

= Robert Ridgway =

Robert Ridgway (July 2 , 1850 ? March 25 , 1929) was an American ornithologist specializing in systematics . He was appointed in 1880 by Spencer Fullerton Baird , secretary of the Smithsonian Institution , to be the first full @-@ time curator of birds at the United States National Museum , a title he held until his death . In 1883 , he helped found the American Ornithologists ' Union , where he served as officer and journal editor . Ridgway was an outstanding descriptive taxonomist , capping his life work with The Birds of North and Middle America (eight volumes , 1901 ? 1919) . In his lifetime , he was unmatched in the number of North American bird species that he described for science . As technical illustrator , Ridgway used his own paintings and outline drawings to complement his writing . He also published two books that systematized color names for describing birds , A Nomenclature of Colors for Naturalists (1886) and Color Standards and Color Nomenclature (1912) . Ornithologists all over the world continue to cite Ridgway 's color studies and books .

= = Biography = =

= = = Early life and family = = =

Ridgway was born in Mount Carmel , Illinois to David and Henrietta (née Reed) Ridgway . He was the oldest of ten children . He was educated at common schools in his native town , where he showed a special fondness for natural history . This interest to explore nature , both shooting with a gun given to him by his father , as well as drawing from life , was encouraged by his parents , his uncle William , and his aunt Fannie Gunn .

In 1871 he met Julia Evelyn Perkins , the daughter of one of the engravers for The History of North American Birds . Ridgway 's courtship of the girl who became known as " Evvie " lasted until she reached the age of eighteen , and they were married on October 12 , 1875 .

= = = Ornithological training and the King expedition = = =

In 1864 , at the age of thirteen , the young Ridgway wrote to the Commissioner of Patents , seeking advice on the identification of a bird he had seen . He enclosed a full @-@ sized color drawing of what turned out to be a pair of purple finches . His letter eventually was referred to Spencer Fullerton Baird of the Smithsonian Institution . Baird replied , identifying the bird and praising the boy 's artistic abilities , yet cautioning him to learn and use the scientific names of birds in further correspondence .

The mentor and protégé continued their exchange of letters , which led to Ridgway 's appointment , in the spring of 1867 , as the naturalist on Clarence King 's Survey of the 40th Parallel . After a brief , intensive stint of training in Washington , where he learned to prepare study skins , Ridgway joined the expedition in May . Starting from Sacramento , California , the team explored parts of Nevada , Utah Territory , and Idaho Territory . A highlight of the trip was a stop at Nevada 's Pyramid Lake . In the fall of 1868 , the members of the team were reduced for funding reasons , but Ridgway returned in 1869 for more work in Utah . In an undertaking that lasted nearly two years , Ridgway collected 1 @, @ 522 bird @-@ related specimens (753 nests and eggs and 769 skins) and served as a key member on one of the four great surveys of the American West . He observed 262 species , most of these on the western slope of the Sierra Nevada . He had written most of his portion of King 's report by 1872 , but the " Ornithology " section was not published until 1877 .

= = = The Washington years = = =

Upon his return to Washington , Ridgway illustrated and wrote for Baird and Thomas M. Brewer 's History of North American Birds project . He formally joined the Smithsonian in 1874 , under the

supervision of curator George Brown Goode . In 1880 he received the job title of curator (variously , of ornithology or of the department of birds) ; he was titled Curator of Birds from 1886 until his death . Working with the institution 's collection of approximately fifty thousand bird skins , Ridgway devoted himself to unraveling the taxonomic relationships among North American bird species . As well , he continued his field work to collect new specimens , making several trips to his home state of Illinois , Florida , other states of the U.S. , and Costa Rica . The Smithsonian exchanged study skins with other museums , either by donation or loan , and provided material and publications to collectors such as José Castulo Zeledón of the Costa Rican National Museum in exchange for specimens .

Ridgway was articulate and literate , and served as the Smithsonian 's mouthpiece and representative for many years in the study of birds . He welcomed visits to the museum from colleagues and the general public alike , and would give tours . One of his responsibilities involved assembling public exhibits . In the interest of accessibility , he made books available for browsing and displayed examples of birds described in popular natural histories . As well , he showed birds from well @-@ known poetry , species like the nightingale that are not found in North America . Returning the favor that Baird had paid him , he responded to letters from the public to identify birds and provided artist 's materials to a painter in California . Nevertheless , friends and colleagues described him as almost painfully shy , and he generally shirked publicity and the limelight .

