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#### IN MEMORIAM: THEODORE NICHOLAS GILL.<sup>1</sup>

BORN NEW YORK CITY MAR. 21, 1837; DIED WASHINGTON D. C., SEPT. 25, 1914.

BY T. S. PALMER.

### Plate XXVI.

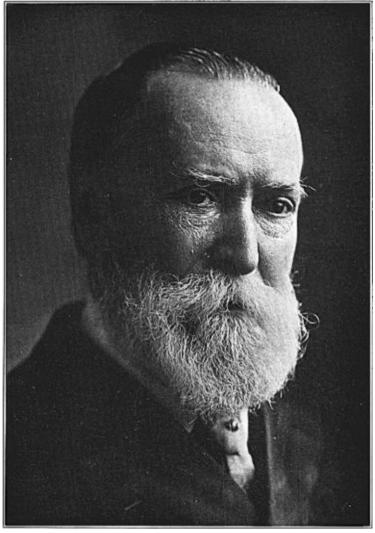
THEODORE NICHOLAS GILL, 'Master of Taxonomy' — such was the characterization by Dr. David Starr Jordan of the man whom Prof. Spencer F. Baird called the most learned, and Prof. G. Brown Goode described as the most erudite and philosophic of American naturalists. His interest in various subjects was as great as his breadth of view and extended not only throughout the field of zoölogy but also into paleontology, philosophy, language, and other fields of human interest. Questions of Greek grammar, conchology, ichthyology, mammalogy, nomenclature, osteology, and the evolution and geographic distribution of organisms living or extinct all engaged his attention. He was equally at home in biography or biology, etymology or entomology, and among mollusks or mammals.

Theodore N. Gill, son of James Darrell and Elizabeth Vosburgh Gill, was born in New York City, March 21, 1837, and was educated in private schools and under private tutors. He took no

<sup>&</sup>lt;sup>1</sup>Address delivered at the thirty-third Stated Meeting of the American Ornithologists' Union, San Francisco, Calif., May 18, 1915.

THE AUK, VOL. XXXII.

PLATE XXVI.



Photograph by Harris & Ewing, Washington, D. C.

Yours truly

regular college course and although he studied law was never admitted to the bar. At an early age he became interested in natural history and especially in fishes which afterward formed the subject of his special studies. In the markets of New York which he frequently visited he was able to examine some of the rarer species which were brought in from time to time by commercial fishermen.

At the age of 20 in the winter of 1857–58 he took his first extended field trip, visiting Barbados, Trinidad and other islands in the West Indies where he collected shells and other specimens for Mr. D. Jackson Stewart. The results of this trip were worked up chiefly in the library of Mr. J. Carson Brevoort and appeared in the Annals of the Lyceum of Natural History of New York and the Proceedings of the Academy of Natural Sciences of Philadelphia. It was probably in the Brevoort library, then one of the best of its kind in this country, that he laid the foundations of that broad and intimate knowledge of books which in later years became such a distinguishing characteristic. His second collecting trip, and apparently the only other extended field trip he ever undertook, was made in the summer of 1859 to Newfoundland.

About 1860, Gill came to Washington, D. C., and took up his residence in the national capital, which was henceforth to be his home and which for more than half a century was destined to be the scene of his literary and scientific activities. Here he found congenial surroundings and settled into a life which almost never took him into the field and seldom involved trips farther than New York or Boston,<sup>1</sup> but his interests were world wide and were not measured by his travels. Dum domi mansit orbem pervagabatur (while he remained at home he wandered throughout the world). It is interesting to note that Gill reached Washington just about the outbreak of the Civil war but the events of those stirring times seemed to have had little effect on his career. Here he met Professor Baird and others who were then prominent in scientific work. Baird was Assistant Secretary of the Smithsonian Institution and had but recently completed his great works on the mammals and birds of the Pacific Railroad Surveys. Coues was a student in

392

<sup>&</sup>lt;sup>1</sup> It is said that at one time he was offered an attractive position by Professor Agassiz at Cambridge, but decided not to leave Washington.

Columbian College and Ridgway, a boy not yet in his teens, was living at his home in Illinois and had not actively entered the field of ornithology.

