
Walter Campbell De Morgan.

MANY of those who have worked at the Plymouth Laboratory during the last twenty years will learn with regret that Mr. W. C. De Morgan died in the West of Ireland on October 13th, 1927, in his seventy-sixth year.

On his retirement from the Indian Public Works Department De Morgan took up the serious study of Zoology, a subject in which he had always been interested. He attended the general course in that subject given by the late Professor E. A. Minchin at University College, London, including the practical laboratory work.

After completing this preliminary training in the subject, he came to Plymouth in February, 1906, and commenced research work at the Marine Biological Laboratory. His original intention was to remain in Plymouth for a few weeks only, in order to collect material which he could take back with him to London and investigate there. But he was so attracted by the study of the living marine animals that from that date until April, 1926, he spent the greater part of each year at Plymouth and worked at the Laboratory as keenly and diligently as any member of the professional staff. He was an excellent observer, and acquired great skill as a draughtsman in representing the animals he was studying. His first published paper (1910*a*), written in co-operation with the late G. Harold Drew, which described some experimental work on the scallop, *Pecten maximus*, was really an attempt to study the fundamental problems at the back of cancer research, as was also a later paper (1914*b*) with the same collaborator. During this period he was also working at crustacea, and some of his results were recorded in the paper (1910*b*) on species of the burrowing prawn *Upogebia*.

De Morgan then turned to the group of Echinoderms (sea-urchins), and what is perhaps his best-known work is recorded in the series of papers with Shearer and Fuchs on the hybridization of Echinoids (1911, 1912, 1914*a*), the last one being published in the Philosophical Transactions of the Royal Society. The larger portion of the experimental work on which these papers were written was done by him, as were also many of the illustrations.

During the war period and after it he was working on marine protozoa. This work he did quite independently, and the brilliant series of papers recording it (1924, 1925, 1926), with the excellent drawings with which

he illustrated them, are a really remarkable testimony to his great powers of work, his skill, and his ability, more especially when it is remembered that they were written when he was about seventy years of age and at the end of a long and busy life.

De Morgan was a man of charming and vigorous personality, and it was a great pleasure to have him associated with the Laboratory. His interests were very wide, he was a great reader on almost every subject, and kept up his interest in the classics to the last. Homer was his special study and he read him practically every day. His engineering experience had been very varied and was often of use to him, as well as to the Laboratory in general. His disposition was kindly and helpful, and all those who came in contact with him feel themselves the poorer by the loss of an exceptionally broad-minded and sympathetic friend.

E. J. A.

PAPERS BY MR. W. DE MORGAN.

- 1910a. DREW, G. H., and DE MORGAN, W. The Origin and Formation of Fibrous Tissue produced as a Reaction to Injury in *Pecten maximus*. (Quart. Journ. Micro. Sci., Vol. LV, 1910, pp. 595-610.)
- 1910b. DE MORGAN, W. On the Species *Upogebia stellata* and *Gebia deltura*. (Journ. Mar. Biol. Assoc., Vol. VIII, 1910, pp. 475-478.)
1911. SHEARER, C., DE MORGAN, W., and FUCHS, H. M. Preliminary Notice on the Experimental Hybridization of Echinoids. (Journ. Mar. Biol. Assoc., Vol. IX, 1911, pp. 121-141.)
1912. SHEARER, C., DE MORGAN, W., and FUCHS, H. M. On Paternal Characters in Echinoid Hybrids. (Quart. Journ. Micro. Sci., Vol. LVIII, 1912, pp. 337-352.)
1913. DE MORGAN, W. The Echinoderms collected by the *Huxley* from the North Side of the Bay of Biscay in August, 1906. (Journ. Mar. Biol. Assoc., Vol. IX, 1913, pp. 530-541.)
- 1914a. SHEARER, C., DE MORGAN, W., and FUCHS, H. M. On the Experimental Hybridization of Echinoids. (Phil. Trans. Roy. Soc., Lond., Ser. B, Vol. CCIV, 1914, pp. 255-362.)
- 1914b. DE MORGAN, W., and DREW, G. H. A Study of the Restitution Masses formed by the Dissociated Cells of the Hydroids, *Antennularia ramosa* and *A. antennina*. (Journ. Mar. Biol. Assoc., Vol. X, 1914, pp. 440-463.)

1924. DE MORGAN, W. *Foettingeria actiniarum* (parasitic in Anemones). (Quart. Journ. Micr. Sci., Vol. LXVIII, 1924, pp. 343-360.)
1925. DE MORGAN, W. Some Marine Ciliates living in the Laboratory Tanks at Plymouth, with a Description of a New Species, *Holophrya coronata*. (Journ. Mar. Biol. Assoc., Vol. XIII, 1925, pp. 600-658.)
1926. DE MORGAN, W. Further Observations on Marine Ciliates living in the Laboratory Tanks at Plymouth. (Journ. Mar. Biol. Assoc., Vol. XIV, 1926, pp. 23-53.)