Among Ridgway 's colleagues at the Smithsonian were Pierre Louis Jouy , who provided an important collection of Asian birds in 1883 . Charles Wallace Richmond joined the institution in 1893 (at first , as a night watchman) and was soon tasked by Ridgway with writing reviews and other short pieces . During Samuel Pierpont Langley 's tenure as Secretary , Ridgway assisted Langley 's aviation research . He provided calculations of the wing loading and other aerodynamic characteristics of species like the wandering albatross , turkey vulture , and other soaring birds .

In 1883 , Robert Ridgway was a founding member of the American Ornithologists ' Union (AOU) and he became an associate editor of the organization 's journal *The Auk* . He was prevailed upon to serve as an officer of the organization , but on the condition that he not be required to preside at public meetings . He served as a vice president of the AOU (September 1883 ? November 1891) and as its president (November 1898 ? November 1900) .

As scientific knowledge expanded quickly in the second half of the nineteenth century , the need for reorganizing the system of names used to describe North American birds grew commensurately . For example , certain names assigned by William Bartram in his catalog of 1791 were now deemed unusable . Robert Ridgway addressed this need with two publications in 1880 and 1881 , while Elliott Coues published a competing checklist in 1882 . Ridgway and Coues , along with Joel Asaph Allen , William Brewster , and Henry W. Henshaw , came together as a committee on nomenclature and classification , serving the newly founded AOU , to reconcile the various systems and catalogs . In 1886 , the committee released *The Code of Nomenclature and Check @-@ List of North American Birds* , both a consistent checklist and a set of rules for the naming of birds to be described in the future . The Code settled the disagreement about capitalization of species names and established today 's order of presentation , with waterbirds first and passerines last . Several of the handbook 's innovations were adopted by other branches of zoology , and were incorporated into the 1905 version of the *International Code of Zoological Nomenclature* .

The committee 's work served to standardize the way that birds are described , identifying them at the subspecies level and using a three @-@ part trinomial name . While American ornithologists embraced the descriptive detail , European researchers of the time were reluctant to adopt it . Ridgway was an enthusiastic supporter of trinomial nomenclature , although his thinking in later life became more moderate .

= = = Other affiliations = = =

Robert Ridgway was corresponding member of the Zoological Society of London ; was associated with the Davenport (Iowa) Academy of Natural Sciences , the New York Academy of Sciences , the Brookville , Indiana , Society of Natural History , and the Chicago Academy of Sciences ; and was a

foreign member of the British Ornithologists ' Union . He was a member of the permanent ornithological committee of the first international congress at Vienna in 1884 . Ridgway was also honorary member of the Nuttall Ornithological Club of Cambridge , Massachusetts , for which he contributed illustrations and 48 articles to its Bulletin .

The short @-@ lived Ridgway Ornithological Club of Chicago , Illinois (active from 1883 to about 1890) was named in Ridgway 's honor , and he was an honorary member .

Although he lacked formal post @-@ secondary education , Ridgway received an honorary master 's degree in science from Indiana University in 1884 , as a sign of gratitude for his supplying them with bird specimens after their museum burned down . He was listed with the title of Professor in Smithsonian annual reports and staff directories , despite his lack of a teaching appointment . He is sometimes referred to as " Dr. Ridgway , " particularly by writers from his home state of Illinois . Ella Dean 's profile is an example .

= = = The Harriman expedition = = =

In 1899 , Robert Ridgway joined E. H. Harriman on his famous Harriman Alaska Expedition . John Muir , Louis Agassiz Fuertes , John Burroughs , Edward S. Curtis , and a number of other scientists and artists made a four @-@ month expedition to study the flora and fauna of Alaska 's coastline . However , the trip did not yield significant publications by Ridgway .

= = = Other family members = = =

Robert and Julia Ridgway had one son , Audubon Whelock Ridgway (May 15 , 1877 ? February 22 , 1901) . " Audie " had begun a promising career in ornithology at the Field Museum of Natural History when his life was cut short by a fatal bout of pneumonia .

