

mon in New Mexico, where it is the chief malaria carrier, occurring in the Rio Grande and San Juan Valleys, up to an altitude of 5,600 feet. It is therefore surprising that this species has not been reported for the northern part of the adjacent Mexican State of Coahuila, where several Culicids of northern origin as *Aedes vexans* Meig. and *A. dorsalis* Meig. have been found and where climatic conditions are very similar to those of New Mexico. Also in Dr. Martini's paper,³ which the Mexican Public Health Department is just publishing, *A. maculipennis* does not appear in the list of Mexican Anophelids.

In spite of these negative data, I have to announce that the so-called *A. maculipennis*, undistinguishable in the male hypopygia from California and British Columbia specimens, occurs throughout the whole Mexican tableland, reaching the Valley of Mexico. It has apparently been confused by former authors with *A. quadrimaculatus* Say. This finding, which extends the area of distribution of the species on the American Continent for nearly 14 degrees to the south and into the tropics, has a special interest in view of the recent European controversies on the so-called races of *A. maculipennis*. The writer is of the opinion that the European *maculipennis* is composed of at least two valid species, *A. maculipennis* type with var. *messeae* and var. *melanoon*, and *A. labranchiae* with var. *atroparvus*. The American species belongs, according to the hypopygium of the male, not to *A. maculipennis*, but to *A. labranchiae*, as shown in 1933 by Martini,⁴ but has distinctive characters in the egg, which would justify retaining it as a separate species, for which the old name *Anopheles occidentalis* Dyar and Knab should be used. Should it result that the division between the American and European form is only of subspecific rank, then the European form would bear the name *A. occidentalis* var. *labranchiae*.

A more extensive paper will be published in the *Revista Mexicana de Biología*.

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EGGS OF A PENEID SHRIMP

SINCE Fritz Müller,¹ in 1863, published his excellent Brazilian observations on the metamorphosis of the prawns, students of the Peneidae have long been interested to know more of the character of the eggs and the early nauplii of this group of Crustacea. The researches of Brooks,² Kishinouye³ and lately of

Heldt⁴ have done much to supplement the work of Müller. Recently the writer, during the course of a study of the early life history of the commercial American prawns or shrimps, *Penaeus setiferus* and *Penaeus brasiliensis*, secured a number of shrimp eggs, most probably of the species *P. setiferus*. These eggs were spherical in shape and possessed an extremely thin delicate membrane. The diameter of the eggs ranged from .38 to .42 millimeters. Within each otherwise transparent egg rested a well-developed nauplius, the length of which ranged from .21 to .26 millimeters. The nauplius was approximately one half the diameter of the egg.

These eggs were secured by a meter tow net at the surface of the sea near the sea buoy off Jekyll Island, Georgia, on June 17, 1932, by the scientific staff of the U. S. Bureau of Fisheries. The same plankton haul also yielded free-swimming nauplii of the same size and stage as those observed within the eggs and apparently added one earlier stage of free-swimming nauplius to that presented by Müller. Nauplii of approximately the same size and stage as described by Müller (.4 millimeter) were also taken.

Several hundred nauplii and zoeae of the commercial shrimps, *P. setiferus* or *P. brasiliensis*, taken along the South Atlantic and Gulf coasts during the past three years, provide an interesting series of growth stages and with the addition of the shrimp eggs assist considerably in an understanding of the spawning of the commercial shrimps and the distribution of the young in inshore waters off the coasts of South Carolina, Georgia, Florida and Louisiana.

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AN ANOMALOUS MUSCLE IN THE CALIFORNIA RIVER OTTER

IN a study made recently of the osteology and myology of *Lutra canadensis brevipilosus* the muscle described below was discovered in one specimen, a female, and found to occur on one side only. This muscle was found on the left side without the slightest trace to be found of a similar muscle on the right side.

The muscle arises as a slender round tendon on the anterior and ventral border of the ilium and continues ventrally and then posteromedially as such for a distance of about 4.0 centimeters, which brings it to the level of the medial posterior border of *M. sartorius*. The round tendon quickly broadens out into the fleshy part, which is 2.7 centimeters long and 0.64 centimeters wide, and quite thin. The fleshy part tapers

³ "Los Mosquitos de Mexico." Boletines Técnicos, Serie A. No. 1, Del Departamento de Salubridad Pública, Mexico (in press).

⁴ *Proc. Ent. Soc. Washington*, 35, No. 5, p. 65.

¹ R. Müller, *Arch. f. Naturgesch.* 29, Bd. 1863.

² W. K. Brooks, *Johns Hopkins Univ. Circ.*, Vol. II, 1882.

³ K. Kishinouye, *Zoologisches Anzeiger*, XXIII, 1900.

⁴ H. Heldt, *Compt. Rend. Acad. Sci. (Paris)*, 1931.