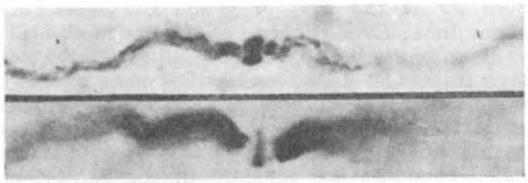

Nodes of small and large fibres in the optic tract, stained by intravenous methylene blue. (× 1,240)

green colour. In the central nervous system, as in peripheral nerve fibres, bifurcation invariably takes place at nodes, but many nodes are found in other situations. We have since found that similar preparations have been obtained with Ranvier's silver method by the late Prof. Zimmermann[7] of Bern.

Electrophysiological investigations of peripheral nerves recently made by Huxley and Staempfli[8] and Tasaki[9] have indicated, contrary to earlier opinions, that nodes play an important part in the propagation of nerve impulses. One of the main arguments hitherto adduced against this view is the supposed absence of nodes in the central nervous system. It appears that this objection can no longer be tenable. It is not clear how precisely the nodes of central fibres correspond to those in the periphery, because of the replacement of the Schwann sheath by oligodendroglia in the brain and spinal cord. However, unless the mechanism of nervous conduction differs greatly in different localities, nodes in the brain and spinal cord may have considerable physiological significance.

By the aid of intravenous methylene blue and silver methods, the structure and the distribution of nodes are now being studied with the view of obtaining anatomical data, for example, on the length of internodal segments, which have been pointed out[8] as relevant to the possible physiological role of node formations in the central nervous system.

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A Rare Species of Mysid from the Plymouth Area

When my husband, the late Prof. W. M. Tattersall, was examining material collected in the Plymouth area for his work on "The Seasonal Occurrence of Mysids off Plymouth"[1], he found a single adult male specimen from St. *L*.4 belonging to the genus *Heteromysis*. At that time only one species of this genus had been recorded from British waters, namely, *Heteromysis formosa* S. I. Smith. This species, though rare, had been recorded occasionally from Plymouth[2], the Channel Islands and from Scottish and Irish waters. As the male from Plymouth was undoubtedly a *Heteromysis*, it was not examined in detail but was recorded as *H. formosa*.

Shortly before his death in 1943, my husband had occasion to re-examine some of the Plymouth material, and found to his astonishment that the specimen he had recorded as *H. formosa* belonged to the much rarer *H. microps* (G. O. Sars)[3]. Sars first recorded his species under the generic name *Chiromysis*—"the mysis with a hand"—because of the very peculiar prehensile termination of the endopod of the third thoracic limb (= Sars's first leg). His material consisted of a few females only, from the Tunisian Gulf of Goletta, in 6–8 fathoms. Sars at the time was not aware that his new genus had already been described under the name of *Heteromysis* by S. I. Smith[4], who first recorded *Heteromysis formosa* from the North American side of the Atlantic, and he later withdrew the name *Chiromysis* in favour of the earlier *Heteromysis*[5].

Since Sars's original record of *H. microps* the species had never been recorded, nor had the male ever been seen until the specimen from Plymouth was taken. It was my husband's intention to publish a description of this unique specimen and, under his supervision, I made drawings of it. It agrees in the most minute detail with Sars's description and figures as regards general form, eyes, antennal scale, uropods and telson. The endopod of the third thoracic limb has the peculiar prehensile form which is the outstanding character of the genus, but in this specimen it is much more robust than in the females as figured by Sars. This is in all probability a sexual character.

In the hope of finding additional specimens of this interesting mysid, I recently spent some time at the Marine Laboratory, Plymouth, where, by kind permission of the director, Mr. F. S. Russell, I examined collections made in the neighbourhood of the original capture. Unfortunately, no other specimens of the species was obtained. A full description of the male, with figures, will be published shortly in a forthcoming Ray Society Monograph on the British Mysidacea.

Olive S. Tattersall

Pendeen, Heoldon,
Whitchurch, Glam.

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Photosynthesis in the Ears of Five Varieties of Wheat

In view of the observations of Knowles and Watkin[1], and of Watson and Norman[2], working with wheat and barley respectively, that about one-third of the final dry weight of the plant is added during the post-ear emergence period, the assimilation by the plant during this period merits special consideration as a factor in determining final yield. The concept of the net assimilation-rate, as originally proposed by Gregory[3], and so successfully used by him and others[4–6] in interpreting problems of crop-growth, would thus appear to require reconsideration, since the net assimilation-rate is usually estimated up to the stage of maximum leaf-growth. After this stage the proportion of green-leaf surface to that of other