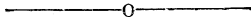


The tendency is for farmers to plant as much cotton as possible, as through the sale of this crop cash is obtained, and through the anticipation of the crop credit is secured at the bank. Farming in the area is not intensive. Fertilizers are but little used, terracing practically unknown, and poor stands of corn and cotton are common enough to indicate slight population pressure. Some time will elapse before all the bottom land is cleared and broken for cultivation. Economically, the area faces Dallas and most of its produce finds a market in that center.



## NOTES ON TEXAS CRUSTACEA

S. W. Geiser

The accumulation, during the past few years, of data relative to the occurrence in Texas of species of Crustacea not credited, in the usual handbooks, to our fauna, has induced the present writer to assemble in a brief note such observations as seem of particular interest.

1. *A New Isopod Record from America*<sup>1</sup>. Attention is called to the occurrence in great abundance at Dallas, of a terrestrial Isopod that has hitherto been recorded only from the shores of the Eastern Mediterranean; and which was originally described from Jaffa as its type-locality. The species is a tiny, inconspicuous one, which was caught in abundance in potato traps in the greenhouse of Southern Methodist University. Its name is *Porcellio (Proporcellio) quadriseriatus* Verhoeff, 1917. Determination was by Dr. Alceste Arcangeli of Turin, through the kind offices of Dr. Willard VanName, of the American Museum of Natural History.

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<sup>1</sup>"Abstracts of Papers Presented at the Annual Meeting of the North Texas Biological Society, April 22, 1933, by Members of the Department of Biology, Southern Methodist University", folio 1.

Verhoeff described this species originally from a single male specimen collected at Rehobot near Jaffa, along with five other species of terrestrial Isopods. The species in the original description is allocated to Syria<sup>2</sup>, but it is possible that under synonyms it may be distributed in the Peloponnesus and Sicily<sup>3</sup>. Other species have been described by Verhoeff<sup>4</sup> from these countries. In Verhoeff's earlier paper<sup>4</sup> he places the subgenus *Proporcellio* between *Mesoporcellio* and *Metoponorthus* [= *Porcellionides*]. The subgenus *Proporcellio* was originally described by Verhoeff in 1907, and subsequently emended. Ample quantities of this material will gladly be sent to any student desiring it.

2. *Palaemonetes exilipes* Stimpson at Dallas<sup>1</sup>. Records given for this species by Ortmann, in Ward & Whipple<sup>5</sup> (p. 845), show it to be widely distributed, but its limits of distribution little known. In June, 1928, I collected a number of individuals of this species in White Rock Lake, near Dallas; three were sent to the United States National Museum. [Accession 102559.]

3. *Jacob Boll's Microcrustacea from Dallas*. In the *Transactions*<sup>6</sup> of the Academy of Sciences of Saint Louis, 1875, the entomologist, C. V. Riley, exhibited four fresh-water crustaceans collected by Jacob Boll in the vicinity of Dallas. One, Riley's "fresh-water shrimp very near the genus *Palaemon*", is the foregoing species, *Palaemonetes exilipes* Stimpson; the second species, "an interesting and probably undescribed species of *Branchipus*, also found in ponds", is undoubtedly *Streptocephalus texanus* Pack-

<sup>2</sup>Verhoeff, K. W. "Ueber mediterrane Oniscoideen, namentlich Porcellioniden." *Jahresh. d. Vereins f. vaterl. Naturk. in Wuerth*, 73:144-173, 1917.

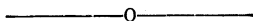
<sup>3</sup>W. G. VanName to S. W. G., 12 Apr., 1933: "Dr. [Alceste] Aracangeli [of Turin, Italy] informs me that other species from Greece, Sicily, and possibly one from near Marseilles are probably synonyms or races of *quadriseiatus*."

<sup>4</sup>Verhoeff, K. W. *Zur Kenntniss der Entwicklung der Tracheal-system und der Untergattungen von Porcellio und Tracheoniscus.* *Sitzber. d. Ges. naturf. Freunde, Berlin*, 1917:195-223, 1917.

<sup>5</sup>Ward, H. B. & G. C. Whipple, *Freshwater Biology*, 1918.

<sup>6</sup>*Transactions Academy of Sciences of St. Louis*, 3:clxxiii [March 16, 1875], 1878.

ard, which the writer has collected several times here [and the past summer in Collin County], and which has its type-locality at Clifton, in Bosque County, Texas<sup>7</sup>; next a specimen of the parasitic Copepod, *Argulus lepidostei* Kellicott, from the common gar, *Lepisosteus osseus* (L.), in the Trinity at Dallas; the fourth is *Estheria belfragei* Packard, 1871 (type locality, Clifton, Texas<sup>7</sup>). In respect of *Argulus lepidostei* which Kellicott described from a gar-pike in the Niagara River, in 1877, Boll made the observation, in common with Kellicott's later observation that the species frequently leaves its host and swims about, or, as Riley puts it, "uses the gar-fish simply as a beast of burden."



## A SIMPLIFIED METHOD FOR THE PREPARATION OF BUTYRIC ACID\*

*Lallance A. Adair and E. J. Simmons*

As an elective experiment in the class in organic preparations it was decided to make pure butyric acid from *n*-butyl acetate. To accomplish this the plan followed was (1) the hydrolysis of the ester to obtain *n*-butyl alcohol (2) the oxidation of the alcohol to the acid, and (3) the separation of the acid from the mixture.

*Procedure:* Ninety grams of *n*-butyl acetate was refluxed for twenty-four hours with fifteen grams of sodium hydroxide dissolved in 150 cc of water. A solution of twenty grams of sodium hydroxide in 60 cc of water was then added to the mixture. It was well shaken and allowed to stand in order to permit the two layers to separate. The flask was then cooled with ice and water in order to decrease the solubility of the alcohol in the water layer. The alcohol was then removed by means of a separatory funnel and subjected to fractional distillation, the fraction distilling between 111° and 119° C. being collected separately.

<sup>7</sup>Geiser, S. W. "On the Type Localities of Certain Texas Phyllopoda", *Field & Laboratory* 1:47-50, 1933.

\*The writers are greatly indebted to Dr. M. L. Whitsitt for helpful suggestions.