

These observations are supported by the data for the sawfly infestations on the recorded trees, which, expressed as a percentage of the total fruit set, were: 50.6 per cent in the controls, and 2.6, 12.9 and 23.9 per cent respectively in the blocks of trees receiving 0.02, 0.005 and 0.00125 per cent parathion. The nicotine sprays gave no control.

It is apparent that nicotine and parathion under field conditions are not acting as ovicides, but kill the larvæ in the period between emergence and entry into the fruit. Thus for successful sawfly control, the insecticide must either be applied as close as possible to peak hatch, or must have sufficient residual effect to cover the whole hatching period. Nicotine is of the first type, and although, in at least some seasons, it may be applied a few days before hatching commences and still give satisfactory control, there is a very small safety margin, especially if it is to be applied in the first post-blossom lime-sulphur spray. It would seem more convenient to choose an insecticide with a greater residual action. It is hoped that details will be published later of work which has been done, and is continuing, at this Station to find which is the best of the new residual insecticides.

K. S. MCKINLAY

East Malling Research Station,
Nr. Maidstone,
Kent.
Nov. 2.

¹ Hey and Steer, Ann. Rep. East Malling Res. Station, 197 (1933).
² Steer and Thomas, Ann. Rep. East Malling Res. Station, 194 (1934).

An Enteropneust Genus New to the British Isles

WHILE digging in sandy gravel beyond the apparent low-water mark, on the west coast of Anglesey, during the spring tides at the end of August 1949, a small Enteropneust was found in a burrow of fine sand adhering to a stone. Afterwards several more were discovered in an adjacent, more sheltered region of the shore, where the sand contained a fairly high percentage of organic material.

The animals live in coiled burrows at depths down to four inches, and in association with *Cereus pedunculatus* (Pennant), *Perinereis cultrifera* (Grube), *Arenicola marina* (Montagu), *Notomastus latericeus* (Sars), *Audouinia tentaculata* (Montagu), *Peloscoclex benedeni* (O. F. Müller), *Clitellio arenarius* (O. F. Müller).

The primitive condition of the coelom, namely, one proboscis cavity, two collar cavities, and two trunk cavities, the persistence of dorsal and ventral mesenteries throughout the last two regions, the absence of perihæmal and peripharyngeal cavities in the collar, and of lateral septa in the trunk, of synapticulæ between the gill bars, and of liver diverticulæ, the simplicity of the skeletal system, and of the pharyngeal region, the absence of genital wings and the lateral disposition of the gonads in single rows, justify the identification of this species as one closely related to the genus *Balanocephalus* originally described by Caullery and Mesnil¹ from Saint Martin near Cap de la Hague. Finding this name to have been previously used, these workers gave a detailed description of their species under the generic name of *Protobalanus*². Unfortunately, this too had been previously used for a fossil balanid, so Van der Horst suggested the name *Protoglossus*, under which he summarizes the

specific characters in his treatise on the Hemichordata³.

This find extends the records of Enteropneusta found around the coasts of Britain to six, namely, *Saccoglossus ruber*⁴, *S. serpentinus*⁵, *S. cambrensis*⁶, *S. horsti*⁷, *Glossobalanus marginatus*⁸, and the new species now recorded.

From my experience of collecting the various British species of *Saccoglossus*, it seems that they favour areas where the substrate contains a fair amount of organic material. Such areas, usually adjacent to beds of *Spartina*, *Zostera* or other shore-living plants, have previously yielded three species of *Saccoglossus*, and if more extensively worked, might well yield more.

A full description of this new species, and of certain species of *Saccoglossus* as yet inadequately described, along with a review of the genus, are to be submitted for publication shortly.

C. BURDON-JONES

Department of Zoology,
University College of North Wales,
Bangor. Oct. 17.

¹ Caullery, M., and Mesnil, F., *C.R. Soc. Biol., Paris*, v, 52, 256 (1900).

² Caullery, M., and Mesnil, F., *Zool. Jahrb., Art. Anat.*, 20, 227 (1904).

³ Horst, C. J. van der, "Hemichordata, Bronn's Klassen u. Ordn. d. Tierreichs", 4, Abt. 4, Buch 2, Teil 2, 658 (1927-39).

⁴ Tattersall, W. M., Ann. Rep. Fish., Ireland, Sci., Invest. 1902/3, Pt. 2, App. 7 (1905).

⁵ Assheton, R., *Zool. Anz.*, 33, 519 (1908).

⁶ Brambell, F. W. Rogers, and Cole, H. A., *Proc. Zool. Soc. Lond.*, B, 109, 211 (1939).

⁷ Brambell, F. W. Rogers, and Goodhart, C. B., *J. Mar. Biol. Assoc., U.K.*, 25, 283 (1941).

⁸ Meek, A., *Quart. J. Micr. Sci.*, 66, 579 (1922).

British Freshwater Harpacticids

ONE of the rarest of the freshwater species of the British Harpacticids is *Canthocamptus bidens* (Schmeil); but it has a very wide distribution abroad. However, until quite recently, the males had never been found either in the British Isles or abroad.

Last June, I discovered a large number of specimens of the species in question in a lake in the grounds of Wellington College, Crowthorne, in Berkshire, and the males were just as abundant as the females.

There has been a considerable difference of opinion over the taxonomy of this species. In 1929 Chappuis created a new genus *Elaphoidella* and placed *Canthocamptus bidens* (Schmeil) in that genus. All taxonomists, so far as I am aware, followed Chappuis, with the single exception of Gurney, who not only disagreed with the creation of the new genus but also pointed out that there was no justification whatsoever for placing *C. bidens* in that genus, especially since the genus was founded almost entirely of the characteristics of the males. The recent discovery of the males and the structure of the fifth foot, among other things, have shown beyond question that Gurney was right so far as the taxonomy of *C. bidens* is concerned.

A description of the male of *C. bidens* is in the press. Full reference to the literature concerned can be found in "British Freshwater Copepoda", vol. 2, by Robert Gurney (Ray Soc. Memoir, 1932) and "Monographie der Harpacticiden", by Karl Lang (Stockholm, 1948).

ASHLEY G. LOWNDES

The Laboratory,
Citadel Hill,
Plymouth.