

OBITUARIES

Dr. Stanley W. Kemp, F.R.S.

MARINE biology has suffered a heavy blow through the death on May 16 of Dr. Stanley Wells Kemp, and the loss of a wise and generous friend will be deeply felt by all who were associated with him. He rendered distinguished services to the Irish fisheries, the Zoological Survey of India, the Discovery Committee and the Marine Biological Association, and did much to stimulate marine research in Great Britain and overseas.

Kemp was born on June 14, 1882, the son of Stephen Kemp, and was educated at St. Paul's School and at Trinity College, Dublin. In 1903 he was appointed assistant naturalist in the Fisheries Branch of the Department of Agriculture and Technical Instruction of Ireland. In this post he gained a thorough practical knowledge of marine zoology, especially of the Caridea. He acquired valuable experience in deep-water investigations, and published several papers in the "Scientific Investigations" of the Department. This was followed by a period of fourteen years in India (1910-24), where he was first appointed senior assistant superintendent of the Zoological and Anthropological Section of the Indian Museum (which later became the Zoological Survey of India). Here he specialized in the study of Crustacea and began his "Notes on Decapoda in the Indian Museum", a valuable series of publications which continued until 1925. In 1916 he became first superintendent, under Dr. Annandale, of the Zoological Survey, and it is generally recognized that he and Annandale established an exceptionally high standard of zoological research in India. He accompanied various expeditions to study the fauna in different parts of India, including the expedition to the Abor country in 1911-12 (where he discovered the new genus *Typhloperipatus williamsoni*); and in 1922 he carried out the exploration of the Siju Caves in the Garo Hills. In 1916 he was elected a fellow of the Asiatic Society of Bengal, and in 1918 he brought out the important "Catalogue of Scientific Serial Publications in the Principal Libraries of Calcutta". While on leave in the following year, he took the degree of Sc.D. of Trinity College, Dublin, and visited the principal zoological centres in Europe with the view of establishing a marine biological station in the Andaman Islands.

Kemp was appointed director of research to the Discovery Committee in 1924, and it was under his far-sighted leadership that a well-equipped and many-sided organization was built up. The investigations were to include research on the general biology of whales (for purposes of the rational regulation of the whaling industry) and on other natural resources of the Falkland Islands Dependencies, and they involved an oceanographical survey of Antarctic waters, with attention to many subsidiary matters such as surveying and general collecting. This was an enterprise of a new kind which could be guided only to a limited extent by previous experience; but Kemp's remarkable capacity for organization in detail and his mastery of technical problems overcame all difficulties. Early in 1925 the Marine Biological Station was established at South Georgia, mainly for direct observations on whales. In the same year the *Discovery* (Scott's old ship, refitted for oceanographical research) sailed from England and shortly afterwards there followed the *William*

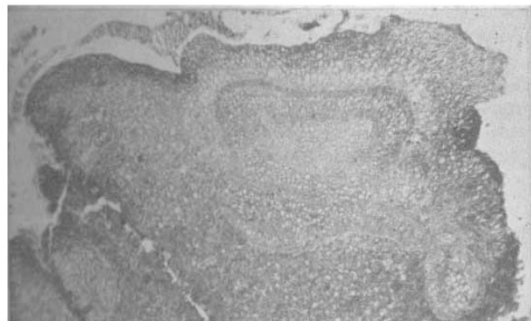


Fig. 6. TRANSVERSE SECTION OF A LATERAL SEGMENT OF AN INCISED SHOOT, SHOWING THE LARGE SOLENOSTELE OF A BUD CONJOINED WITH A MERISTELE OF THE PARENT SHOOT. ($\times 22$.)

phyllotaxis and this is apparently in continuity with that of the parent shoot. Whereas lateral buds develop rapidly on the surrounding segments of the parent shoot, the new terminal axis is devoid of buds.

The lateral segments of the shoot are characterized by the development of very large axillary solenostelic buds (Fig. 6); they are thus in marked contrast to buds on the normal shoot, in which a small, non-medullated protostele is present. Individual undifferentiated meristemes, isolated in lateral plugs as a result of the system of incisions adopted, also show some remarkable and hitherto undescribed developments, such, for example, as the development of solenostelic structure (Fig. 7).

Individual leaf primordia, isolated on plugs, undergo limited development only, and show a tendency to be thrust aside by more strongly growing axillary buds. In contrast to the normal development, in which the foliar conducting system consists of six to eight separate vascular strands disposed horseshoe fashion, the vascular system of an isolated leaf primordium is solenostelic.

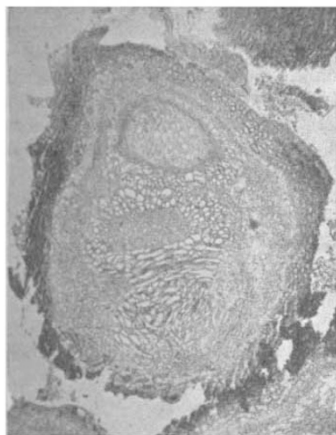


Fig. 7. TRANSVERSE SECTION OF A LATERAL SEGMENT OF AN INCISED SHOOT SHOWING THE SOLENOSTELE OF A BUD (TOP) CONJOINED WITH A MERISTELE WHICH HAS BECOME MEDULLATED (CENTRE); THE COMPACT MASS OF TRACHEIDES (BOTTOM) PERTAINS TO A SECOND MERISTELE OF THE PARENT SHOOT. ($\times 30$.)

