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ELLISON A. SMYTH, JR. (1863-1941), FOUNDER OF THE DEPARTMENT OF BIOLOGY AT VIRGINIA TECH – In 1863, the Civil War battles of Vicksburg and Gettysburg brought the South its first major defeats, Congress created the National Academy of Sciences, and a boy who was to play an important role in Virginia's natural history was born to a prominent family in Charleston, South Carolina. General Sherman's northern army destroyed everything in its path as they marched from Tennessee to the coast in 1864. Elements of that army descended upon Charleston and destroyed many homes and their contents, including that of

John E. Holbrook, the father of North American herpetology (Adler, 1979). Sherman's soldiers slashed some of the Smyth family portraits and apparently stole the majority of their set of John James Audubon's elephant folio illustrations from their home in Charleston. The family had moved to their summer home in Summerton to avoid the war. It was there that Ellison Adger Smyth, Jr. (26 October 1863 - 19 August 1941, Fig. 1) was born.

Apparently, not all of the Smyth library was destroyed since Ellison Smyth's interest in natural history was stimulated after the tumultuous year of 1864 by his grandfather, who read wildlife books to him. Perhaps this library was allowed to remain at least partially intact by the rampaging soldiers because it was located in a pastor's house. Such inspiration led Ellison to an early interest in natural history. At a young age, probably in his early teens, Smyth was sailing his boat among the barrier islands, particularly Edisto Island, off the South Carolina coast, where he collected insects, eggs, plants, and shells. At the age of 15, he composed a very detailed folder illustrating butterflies and moths of the Carolina coast. The compulsion to collect natural history objects often starts with interests developed in early childhood or early teenage years. People like Ellison Smyth, Jr. have made substantial contributions to the natural history of Virginia.

Smyth entered Princeton University at age 16 in 1879. His collecting instincts taking hold, he climbed a tree in front of the President's house to get an egg from a nest for his collection. To get the egg down safely, Smyth put it in his mouth and slid down the trunk, right in front of President McCosh. When asked what he was doing up the tree, the young Smyth had to take the egg out of his mouth, whereupon the President gave him a lecture on the evils of robbing birds' nests, a lecture he soon forgot. Smyth graduated from Princeton with an AB degree in 1884 and an AM degree in 1887.

His family wanted him to enter his uncle's law firm, so after receiving his undergraduate degree he undertook studies in law at Columbia University. Later, during the summer of 1887, he completed additional studies in law at the University of Virginia. His uncle sent him to Birmingham, Alabama, to tract land titles. He soon became bored with that work and took a position as adjunct professor in the biology department at the University of South Carolina during 1889-1891. The College of New Jersey awarded Smyth an honorary MS degree

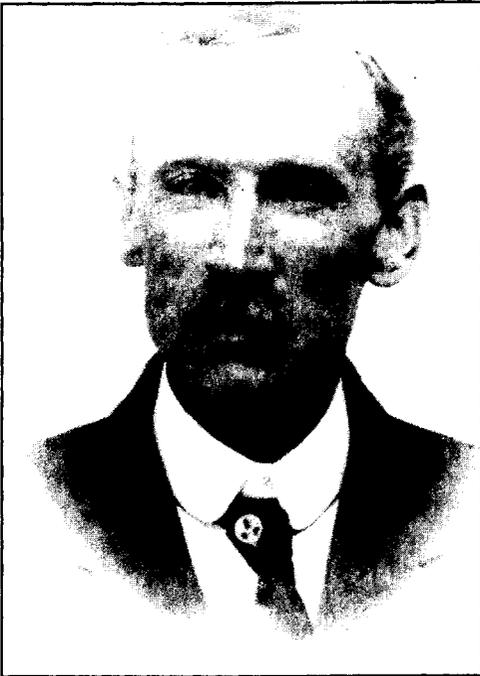


Fig. 1. Ellison Adger Smyth, Jr. Photograph taken at Virginia Tech circa 1920 by an unknown photographer.

in November 1890. In 1891, the Virginia General Assembly appointed John M. McBryde as President of the then Virginia Agricultural and Mechanical College (later Virginia Polytechnic Institute [VPI]) and charged him to reorganize the poverty-stricken, floundering, land-grant institution in Blacksburg. In 1891, McBryde brought in four professors from South Carolina, all of whom were called "rice eaters" by the native faculty. Smyth headed the Department of Biology and became the Dean of the Faculty during 1902-1906. He spent the rest of his career as head of the biology department and retired from it in 1925. While at VPI he received an honorary LLD degree from the University of Alabama in 1906.

