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DESCRIPTION OF A NEW TURTLE FROM THE SACRAMENTO RIVER, BELONGING TO THE FAMILY OF TRIONYCHIDÆ.

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Aspionectes Californiana.

A robust species, longer than wide, the general form being sub-ovate, the front edge of the carapace forming an arc to the shoulders, then gradually widening to behind the middle and then decreasing to the caudal region, where the broad flap is somewhat acuminate. The length of the carapace, including the flap or margin, is 10 inches; at the ends of the arc across the shoulders, $7\frac{3}{4}$ inches; at the widest part behind the middle, $8\frac{1}{4}$ inches. The color above is dark plumbeous, mottled with light gray, but there are large patches of cloudy black dispersed over the upper surface. The central area of the carapace covering the osseous portion has a smooth epidermis, but the margins and flats are rugose tuberculate. The edge of the front margin of the shield has a distinct row of large tubercles; there are also some much flattened tubercles, that are connected with them somewhat irregularly alternate; there are also a series of compressed tubercles just behind these, and situated upon the upper edge of the front margin, which continue all round the flaps; but on the outer edge of the bony portion of the carapace this single series of tubercles runs into a greatly developed and numerous series of rows of tubercles, situated upon the ventral flap and reaching upon the carapace proper; the central row is well defined, numbering ten tubercles, and forming what may be called the hind portion of a dorsal ridge. At the front end of the dorsal ridge, or keel, and continuous with the front margin, is a prominent tumor or oil gland; it is sub-circular, of an inch and a quarter in diameter; it is easily probed to the depth of five-

eighths of an inch, from which oil issues slowly. Head and snout, $3\frac{1}{2}$ inches; snout, half an inch; lower lip cleft in front, with the sides very much thickened; neck, six inches long, and at its base, just under the front edge of the carapace, is a massive collection of wattles, and upon the back of the neck are a distant set of finely pointed papillæ. Legs stout, and armed with three greatly developed claws. Tail thick, projecting $1\frac{1}{2}$ inches beyond the broad flap. Beneath and covering the plastron the color is mottled sordid leaden gray, but under the flaps, and at the base of the thighs, whitish.

A careful examination has been made of the osseous portion of the skull, which gives the following details, and these have been compared with the details of the skulls of two of the allied species, which clearly shows the distinctness of each. Dr. G. Baur, the famed herpetologist, kindly manipulated the comparative work, and this fact establishes the specific value of this species with more certainty and value than had I relied solely upon my own determination.

Aspidonectes Californiana.

1. Postorbital arch less than $\frac{1}{2}$ ant-orbital.
2. Interorbital arch $>$ postorbital $>$ antorbital.
3. Symphyses of maxillaries long.
4. Alveolar surface of maxillaries broad, reducing size of posterior nares.
5. Symphysis of lower jaw $>$ than longitudinal diameter of orbit.
6. Interorbital arch $= \frac{1}{2}$ longitudinal diameter of orbit.
7. Pterygoids not much emarginated, nearly quadrate.
8. Pterygoid foramen not arched over by pterygoid.

Aspidonectes spinifer.

1. Postorbital arch about $\frac{1}{2}$ ant-orbital.
2. Interorbital arch $>$ postorbital $>$ antorbital.
3. Symphyses of maxillaries short.
4. Alveolar surfaces of maxillaries, not reducing the size of posterior nares.
5. Symphysis of lower jaw $<$ than longitudinal diameter of orbit.
6. Interorbital arch less than $\frac{1}{2}$ longitudinal diameter of orbit, nearly $\frac{1}{3}$.
7. Pterygoids much emarginated, nearly quadrate.
8. Pterygoid foramen arched over by pterygoid.

Aspidonectes Emoryi.

1. Postorbital arch very much more than $\frac{1}{2}$ antorbital.
2. Interorbital arch = antorbital, > postorbital.
3. Symphyses of maxillaries short.
4. Alveolar surface of maxillaries not reducing size of posterior nares.
5. Symphysis of lower jaw < longitudinal diameter of orbit.
6. Interorbital arch less than $\frac{1}{2}$ longitudinal diameter of orbit.
7. Pterygoids much emarginated, nearly quadrate.
8. Pterygoid foramen arched over by pterygoid.

The general appearance of *A. Californiana* reminds one of *A. Emoryi* by the tubercles on the front edge of the shield, and by the series of prominent tubercles upon the posterior portion of the shield and anal portion of the flap, but the latter is separated from the former by the presence of "small white tubercles that cover the whole surface of the upper part like grains of sand," while in *A. Emoryi* these white tubercles make one of the specific characteristics.

This addition to the Fauna of North America and to California in particular, was captured in the Sacramento River, near the city of Sacramento, by a party of gentlemen engaged in fishing, their names being Messrs. W. J. Terry, H. B. Denson and J. C. Jones. These gentlemen, considering their captive something unusual, kindly forwarded it to the Museum of the University of California.

The elder Agassiz, in 1857, writing upon American Testudinata, mentioned but one species of turtle as the sole representative of its order in the Californian fauna, and though the Californian region reached from the Straits of

Juan de Fuca to the Gulf of California, he seemed to infer that this dearth of shield reptiles was what might be expected in such a country, at least so I understand him. The list of the Californian Testudinata at the present writing number seven species, five out of the seven are the following: *Aspidonectes Californiana*, n. sp.; *Cinosternum Sonoriense* Le C.; *Platythyra flavescens* Ag.; *Actinemys marmorata* B. & G.; and *Xerobates Agassizi* Cooper. There is also credited to California upon good authority, *Cinosternum Doubledayi* Gray; and I have a worn shell of a very distinct species of *Chrysemys* taken from the upper waters of the Sacramento near Shasta, and which may be the much abused *C. Oregonensis* of Harland.

Of the Californian region, with its great area and varied features of climate, altitudes, lakes, rivers and water-courses, together with much that is unexplored, if prophesying were allowable, I would say that its present list of Testudinata will be greatly added to in the future.