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THEODORE NICHOLAS GILL

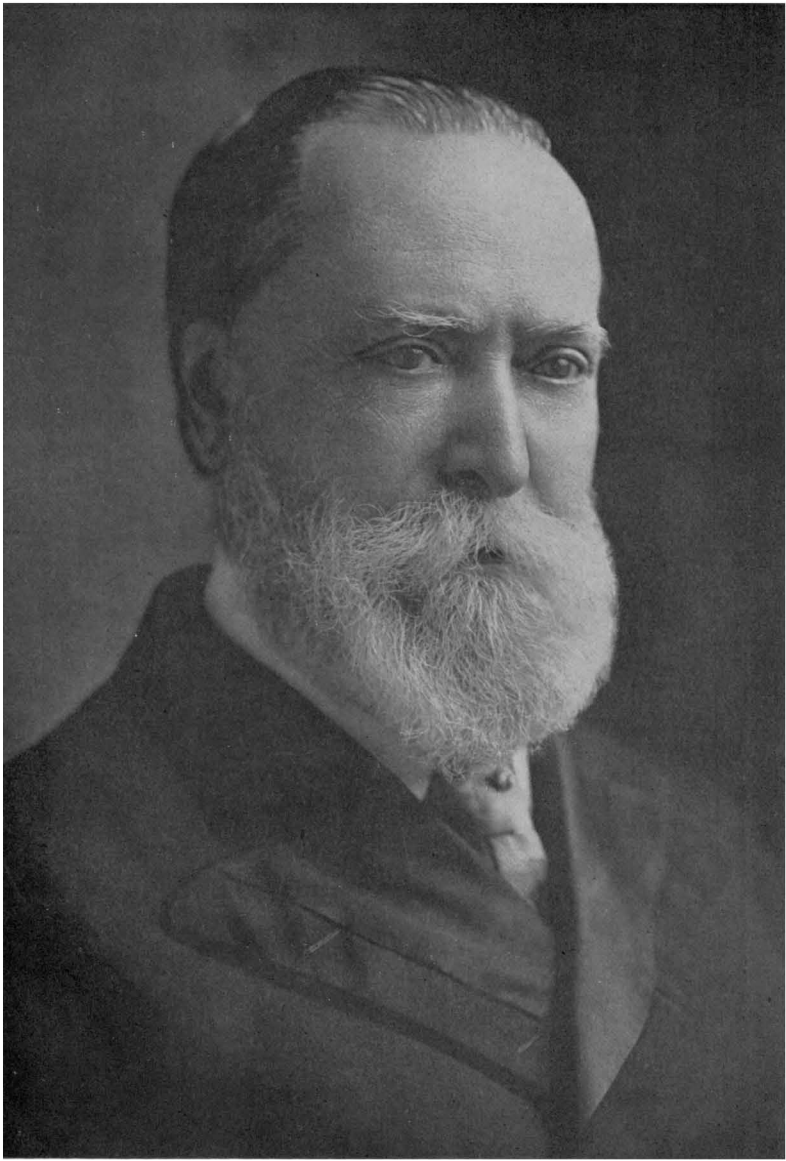
1837-1914

BY

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THEODORE NICHOLAS GILL.

BY WILLIAM HEALEY DALL.

The subject of this memoir was born on Broadway, New York City, below the City Hall, March 21, 1837, and died at Washington, D. C., September 25, 1914. He was the son of James Darrell and Elizabeth Vosburgh Gill. The father was the son of a merchant of St. Johns, Newfoundland, descended from an old Devonshire family. The mother came of old New York Dutch stock.

A few years later the family moved to 164 Grand street, on the border of the city, which was then almost the country, with open fields, trees, and groves in plain view. The city of New York had at that time only some 300,000 population.

The boy received the rudiments of education from his mother, and at the age of eight was sent to the Mechanics' Grammar School on Crosby street, then a highly esteemed educational establishment.

A year later his mother died, the father gave up housekeeping, and his son was placed in charge of a private tutor at Greenville, N. Y. Here he received a very thorough training in Latin and Greek, the father having ambitions that the son should eventually become a clergyman.

