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ART. XXIV. — *Descriptions of Shells from the Gulf of California and the Pacific Coasts of Mexico and California.*

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DURING the recent war with Mexico, several valuable collections of shells were made by officers of the navy and army engaged on the Pacific coast of Mexico and California, and along the Gulf of California. Three of these have been submitted to me for examination. They were made by Col. E. Jewett and Maj. William Rich, of the army, and Lieut. Thomas P. Green, of the navy. The coast visited extended from Panama, $8^{\circ} 49'$ N. to San Francisco, about $37^{\circ} 20'$ N.; and the other principal localities explored were, on the Mexican coast, Acapulco, Mazatlan, San José, and Guaymas, (28° N.); La Paz, about $24^{\circ} 30'$ N. and San Juan, 27° N. on the west coast of the Gulf; and San Pedro, San Diego, Santa Barbara, and Monterey, on the California coast. The number of species from Col. Jewett was about 225; from Maj. Rich, 130; from Lieut. Green, 200; in all, perhaps, 400 species; and as they were collected alive by the gentlemen themselves, and their localities carefully noted at the time, they become very valuable when considered in the light of geographical distribution. It would be interesting to publish the whole list; and perhaps this may be done at some future period. It has already been done so far as respects those species which were found at Panama, and at other places in common with Panama, by the late Prof. C. B. Adams, in his very interesting work on the shells of Panama. Several very curious facts derived from a comparison of these Pacific species with the shells of the Gulf of Mexico might here be stated; but it is our present purpose to give descriptions and figures of the new species, so far as the prescribed limits of the paper will admit. Brief characters of some of

elevata, convexa, anfr. ad 8 vix excavatis, ultimi angulo rotundato; apertura angusta anticè vix dilatata, labro posticè recedente, intus violacescente.

Shell ovoid conic, bulbous, solid, surface with microscopic revolving lines, and on the anterior portion a few delicate, regularly spaced, gradually increasing raised lines, alternately larger and smaller; color uniform pale fawn, paler posteriorly, covered by a smoky russet brown epidermis; spire above the obtusely rounded angle of the last whorl about one third the length of the shell; outline slightly convex; whorls seven or eight, slightly excavated, suture delicate and simple; aperture narrow, widening a little anteriorly; lip very sharp, gradually retreating at its posterior junction; interior faint purplish.

Length one and one third of an inch; breadth three fourths of an inch.

From Santa Barbara. Col. Jewett.

This species has the form of *C. solidus*, *calebs*, and *Mozambicus*, and more especially of *C. fabula* Sowb. But it differs in color from all except *C. calebs*, from the Philippine Islands, which shell has distinct granular striæ and is more slender. The color is nearly that of *C. figulinus*.

CONUS COMPTUS (Pl. XIV. Fig. 23.)

T. biconica, abbreviata, polita, anticè seriebus granularum cincta, albida, maculis castaneis picta, et lineis volventibus articulatis ubique ornata; spira quadrantem testæ adequans ad peripheriam subcarinata; anfr. ad 8, gradatim surgentibus, vix excavatis, striatis: apertura angusta; intus violacescens.

Shell accurately biconical, everywhere bound by right lines, rather short, surface shining, girdled with distant series of granules anteriorly, quite smooth elsewhere; ground color bluish white, clouded with chestnut blotches arranged somewhat longitudinally, the lighter portions everywhere ornamented with delicate revolving lines articulated with dead white and brown; spire about one fourth the length of the shell, the angle at its base acute and somewhat carinate; whorls eight or nine, rising by regular grades at the suture, somewhat excavated and spirally striated; coloring nearly tessellated with white and brown; aperture narrow, scarcely widening anteriorly, bluish within.

Length one and one fourth of an inch ; breadth three fourths of an inch.

Inhabits Santa Barbara. *Col. Jewett.*

Approaches in form *C. orion* and *classiarius*, both of which are more elongated ; its proportions are, perhaps, more like *C. fulgurans*. Its coloration is like some varieties of *Cedo nulli*, and *C. archon*, or like the darker varieties of *C. portoricanus*. It is probably the species named by Menke, in his Catalogue of Mazatlan Shells as *C. achatinus*.

CONUS PUSILLUS (Pl. XIV. Fig. 22.)

T. parva, conica, polita, seriebus ad octo granulorum remotorum anticè cincta ; spira planulata, anfr. 8 coronatis constructa ; alba, maculis obliquis elongatis irregularibus aurantiacis bicincta ; apice rufo ; apertura angusta, linearis.

Shell quite small, conic, very slightly swollen posteriorly, surface smooth, the anterior half having about eight circles of beads so spaced as to form squares ; spire nearly level, composed of eight coronate whorls divided by a spiral groove ; color white, with a broad band of irregular, oblique elongated orange spots posteriorly, a fainter one near the tip, and spots between the tubercles orange ; tip dark orange ; aperture very narrow.

