

OBITUARY NOTICES.

Georg Ossian Sars.

THE great advances which have been made since the beginning of the present century in the application of experimental methods to biology have, to some extent, diverted attention from the descriptive branches of the science, anatomical and systematic, which provide the basis for all our knowledge of living things. The recent death of Professor G. O. Sars, the distinguished son of a distinguished father, may recall to us how much our zoology owes to the labours of the great descriptive naturalists of the nineteenth century.

In 1837 Michael Sars, the pastor of Florö, near Bergen, was suspected by some of his parishioners of meddling with the black art because of his fondness for poring over strange sea beasts. He had indeed already made a name for himself by his discoveries in marine zoology, and in that year the Norwegian Storting voted a sum of money in order that he might study in France and Germany. He was on the point of setting out for his journey when his second son was born, on the 20th April. Georg Ossian Sars gave little promise in his early years of future distinction. Dr Nordgaard, in his charming little biography of father and son (*Michael og Ossian Sars*, Kristiania, 1918), gives us a picture of a shy, solitary schoolboy, laughed at by his fellows for his outlandish name, marked as of no more than average ability by his schoolmaster, and fond of wandering alone on the mountains and filling his pockets with all kinds of plants and animals. When he was fourteen years old the family removed to Christiania. The parish priest had by now an acknowledged position among the leading zoologists of Europe, and the Government founded for him a special chair in the University of Christiania as Professor extraordinarius of Zoology. Ossian, in due course, became a student at the University and began the study of medicine. But other interests divided his attention. We read of him roaming the countryside with a gun lent to him by the zoologist Professor Rasch, and making coloured drawings of the birds he shot. His mother was a sister of the poet J. S. Welhaven, and while she lived the home in Christiania was a meeting-place of artistic, literary, and musical people. Ossian's artistic talents were so marked

that there was some talk of his going to Germany to study painting. A keen appreciation of music remained with him throughout life, and for long his violin (which he played entirely by ear) accompanied him everywhere on his travels. His growing devotion to natural history, however, soon made it clear that neither medicine, nor painting, nor music was to be the business of his life. He bought a microscope and began to study the minute freshwater Crustacea. His first published work was a little paper, "On the Cladocera occurring in the neighbourhood of Christiania," printed in the *Proceedings* of the Scientific Society of Christiania in 1861. Sixty-five years later his last paper was on freshwater Copepods from South Africa. Between the two lies a vast series of papers, memoirs, and stately monographs abundantly illustrated in the most exquisite fashion, which would have formed a respectable output for the lives of a dozen zoologists of ordinary industry and skill.

Ossian soon became his father's right-hand man. Dr Nordgaard quotes from a letter of the elder Sars to the Danish zoologist Steenstrup, "God be praised, I have much joy of my son. Now that I am old and shaky, he willingly accompanies me on my journeys and is a great help to me. He is proving a very capable investigator." His first scientific appointment came in 1864 when he was sent by the Government to investigate the cod fisheries of Lofoten. Almost at once he made a capital discovery which has been the foundation of all later scientific research on sea fisheries. At that time it was believed that all fishes deposited their spawn at the bottom of the sea. Sars found that the eggs of the cod (and, as he afterwards discovered, of nearly all the important food-fishes except the herring) floated freely at the surface. This meant that the eggs and newly hatched young might drift for long distances with the winds and currents, and problems connected with the distribution and migrations of the fish at once assumed an entirely new aspect. Sars worked out the life-history of the cod and depicted the larval and young stages in a series of beautiful drawings which, however, remained unpublished for nearly half a century till they were reproduced in Murray and Hjort's *Depths of the Ocean*.

Alongside of his fishery work Sars took every opportunity to carry on his researches in pure zoology. On the steeply shelving bottoms of the Norwegian fjords it is possible from a small rowing boat to work a hand dredge at depths which elsewhere are only accessible with heavy tackle from an ocean-going steamer. With such simple means Sars became one of the pioneers of deep-sea research. On his first visit to Lofoten he discovered the remarkable stalked Crinoid *Rhizocrinus lofotensis*, and he drew the illustrations for the memoir in which his father described it. At the

same time he investigated the carcase of a huge Rorqual which had been cast ashore, and described it in the first of a series of papers which still give the best accounts we have of some of the northern whales. Another discovery, of the minute and anomalous *Rhabdopleura*, remained unpublished until after Allman had described specimens obtained in Shetland by Canon Norman. But of all the groups of marine animals, and there were hardly any that he did not study, the Crustacea, which had first attracted him, claimed most of his attention. His *Crustacea of Norway*, of which the ninth volume was left incomplete at the time of his death, his reports on the Crustacea and Pycnogonida of the Norwegian North Atlantic Expedition (which he helped to plan and in which he took part), and his contributions on Crustacea of the *Challenger* and other foreign expeditions can only be mentioned here. There can hardly be a text-book of zoology that does not copy some of his figures and mention some of his discoveries.

The elder Sars died in 1869, and in the following year his son became lecturer in zoology in the University of Christiania, succeeding to the chair of zoology on the death of Professor Rasch four years later. Some of his pupils who later became distinguished zoologists have borne testimony to the excellence of his teaching. His exposition of the then novel doctrine of evolution especially attracted to him the eager attention of the younger generation.

From his boyhood Sars had been of a shy and retiring disposition, and in his later years he became almost a recluse. He never travelled abroad (except for a tour in Mediterranean lands in 1875-76) and was personally unknown to most of his foreign colleagues. Even in extreme old age, however, his industry did not diminish, and although his handwriting became tremulous his drawings lost little of their firmness and delicacy. He died, after a short illness, on 9th April 1927.

One little story from Dr Nordgaard's book may serve for epilogue. A goodwife in whose cottage Sars had lodged was a little disturbed because she never saw him reading the Bible. "All day he was out on the sea and at night he sat over his microscope, but (and the words are almost our own broad Scots) he is a braw man for a' that, is Sars (men Sars er en bra mand allikevel han)."

He was elected an Honorary Fellow of the Society in 1920.

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