

## MARION THOMAS JACKSON: A LIFELONG NATURALIST, CONSERVATIONIST, AND EDUCATOR

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*Editor's note:* This is the second in a series of biographical articles honoring notable living members of the Indiana Academy of Science. These scientists have all served the Academy with distinction and have made valuable contributions in their respective fields of scientific inquiry. We have chosen Dr. Marion Thomas Jackson, Professor Emeritus in the Department of Ecology and Organismal Biology at Indiana State University, as the subject of this second installment in this series.

I am very pleased to have been asked by Jim Berry to write an article in this biographical series about Marion T. Jackson. I have known Marion since August 1964 when he first arrived at Indiana State University as an Assistant Professor of Ecology. Marion has been my friend and colleague for more than 40 years. In addition to team teaching on occasion, he and I typically serve on the graduate committees of each other's students. I often went to Marion for advice and ideas. He routinely offered helpful suggestions regarding my manuscripts, as he is among the best editors that I have ever known.

### THE EARLY YEARS AND PERSONAL LIFE

Marion Thomas Jackson was born on 19 August 1933, on a 160-acre farm located 1½ miles southeast of the town of Versailles in Ripley County, Indiana. He was the seventh child, and fourth son, of Marshall Marion and Estella Fox Jackson. His birthplace was purchased by the State of Indiana in 1936, for inclusion within the proposed Versailles State Park. Laughery Bluff Nature Preserve now contains the old-growth beech-maple stand that formerly was the Jackson farm forest.

The farm in the Tanglewood Community, located three miles southwest of Versailles, where Marion grew up, was homesteaded by his grandfather's Grandfather Laswell in the 1820s. Marion's family moved there in 1937, and the home farm is still owned and farmed by an older brother. During the late 1930s and the 1940s, when Marion was a boy, the land

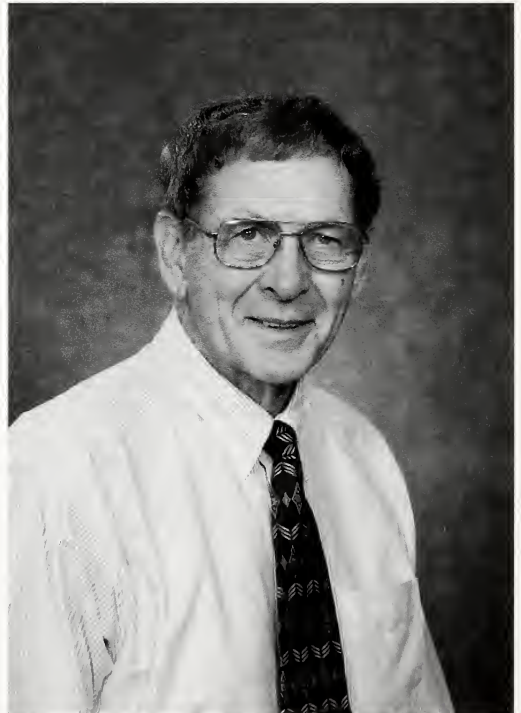


Figure 1.—Marion Jackson, Professor Emeritus at Indiana State University.

was farmed with horses, as a general purpose farm of that era.

The diversified rolling landscape, with small creeks, fence rows, woods, quarry ponds, meadows, old fields, and crop fields farmed in rotation, was a haven for a lad interested in natural history from early boyhood. Furthermore, the family supplemented their

food supply by hunting, fishing, and gathering greens, berries, nuts, and other wild plant foods. Such activities enabled Marion to learn the natural history of most wild species by early grade school. Also, extremely valuable insights into land management, conservation of natural resources, and practical ecology were continually absorbed by the alert and inquisitive farm boy, as the family worked the land. Such understandings were to prove vitally important to him throughout his career.

A particular boyhood interest was searching for bird nests during times free from farm chores. Marion still has the small one-cent *Goldenrod* childhood tablets with his records of bird nests observed during the summers of 1943–1945.

Marion was President of his high school class during all four years and graduated at the top of his class in May 1951, a record good enough to qualify him for an Edward Rector Scholarship to DePauw University. But for reasons understood only by 17-year-olds, he elected not to enter college at that time. Instead, he worked for Coca-Cola in Fort Wayne, Indiana, for two years as Assistant Production Manager. He then served in the U.S. Naval Reserve during the Korean War, as an Electronics Technician aboard the USS *Currituck*, a seaplane tender in the Atlantic Fleet.