Later his father married again and resumed housekeeping on West 26th street near Sixth avenue, and still later moved to Brooklyn. Young Gill was then recalled from Greenville and sent to a private classical school in the city.

His love of nature and instinct for collecting developed early, and it is perhaps not merely a coincidence that, in coming by the ferry from Brooklyn and daily passing the great Fulton fish-market, his attention should have been especially drawn to the study of the fishes of New York.

As young Gill arrived at the age when it seemed necessary to decide on a profession, it became evident to him that he had no taste for theological studies. After due deliberation he decided to study law and entered the office of S. W. and R. A.

Gaines, a well-known law firm of that period. The latter partner had married a sister of James Darrell Gill, and was therefore a connection interested in Theodore's success in life.

His extraordinary gift of memory doubtless enabled him to absorb the essentials of legal learning, but an overpowering tendency toward the study of nature greatly abridged his law studies and he never applied for admission to the bar. His visits to the fish-market became more constant, while the adjacent water front sheltered sailing vessels from all quarters of the world, where sailors with shells and curios were daily to be encountered. His grandfather's family being residents of Newfoundland, where the fisheries were of the first importance, he kept himself informed through everything he could reach of matters relating to the subject.

The pursuit of scientific studies at that period, and for a long time afterward, offered no prospect of a self-supporting career. Though there are no data on record, it is reasonably certain that Gill's family must have looked with doubt, if not absolute disapproval, on his devotion to studies which did not promise even a bare living. At all events, with a young family from his second marriage to bring up and educate, Gill's father was not in a position to support him in an unproductive profession.

He was therefore soon left dependent on his own resources, which for years were barely sufficient to maintain his existence.

According to Doctor Gill himself, we find him about this time seeking and obtaining from the Wagner Free Institute of Science in Philadelphia a scholarship which yielded him the meager means of pursuing his studies in natural history, and thus coming in contact with a group of men who helped to lay the foundations of American science. This grant, he stated to a friend some time before his death, was the deciding factor in his resolve to devote himself to scientific studies.

He became acquainted with most of those who at that time in New York were interested in natural history, especially J. Carson Brevoort, whose zoölogical library was then reputed to be the best in the United States, and D. Jackson Stewart, a wealthy amateur, whose great collection of shells has finally found a resting place in the American Museum of Natural History.

About this time Dr. William Stimpson, the distinguished student of invertebrate zoölogy, while in New York heard amusing references to a young student of law who kept a horse's skull under his desk at the office where he was studying. Investigating this phenomenon further, he made Gill's acquaintance. Partly as a result of Stimpson's report to Professor Baird of the Smithsonian Institution, the latter, always interested in young students of Nature, entered into correspondence with Gill and promoted his studies. A report on the fishes of New York which Gill had in preparation was accepted for publication in the Annual Report of the Smithsonian Institution when its author was only nineteen years old.

Mr. D. Jackson Stewart, in the interest of his collection, financed an expedition to the West Indies, and in December, 1857, Gill made his first visit to Washington and to the Smithsonian better to prepare himself for the undertaking. Here he made the personal acquaintance of Professor Henry, Baird, and others whom he had known previously only by correspondence.

Gill sailed in January, 1858, on a large schooner, with a pleasant group of passengers.

He visited several of the Antilles, and especially Barbados and Trinidad, where he spent some weeks, being cordially assisted by many of the residents. Finding the marine fishes much the same at all the islands visited, he confined his attention especially to the peculiar fresh-water fishes of Trinidad, with very satisfactory results.

After his return he devoted himself to working up this collection. He went to Washington in August, 1858, for this purpose, and stayed for several months with Stimpson, who was occupying a small cottage near the Church of the Epiphany. He also spent much time in Philadelphia, and his report, with several subsequent papers, was published in the Annals of the New York Lyceum of Natural History, the predecessor of the present New York Academy of Sciences.

In 1859 the death of his grandfather in Newfoundland made necessary a visit to that country, in connection with the settlement of the estate. Gill improved the opportunity by studying the fauna of that remote region.

