusable in America, where artists have not yet turned their attention to objects requiring such accuracy of delineation, but in parts of Europe where accurate figures have been made, and as the yearly accessions to our scientific libraries show can still be made, such figures as those published in the *Annales* above quoted, of *Amblychila* and *Omus*, are hardly to be commended.

Having found near San Francisco, in California, some specimens of *Omus californicus* Esch., I avail myself of the present occasion to remark, that it is very closely allied to *O. Audouini* Reiche, and in fact only differs by having the head and thorax very densely and deeply wrinkled, and the punctures of the elytra more equal in size: the appearance of rows of punctures given in the very wretched figure accompanying Eschscholtz' description (*Zool. Atl. tab. 4, fig. 1.*) and copied by Reiche (l. c. sup.) is hardly apparent.

The epipleuræ in *Omus* are narrow, and defined by an acute line, which unites with the margin near the apex of the elytra. In *Amblychila* the epipleuræ are broad, and the defining elevated line becomes obsolete about one-fifth from the tip. The discoidal costa is about the same length: the intermediate costa (called by Say the marginal elevated line) is more elevated, and extends to about one-seventh from the tip: the smaller punctures of the elytra become effaced towards the tip, and the large ones (each of which bears a small elevated point,) are somewhat more numerous.

The references to this genus are: to the New Mexican and Nebraska one, *Amblychila cylindriciformis* Say., *Trans. Am. Phil. Soc.* 4, 409; Reiche *Ann. Ent.* 7. *Manticora Cylind.* Say, *J. Ac. Nat. Sc.* 3, 139.

And to the Californian one: *Amblychila Piccolomini* Reiche, *Ann. Ent. Tr.* 8, 560, tab. 19; Mann. *Bull. Mosc.* 1844, 183. *A. cylindriciformis* Lacordaire, *Mem. Soc. Roy. Sc. Liège*, 1, 95.

The Committee appointed to make arrangements for the celebration of the Anniversary of the foundation of the Society, reported that an Address had been delivered on Monday evening, 20th inst., at the Hall of the University by Wm. Parker Foulke, Esq., and that on the evening of the 21st inst., a large number of members and correspondents, and a few invited guests, dined together at the Hall of the Musical Fund Society.

The Report of the Corresponding Secretary was read and adopted.

The following resolutions offered by Dr. Zantzinger, were unanimously adopted:

Resolved, That the thanks of the Academy be presented to Wm. Parker Foulke, Esq., for the able, eloquent and highly appropriate address, delivered by him at the Hall of the University, on Monday evening 20th inst., in commemoration of the founding of the Institution.

Resolved, That a committee of three members be appointed to request a copy of the Address for publication.

Whereupon the following members were appointed the Committee: Dr. Zantzinger, Mr. Aubrey H. Smith and Mr. Wm. S. Vaux.

Dr. J. C. Fisher offered the following, which was unanimously adopted.

Resolved, That the thanks of the Academy be presented to the Committee of Arrangements for celebrating the Anniversary of the found-

ing of the Society, for the excellent manner in which they discharged their duties.

On motion of Mr. Lea, the thanks of the Society were also ordered to be presented to the Trustees of the University, for the use of the Hall on the evening of the 20th inst.

ELECTION.

Mr. Clayton T. Platt, Mr. Jas. Engle Negus and Constant Gillou, Esq., of Philadelphia, were elected *Members*.

April 4th.

Vice-President BRIDGES in the Chair.

Letters were read,

From the Society of Natural History of Cherbourg, dated 28th Oct. 1853, transmitting the 1st vol. of its Memoirs, and asking an exchange.

From the Scientific Commission of the Zoological Garden of Amsterdam, dated Nov. 1843, transmitting its Memoirs.

From the Trustees of the New York State Library, dated Albany, 22d March, 1854, acknowledging the receipt of the Proceedings to complete vol. 6, and No. 1, vol. 7.

From Prof. Haldeman, addressed to the Corresponding Secretary, dated Columbia, Penn., 29th March, 1854, as follows :

“ I find that the *Limnadella* described by Mr. Girard, Proceed. Acad. vol. 7, page 3, is my *Limnadia coriacea*, ib. 1, 184, for June, 1842. At that time I doubted the propriety of placing it in *Limnadia*, chiefly on account of the dorsal tubercles mentioned in my description, but I had no means of making the necessary comparisons. It was discovered in great abundance in a road-side puddle, subject to desiccation, and although I removed a number of them to a small pond, I have never met with them since.”

Dr. Le Conte presented a paper, for publication in the Proceedings, entitled “Synopsis of the species of *Platynus* and allied genera, inhabiting the United States.” Referred to Dr. Leidy, Dr. Zantzinger and Mr. Foulke.

A paper was presented for publication in the Proceedings, entitled “Descriptions of new species of North American *Ranæformes* and *Hylæformes* in the Museum of the Smithsonian Institution, by Spencer F. Baird.” Referred to Dr. Hallowell, Dr. Le Conte and Dr. Leidy.

On motion of Mr. Vaux, it was *Resolved*, That a complete set of the Publications of the Academy be forwarded to the Portland Society of Natural History, Portland, Maine.

April 11th.

The President, Mr. ORD, in the Chair.

A letter was read from the Academy of Naturalists of Breslau, dated 18th Nov. 1853, acknowledging the receipt of the Proceedings, vol. 6, Nos. 3—8, and of Journal No. 3, vol. 2, new series.

Also a letter from Geo. W. Carpenter, Esq., dated April 11th, 1854, presenting a copy of Livingston's Memoirs of eminent Americans.