

T. Wemyss Fulton, M.D.

FEW public offices have been filled by a man, born in 1855, so capable, so industrious, and so widely appreciated both at home and abroad as that of Thomas Alexander Wemyss Fulton, Superintendent of Scientific Investigations under the Fishery Board for Scotland. Little is known of his school-days and earlier life, though he was reared under the care of a mother whose unselfish devotion laid the foundation of a high character.

Entering the University of Edinburgh, he studied medicine during the usual four years, distinguishing himself in various classes, such as Natural History, under Sir Wyville Thomson, and graduating as M.B. and C.M. with first-class honours in 1884. For two years he served in the "Challenger" office under Sir John Murray, and thereafter was appointed the superintendent of scientific investigations under the Fishery Board for Scotland, a post in which his great powers for research and administration attained full scope. The Fishery Board was then carrying out the testing experiments in trawling in certain areas, and Dr Fulton at once took the main charge of these, besides initiating from the 7th Annual Report of the Board onward a series of most important papers on fisheries subjects of diverse kinds, all of which in his able hands extended our knowledge. Thus his labours traversed overfishing and the culture of sea-fishes, the migration of fishes and their rate of growth, and the relation of marine currents to offshore spawning areas. One careful paper which, as his thesis for graduation as M.D. in 1888, merits special notice, especially in connection with pelagic eggs, in which he notes a certain quantity of watery fluid, of low specific gravity, enters the ovum at the close of ovarian growth—causing fusion or reduction of the yolk-spherules. He examined the ova of no less than 26 species of marine fishes, demonstrating the structure and differences between demersal and pelagic ova, the frog-fish and John Dory being specially dealt with; besides his demonstration of the elimination of chromatic substance from the germinal vesicle, and in some eggs the formation of the yolk-nuclei. This research alone would have given Dr Fulton a marked position as a scientific worker, and he worthily won a Thesis Gold Medal.

Year after year he continued his observations on fishes and fisheries, taking voyages on board the *Garland*, *Goldseeker*, and other ships, and tabulating extensive inquiries of importance. Now it would be an

investigation of the herring fisheries of the Clyde, anon a research on the growth of the cod, haddock, whiting, and Norway pout, or again on the general growth of sea-fishes, or remarks on the otter and beam trawls in respect to their captures; whilst he lastly wrote an elaborate treatise on trawling, accompanied by laborious tables.

For his researches on board the various ships he invented a useful deck-house in which his examination of the captures could more readily be carried on and measurements made.

After ten years of work in the experimental trawling areas he drew up conclusions which leant to a steady deterioration of the fish-fauna, especially of the flat fishes, but further consideration led to modification of such views. The remarkable recuperative powers of Nature in withstanding the ravages of man on the sea-fishes remain unshaken.

His labours at the Fishery Board Station at the Bay of Nigg, Aberdeen, were continued with unabated energy, for plaice especially were hatched in large numbers and placed in various areas in the North Sea, as well as carried to Loch Fyne, so as, if possible, to augment the supply, yet after all, it is doubtful if such labour and expense are needed. Most of his papers on trawling were accompanied by elaborate tables showing the various captures; indeed, amongst his other accomplishments he was an expert statistician.

In his work, 8vo, of nearly 800 pages, published in 1911, on *The Sovereignty of the Sea*, the patient industry and wide knowledge as well as the experienced judgment of the author are well illustrated. In this elaborate historical publication he traces the early prominence of maritime affairs in England and Scotland under the Tudors, Stuarts, and their successors, and the fishery troubles with the Dutch; whilst in Section II he treats of the historical evolution of the territorial waters—dealing, by the hand of a master, with the endless complications of this intricate subject. Lastly, he shows that the three-mile limit is inadequate for fishery regulations. He dedicates the treatise to his wife, who aided him in transcribing records, etc.

For many years he was deeply interested in the fish-hatching ponds at Nigg, where he and Dr H. C. Williamson carried out many interesting experiments, the labours of these two adding greatly to the scientific reputation of the Department, so that abroad as well as at home their labours were highly appreciated. Thus Dr Fulton was elected to the Lectureship on "The Scientific Study of Fishery Problems" in Aberdeen University, and these lectures were continued till his retirement in 1924. Of foreign distinctions he was a member of the Danske Fisk. Copenhagen;

the Soc. Cent. pour la protect. de pêche fluv. of Brussels; of the British Anglers Association, and other bodies. He was appointed by the Government the expert representative on the International Committee for the Exploration of the Sea, 1902 to 1921, and was a member of the Advisory Committee on Fishery Research, Development Commission, 1921.

These appointments sufficiently indicate the wide influence which Dr Fulton had in all matters dealing with the fisheries, and his extensive experience, calm judgment, and upright bearing carried him through every responsibility with uniform success. He was an ideal investigator of fisheries problems, a facile and able writer, and won the respect and esteem of all with whom he came in contact.

Dr Fulton had one son, who was trained for the medical profession, and by and by settled in London. He inherited much of his father's talents, and held responsible posts in various hospitals, besides steadily making progress in private practice. Unfortunately a chill developed into a serious chest affection, and he passed away somewhat suddenly. The loss of the young and promising physician was deeply felt by both parents, and laid the foundation of their illnesses, his mother giving way first, and not long afterwards, on 7th October 1929, Dr Fulton died. He had been a member of the Society for thirty-eight years.

W. C. M.