Gill became associated almost immediately with Columbian College, afterward Columbian University, and now George Washington University, a connection which he maintained until his death. In 1860–61 he was adjunct professor of physics and natural history, in 1864–66 and 1873–84, lecturer on natural history, from 1884–1910 professor of zoölogy, and during the last four years of his life professor emeritus. His classes were not large but he always maintained his interest in the zoölogical department and especially in the graduate work. His services were appreciated by the University which bestowed upon him at various times four honorary degrees: A.M. in 1865, M.D. in 1866, Ph.D. in 1870, and the highest doctorate, LL.D. in 1895.

Whether Coues and Gill were officially associated in the early days is uncertain. Dr. D. G. Elliott records that about this time "when on a visit to Professor Baird in Washington, one evening, in company with my old friend Doctor Gill, I first met Elliott Coues,"<sup>1</sup> indicating that Gill knew Coues and introduced Elliott to him. Coues was actively interested in birds at this time and had just published his "Monograph of the Tringæ of North America" which he later described as the "maiden effort of a very youthful author." He was also busy with D. W. Prentiss in preparing 'A List of the Birds of the District of Columbia' which appeared in 1862. Coues took his bachelor's degree at Columbian College in 1861, graduated in medicine and received his commission as Acting Assistant Surgeon in the Army in 1863, and in the following March was detailed as Assistant Surgeon to Fort Whipple, Arizona. He was absent from Washington at various military posts for some years, and it was not until the late seventies or early eighties that he and Gill became associated in the first of their joint zoölogical publications.

Through the assistance of Professor Baird Gill received an appointment in the library of the Smithsonian Institution. In 1865– 66 he served as librarian and when the library of the Smithsonian

<sup>&</sup>lt;sup>1</sup> D. G. Elliott, In Memoriam Elliott Coues, Auk, XVIII, p. 5, 1901.

[Auk Oct.

was transferred to the Library of Congress he acted as assistant librarian in the Library of Congress from 1866–75. This decade devoted to constant work with scientific books was invaluable in enabling him to familiarize himself with the literature of zoölogy. With his wonderfully retentive memory he stowed away many a fact and many a title which in after years he had occasion to use in the preparation of his papers. Apparently he never forgot a book which he had once handled and long afterward he could assert with confidence that a certain volume was in the Library of Congress, although he might not have seen it for many years.

At the first meeting of the American Ornithologists' Union held in New York on September 26, 1883, Doctor Gill was elected an Active Member and remained in the list for thirty years. In 1913, only a year prior to his death, he was transferred to the recently established class of Retired Fellows, and his was the first name to be enrolled in the list of Deceased Retired Fellows. He seldom attended meetings of the Union outside of Washington, but he was present at most if not all of those held at the National Capital. He seriously considered attending the special meeting in San Francisco in 1903 but finally abandoned the plan, although he had long been desirous of visiting the west coast. He frequently took part in the discussion of the more general topics but apparently contributed only one formal paper - entitled 'The Generic Names Pediocætes and Poocætes'.<sup>1</sup> He held no offices during his long connection with the Union but rendered valuable aid to the Committee on nomenclature at various times. His name does not appear in the list of those who assisted in the preparation of the original Code and Check-List of 1886, but the obligation of the committee is attested in a special note published in Science.<sup>2</sup> When the subject of the revision of the Code was considered at the meeting held in 1905, he was appointed one of the seven members to whom the task was delegated.

Gill was a member of many other scientific societies and was a regular attendant at their meetings in Washington or in nearby cities. He was elected a member of the American Association for

<sup>&</sup>lt;sup>1</sup> Auk, XVI, pp. 20–23, 1899. <sup>2</sup> VH, p. 374, Apr. 23, 1886.

