

Who was ... Philip Henry Gosse?

Ian Lancaster

During the mid-nineteenth century, when the study of natural history was one of England's most popular and respected pastimes, the books, public lectures, and guided sea-shore walks of Philip Henry Gosse probably did more to stimulate interest in this subject (especially in marine biology) than did the work of any other single individual. Although undoubtedly a man of profound religious beliefs, Gosse was far from the sour and humourless fanatic portrayed in the autobiographical *Father and son* (1907), written by his son Edmund (a poet and an influential critic, who was later knighted). Philip's writings were perceptive, technically detailed, exquisitely illustrated, and full of humour; he revelled in the beauty of nature, which he and the majority of his readers firmly believed demonstrated the wonders of God's creation.

Born in Worcester in 1810, Philip was the second son of an itinerant miniature painter, from whom he inherited the skills for observing and painting in meticulous detail. His mother had the dominant influence on his upbringing, and she determined that he should have the best education that their limited funds would allow. By the time he left formal schooling at the age of about 14, he was tolerably fluent in Latin and Greek and well read in the classics. Local employment being scarce, Philip was sent to clerk in a whaler's office in Newfoundland in 1827. He left this post in 1835, but spent a further 4 years in Canada and North America, often in a hand-to-mouth existence, scratching a living from farming and school-teaching. Surrounded by such an immense wilderness, however, he became a proficient naturalist, and a devout Christian. Driven as much by homesickness as poverty, he eventually returned to England in February 1839. When his first book, *The Canadian naturalist*, was published the following year, he was down to his last few shillings. Whilst not a best-seller, the book nonetheless showed merit, and his fluent, descriptive writing (word-painting), eventually characterised more than 40 books and over 200 articles and papers on religion and natural history.

The Society for the Promotion of Christian Knowledge gave Gosse his first professional commissions as an author, publishing *An Introduction to Zoology*, and one of his most successful books, *The Ocean*, during the next 4 years. In 1844, however, Gosse briefly abandoned writing to take the advice of friends at the British Museum and become an insect collector in the Tropics. He chose Jamaica and sailed in October. He remained until July 1846, exploring widely and becoming passionately interested in the birds of the country. Upon his return to England, he published a series of illustrations and descriptions of 128 species of birds, 21 new to science. Sets of the coloured plates, although originally sold at a loss, are now almost priceless. The freshness of his account of his travels, *A naturalist's sojourn in Jamaica* (1851), was greeted with critical enthusiasm by public and scientists alike, and his praises were sung by both Charles Darwin and Richard Owen, among others.

In the 5 years following his return from Jamaica, Gosse hardly paused for breath. The manuscript for *Birds of Jamaica* was with the publisher within 8 months (though the illustrations, sold separately, appeared about 2 years later), and by 1851 he had written a further ten books and more than a dozen learned papers. He also began the microscopic studies of rotifers that were to occupy him until the end of his life. On the personal front, he became a member of the Plymouth Brethren in 1847, married one of its members, Miss Emily Bowes, in November 1848, and had a son (Edmund) the following September. This pace of work took an inevitable toll on his health, however, and in the winter of 1851 he began to suffer violent headaches, diagnosed as nervous dyspepsia. He was advised to leave London and rest.

The family spent most of 1852 in Devon, and the next 5 years saw Gosse as England's leading exponent of marine biology; his *Naturalist's rambles on the Devonshire coast* (1853), *The aquarium* (1854) and *Tenby* (1856) made him a household name. Whether describing a personally 'tried-and-tested' recipe for cooking sea anemones (place in boiling water, and then boil vigorously for 10 minutes!) or explaining how he had to strip off in order to dive to the bottom of a deep pool to collect a particularly attractive specimen, his readers were always treated to a vivid and enthusiastic account of a breathtaking new world.

More books followed, including a two volume guide to the British marine fauna – the first of its kind, and the forerunner of our modern guides. He gave public lectures, took parties on shore walks, and experimented on keeping marine plants and animals in 'aquavivaria' using artificial seawater made up according to his own recipe. The first public 'aquarium' (Gosse is credited in the OED with coining the term) was opened in Regent's Park in May 1853, stocked largely by Gosse. Even where Gosse was not the originator of the ideas which came to be associated with him, he undoubtedly brought them all together and demonstrated how they could be used both for entertainment and, most importantly of all, for detailed scientific study. The coloured plates used to illustrate *The aquarium* were the first attempt to produce work of such high quality in a book aimed at a wide audience, and were enormously popular. His original observations still make excellent reading today, as much for their scientific accuracy as for their literary quality. In recognition of his considerable contributions to natural history, Gosse was elected Fellow of the Royal Society in June 1856.

His professional successes, however, were soon to be marred by personal unhappiness. Life as a professional naturalist and author was precarious, and severe financial problems followed from investment failures. Then, in 1856, Emily became ill with breast cancer. She died in February 1857, after a short and painful illness. During that year Gosse was also troubled by more spiritual matters. He was



one of the leading intellectuals chosen by Darwin and Hooker to be sounded on the new theories of evolution by natural selection. Although he had a profound respect for Darwin, Gosse could not let his conscience accept the relegation of God that the new ideas required. He was already trying to reconcile his beliefs with the enormous time scales of the new geology, but his suggestion that the earth had been created by God with all of its fossil history present and intact (*Omphalos*, 1857) was badly received – even by erstwhile friends and admirers. The first part of *Omphalos* was a flawless summary of contemporary geology, written in a style both graphic and moving, and incorporating Darwin's ideas on the formation of coral reefs. Unfortunately, although the ideas he reviewed clearly made intellectual sense to him, he could not bring himself to abandon his belief in God. Geology certainly *seemed* to be true, but the Bible, which was God's word, *was* true (Gosse, 1907). He spent the remainder of the book trying to 'unconvince' himself of this truth. An atmosphere of intense gloom settled over him at this time, which he resolved by leaving London for good, to settle near Torquay.

These were not, however, wilderness years; during the period 1858 to 1865 Gosse published some of his most enduring works, including the popular *Evenings at the*

microscope (1859), the meticulously researched history of the British sea anemones and corals (*Actinologia Britannica*, 1860), and the two volume *Romance of natural history* (1860, 1861). He also married again and developed new interests in astronomy and botany. His final work on natural history was *A year at the shore* (1865), after which he published only religious works. He contributed extensively, however, to a definitive work on rotifers and was involved in making exquisitely detailed microscopic drawings of them almost up to his death.

Long since reinstated amongst the scientific community, and well respected in his adopted home, Gosse died in August 1888, at the age of 78, and was buried in Torquay cemetery.

Reference

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