Robert Ridgway 's second @-@ born brother , John Livzey Ridgway (February 28 , 1859 ? December 27 , 1947) , was an nationally @-@ prominent bird illustrator who worked for many years at the United States Geological Survey , as well as the Smithsonian , the California Institute of Technology , and the Los Angeles County Museum of History , Science , and Art . The two brothers often collaborated on illustrations , sometimes with Robert doing the drawing and John the coloring .

= = = Later life and death = = =

In early June , 1913 , Robert Ridgway and his wife Julia (" Evvie ") moved to Olney , Illinois , to reduce physical and mental stress so that he might complete The Birds of North and Middle America , of which five of eight parts had already appeared . They built a new house on 8 acres (3 @.@ 2 hectares) that they had purchased in 1906 , and named the place Larchmound for two large larch trees growing on the property . Ridgway also acquired a tract of 18 acres (7 @.@ 3 hectares) located in the country , to be called Bird Haven , which he developed as a private nature reserve for birds and as a nursery for cultivation of non @-@ native plants . His skill in landscaping and tending to the grounds was such that his expertise in that area was in some demand . Bird Haven , in part , is now an Olney city park .

Evvie 's death on May 24 , 1927 was a severe blow to Robert . Robert continued to live at Larchmound , tending to his beloved trees and shrubs , until his death on March 25 , 1929 , at the age of 78 . Robert was buried at Bird Haven where Julia 's ashes had been scattered .

= = Works = =

Robert Ridgway 's first publication , at the age of 18 , was an article about the belted kingfisher . In the course of the next 60 years , he would go on to publish more than 500 titles and 13 @,@ 000 printed pages , most of it concerning North American birds .

Ridgway collaborated with Brewer and Baird on the five @-@ volume History of North American

Birds (three volumes on the land birds published in 1874 , and two volumes published as The Water Birds of North America in 1884) . In its time , the work was considered the standard work on North American ornithology . While Ridgway primarily contributed illustrations to the land bird volumes , he wrote the bulk of the water bird volumes .

Ridgway provided full @-@ color illustrations for his own books and those of others . He was at the peak of his artistic proficiency in the late 1870s . Even though certain of his contemporaries (for instance , Daniel Giraud Elliot) may have produced more artistically pleasing renderings , Ridgway 's were the most accurate . In the words of his biographer Daniel Lewis , Ridgway " may have had the best grasp of bird coloration in the country . "

With the publication of A Manual of North American Birds in 1887 , Robert Ridgway condensed what was known about the continent 's birds into a relatively compact 642 pages and 464 outline drawings . A prototype of today 's field guides , it was quite successful , going into a second edition in 1896 , and was described by Montague Chamberlain as " far away the best thing we have for the working naturalist . " Nevertheless , its bulk was unwieldy for use in the field , and its identification keys depended on characteristics of the bird in the hand , not field marks . Harry Oberholser characterized the quality of the illustrations as " rarely equaled , never excelled " in beauty and accuracy .

With Stephen Alfred Forbes , he wrote a two @-@ volume work , The Ornithology of Illinois . Ridgway 's contributions were published in two parts , in 1889 and 1895 . Ridgway also published a number of papers dealing with the woody plants of his region . He contributed twenty short pieces to Forest and Stream , a magazine edited by George Bird Grinnell .

= = = The color books = = =

Robert Ridgway published two books whose goal was to standardize the names of colors used by ornithologists to describe birds . The first , A Nomenclature of Colors for Naturalists , appeared in 1886 , and was relatively small in scope , illustrating 186 colors . It proposed a simple classification system , doing away with many subjective and evocative names that were currently popular .

Ridgway sought to improve and expand upon this work . By 1898 , he was in discussions with Secretary Langley about a new , expanded dictionary of color , to be published by (or at least supported by) the Smithsonian . An advisory committee was formed , with scientific illustrator William Henry Holmes as chairman and Richard Rathbun (newly appointed assistant secretary) as one of its five members . Children 's game inventor Milton Bradley , who had devised a color wheel for instructional use , was consulted by the project . Langley thought it important that the work include spectral information about the colors to be cataloged , and he proposed physicist and color theorist Ogden Rood as a co @-@ editor of the work . In 1901 , however , the tension between the committee 's broad vision of commercial applications for the project and Ridgway 's narrow objective of a naturalist 's reference book ended the Ridgway @-@ Smithsonian collaboration in the endeavor .