the Advancement of Science at the 17th Meeting in Chicago in 1868, and became a Fellow in 1874. In 1896 he was Vice-President of Section F on Zoölogy and upon the death of the President, his life long friend, Prof. E. D. Cope, on April 12, 1897, as senior Vice-President, he succeeded to the Presidency of the meeting held in Detroit in that year. In 1873 he was elected a member of the National Academy of Sciences and represented the Academy at the International Zoölogical Congress at Boston in 1898, and at the 450th aniversary of the founding of the University of Glasgow, at Glasgow, Scotland, in 1901. He was a member of the American Philosophical Society, the Biological Society of Washington, the Cosmos Club, one of the honorary vice-presidents of the Audubon Society of the District of Columbia, a foreign member of the Zoological Society of London, and a member of more than 70 other scientific organizations. In 1894 he was made associate in zoölogy of the U.S. National Museum. He was one of the founders of the Cosmos Club in 1878, of the Biological Society in 1880, and of the District Audubon Society in 1897. He served as the first president of the Biological Society in 1881 and 1882, as chairman of the Committee on Publications in 1894–95, and frequently presented papers and took part in the discussion of papers presented by others. It made little difference what subject was under consideration, Gill could almost always add something to the information imparted by the speaker. On one occasion when a paper on Cretaceous fishes was presented, Doctor Gill dissented radically from the views of the author of the paper and as a result the discussion soon waxed warm. No one in the audience except the author and the critic had more than a superficial knowledge of the subject, but every one present followed with deepest interest as each participant in the debate sought to overwhelm the other with fresh arrays of facts and polysyllabic names of fossils which none save the speakers could understand.

This is not the time or the place to attempt a review of Doctor Gill's voluminous publications. The number of titles in his bibliography exceeds 500, most of them on the subject of fishes. His best known works consist of his Arrangements of Mollusks, Fishes, and Mammals, his volume on Fishes, and part of the volume on Mammals in the Standard or Riverside Natural History, the con-

395

tributions to zoölogy in Johnson's Universal Cyclopedia, and the Century and Standard Dictionaries. He published no great monographs in the ordinary acceptation of the term and no comprehensive work on natural history, evolution, or geographic distribution, although few men were better qualified for such a task. He devoted most of his attention to essays, revisions of groups, short papers on special subjects, notices, and reviews.

Birds received but a small part of his attention. His publications on ornithology may be conveniently divided into three groups: (a) A series of annual reviews in the 'Summaries of Scientific Progress,' 1871–1885; (b) contributions to 'Johnson's Cyclopedia,' miscellaneous essays on distribution and nomenclature; and (c) articles and notices in 'The Osprey.' These may be briefly considered in the order indicated.

In 1871 Harper and Company undertook the publication of the 'Annual Record of Science and Industry,' edited by Professor. Baird, who had associated with him a number of well-known scientific men to take charge of special subjects. Abstracts and summaries of the more important articles of the year were published in Harper's Weekly and Harper's Monthly and later collected into an annual volume, prefaced by a general account of the progress of the year in each department. Doctor Gill contributed the material on vertebrate zoölogy. Each volume contained a bibliography and brief necrology, thus forming a convenient but condensed account of the progress of the year. The series was discontinued in 1878, but Professor Baird who had become Secretary of the Smithsonian Institution in May of that year arranged for the publication of a Record of Scientific Progress in the Annual Reports of the Institution. The first installment dovering the years 1879-80 appeared in the volume for 1880, thus continuing without interruption the 'Annual Record' formerly published by the Harpers. To this series, extending through the years 1879 to 1885, Gill contributed the chapters on zoölogy covering the whole field from Protozoa to Primates. Necessarily the sections devoted to birds were brief and usually condensed to less than half a dozen pages. Only the more important discoveries or publications could be noticed, but they were selected from the whole field of ornithology and included extinct as well as living birds and notices of articles

on cage birds, ostrich farming, anatomy, and physiology in addition to descriptions of new species and reviews of faunal works and museum catalogues.

In the volumes for 1881 and 1882 he introduced a feature of special interest which might well be revived today, namely, a list of "Birds Added to the American Fauna," including new species and extralimital species recorded for the first time within the limits of North America. Twelve species were included in the list for 1881 (p. 487) and 21 species in that for 1882 (pp. 628–29). Such a list published in the January number of 'The Auk' would be a very convenient annual record of the new forms to be considered as additions to the Check-List.

Gill's comments on some of the articles while necessarily brief are characteristic. Thus in speaking of a paper on the classification of birds by Dr. P. L. Sclater which had recently appeared,<sup>1</sup> he says: "The tendency to give an exaggerated value to trivial characters still lingers. One author, for example recognizes two sub-classes and 26 orders in this most homogeneous of types, and for the little morphologically diversified Passeres not less than 53 families are provided!"<sup>2</sup> This statement suggests Gill's earlier expression of his views, in what was apparently one of his first publications on birds, which appeared in the Introduction to Baird, Brewer, and Ridgway's 'History of North American Birds.' This contribution although signed with his initials is easily overlooked, and the circumstances attending its preparation do not seem to be generally known. Gill himself states <sup>3</sup> that one bright afternoon in August, 1873, while a guest of Professor Baird at Peake's Island, near Portland, Me., having been requested to prepare the Introduction to the 'Land Birds' then nearing completion he dictated to Baird's secretary the paragraphs which form pages xi-xiv of the 'History.' It was only natural that Baird should have invited Gill who had published two or three years before his remarkable Arrangements of the Families of Mammals and of Mollusks to undertake a similar task for the birds. Upon his return to Washington, Gill collected all the skeletons and skulls of birds available