After discharge from active duty, Marion worked in the electronics industry (ITT) in Fort Wayne as a technical writer for three years. Then one blue-sky spring day, when the birds were singing, he decided that his long detour from the outdoors needed to end, and that he *had* to spend his life as a naturalist. As such, Marion entered college at Purdue University in June 1958.

Marion is married to Jaleh (née Jorjani), a registered nurse at Union Hospital in Terre Haute. They have two daughters, Arshia Myers (a dentist in Dayton, Ohio), and Grousha Birkenbeul (a science teacher in Fort Wayne), and three (soon to be four) granddaughters, aged 1½ to 3½, at this writing. Jaleh and Marion reside at 4207 E. Margaret Drive, Terre Haute, Indiana 47803, where they have lived for the past 21 years.

Besides his active career as a professional ecologist and naturalist, Marion greatly enjoys writing—both science and popular nature writing, visiting natural areas and national



Figure 2.—Marion Jackson at age 10 at Versailles Grade School (April 1944).

parks, reading, gardening, woodworking, photography, storytelling, visiting with friends and extended family, and playing with the granddaughters.

#### THE PURDUE YEARS

Marion spent his freshman year at Purdue as a forestry major; but the strong emphasis on management, especially the "saw-log production" approach of that era, was not what he wanted as a career. When he took Dr. Alton Lindsey's Plant Ecology course as a sophomore, he found the discipline to be satisfying and intellectually stimulating. Marion had discovered his professional niche. Rather than change schools within Purdue, instead he changed his major to Conservation of Natural Resources, under the mentorship of Professor Howard Michaud. Marion graduated with a B.S. degree from Purdue's School of Forestry and Natural Resources with Highest Distinction in June, 1961.

When Dr. Lindsey agreed to accept Marion as a Ph.D. Student, application was made for a National Defense Education Act (NDEA) Title IV Fellowship to support his graduate education. The three-year fellowship funded the completion of all course work and field research of his study on the "Effects of Microclimate on Spring Flowering Phenology," which was carried out at Allee Woods, a research and teaching natural area owned by



Figure 3.—Jaleh and Marion Jackson at home (May 2004).

Wabash College, and located in Parke County, Indiana. Marion received his Ph.D. in Plant Ecology in June 1964.

Dr. Lindsey was a most fortuitous choice for a major professor because he was one of the foremost ecologists of the 20<sup>th</sup> Century. Additionally, he was a member of the Ecologists Union, the parent committee of ecologists within the Ecological Society of America that founded The Nature Conservancy. He also was the last surviving member of Admiral Byrd's 2<sup>nd</sup> Antarctic Expedition.

A tribute to Purdue faculty members and others who guided and greatly influenced Marion's career preparation is contained in a later section of this biography entitled "As the Twig is Bent."

"My Personal Philosophy"

Marion Jackson (2004)

Teaching as a profession is potentially immortal. The minds and lives that you touch today may ultimately influence those afar, or generations yet unborn. Those privileged to teach must not take their opportunity lightly. Human futures are too priceless to be entrusted to the unskilled, or those lacking commitment or conviction.

In many respects an academic career as a professor at a college or university is the finest of all professions. Helping educate young minds in preparation for their lifetime employment and contributions to humanity, surely ranks among the most rewarding ways that a person could earn their livelihood. Speaking for myself, there is no one in the State of Indiana with whom I would have willingly exchanged jobs. My personal philosophy is that all humans should strive to live their life in such a way that they make living conditions better for fellow humans, and also to improve the condition of Planet Earth.

Teachers at the college level must make every effort to help young people in their classes move forward along what I call the "S" Continuum, namely:

Stranger ↔ Spectator ↔ Student

↔ Scholar ↔ Scientist

Some who enroll in your class are *Strangers* who seldom come to class. Others show up, but are *Spectators* who rarely become involved in active learning. *Students* are the majority who study consistently in order to do well. Teaching at the advanced level is my opportunity to help *Students* strive to become true *Scholars*, or, for the occasional gifted and dedicated individual, to become a *Scientist*.

By helping gifted students formulate hypotheses, then design research studies to prove the rightness or wrongness of their premise, and finally, through systematic research, to become more expert on their chosen topic than perhaps any other person on Planet Earth, is teaching at its finest, and most rewarding. I love the process of taking raw-recruit students and helping them develop the skills that makes them true *Scholars* and *Scientists*.