On his return, through Professor Baird's intervention, he obtained an appointment with a group of workers to whom was assigned the task of reporting on the collections made during the Northwest Boundary Survey under Archibald Campbell. Among these were George Gibbs, the ethnologist; Prof. William Turner, Dr. Stimpson, and Dr. George Suckley. Dr. Caleb Kennerly, the zoölogist of the expedition, had died at sea on his way home from the Pacific coast.

During this period Gill lived at the Rugby House (now the Hamilton House), where he did a large part of his work. Unfortunately, owing to the breaking out of the Civil War, the reports on the work of the Commission were left mostly unpublished, Gill's among them, though some of his preliminary data appeared in the Proceedings of the Academy of Natural Sciences at Philadelphia.

Among those who were working at the Smithsonian in 1861 were F. B. Meek, the paleontologist; Thomas Egleston, afterward professor of mineralogy in Columbia University; Dr. F. V. Hayden, the geologist; Robert Kennicott, the explorer; Professor Matile, one of Agassiz's Swiss coadjutors in physics and at that time an assistant of Professor Henry; Dr. William Stimpson, who was working on the Invertebrata of the North Pacific Exploring Expedition under Ringgold and Rodgers, and August Schönborn, artist, who made most exquisite silver-point drawings of Stimpson's North Pacific crustaceans.

These formed an informal association known as the Megatherium Club, whose members took meals together and foregathered with Stimpson and Kennicott for joyous evenings. The constant fluctuation in attendance, due to the coming and going between Washington and the fields of exploration in the West, tended toward disintegration, and the club virtually dissolved in a few years.

At the invitation of Professor Henry, Gill came to the Institution in 1861, and during the following winter was appointed to the charge of its great scientific library, which had been collected and organized by that eminently capable librarian, Prof. C. C. Jewett. This post he held until 1866, when, at the instance of Professor Henry, the Smithsonian books were deposited as a special collection in the Library of Con-

gress. Gill went with the books to the Capitol as Assistant Librarian of Congress and finally became senior Assistant, retaining that post until 1874. All this time he had retained his quarters in the Smithsonian building, to which he hastened as soon as the usual office hours in the Library were over. There most of his scientific work was done in the midst of an accumulation of books, pamphlets, unfinished manuscript, and débris of various kinds, piled on shelves, desk, and floor in a manner to strike terror to any housewife. However, old James Gantt, the colored dignitary who "looked after the young gentlemen" and prided himself on having been body servant to a former President of the United States, was very willing to obey the injunction that nothing should be touched, and the accumulations continued for many years.

Finally, when the biological collections were transferred with their curators to the new National Museum building in 1909, and the room occupied by Gill formed one of those assigned to the staff of the Bureau of Ethnology, the Professor was obliged to move to other quarters. He regarded the ancient heaps with dismay and relieved himself of responsibility by presenting them, with all their contents, to the library of the Smithsonian Institution.

As will be noticed by the evidence of the bibliography appended to this paper, the earlier publications of Gill appeared in the Annals of the New York Lyceum of Natural History, of which he became a member in 1858.

In November, 1860, he was elected a correspondent of the Academy of Natural Sciences of Philadelphia, and for several years his papers, appearing in rapid succession, form a large part of the Academy's volumes of Proceedings. With the establishment of the American Journal of Conchology in 1865 and of the American Naturalist two years later, an opportunity was utilized for printing various communications on mollusks and miscellaneous subjects. After the starting by Prof. S. F. Baird, in 1878, of the series known as the Proceedings of the U. S. National Museum, most of Gill's papers were printed there, in the Smithsonian Miscellaneous Collections, or in the Annual Report of the Institution.

When the United States Fish Commission began its work

under the direction of Professor Baird, he gathered about him a number of specialists who worked up the collections, and to Professor Gill naturally fell a large part of the taxonomic work on the fishes. Hence the annual reports of the Commissioner contain numerous contributions from his pen. He was also associated with Professor Baird in the preparation of the latter's "Annual Record of Science and Industry," published by the Harpers, and its subsequent equivalent which for some years appeared in the annual reports of the Smithsonian Institution, beginning after the appointment of Professor Baird as Secretary, in 1878.