<sup>&</sup>lt;sup>1</sup> Ibis, IV, 1880, pp. 340–350; 399–411. <sup>2</sup> Smithsonian Rept., 1880, p. 377.

<sup>&</sup>lt;sup>3</sup> Osprey, III, p. 91, Feb. 1899.

in the hope of working out 'anatomical characters that would coordinate with the external characters generally used to distingush families.' In this effort he failed utterly and abandoned the undertaking, declining to complete the introduction in which his views on classification were so at variance with those of the authors. This introduction was finally completed by Doctor Coues. Thus began the first of several literary ventures in which Coues and Gill were associated and which finally resulted unhappily a few months before Coues' death in the severe straining if not in the breaking of a friendship of nearly forty years standing.

For present purposes the contribution of 1873 is chiefly interesting because it contains Gill's definition of birds and the brief statement of some of his views on Avian classification. This definition is remarkable from the fact that it describes a bird in a single sentence, but this sentence includes 312 words and fills the greater part of a page! As an example of word building about a single idea it is one of the most comprehensive in the annals of ornithology. The first few lines carrying the description through the brain will suffice to illustrate his ability in writing definitions:

"Birds are abranchiate vertebrates, with a brain filling the cranial cavity, the cerebral portion of which is moderately well developed, the corpora striata connected by a small anterior commissure (no corpus callosum developed), prosencephalic hemispheres large, the optic lobes lateral, the cerebral transversely multifissured," etc.

This definition recalls the anecdote mentioned by Doctor Lucas<sup>1</sup> in connection with the publication of the Century Dictionary some years later. Coues was in charge of the preparation of the zoölogical terms and Gill associated with him prepared chiefly the definitions of mammals and fishes. When Gill submitted a definition of the family of Giraffes Coues read it carefully and turning to Gill exclaimed, "That isn't English, it is Choctaw." "No," said Gill, "it is an exact definition of the family Giraffidæ," and as such it was duly incorporated in the Dictionary.

Gill's later ornithological papers appeared in 'The Osprey' during the four years that it was published under his supervision. Before considering these papers it may be interesting to mention some of

Auk Oct.

<sup>&</sup>lt;sup>1</sup> Am. Mus. Journ., XV, p. 10, 1915.

the circumstances connected with the history of this rather remarkable journal. Shortly after the death of Professor Cope in April, 1897, the 'American Naturalist' which had been conducted by him in conjunction with Professor Kingsley, changed hands and beginning with the September number was placed under new editorial supervision. For some time Gill had been desirous of acquiring control of a scientific journal and it was afterwards a source of regret to him that he had not secured 'The Naturalist' when the opportunity was presented.

A year or two previous a well illustrated magazine of popular ornithology called 'The Osprey' had been established by Walter A. Johnson at Galesburg, Illinois. Within six months Doctor Coues became associated with Johnson and for a while contributed a column to each number. Coues at this time was devoting considerable attention to ornithology in connection with the preparation of the fifth edition of his 'Key to North American Birds' and 'The Osprey' evidently afforded a convenient medium for the publication of short notes. At the close of 1897 the publication office of 'The Osprev' was transferred to New York, and Johnson, having engaged in other business, was anxious to be relieved of the editorial work. The magazine was therefore offered for sale. Under these circumstances it is not surprising that Gill, who was looking for a journal, and Coues, who was already interested in 'The Osprey,' should have become associated in the management of the magazine. Gill acquired 'The Osprey' in October, 1898, beginning his work with the first number of Volume III. The office of publication was transferred to Washington and under the joint editorship of Coues and Gill the magazine began a new chapter in its eventful career. It might have been expected that under such able management 'The Osprey' would have prospered, but the combination proved disastrous. Coues who contributed most of the editorials and supervised the makeup began to treat the magazine as a toy and evidently soon tired of the routine work. The editorials at first in humorous vein soon grew sarcastic and became so sharp that Gill, thoroughly disgusted, withdrew his name from the numbers for April and May, 1899. In the June number appeared the statement that Coues had retired and Gill had assumed full control. With the beginning of Volume IV in October the announcement 400