Ridgway published Color Standards and Color Nomenclature himself in 1912 , financed in part by a loan from his friend and colleague Zeledón . The work became a standard reference used by ornithologists for decades after Ridgway 's death , as well as specialists in such wide @-@ ranging fields as mycology , philately , and food coloring . The book named 1 @,@ 115 colors , illustrated with painted samples reproduced on 53 plates . Special care was taken to ensure consistency of color reproduction across the edition , as well as the prevention of fading . The color samples were printed as large sheets by A. Hoen & Co . , cut into swatches one inch by one @-@ and @-@ one @-@ half inches , and pasted into each bound book .

In the book 's foreword , Ridgway acknowledged the assistance of many , among them his brother John , Zeledón , and ornithologist John Thayer . With more than a thousand colors to be named , Ridgway devised some of his own imaginative identifiers (such as Dragons @-@ blood Red and Pleroma Blue) . He also paid tribute to colleagues , including Rood (with colors like Rood 's Lavender) , Bradley (Bradley 's Blue) , field guide pioneer Frank Chapman , watercolorist Samuel Prout , and others .

== Descriptions of new forms ==

A significant proportion of Ridgway's output consisted of formal scientific descriptions of new forms of birds (new genera , species , and subspecies) , many of them native to Central and South America . Many of these papers were short reports dealing with a single taxon , but he also would describe tens of new forms in a single publication , as in a paper describing 22 species from the Galápagos Islands or his Manual of North American Birds (four new genera , 39 new species and subspecies) . As subsequent research has revised the taxonomy of birds , not all of the forms that Ridgway described remain recognized as distinct , but his contributions are still substantial . During his lifetime , no other ornithologist described more new taxa of American birds than Ridgway .

While most of the forms described and named by Ridgway came from outside the United States , in one instance he identified a new taxon first collected no earlier than 1881 , in the Catskill Mountains of New York , an area already well explored by ornithologists . From two specimens collected by Eugene Bicknell , Ridgway wrote the description of Bicknell's thrush as a subspecies of gray-cheeked thrush , naming it for Bicknell . The bird , a breeder of New England and southern Canada , has since been recognized as a distinct species .

From specimens collected in 1888 , Ridgway was the first to describe hood mockingbird , large cactus finch , and medium tree finch , all endemic to the Galápagos . The latter two are members of the so-called Darwin's finch group of tanagers , significant for their impact on Charles Darwin's reasoning about evolution and the emergence of new species .

== The Birds of North and Middle America ==

Robert Ridgway's career crowning work , on bird systematics , was the monumental 6,000-page The Birds of North and Middle America , published by the Smithsonian in eleven volumes between 1901 and 1950 . He began the work in 1894 at the direction of Goode . A major objective of the work was to resolve problems of naming and classification in the scientific literature of the time and to identify synonyms . Dry , rigorous , and technically detailed in its language , the book was not considered to be accessible by the general reading public . Continuing the pattern of the Manual (and Baird's earlier Review of American Birds) , each volume featured an appendix of engraved outline drawings of generic characteristics .

Ridgway published the eighth installment of the work , commonly known as Bulletin 50 , in 1919 . Although he continued to work on the project , outlining a projected two more volumes , it was incomplete at the time of his death in 1929 . Following Ridgway's plan but doing his own writing , Herbert Friedmann of the Smithsonian completed the final three volumes .

The Birds of North and Middle America and Color Standards and Color Nomenclature are complementary works , and indeed Ridgway divided his time between the two projects in the first decade of the century . He used his own color terms extensively throughout Bulletin 50 .