Most of the zoölogical data of Johnson's Cyclopaedia and the zoölogical definitions of the Century and Standard dictionaries were furnished by Gill, though Dr. Elliott Coues acted as supervising editor.

In 1898 Gill acquired a small ornithological magazine called the Osprey and for a time associated Coues with him as editor, but the arrangement did not work well and Coues was obliged to withdraw. In 1899 Gill took entire control and with a brilliant coterie of assistant editors carried the periodical on for several years, during which he frequently contributed to its columns.

His contributions to the labors of the Committee on Nomenclature of the American Ornithological Union were cordially acknowledged by them, and his influence in standardizing zoölogical nomenclature in general has been very great, though in the main indirectly exercised.

Any classification of a large group of animals becomes obsolete with the increase of authentic data and the general progress of science; but that grasp of the subject which includes the best ideas of the current period, and is joined with the capacity to weld them into a well-balanced scheme of classification, is rare. It was possessed by Doctor Gill in an eminent degree. In fact, we shall hardly exceed the bounds of certitude if we call Doctor Gill the most eminent American taxonomist.

His papers were rarely long. He seemed to prefer to take up small groups, such as families and genera, and work out their relations. No great monograph exists among his publications. Their total mass, however, is very great, and their

influence, especially on the classification of fishes, has been profound.

His revisions naturally met with criticism from those long familiar with the existing order. In a majority of cases he lived to see his views accepted by authorities on fishes. His ideas on Avian classification are quite different from those generally accepted, especially in regard to the relative taxonomic value of characters, but it is by no means certain that the views of future ornithologists will not much more closely approximate to those of Gill.

His work on Mollusca, excepting the general classification embodied in the "Arrangement of the Families of Mollusks," was chiefly of the nature of revisions of particular families or genera. The "Arrangement of Families" brought together the most complete knowledge existing at the time of the relations of the different groups of mollusks; but the subsequent advance of science in that respect has been relatively much greater than in mammals or fishes, and Gill's arrangement has at present chiefly an historical value.

Of the Arrangement of the Families of Fishes and Mammals others can speak with an authority denied to the present writer, but the impression left after conversation with experts is confirmatory of their exceptional value.

The present Commissioner of Fisheries has had the kindness to furnish for this memoir the following estimate of Doctor Gill's work on fishes:

"Doctor Gill's chief contributions to ichthyology were his taxonomic papers. In his taxonomy, which was largely supported by his osteological research, he had no equal among his contemporaries in America or abroad. His papers represent a very large amount of painstaking investigation of a character for which he was especially well fitted and for which few active workers have the time, the fitness, or the inclination. His conclusions have been very generally accepted and form the basis for our present classification of fishes. While for years European ichthyologists disagreed with his views, his system has finally been accepted by practically all the active men at the present time. Next to his taxonomic contributions rank his papers on the structure and habits of fishes. His papers on the life histories of fishes also are noteworthy, their chief value being in the assembling and weighing of scattered observations and their presentation in a form that is exceedingly helpful to all workers in this field.

"His knowledge of the biological literature of all countries and all times was amazing and profound. In estimating his influence on science, full cognizance should be given to the readiness with which he placed this knowledge, together with his time and talents, at the disposal of every one, and to the permanent value of the encouragement he was ever most anxious to give to all those who were fortunate enough to be brought in contact with him."

In noticing the death of Professor Gill in the Annual Report of the National Museum for the year ending June 30, 1915, Dr. Richard Rathbun, Director of the Museum, thus expresses himself in regard to his colleague and collaborator:

"Rarely does one find, as in the present instance, the more or less accidental early phases in the groping for a career converge in such a manner as to at once become useful and necessary. Doctor Gill's early training was a most fortunate one, for the splendid classical schooling of his youth gave him a complete familiarity with Greek and Latin, and his legal knowledge, combined with the former, rendered him a judge where questions of nomenclature were involved. His subsequent library training brought him in contact with the world's literature, and this, yoked with great industry and a phenomenal memory, made him the acknowledged master in his chosen field. It also produced a breadth of knowledge that rendered him a fountain of information, and, as some one has stated, 'With the simplicity of the truly great and the truly able he gave freely of his stores of knowledge, so that to all the investigators who came in contact with him he proved an ever-ready source of exact and reliable information and a sound adviser.' It is certain there are few workers in systematic biology in Washington and many other places who have not received assistance from Doctor Gill."