was made that 'The Osprey' would be edited by Gill in collaboration with Robert Ridgway, Leonhard Stejneger, F. A. Lucas, C. W. Richmond, Paul Bartsch, Wm. Palmer, H. C. Oberholser, and Witmer Stone. With such a galaxy of talent the future of the journal was very promising. Doctor Gill financed the venture, Doctor Bartsch attended to most of the routine work and the collaborating editors contributed occasional articles and notes. But after two years this plan was abandoned, the form of the magazine was changed and a new series begun in January, 1902. Only a few numbers appeared and the journal was finally suspended in the following July.

Among the more important of Gill's contributions to 'The Osprey' were his plan for a new history of North American Birds.<sup>1</sup> his biographies of Swainson,<sup>2</sup> Richardson,<sup>3</sup> and Cassin,<sup>4</sup> his articles on Longevity in Birds,<sup>5</sup> and on the Bower Birds of Australia and New Guinea.<sup>6</sup> Many short biographical and critical notes were introduced under his editorship and the character of the journal was considerably changed. His plan for what he termed 'generized' biographies of birds was outlined in the number for February, 1899. p. 88, under the caption 'A Great Work Proposed.' After calling attention to three great works on North American Birds, viz. those of (1) Wilson, (2) Audubon, and (3) Baird, Brewer, and Ridgway, he remarks that Wilson and Audubon's works observed no classification and were merely unconnected descriptions and biographies of species without logical sequence, while Baird, Brewer and Ridgway introduced system and generalization of the classificatory data but no generalization of the biographical information. Moreover a quarter of a century had intervened since the publication of the Land Birds and much new data had been collected. His plan for the new work may well be described in his own words:

Auk Oct.

<sup>&</sup>lt;sup>1</sup> Osprey, III, 88–94, Feb. 1899.

<sup>&</sup>lt;sup>2</sup> William Swainson and His Times: Osprey, IV, pp. 104–108; 120–123; 135– 138; 154–156; 166–171; V, 8–10; (23–25; 29–30); 37–39; 58–59; 71–72; 136– 137; 152–155; 167–172, 176, Mar. 1900–Nov. 1901.

<sup>&</sup>lt;sup>3</sup>Life and Ornithological Labors of Sir John Richardson, New Ser., I, 13-17, Jan., 1902.

<sup>&</sup>lt;sup>4</sup> Biographical Notice of John Cassin, New Ser., I, 50–53; 80–84. Mar., May, 1902.

<sup>&</sup>lt;sup>5</sup> Osprey, III, 157-160, June, 1899.

<sup>&</sup>lt;sup>6</sup> Osprey, IV, pp. 67-71, Jan., 1900.

"The time has come to commence another ornithology, to gather the harvest scattered in many fields, to bring it together in a new granary. A very decided improvement too, can be effected, it seems to me, in the treatment of the life histories of the beings to which we are devoted.... One of the features that would be most desirable in the new Avifauna would be a recapitulation of the habits common to all the species of a genus under the generic caption. In fact a summary of all the ecological features characteristic of the combined species, and an indication as to the range of difference or divergence.... The various biographies should be prepared on a regular plan and the data given in a uniform sequence for each species and a summary furnished for each genus. The deficiencies in our knowledge could then be perceived at once, and some one of the numerous observers might be incited to fill the void...."

Naturally the first biography published was that of the species after which the journal was named, the Osprey. This was begun in September, 1900, a year and a half after the announcement and was continued in installments through nine numbers to September, 1901, making in all a publication of about twenty pages.<sup>1</sup>

As already indicated, Gill's contributions to ornithology are not to be measured by his formal papers. Indeed his titles on birds are so few and so widely scattered that they scarcely appear in ornithological bibliographies and are apt to be overlooked unless the search be extended to include somewhat obscure nooks and corners. Nevertheless his influence made itself felt in many quarters and his ideas and suggestions may be found in several standard works on ornithology, in the Code of Nomenclature, and in the zoölogical parts of the Century and Standard Dictionaries and Johnson's Cyclopedia. His was an indirect rather than a direct influence, as gentle and persuasive as his personality, but none the less real and effective. His suggestions and criticisms, always made in a kindly spirit for the assistance rather than the discomfiture of the inquirer, bore rich fruit in the works of others.

