Anecdotal History of Entomology in Indiana

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The history of entomology has been covered in various degrees from time to time in Proceedings of the Indiana Academy of Science (Everman, 1917; Davis, 1932, Montgomery, 1955; Deay, Luginbill, Ulman, Wilson, Young, 1955). I also had available an unpublished manuscript prepared by Dr. B. Elwood Montgomery in 1966.

The science of entomology has been an integral part of the Indiana Academy of Science since its founding. At least six of the charter members can be considered to have entomology as a primary or secondary discipline. Six presidents have had entomology as their principal scientific interest but numerous other entomologists have held responsible offices or committee assignments in the first one hundred years of the Academy's existence. There was a paper on "Indiana Entomology," by P.S. Baker, at the first meeting and the Academy has continued to be an important influence and forum for Indiana Entomology since that time. Only four of the 100 meetings of the Academy have been without entomological papers and a high percentage of these have been published in full in the Proceedings. An informal session of entomologists began in the middle 1930s and this was organized as an official division in 1946.

Early travelers commented on the abundance of bedbugs, fleas, mosquitoes and gnats in various parts of Indiana as early as its beginnings as a state in 1816.

Thomas Say who was part of the "Boatload of Knowledge" that came down the Ohio and up the Wabash to New Harmony where Robert Owen and William Maclure intended to establish their utopian experiment in communal living. Although the experiment failed the group's influence made New Harmony a center for culture and science for many years to come.

Thomas Say was expert in many facets of natural history. He studied all groups of animals, described thousands of insects in many orders, and was the leading conchologist of this time.

Say died in 1834 and is buried at New Harmony. The student entomological society at Purdue is named for Say and the Thomas Say Foundation administered by the Entomological Society of America continues to publish important monographs and treatises.

After Say's death there was little organized entomological work in Indiana for 50 years. Although there were occasional articles dealing with insect pests published in farm papers and, beginning in 1851, the Reports of the Indiana State Board of Agriculture. The first State Chemist, Harvey W. Wiley, who later became the father of the Food and Drug laws, suggested in the 1879 Report that entomologists should study the habits and methods of reproduction of many agricultural pests and to provide some way to arrest their almost marvelous fertility. Beginning in the 1855 report, after F.M. Webster came to Indiana there were more frequent and well illustrated articles on insect problems confronting the farmer.

The year 1884 was a banner year for Indiana entomology. Francis Marion Webster was appointed a special agent of the Bureau of Entomology of the United States Department of Agriculture and stationed as a consultant in entomology at its Purdue Agricultural Experiment Station. With little formal education Webster became one of the outstanding economic entomologists of the late 19th and early 20th centuries. He wrote Bulletin -1 of the Purdue Agricultural Experiment Station on the hessian fly and was an early advocate of cultural controls. Webster was a charter member of both the Indiana Academy of Science and the old American Association of Economic Entomologists serving as president of the latter organization in 1897. In 1906 Webster

became head of the Cereal and Forage Crop Insect section of the U.S.D.A. and for seven years was headquartered at Purdue. He died in 1916 a few days after being elected president of the Entomological Society of America.

Also in 1884, James Troop came to Purdue as Professor of Horticulture and Entomology. A native of New York he earned a BS and MS at Michigan State College. He taught at Michigan State before coming to Purdue where he taught the first formal courses in entomology.

When the General Assembly created an Office of State Entomologist in 1899 primarily because of the rapid spread of San José scale by means of infested nursery stock, Troop was given this additional responsibility by Governor James Mount and served two terms of four years each.

When Horticulture and Entomology at Purdue became separate departments, Professor Troop became head of Entomology, but remained very active in the Indiana Horticultural Society, where he was affectionately known as the "Grand Old Man of Hoosier Horticulture." He was designated Professor Emeritus in 1920 when J.J. Davis became head of the department, but he continued to teach until 1929. Professor Davis kept him on the staff until his death in 1941. Daddy Troop, as he was called in my undergraduate days, came to the office occasionally driving an old tan Buick in his own fashion.

David Starr Jordan was not an entomologist but was well versed in many areas of zoology especially ichthyology. Jordan, a founder and first president of the Indiana Academy of Science, along with John Caspar Branner fostered Willis Stanley Blatchley's interest in nearly all sciences. The first course in entomology at Indiana University was taught by Branner in 1886 with three students, Blatchley, Charles Boleman and Jerome McNeil, each of whom became a recognized authority in some phase of entomology.