Very soon after his arrival in Washington, Gill became associated with Columbian College, afterward Columbian University, and still later reincorporated under the name of George Washington University. In 1860 he was made adjunct professor of physics and natural history; from 1864 to 1866, and 1873 to 1884, lecturer on natural history; from 1884 to 1910, professor of zoölogy, and for the remainder of his life professor emeritus. The university, in appreciation of his merits, conferred upon him in 1865 the degree of master of arts; in 1866 an honorary doctorate of medicine; in 1870 the doctorate of philosophy, and in 1895 that of laws.

Doctor Gill was naturally elected to membership of many scientific societies, both at home and abroad. He became a member of the American Association for the Advancement of

Science in 1868, and a Fellow in 1874. In 1896 he was elected vice-president of Section F, Zoölogy, and upon the death of Prof. E. D. Cope, the president elect, he succeeded to the presidency of the Association at the meeting held in 1897 at Detroit.

He was elected a member of the National Academy of Sciences in 1873, and represented the Academy at the Boston meeting of the International Zoölogical Congress in 1898, and at the celebration of the 450th anniversary of the foundation of the University of Glasgow, Scotland, in 1901. He was a member of the American Philosophical Society; of the Philosophical Society of Washington; the Biological Society; a founder of the Cosmos Club of that city; a foreign member of the Zoölogical Society of London, and of some seventy other societies and scientific bodies.

As a young man, Gill was slender and rather delicate in appearance, with black hair, dark eyes, and a somewhat brunette complexion. His relatives by his father's second marriage seem to have partaken of a constitutional delicacy, as death removed many of them at a comparatively early age. I have referred to the fact that in his early manhood Gill was compelled to extreme frugality by an insufficient income. It was only in middle age that by inheritance and some fortunate investments he reached what are generally termed "easy circumstances." The hardships of these early years left their impression on his habits, to some of which he clung with amusing pertinacity long after they seemed to his friends and relatives uncalled for. He was fond of social intercourse with intelligent people and seemed to enjoy ladies' society, but never married.

After his youthful expedition to the West Indies he traveled little, and his only visit abroad was to the anniversary celebration of the foundation of Glasgow University in 1901. He found his recreation chiefly in books, conversation with kindred spirits, and at the meetings of the Literary Society.

An occurrence which gave great pleasure both to him and his friends was a subscription banquet tendered him at the Cosmos Club, December 13, 1912, on the completion of the seventy-fifth year of his age and the fifty-sixth year of publication of his contributions to knowledge.

On this occasion his many friends improved the opportunity of expressing their estimation of his merits as a man and a scholar and their gratitude for his many kindnesses in granting to any inquirer the benefit of his encyclopedic knowledge and phenomenal memory.

A paralytic stroke three or four years before his death permanently enfeebled him, and his remaining days were quiet and uneventful.

In September, 1914, he visited his brother, Herbert A. Gill, in the lovely suburbs of Washington, and a few days later was confined to his bed. On the morning of the 25th he was apparently mentally clear as usual and inquired about the news, but before noon he passed away suddenly. The interment took place at Oak Hill Cemetery.

I have to acknowledge my indebtedness to Dr. H. M. Smith, Mr. Herbert A. Gill, Dr. Marcus Benjamin, Dr. Richard Rathbun, Prof. C. H. Eigenmann, and Dr. T. S. Palmer for data furnished by them, either in print or otherwise, and of which I have freely availed myself in the preparation of this memoir. The following bibliography is not intended to be exhaustive, but contains practically all of Doctor Gill's most important contributions to systematic zoölogy and ecology.

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