Length half an inch ; breadth three tenths of an inch.

Inhabits Mazatlan. *Col. Jewett.*

Allied to *C. sponsalis*, especially in coloring, but is smaller, without convex outline, more elongated, spire much less elevated. Nearly the same remarks apply to *C. nanus*, in which there is less resemblance as to color. Its proportions are more like *C. speciosissimus*.

PHOLAS OVOIDEA (Pl. XV. Fig. 1.)

T. ovoidea, crassa, cinerea, posticè valdè hians et epidermide valdè prolata, anticè laminâ calcareâ clausa ; valvis ad extremitates rotundatis, sulco lato mediano partitis ; portione posticâ inornatâ ; portione anticâ laminis concentricis undulatis confertis et plicis radiantibus cancellatâ ; apicibus ad quadrantem anteriorem sitis ; apophysis cardinalis subulata, ad apicem excavata ; laminae apicales haud appressæ, duplicatæ ; valvulae cardinales — ?

Shell ovoid, rather solid, chalky white, very widely gaping behind the beaks which are placed at the anterior fourth of the shell.

lowish, shaded with brown, so as to appear as if scorched; spire acute, having as many as eight convex somewhat angular whorls, which are girdled with elevated threads, and have about eight varicose folds on each whorl disappearing on the last half of the anterior whorl: suture deep, to which the upper part of each whorl gradually slopes. Aperture quite small, nearly semicircular, furrowed within; beak nearly straight, and with a very narrow channel.

Length one and three fourths of an inch; diameter three fourths of an inch.

From Mazatlan. *Lieut. Green.*

The only described species to which it bears any resemblance are *F. marmoratus*, Phil. from Australia, which is twice as long, more numerous ribbed, mottled in coloring, and with the whorls more angular; and *F. rostratus*, from the Mediterranean, which is smaller, and has remarkably rounded whorls with the folds extending to the suture.

ERATO LEUCOPHLEA (Pl. XIV. Fig. 20.)

T. obovata, solida, subfusca, valdè callosa, callo et basi eburneis; anfr. ad 4 subangulatis, ultimo supernè tabulato; apertura angusta, labro anticè excavato, concinnè denticulato.

Shell obovate, solid, polished, of a livid drab color, the lip and face ivory white. Whorls four or five, forming a low conical spire, the outer whorl angularly rounded above; lip thick, rising posteriorly somewhat above the body of the shell, slightly excavated anteriorly, and its inner margin very delicately toothed; columellar margin still more delicately toothed, with a conspicuous fold anteriorly.

Length one fourth of an inch; breadth one fifth of an inch.

Inhabits Santa Barbara. *Col. Jewett.*

Very closely resembling *E. callosa*, Adams (Voy. of Samarang) differing chiefly in color, and the more delicate denticulations of the aperture.

CONUS RAVUS (Pl. XIV. Fig. 21.)

T. solida, ovoideo-conica, bulbosa, spiraliter argutè striata et anticè liris vatis alternis majoribus instructa, fulvida, epidermide fuscescente induta; sp

LIST OF THE FIGURES.

PLATE XIV.

- Fig. 1. *Bulimus vesicalis*.
 2. *Bulimus vegetus*.
 3. *Bulimus elatus*.
 4. *Physa elata*.
 5. *Acmæa paleacea*.
 7. *Crepidula explanata*.
 8. *Bulla (Akeria) culcitella*.
 9. *Bulla (Tornatina) cerealis*.
 10. *Narica ovoidea*.
 11. *Trochus marcidus*.
 12. *Modulus dorsuosus*.
 13. *Odostomia achates*.
 14. *Odostomia grava*.
 15. *Chemnitzia tenuicula*.
 16. *Chemnitzia torquata*.
 17. *Sigaretus debilis*.
 18. *Fusus ambustus*.
 19. *Terebra arguta*.
 20. *Erato leucophæa*.
 21. *Conus ravus*.
 22. *Conus pusillus*.
 23. *Conus comptus*.

PLATE XV.

1. *Pholas ovoidea*.
 2. *Arthemis saccata*.
 3. *Lucina orbella*.
 4. *Mactra mendica*.
 5. *Petricola bulbosa*.
 6. *Osteodesma nitidum*.
 7. *Lutraria undulata*.
 8. *Donax flexuosus*.
 9. *Donax obesus*.
 10. *Venus tantillus*.

PLATE XVI.

1. *Tellina miniata*.
 2. *Tellina tersa*.
 3. *Tellina pura*.
 4. *Tellina (Strigilla) fucata*.
 5. *Tellina gemma*.
 5 bis. *Cyrena altilis*.
 6. *Lima tetrica*.
 7. *Avicula sterna*.
 8. *Mytilus glomeratus*.
 9. *Lithodomus falcatus*.