Smyth had been an active field biologist in South Carolina. While there he wrote at least two papers on butterflies and produced several short notes on local birds in *The Proceedings of the Elliott Society*, a local natural history society. Upon arriving at Blacksburg, Smyth inherited a small insect collection started at the college in 1888. He continued building this collection and collections of stuffed birds, eggs, and other natural history objects. In 1904, he decided to move his own collection of 1,500 bird skins and 25,000-30,000 insects (mostly Lepidoptera) from the overcrowded Science Hall to his home. This move proved to be fortuitous, as the Science Hall, including Smyth's birds' egg collection, was completely destroyed by fire in 1905 (Smyth, 1993). Most of the insects and birds were donated subsequently to the Smithsonian Institution. Several cases of butterflies, an example of which is in Fig. 2, remain in the entomology collection of the Virginia Tech branch of the Virginia Museum of Natural History. It is clear from Figure 2 that Smyth was meticulous at pinning and labeling insects and creating valuable research collections.

Ellison Smyth specialized in entomology and ornithology during most of his career and dabbled in other disciplines. He was a member of the American Association for the Advancement of Science, the American Ornithologist's Union, and the New York Entomological Society, and was a founding member of the American Entomological Society (Marquis, 1911). He produced several publications on insects, including a description of a new butterfly from Mexico. We know that he helped produce at least three Virginia Tech agricultural bulletins on birds and plants for the public (Smyth, 1892, 1894, 1897). Smyth published the first accurate annotated checklist of birds for Montgomery County in 1912. Two publications stand out from the others. In 1908,

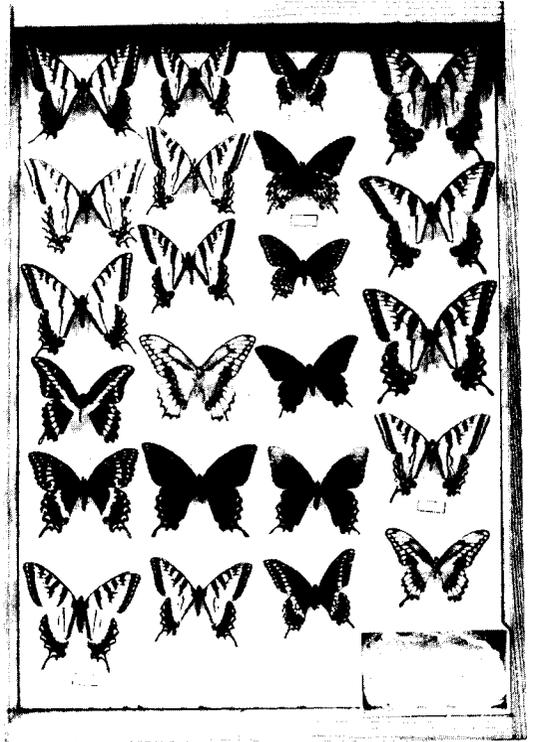


Fig. 2. Photograph of an insect drawer in the Virginia Tech branch of the Virginia Museum of Natural History containing butterflies collected during 1892-1925 from eastern North America and mounted by E. A. Smyth, Jr. Photo by the Virginia Tech branch staff of the Virginia Museum of Natural History.

Smyth described the histology of an ovary from a spayed female puppy, and in 1910 he sought to make entomological sense of a gold-colored bug in a short story by Edgar Allen Poe, the "Gold Bug." He left four unpublished partial manuscripts: color phases of *Agrynnis diana* (1 pg.), butterflies and moths (21 pgs.), birds of the campus (Va. Tech) May 1926 (2 pgs.), and "The 'Cabbage Snake' Scare" (1 pg.), all of which are in the Virginia Tech archives.

Smyth married Grace C. Allan of Charleston, SC, in December 1897. They had two daughters and three sons. The oldest son, Thomas, became a professor of biology at Pennsylvania State University, and the second, Ellison, after working as an electrical engineer, became a Presbyterian minister. He married a botanist. Another son, James Adger, became an ichthyologist, a daughter, Grace, was a trained

sculptress and artist, and another daughter, Amey, was a writer. A nearly 6-inch notebook in the Virginia Tech archives with clippings dating to 1874 suggests that Ellison Smyth, Jr. was a meticulous collector of news items, poems, and funny stories.

Smyth provided a variety of services to students, colleagues, and institutions during his tenure at Virginia Tech. He was an advisor to the US Department of Agriculture's Division of Ornithology and the Smithsonian Institution. He organized and coached Virginia Tech's first football and gymnastic teams.

As the founder of the Department of Biology, Smyth offered eight courses: advanced physiology and histology, economic zoology, human physiology, structural botany, structural zoology, systematic botany, systematic zoology, and vegetable physiology and biology. He later (1905) taught the entomology course, first offered in the Horticulture, Entomology, and Mycology section of the Agriculture Department under M.B. Alwood. The budget for the department during this time was \$150 to \$200. Smyth was instrumental in bringing modern biology to Virginia Tech, as he emphasized theoretical underpinnings of practical biology. In 1918, additional staff were brought on board: W.J. Schoene, the first state entomologist, to teach entomology, and A.B. Massey, after whom the herbarium was named, to teach plant pathology. By 1921 a total of 15 courses were offered, although there was still no undergraduate degree program: the courses were part of the agriculture and applied sciences curricula. At Smyth's retirement in 1925, there were 1200 students at Virginia Tech, compared to 135 in 1891, and a degree program was initiated. The department later split along the lines of botany and zoology.