== Legacy and recognition ==

Spencer Fullerton Baird and his followers emphasized precision of description , traceability through the literature , the accumulation of empirical evidence (that is , numerous specimens) , and deductions drawn from facts ? in opposition to the so-called " European school " of the time , which depended on personal authority . Harris calls Robert Ridgway and his Birds of North and Middle America the culmination of the " Bairdian school " of bird study . However , as ornithology around the turn of the twentieth century began to focus on bird behavior , reproduction strategies , and other aspects of the living organism , Ridgway fell behind the advances made by his colleagues of the succeeding generations . Paradoxically , because the overwhelming Bulletin 50 was so authoritative , no new publication could replace it for many years . Accordingly , systematics declined in importance as a means to study birds .

Birds named for Ridgway include the buff-collared nightjar , *Caprimulgus ridgwayi* (once

known as Ridgway's whippoorwill ; the turquoise cotinga , *Cotinga ridgwayi* ; the Caribbean subspecies of the osprey , *Pandion haliaetus ridgwayi* ; a Big Island subspecies of the ?elepaio , *Chasiempis sandwichensis ridgwayi* ; Ridgway's hawk , *Buteo ridgwayi* ; and many other species and subspecies . The monotypic genus *Ridgwayia* is named for him ; it consists of Aztec thrush , *R. pinicola* .

In 1919 , Ridgway was awarded the Daniel Giraud Elliot Medal from the National Academy of Sciences for his *Birds of North and Middle America* . The Academy elected him to membership in 1926 . In 1921 , he was the first to receive the AOU's William Brewster Memorial Award , which recognizes " an exceptional body of work on birds of the Western Hemisphere . "

In 2002 , the American Birding Association established the Robert Ridgway Award for Publications in Field Ornithology .

= = Selected publications = =

Ridgway , Robert . 1869 (March) . " The Belted Kingfisher Again , " *American Naturalist* 3 (1) : 53 ? 54 . Retrieved 28 January 2013 .

Ridgway , Robert . 1870 . " A New Classification of the North American Falconidae , with Descriptions of Three New Species . " *Proceedings of the Academy of Natural Sciences of Philadelphia* 22 : 138 ? 150 . Retrieved 15 January 2013 .

Ridgway , Robert . 1872 (December) . " On the Relation between Color and Geographical Distribution in Birds , as Exhibited in Melanism and Hyperchromism . " (part 1 of 2) *American Journal of Science* , 3rd ser . , 4 (24) : 454 ? 460 . Retrieved 21 January 2013 .

Ridgway , Robert . 1873 (September) . " On the Relation between Color and Geographical Distribution in Birds , as Exhibited in Melanism and Hyperchromism . " (part 2 of 2) *American Journal of Science* , 3rd ser . , 5 (25) : 39 ? 43 . Retrieved 21 January 2013 .

Baird , S.F. , T.M. Brewer , and R. Ridgway . 1874 . *A History of North American Birds : Land Birds* . Little , Brown , Boston . Volume I , 596 pp . ; Volume II , 590 pp . ; Volume III , 560 pp . Retrieved 14 January 2013 . A special edition , published in the same year , of 50 copies contained 36 plates hand-colored by Ridgway .

Ridgway , Robert . 1877 . " Ornithology . " Volume IV , part III , pp. 303 ? 669 , of King , Clarence , *Report of the Geological Exploration of the Fortieth Parallel* . U.S. Government Printing Office , Washington , D.C. Retrieved 3 January 2013 .

Ridgway , Robert . 1880 (September) . " A Catalogue of the Birds of North America , " *Proceedings of the United States National Museum* . 3 : 163 ? 246 . Retrieved 19 November 2013 .

Ridgway , Robert . 1881 . " Nomenclature of North American Birds Chiefly Contained in the United States National Museum , " *Bulletin of the U.S. National Museum* 21 : 1 ? 94 .

Ridgway , Robert . 1882 . " Description of Two New Thrushes from the United States . " *Proceedings of the United States National Museum* 4 : 374 ? 379 . Retrieved 15 January 2013 . Description of Bicknell's thrush , as *Hylocichla aliciae bicknelli* .

Baird , S.F. , T.M. Brewer , and R. Ridgway . 1884 . *The Water Birds of North America* . Little , Brown , Boston . Volume I , 537 pp . ; Volume II , 552 pp . Retrieved 14 January 2013 .