Gill's views on the classification of birds were very positive and in some respects widely divergent from those of most American ornithologists, but he was interested chiefly in the relation of the higher groups and paid little attention to species and subspecies. Apparently he never described any new species of birds but in

<sup>&</sup>lt;sup>1</sup>Vol. V, pp. 11–12; 25–28; 40–42; 60–61; 73–76; 92–93; 105–106; 124–125;: 141.

Auk Oct.

recognition of his eminent work in systematic zoölogy two birds have been named in his honor by other ornithologists. These are: Gill's Albatross, *Diomedea gilliana*, described by Dr. Coues<sup>1</sup> in 1866 (now regarded as probably the young of *Diomedea melanophrys*), and an extinct species of quail, *Palæotetrix gilli*, described by Dr. Shufeldt<sup>2</sup> in 1892, from the Pleistocene of Oregon.

Reference has already been made to Gill's futile attempt in 1873 to discover structural characters of family and ordinal value. Briefly stated, he considered that all living birds should be combined in a single order for which he proposed the term Eurhipidura, or birds with a well developed fan-like tail. Among extinct birds he recognized two orders, Saururæ, or birds with a reptile-like tail, represented by *Archæopteryx*, and Ichthyornithides represented by *Ichthyornis* and *Apatornis*. These views were first embodied in a paper on 'The Number of Classes of Vertebrates and their Mutual Relations'<sup>3</sup> presented to the National Academy of Sciences at the meeting of October 29, 1873, in the year in which he was elected to membership in the Academy. In contrast to these views it is interesting to note that Baird, Brewer, and Ridgway in 1874 recognized no less than fourteen orders of Carinate birds and fifty-nine families of North American Birds.

A quarter of a century later Gill restated his views more at length: <sup>4</sup>

"The attribution to the so-called orders of birds of that rank is a sin against classification, as well as the truth, which should not be persisted in.... I would scarcely recognize any orders among living birds — certainly not more than two.... For provisional purposes the orders of most ornithologists might be designated as suborders and the so-called suborders would have about the value of superfamilies....

"Most of the generally admitted families of birds outside of the Passerines appear to me to be well founded, but I cannot regard the Oscine socalled families as such.... To entitle the sections of Oscines generally called families as such, is to obscure and falsify our knowledge of structure and to give a distorted idea of the group....

"Objects should be called by their right names. If the groups in question are confessed to lack family characters, they should not be designated

<sup>&</sup>lt;sup>1</sup> Proc. Acad. Nat. Sci. Phila., May 1866, p. 181.

<sup>&</sup>lt;sup>2</sup> Journ. Acad. Nat. Sci. Phila., Ser. 2., IX. p. 415, pl. xvii, fig. 34, 1892.

<sup>&</sup>lt;sup>3</sup> Am. Journ. Sci. & Arts, 3d ser., VI, pp. 432-435, Dec. 1873.

<sup>&</sup>lt;sup>4</sup> Osprey, III, pp. 90, 91, Feb. 1899.

#### Vol. XXXII] 1915 PALMER, In Memoriam: Theodore Nicholas Gill.

as families. Let a lesson be taken from other zoologists. There are families of insects — the Carabids and Scarabeids among beetles, and the Ichneumonids and Chalcidids among Hymenopters, for example — which contain nearly as many as or even more species than are known of birds, and yet there is no great difficulty in subordinating the constituent groups under a family designation."

Again reverting to this same subject in his address before the Seventh International Zoölogical Congress<sup>1</sup> at the meeting in Boston in 1907, he suggested the following solution of the difficulty:

"One consummation devoutly to be wished for is a general acceptance of a standard for comparison and the use of terms with as nearly equal values as the circumstances admit of. There is a great difference in the use of taxonomic names for the different classes of the animal kingdom. The difference is especially great between usage for the birds and that for the fishes. For the former class, genera, families and orders, are based on characters of a very trivial kind.... The mammals are a class whose treatment has been mostly intermediate between that for the birds and that for the fishes. Its divisions, inferior as well as comprehensive, have been founded on anatomical characters to a greater extent than for any other class. Its students are numerous and qualified. Mammalogy might therefore well be accepted as a standard for taxonomy and the groups adopted for it be imitated as nearly as the different conditions will admit. The families of birds would then be much reduced in number and those of fishes increased."