Thus, by using the technique described, many new and interesting observations have been made. These will be fully described and discussed elsewhere in due course. The answers to some of the questions raised in the opening paragraph are evident from the data submitted.

Scoresby, designed for whale-marking, experimental trawling, and general oceanography. The *Discovery II* which sailed in 1929 on the first of her five commissions was designed and equipped according to the requirements laid down by Kemp, and after the experience gained in voyages extending over nearly ten years, it would be difficult to devise any major improvements. The high standard he set in everything was also evident in the style of the *Discovery Reports*, of which the first volume appeared in 1929. Kemp sailed in the *Discovery* (1925-27) and *Discovery II* (1929-31) and at other times worked at his headquarters in London. It was under his direction that a new field of research was opened up which has led to much knowledge of whales and related subjects, and of the Southern Ocean in general, and which has in many ways advanced the science of oceanography.

In 1931, Kemp became a fellow of the Royal Society. For a time he was an honorary secretary to the Linnean Society, and in 1936 he received the Victoria Medal of the Royal Geographical Society. It was in 1936 also that he was appointed secretary to the Marine Biological Association and director of the Plymouth Laboratory. Here he found fresh scope for his administrative ability and capacity to stimulate research. He became the leading figure in marine biology, and much as he did to further the interests of the Laboratory, he was in contact also with the *Discovery Committee*, of which he remained a member, and kept in touch with his colleagues in India and Ireland. During the War his advisory activities were of great value, especially in the preparation of post-war investigations, and in this field his opinion carried much weight with the Colonial Fisheries Advisory Committee, the Development Commission, and the English and Scottish Fisheries Departments. He also sponsored investigations on seaweeds which arose from the war-time need for alginic acid.

In 1940 and 1941 the Plymouth Laboratory suffered heavily from enemy action, and though his own home and its contents were wrecked, it was largely through Kemp's personal initiative that the Laboratory was saved from complete destruction. He found safe accommodation for the valuable library, and instituted all possible repairs; and he had worked out comprehensive plans for the alteration and enlargement of the Laboratory in anticipation of peace-time requirements.

He married, in 1913, Agnes, daughter of the Rev. W. Spotswood Green, and had a daughter. In his home life Dr. Kemp enjoyed working with his hands, for he was a fine craftsman, and he found much pleasure as a collector of insect life. He was a man of modest nature with a keen sense of humour; his personality inspired great confidence and respect, and he had a shrewd understanding of human nature and a sense of values which was never led astray by the false or superficial. Those who sought his advice on professional or personal problems were never disappointed, for his judgment was always manifestly sound and sensible. It was an education to work under him, and he will be remembered with gratitude and affection by his many friends.

N. A. MACKINTOSH.

Prof. Eugène-Louis Bouvier

It has recently become known in Britain that Prof. E.-L. Bouvier, for many years head of the department of articulate animals at the Musée National d'Histoire

Naturelle de France, and later professor of entomology there, died near Paris on January 14, 1944. He was born on April 9, 1856, joined the Paris Museum in 1883, and remained there for the remainder of his active life, except during the years 1889-95, when he was professor at the School of Pharmacy in Paris. In 1902 he was elected to the Academy of Sciences, and became president in 1925. He received numerous other distinctions both at home and abroad, and was a foreign member of the Linnean Society and the Zoological Society of London.

Bouvier's activities extended over an extraordinarily wide range of subjects. His earlier works include memoirs on Mollusca and Cetacea, and his well-known monograph on *Peripatus*. Shortly after joining the Museum he became especially interested in the Decapod Crustacea, and his researches on this group continued to the end of his life, Bouvier's last work, published in 1942, being devoted to the Corystoidea. His monograph on the Atyidae is one of the best-known of his many studies on Crustacea. He also completed a monograph of the Pycnogonida.

While on a visit to Plymouth in 1913, he made the interesting discovery (*Nature*, 91, 633) of the transformation of the Phyllosome larva into the Puerulus stage of the common lobster.

Bouvier first became interested in the habits of insects about 1900, and published studies on the psychology of certain Hymenoptera. In later years he devoted most of his time to entomology, and built up an active department in this subject at the Museum. His general works on the subject include "Habitude et Métamorphoses des Insectes", "Le Communisme chez les Insectes", and "La vie psychique des Insectes", the latter, translated into English by Dr. L. O. Howard, being perhaps his best-known work in Great Britain. After retiring from the Museum, he continued to work on insects and during 1931-38 published six memoirs on the Saturniid moths.

Prof. Bouvier began his active career at a time when evolutionary doctrines were still being contested. He was a student of Edmond Perrier, and as a result of this influence his work was mainly directed to studies on the adaptive evolution of characters in various groups of animals and attempts to elucidate their phylogeny. He was a most enthusiastic research worker and knew how to communicate his interest to others. He became one of the best-known personalities in the scientific world of Paris, and his death removes one of the last links with the great French zoologists of the nineteenth century.

E. HINDLE.

WE regret to announce the following deaths:

Prof. E. Barclay-Smith, emeritus professor of anatomy in the University of London, on July 5, aged eighty-three.

Sir William Ellis, G.B.E., president during 1924-25 of the Iron and Steel Institute and during 1925-26 of the Institution of Civil Engineers, on July 4, aged eighty-four.

Dr. Robert E. Horton, hydraulic consultant to the Tennessee Valley Authority, and a member of the Institution of Civil Engineers, on April 22, aged sixty-nine.

Mr. A. G. Hastings White, C.B.E., honorary consulting librarian to the Royal Society, on July 8, aged eighty-one.