W.S. Blatchley can be considered the first Hoosier entomologist. He was born in Connecticut but came with his family to Indiana at the age of one. He graduated from Indiana University in 1887 and was awarded a M A in 1891, teaching science at the Terre Haute High School in the meanwhile. Blatchley began publishing while still an undergraduate. In all he published more than 200 titles, 80 on entomology and the rest on a wide variety of subjects, including geology, birds, reptiles, batrachians and plants. He described 14 new genera and subgenera and 470 new species and varieties primarily in the Coleoptera, Othoptera and Hteroptera. The Department of Geology and Natural Resources in Indiana was for many years headed by a State Geologist which had become an elective office. Blatchley, with considerable backing from Academy members, was nominated by the Republicans in 1894, was elected that fall and reelected three times.

After being defeated in the 1910 election, Blatchley spent the rest of his life writing, collecting, etc. He distributed his books through his own publishing company, the Nature Publishing Co., Indianapolis. Many of his nature books were autobiographical. Probably his best known work was the "Coleoptera of Indiana" published as Bulletin No. 1 of the Indiana Department of Geology and Natural Resources during his last few months as State Geologist. The "Coleoptera" was distributed free to libraries and many schools throughout the state. When copies became scarce and in great demand 15-20 years later, Blatchley wrote letters to recipients of the volume offering to buy copies in good condition for $5.00 each. I purchased a copy in almost mint condition for $75.00 75 years after publication and considered it a bargain.

Blatchley was thrifty, even miserly, in many respects but from his own funds he established a pension for his life-long secretary to be administered by J.J. Davis but to be kept secret from his two sons because they would raise hell.

E.B. Williamson graduated from Ohio State in 1898 and served as assistant curator

of insects at the Carnegie Museum in Pittsburg. He returned to Bluffton, Indiana and eventually succeeded his father as president of the Wells County Bank. Meanwhile on a part-time basis became a note authority on the Odonata. He also became interested in hybridizing iris and gained world-wide recognition in that field. Longfield Iris Gardens had Indiana Nursery Certificate #1 for many years.

Williamson published his first paper in 1898 and in 35 years published 123 scientific papers mainly on dragonflies but also on birds, fishes, and other groups. He was also an associate curator of Odonata at the University of Michigan Museum of Zoology 1916-1928 and research associate from 1928 until his death in 1933.

He made many expeditions to Central and South American and is credited by C.C. Deam as getting him seriously interested in botany.

Benjamin Wallace Douglass was appointed State Entomologist by Governor J. Frank Hanley when regulatory work in entomology was moved to Indianapolis in 1907. Douglass was an expert photographer and skillful writer but must have gained his entomological expertise by osmosis. He had attended medical school in Indianapolis and had worked for C.C. Deam at the State Board of Forestry. The four annual reports written during his tenure are filled with accounts of insect pests, plant diseases and horticultural advice illustrated with excellent photographs.

The State Entomologist was appointed for a four year term and Douglass' extended 2 years into Governor Thomas R. Marshall's term. Douglass was not appointed and went into the tree surgery business with one of his assistants, Frank N. Wallace. He later operated an orchard in Brown County and continued to write for farm magazines like, The Country Gentleman.

Douglass was succeeded by C.H. Baldwin who continued to publish excellent and informative annual reports. Baldwin assembled an especially competent staff. Harry Dietz and Harold Morrison wrote the "Coccidae or Scale Insects of Indiana" which was illustrated by R.E. Snodgrass, also a staff member.

Dietz later worked for the Federal Horticultural Board but returned to Indiana in 1920 to be Frank Wallace's chief assistant for 10 years. After attending graduate school at Ohio State, he later became chief of pesticide research for Grasselli Chemicals (DuPont).

Morrison, like Dietz, a native Hoosier, also later worked for the Federal Horticultural Board and was insect curator at the U.S. Museum and a world expert on scale insects.

Snodgrass was a meticulous illustrator as well as an accomplished caricaturist and cartoonist. He became world famous for "Anatomy and Philosophy of the Honeybee" and texts on arthropod morphology and physiology. He was associated with the Bureau of Entomology and Plant Quarantine and the University of Maryland. He maintained an association with the U.S. Museum after retirement in 1945 and was mentally alert and physically fit for the next 20 years.