These extracts have been quoted at length to indicate Gill's own views and to show that his criticism of ornithological classification was not directed so much against the number of divisions as the exaggerated value assigned the various groups. His strongest contention was to standardize the higher groups of birds so as to make them more nearly equal in value with those of other vertebrates. In view of his careful consideration of this question extending over a period of nearly forty years and his wide experience with other vertebrates, his conclusions are entitled to special weight however divergent they may seem to be from those now commonly accepted.

Gill's most important influence was undoubtedly the inspiration of his example in the direction of broader and more thorough technical work. In bibliography careful and exhaustive research and

<sup>&</sup>lt;sup>1</sup> Systematic Zoölogy: Its Progress and Purposes, sep., pp. 20-21.

attention to the biographical or personal side of science: in nomenclature, rigid adherence to the law of priority. the one letter rule (thereby preserving names otherwise considered preoccupied), the coining of new names on classical models, and the avoidance of hybrid names and other etymological monstrosities: in taxonomy. exactness in definition of terms, attention to the relationships of higher groups, and standardization of the divisions of birds to make them comparable in rank with those of other classes of vertehrates The value of his suggestions regarding publication of an annual list of additions to the Check-List and 'generized' life histories of birds should not be lost sight of. While his sample biography of the Osprev can hardly be considered altogether successful, even from the standpoint of the author, the idea of basing the life history of a species on the accounts of a number of observers to eliminate errors due to individuality and personal equation is certainly worthy of thorough trial before being rejected or forgotten. He was especially well qualified to estimate the value of the work of others in systematic zoölogy and his criticisms, while frank and by some considered severe, were always made in a kindly spirit.

Gill was unmarried, possesed of ample means and thus able to devote his time and energies to whatever his fancy dictated. But. although he worked steadily and produced a large number of papers. he lacked the energy or concentration necessary for undertaking any great work. He was genial and social by nature, but his pleasures were comparatively few and simple. He had only a passive interest in outdoor sports and took little active exercise. He found his chief recreation as well as work in books, and he spent many hours every day in reading and writing. The morning hours and early afternoons were spent in the Smithsonian library looking over the new periodicals and keeping in touch with recent discoveries, the later part of the afternoons were devoted to the preparation of whatever papers he had in hand, and the evenings to While truly a master of taxonomy, especially in the reading. marshaling of zoölogical facts, he lacked a corresponding efficiency in handling his tools and the gradually increasing accumulation of books and papers sometimes almost forced him from his desk or from the room which he occupied as a study in the Smithsonian building. Even the master key of his own mind was impotent

404

at times to locate a certain book or paper which he had laid aside a few weeks before.

The last years of his life were quiet and uneventful. Three or four years before his death he suffered a severe paralytic stroke from which he never fully recovered. His cheerfulness and good spirits remained to the last but his strength gradually ebbed away until he found difficulty in getting about. In September, 1914, he moved out to the suburbs to spend the winter with his brother Herbert A. Gill, and a few days later was confined to his bed. On the morning of the 25th he was apparently as bright as usual, and after breakfast asked for the news of the day especially of the war which he followed carefully — but before noon he passed away suddenly.

In the death of Doctor Gill the American Ornithologists' Union has sustained a great loss, not merely in the absence of his genial personality and the kindly suggestions and criticisms on various knotty questions of nomenclature and bibliography, but chiefly in the lost opportunity which can never be regained of utilizing his broad knowledge and unsurpassed judgment in matters of taxonomy. In that great and pressing problem which has been carefully avoided for three decades but which cannot be ignored much longer - the revision of the classification of North American birds -Gill's intimate knowledge of other groups would have been invaluable. His broad views would have acted as a balance wheel on the ideas of some of the specialists in speciation who in their enthusiasm for minute differences are apt to throw the classification of birds out of gear in its relation to the taxonomy of other classes. No one in this country or generation was better able to appreciate the true value of the higher groups or to coordinate the families, suborders and orders of birds with the corresponding divisions of mammals, fishes or mollusks. Without some such standardization of groups we shall never attain a really satisfactory and permanent basis of classification.