

PRELIMINARY DESCRIPTIONS OF A NEW GENUS AND
THREE NEW SPECIES OF CRUSTACEANS FROM AN
ARTESIAN WELL AT SAN MARCOS, TEXAS.

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ON JANUARY 18, 1896, the United States Fish Commission completed an artesian well at San Marcos, Texas. The depth of the well is 188 feet. The flow of water obtained amounts to more than 1,000 gallons per minute. The water is pure and of excellent quality, and has a temperature of 73° Fahrenheit.¹

Since the completion of the well, there have been taken from the water several specimens of a tailed batrachian, numerous shrimps of the genus *Palæmonetes*, a lesser number of Isopods of a new genus, and a very few Amphipods. All are blind.

PALÆMONETES ANTRORUM, new species.

As might be expected, the eye-stalks of the specimens are without pigment spots of any kind, nor does clearing the stalk in glycerine show lens structures. The rostrum is short and deep, with from ten to twelve sharp teeth on the upper margin and none on the lower. The point of the rostrum is sharp and very short. The antennal scale extends beyond the rostrum one-half of its length. The flagella of the antennæ are 30 mm. in length, in specimens 18 and 20 mm. long. The flagella of the antennulæ are elongated, the longer ones equaling the length of the body. The feet are all very long and slender, reaching far beyond the antennal scale.

Type.—No. 19326, U.S.N.M.

CIROLANIDES, new genus.

Eyes none. Peduncle of antennulæ with three segments and an elongated flagellum. Peduncle of antennæ with five segments. Peduncle of uropods not produced at the inner posterior angle. Lacinia of the

¹ From a note by Prof. B. W. Evermann accompanying the specimens

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second article of the maxillipeds armed with a single hook. The first pair of legs are strongly prehensile. The six following pairs are proportionally much more slender and are ambulatory in character. The maxillipeds and mouth-parts are distinctively those of the Cirolanidæ.

CIROLANIDES TEXENSIS, new species.

The body is subovate, about $2\frac{1}{2}$ times as long as broad. The head is well rounded behind and a little flattened in front. The antennulæ extend around the sides nearly to the posterior margins of the second segment of the pereion. The basal article of the peduncle is nearly spherical; the two following articles are elongated and nearly equal in length. The flagella are composed of about fifteen segments, of which the first is very short, the next is about twice as long as broad, and the following segments are about equal in length and breadth. The basal article of the antennæ is very short and broad, the second and third articles are a little longer than broad, the fourth and fifth articles are much more elongated, the fifth being the longer. The flagellum is composed of about thirty segments, of which the first is the longest, and the second or third the shortest, in proportion to the breadth. A very sharp rostral spine extends beyond the basal article of the peduncles of the inferior antennæ. The first pair of feet are short and stout and strongly prehensile. The six following pairs are ambulatory and much longer and more slender than usual in the family. The segments of the pleon are produced at the sides to sharp points conspicuous from above. The telson is wide, rounded on the posterior margin, and completely covers the articulation of the uropods. Length, about 14 mm. Color of alcoholic specimens, white.

Type.—No. 19327, U.S.N.M.

CRANGONYX FLAGELLATUS, new species.

This blind species is more closely related to *C. mucronatus*, Forbes, than to any other American species. It is, however, much stouter, and can be distinguished from it at sight. The head is a little longer than the first segment of the pereion. It is proportionally narrower and more concave at the insertion of the upper antennæ than in *C. mucronatus*. The peduncle of the upper antennæ has about the same proportions as in *C. mucronatus*. The flagella of a large specimen are as long as the body, numbering 61 segments on one side and 59 on the other; the flagella of some small specimens have but 40 segments. The peduncles of the lower antennæ are longer than those of the upper. The flagellum on one side is composed of 19 segments, on the other side of but 12; in small specimens the segments are from 8 to 12 in number. The first and second pairs of legs are about equal in length; the dactyls close down between two rows of bifurcate spines. *C. mucronatus* has about 15 such spines to the row, while this species

has 24. In a specimen about 14 mm. long, the first and second pairs of legs are 4 mm. in length; the third, fourth, and fifth about 8 mm.; and the sixth and seventh, 11 mm. The telson is about three times as long as broad at the base, is much flattened, and tapers slightly to its subtruncate extremity. The first and second pairs of uropods extend far beyond the tip of the third pair; in *C. mucronatus* the first and second pairs extend but little beyond the third pair. Color of alcoholic specimens, white.

Type.—No. 19328, U.S.N.M.



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