Frank N. Wallace was first hired for his accounting skills by Ben Douglass although he had no more formal training in this field than he did in entomology. He was a fast learner and very adaptable and had a unique way with people. Shortly after Ben Douglass was replaced by C.H. Baldwin, Douglass and Wallace formed the State Forestry Company in Indianapolis, a tree surgery and maintenance service. It was in this capacity that Dean Stanley Coulter of Purdue, long time member of the State Forestry Commission and later of the Conservation Commission recommended Wallace to Gene Stratton Porter. Mrs. Porter, the then famous novelist and naturalist, needed someone to supervise the rehabilitation of the trees at her new estate on Sylvan Lake. Wallace married Lorene Miller, who was Mrs. Porter's secretary. When it came time for Governor Samuel M. Ralston to appoint a successor to C.H. Baldwin, Mrs. Porter recommended Wallace.

Wallace served as State Entomologist for 43 years (1915-1958), probably the longest tenure for a chief plant regulatory official anywhere in the United States. The four year term was omitted in new legislation creating the Indiana Department of Conservation in 1919. Wallace is the only person without a college degree ever to have served as president of the Indiana Academy of Science (1940). For many years he was the principal lobbyist to obtain the legislative appropriation to publish the Proceedings of the Academy.

Wallace was in great demand as a slide lecturer on the many aspects of nature study and the Indiana State Parks. He served as one of the Central Plant Board's representatives to the first meeting of the National Plant Board in 1925.

John June Davis probably had more influence on the history of entomology in Indiana than any other person. He graduated from the University of Illinois in 1907 and first worked for S.A. Forbes, State Entomologist both in extension and research. He was an authority on the taxonomy of aphids and later on the biology and control of white grubs after becoming head of the Cereal and Forage Crops Insect Laboratory at Lafayette. When Japanese beetle was discovered on the East Coast he was appointed head of the laboratory at Riverton, New Jersey.

In 1920 Davis was appointed head of the Entomology Department at Purdue and held this position until his retirement in 1956. At Purdue he taught, conducted research and extension work, traveling widely in state and out. He was an inspirational teacher and taught his favorite course, introductory entomology, for his entire tenure.

He planned and began the development of a comprehensive insect collection and personally was responsible for the acquisition of many fine collections, like that of Blatchley and many others. Davis was an innovator in many other ways. He was responsible for many new programs and special courses in entomology adapted to the needs of forestry and pharmacy students. He arranged for the first meeting of North Central Entomologists in 1921 which was attended by 13 entomologists from 4 states. When this group again met at Purdue in 1930 there were nearly 100 in attendance.

Davis also initiated the first conference of Indiana entomologists which was held at Purdue in the fall of 1923. He started the 4-H insect collection competition which, from a meager beginning in 1925, has expanded into a major project over most of the state. Glen Lehker, as Indiana's first full-time extension entomologist, came into the program some 10 years later and further developed the program which has given many individuals a start in the profession of entomology.

Perhaps the most lasting contribution of J.J. Davis was in making the field of structural pest control a respectable profession. The famous Purdue Pest Control Conference was initiated with 68 attendees in 1937 and now has some 600 participants each year.

Nearly all colleges and universities in Indiana have had an entomologist on staff either in a biology or zoology department even if no formal entomology courses were taught.

Indiana University has had a number of distinguished teachers as well as students in entomology. Frank Young discussed a number of these in his History of Biology at Indiana University two years ago at Notre Dame.

Notre Dame has gained prominence in entomology in the last 27 years since George Craig joined the faculty in 1957. The Vector Biology Laboratory and the Laboratory for Arborvirus Research and Surveillance are world famous and have trained students for responsible positions in this highly specialized field.

Ball State University, noted for mosquito and tick research, has had a number of entomologists both in the Department of Physiology and Health Science and Department of Biology. The late Russell E. Siverly was the author of "Mosquitoes of In-

diana'' which was published by the Indiana State Board of Health which now has its own staff of entomologists dealing with public health aspects of the discipline.

There have been many changes in the field of entomology in the last one hundred fifty years since the death of Thomas Say. Say was a taxonomist and interested primarily in classification. Later the economic aspects became increasingly important and life histories and control measures were studied. All of these are still important but there are also highly specialized areas like molecular biology and DNA research that were unknown just a few years ago.

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