There are nine boxes from Smyth's estate in the Virginia Tech archives. One contains daily observation notes written between 1911 and 1927 on birds and butterflies. Another is filled with sketch books on invertebrate anatomy, negatives and photographs of butterflies, and a catalog of his private Lepidoptera collection. He collected, purchased, and traded many butterfly and moth specimens and made duplicates available to other collectors for sale, as was customary at the time. For example, he had two printed price lists. "Price-list of Lepidoptera offered for sale by Ellison A. Smyth, Jr. VPI, Blacksburg, Virginia" and "Additional list of Butterflies." His prices varied from \$0.05 to \$1.00 each and differed for male and female specimens, with the former being more expensive because they

are usually more colorful and rare. All species on the first list were from tropical countries and were apparently traded or purchased in bulk unmounted. Some of his listed tropical giant and more colorful butterflies would sell from \$10 to \$50 each today or would not be sold at all, as some are now listed as endangered species. The second list includes European, North American, and tropical species, some in lots of 100 specimens.

Ellison A. Smyth, Jr. is recognized for his dedication to Virginia Tech and natural history by having an academic building named in his honor (Smyth Hall), now housing the Department of Crop and Soil Environmental Sciences (the old Agronomy department), the soil testing laboratory, a copy center, the Office of Institutional Research and Planning Analysis, and a large classroom. A bust in the university branch of the Virginia Museum of Natural History commemorates Smyth's contributions to the Commonwealth through his collections and publications. The original plaster cast for the bronze bust was prepared in 1934 by his daughter Grace.

Ellison A. Smyth, Jr., with his keen field observations and meticulous record keeping, provided much useful information on native and migrating birds and butterflies in South Carolina and Virginia. A new generation of well-trained naturalists and agriculturists resulted from his modern course offerings in life sciences at Virginia Tech. His national reputation as a well-recognized naturalist of his times and his numerous publications brought the work on the natural history of Virginia into international focus.

#### Acknowledgments

We thank Dr. David A. West, Professor Emeritus of Virginia Tech's Department of Biology, for providing us with some of his written history of the department, on which we depended heavily. We are especially grateful to Ruth Smyth Brown, Dr. Smyth's granddaughter of Bowling Green, Kentucky, for reading a draft of this biography and for providing valuable contributions. The Special Collections staff of Newman Library at Virginia Tech graciously assisted Kosztarab with archival material. Footnote: Ellison A. Smyth, son of E.A. Smyth, Jr., died at age 94 on 9 March 1998.

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Joseph C. Mitchell  
Department of Biology  
University of Richmond  
Richmond, Virginia 23173

and

Michael Kosztarab  
Department of Entomology  
Virginia Tech  
Blacksburg, Virginia 24061

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## Miscellanea

### Book Reviews

*Mark Catesby's Natural History of America* by Henrietta McBurney. 1997. Merrell Holberton Publishers, London. 160 pages. \$36.00 hardcover, \$19.95 softcover. Video: *The Colonial Naturalist, The Life and Work of Mark Catesby*. 1964. Colonial Williamsburg Foundation. \$19.95.

Just before Christmas 1997, my wife and I visited the DeWitt Wallace Gallery in Colonial Williamsburg to view an exhibition of original watercolors by Mark Catesby (1682-1749). Catesby produced volumes on various aspects of the natural history of North America between 1731 and 1747 entitled *The Natural History of Carolina, Florida, and the Bahama Islands*. The resulting two volume set, plus appendix, contained 263 original watercolors executed largely by Catesby himself by the process of copper etching. The 52 originals from the complete set on exhibition in the United States are owned by Windsor Castle, London, England. It was the first time these originals were loaned to museums anywhere. The above titled book was written primarily to highlight the exhibition and provide historical background and visual references. It is available in hardback and paperback. I found the hardback version in a commercial bookstore in

Richmond; paperbacks are available at the gallery and Colonial Williamsburg Visitor's Center bookstore. In addition to the book, a 55 minute video depicting Catesby's life and experiences in America is available in Colonial Williamsburg. The following review covers the exhibition, the book, and the video.

The size of the exhibition was smaller than I expected. However, what was lacking in size was accounted for by the exquisite paintings and watercolor etchings made over 250 years ago. Most of the watercolors were mounted on the walls but several were in Plexiglas cases, including several copies of complete, original volumes opened to a particular page. The lighting provided for each illustration enhanced the artistry of the subjects and provided something of a subdued but scholarly atmosphere. Drawings and paintings by several other contemporary artists were also included. I recall being impressed over several color illustrations of tropical insects by a late 18th century artist. These paintings were produced mostly by copper etching, a painstaking process that required lots of trial and error to get the colors right. And right they are. The watercolors have not faded over all these years. These are among the best examples of natural history watercolors of that era. I doubt, however, that most people who wandered through this section of the