#### PROCEEDINGS

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# PRELIMINARY DESCRIPTIONS OF FIVE NEW SPECIES OF CRUSTACEANS FROM THE COAST OF NORTH CAROLINA.

BY W. P. HAY.

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For some time past the writer has been engaged in the preparation of a report on the decapod crustaceans of Beaufort, N. C., and the surrounding territory, and in the course of the work several new species of these animals have come to light. As publication of the complete report will be considerably delayed, it seems desirable to publish the following brief descriptions of the most important of the new forms. The types have been deposited in the U. S. National Museum and full descriptions and figures will be included in the report.

#### Coralliocaris wilsoni sp. nov.

Holotype, &, Cat. No. 47,957 U. S. N. M., U. S. Bur. Fisheries S. S. Fish Hawk, about 20 miles off Beaufort, N. C., in 10 to 20 fathoms, August 1, 1914. Paratypes, 2 Qs, Cat. No. 47,961 U. S. N. M.

Rostrum about one-third as long as carapace, slightly decurved and armed above with 11 to 13 acute, nearly equidistant teeth. Antennal scale broad, equal to the rostrum in length. First pair of legs alike, slender, chelate, the tips of the fingers hairy. Second pair of legs very unequal, the larger one, in the male, having the chela so enlarged that its bulk is almost equal to the rest of the animal; hand cylindrical, movable finger strongly curved and bent inwards, its cutting edge with a prominent lobe near the base; thumb bent downward out of line with the hand, its cutting edge with two teeth. Smaller chela about one-third the size of its mate, somewhat compressed but otherwise similarly constructed.

Three specimens were collected in 1914 from the canals of a large sponge dredged up by the steamer  $Fish\ Hawk$  and a series of 8 or 10 was obtained

in the same way in 1915. The species is dedicated to Dr. H. V. Wilson of the University of North Carolina, for many years an investigator at the Beaufort laboratory.

#### Gnathophyllum modestum sp. nov.

Holotype, Q, Cat. No. 49,650 U. S. Nat. Mus., U. S. Bur. Fisheries S. S. Fish Hawk, about 20 miles S. W. of Beaufort, N. C., in about 15 fathoms, August, 1915.

Rostrum reaching to distal end of basal article of antennule, obliquely truncate and armed above with seven teeth; suborbital spine acute. Telson with the marginal spines at about the distal third, the tip almost truncate and with six spines of which the median and longest pair is about one-fifth as long as the telson.

Color dark reddish brown, telson and tail fins white, legs and flagella of antennae and antennules with purple bands.

Only a single specimen, the type, has been obtained. It is probably most closely related to G. panamense Faxon, which it resembles in the length and armature of the rostrum and in the coloration. From G. americanum Rathbun, it differs in coloration and in the much weaker second pair of legs. From both it differs also in the position and size of the lateral and terminal spines of the telson.

#### Automate kingsleyi sp. nov.

Holotype, Q, Cat. No. 49,637 U. S. Nat. Mus., Beaufort, N. C., collected by O. W. Hyman, July 9, 1916.

Cephalothorax about one-half as long as abdomen, subcylindrical and deeply sinuate in front; rostrum small; eyestalks contiguous, broad at base and with a well developed corneal surface. Scale of antennule slightly exceeding the basal article of the peduncle. Scale of antenna extending to the middle of the terminal article of the peduncle. Third maxillipeds exceeding the antennal peduncles by less than the length of their terminal articles. Chelipeds unequal and somewhat dissimilar; the larger one, which is stouter and rougher than its mate, has the fingers slightly gaping at the base, the thumb in line with the palm and very broad at the base while the movable finger is much narrower and rather strongly curved. Carpus short. Merus about as long as movable finger of chela. Second pair of legs very slender and with the carpus divided into 5 articles having the proportions of 1,  $1\frac{1}{4}$ ,  $\frac{4}{5}$ ,  $\frac{2}{3}$ ,  $\frac{4}{5}$ . Telson armed above on each side with two spines one of which is at about the middle of the length and the other is about half way between the middle and the distal end.

Length of type, 16 mm.; cephalothorax, 4 mm.

Only one specimen has been examined. The most remarkable character noted is that the hands in this female specimen are as large and broad as are those of the male of any other known species. The species is dedicated to Dr. J. S. Kingsley, one of the early students of the crustaceans of the Beaufort region.

#### Pagurus cokeri sp. nov.

Holotype and paratype, Cat. No. 49,638 U. S. Nat. Mus., U. S. Bur. Fisheries S. S. Fish Hawk, 30 miles S. of Cape Lookout lightship, August, 1915.

Anterior portion of carapace as long as broad, its anterior margin with three projections of which the middle one is decidedly more advanced and is terminated by a spine about twice as long as the spines of the lateral ones. Eyestalks short and stout, their length equal to about twice the diameter of the cornea, scale small and with a spinulose tip. Antennal peduncle a little shorter than that of the antennule, its basal article with a small lateral spine curved downward and forward, its second article with a spine on the inner distal angle and several spinnules on the inner side of the outer distal prolongation; acicle curved; flagellum longer than body. Smaller hand with the movable finger about four times as long as the palm and, when closed, meeting the immovable finger for only a short distance near the tip.

Two specimens have been obtained. It is most closely related to E. bouvieri Fax. from which it differs chiefly in the character of the smaller hand.

It is named in honor of Dr. R. E. Coker, of the Bureau of Fisheries, who has contributed extensively to our knowledge of the Beaufort fauna.

#### Paguristes armatus sp. nov.

Holotype, Cat. No. 49,699 U. S. Nat. Mus., U. S. Bur. Fisheries S. S. Fish Hawk, about 30 miles S. of Cape Lookout lightship.

Anterior portion of carapace considerably longer than wide, its front margin thickened; rostrum acute, straight-sided and considerably exceeding the rather obtuse lateral projections. Eyestalks longer than the greatest width but not quite equal to the length of the anterior portion of the carapace, nearly straight and not much enlarged distally. Chelipeds approximately alike in size and form, short and thick; merus with a few spines distally; carpus and hand covered with strong, sharp-pointed, conical tubercles, of which those on the upper margin of the movable finger, palm and carpus are longer than the others.

One specimen only was secured. The species is rather closely related to *P. spinipes* A. Milne Edwards, but differs in having much shorter eyestalks and differently formed hands.



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