American Ornithologists' Union . 1886 . *The Code of Nomenclature and Check-List of North American Birds* . New York . Retrieved 28 January 2013 . Members of the Committee : Elliott Coues , J.A. Allen , Robert Ridgway , William Brewster , and H.W. Henshaw .

Ridgway , Robert . 1886 . *A Nomenclature of Colors for Naturalists , and Compendium of Useful Knowledge for Ornithologists* . Little , Brown , Boston . 129 pp. 10 colored plates and 7 plates of outline illustrations . Retrieved 4 January 2013 .

Ridgway , Robert . 1887 . *A Manual of North American Birds , Illustrated by 464 Outline Drawings of the Generic Characters* . J.B. Lippincott , Philadelphia . 631 pp . Retrieved 14 January 2013 .

Ridgway , Robert . 1889 . " A Descriptive Catalog of the Birds of Illinois , " part I of Ridgway , Robert , and Forbes , S.A. , *The Ornithology of Illinois* . State Laboratory of Natural History , Springfield , Ill . Volume I of part I. Retrieved 22 January 2013 .

Ridgway , Robert . 1890 (February) . " Scientific Results of Explorations by the U. S. Fish

Commission Steamer Albatross , No . I : Birds Collected on the Galapagos Islands in 1888 . " Proceedings of the United States National Museum 12 (767) : 101 ? 128 . Retrieved 11 March 2013 .

Ridgway , Robert . 1891 . " Directions for Collecting Birds . " Bulletin of the United States National Museum 39A : 1 ? 27 . Retrieved 19 March 2013 .

Ridgway , Robert . 1892 . " The Humming Birds . " Report of the National Museum for 1890 : 253 ? 383 . Retrieved 21 January 2013 .

Ridgway , Robert . 1894 (November) . " Descriptions of Twenty @-@ Two New Species from the Galapagos Islands . " Proceedings of the United States National Museum 17 (1007) : 357 ? 370 . Retrieved 22 January 2013 .

Ridgway , Robert . 1895 . " A Descriptive Catalog of the Birds of Illinois , " part I of Ridgway , Robert , and Forbes , S.A. , The Ornithology of Illinois . State Laboratory of Natural History , Springfield , Ill . Volume II of part I. Retrieved 22 January 2013 .

Ridgway , Robert . 1897 (March) . " Birds of the Galapagos Archipelago . " Proceedings of the United States National Museum 19 (1119) : 459 ? 670 . Retrieved 21 January 2013 .

Ridgway , Robert . 1901 (October) . The Birds of North and Middle America . A Descriptive Catalogue of the Higher Groups , Genera , Species , and Subspecies of Birds Known to Occur in North America , from the Arctic Islands to the Isthmus of Panama , the West Indies and Other Islands of the Caribbean Sea , and the Galapagos Archipelago . No. 50 , Part I. U.S. National Museum , Washington , D.C. 745 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1902 (October) . The Birds of North and Middle America . No. 50 , Part II . U.S. National Museum , Washington , D.C. 854 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1904 (December) . The Birds of North and Middle America . No. 50 , Part III . U.S. National Museum , Washington , D.C. 840 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1907 (July) . The Birds of North and Middle America . No. 50 , Part IV . U.S. National Museum , Washington , D.C. 1029 pp .

Ridgway , Robert . 1911 (November) . The Birds of North and Middle America . No. 50 , Part V. U.S. National Museum , Washington , D.C. 892 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1912 . Color Standards and Color Nomenclature . Washington , D.C. 44 pp. 53 colored plates . Retrieved 4 January 2013 .

Ridgway , Robert . 1914 (April) . The Birds of North and Middle America . No. 50 , Part VI . U.S. National Museum , Washington , D.C. 902 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1916 (May) . The Birds of North and Middle America . No. 50 , Part VII . U.S. National Museum , Washington , D.C. 556 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1919 (June) . The Birds of North and Middle America . No. 50 , Part VIII . U.S. National Museum , Washington , D.C. 868 pp . Retrieved 12 January 2013 .

Ridgway , Robert . 1923 (April) . " A Plea for Caution in the Use of Trinomials . " The Auk 40 (2) : 375 ? 376 . Retrieved 28 January 2013 .