#### HIS TEACHING

Marion is an excellent teacher—a Master Teacher. I have come to know of his teaching through discussions with many students who have taken his classes, through my own graduate students, through team teaching with him, and through working with him on a daily basis for 40 years.

Students often go out of their way to tell me how much they benefit from and enjoy his classes. He relates very well to students at all levels, and gives of himself to them—of his



Figure 4.—Ph.D. students working with Dr. A.A. Lindsey in Plant Ecology (Spring 1964). From left: Damian V. Schmelz (later at St. Meinrad College); William B. Crankshaw (later at Ball State University); Marion T. Jackson; John O. Sawyer, Jr. (later at Humboldt State University, California); Syed A. Qadir (later at University of Kurachi, Pakistan). Robert O. Petty (later at Wabash College) was not present for the photograph.

knowledge, his caring and concern, his humility, his competence, and his sense of humor. Students know he is doing all he can to help them in the classroom, and in later life.

My own graduate students usually want to take all of his classes. He makes them work, but he makes them think. He provides them with information about today's world, and he encourages them to use it for the betterment of humankind. I continually realize how really good he is with students, when my students seek his advice on their own, and I often send them to confer with him.

I have taught with him and know how he feels about students. He wants students to succeed; and aside from lowering his standards, he will do everything he can to help them succeed. In short, he loves students.

Two hallmarks of Marion's teaching have been group studies of environmental problems in his "Humans and World Environment" course, and extended field trips with advanced students in his "Biogeography" course during the past 40 years.

In his "Humans and World Environment" classes, students did investigations of either an urban, rural, or natural area of 20 acres or less in size. In each case an inventory was made of available resources, environmental problems were then assessed, followed by developing a set of recommendations regarding how the problems could be alleviated or solved. The finished product usually took the form of a written report ranging from 20–40 pages in length. The entire class worked jointly, both in the field collecting their data, and in the laboratory completing their report. This exercise gave them simulated real-life experience in identifying, analyzing, and solving environmental problems.

One class during the early 1970s that selected the ISU campus as their study area did an exceptionally fine job with their project. Consequently, Marion took the final report and the student recommendations for campus improvement to ISU President Richard Landini's office. Within a couple of weeks Dr. Jackson received a telephone call from Lan-

dini, stating that he had read the report with great interest and that he was forming a Landscaping Committee to be charged with making recommendations for campus improvement. He requested that Jackson chair the committee, and that some of the students in his class serve as committee members!

Extended field trips in "Biogeography" classes enabled his students to gain invaluable first-hand experience in understanding the determinants of distribution patterns and successes of plant and animal communities by conducting field studies in some of the most interesting and beautiful regions of our continent. Dr. Jackson truly makes ecology live in field settings.

In October of alternate years, for decades he took trips to the Great Smoky Mountains National Park, when the Eastern Deciduous Forest Biome is a blaze of color. The highlight of those trips was a day-long, 12-mile hike from the somber spruce-fir forests atop 6000-foot Mt. Collins, to the lush mixed mesophytic cove forests near Sugarlands Visitor Center. By plotting the elevation and location of the entry and exit of each forest tree species (from altimeter and topographic map readings—now, of course, GPS could be used), the elevational replacements of tree species could be plotted along their figurative "one-day ecological walk from Canada to Tennessee." Former students from 30 years ago still fondly reminisce about their Smokies experience in Dr. Jackson's "Biogeography" class.

Western North America was featured in late spring or summer trips to the southwest deserts, western coniferous forests, or to Alaska. Desert Ecology classes visited the Chihuahuan, Sonoran, Mojave, and Great Basin Deserts; whereas classes that focused on western forests visited 8–10 old-growth types ranging from Great Basin juniper-pinyon stands to giant sequoia-Sierra mixed, coastal redwoods, and Olympic cedar-hemlock forests. The main objective of these studies was to correlate density and diversity of breeding birds with differences in plant community structure and composition.

One summer (1970), Marion and Dr. Benjamin Moulton, Chairperson of Geography-Geology at ISU, took a class of 23 on a six-week driving tour of western Canada and Alaska. They traveled the nearly 14,000 miles in four Volkswagen minibuses. At that time

more than 1200 miles of the Alaska Highway was dirt and gravel. During the course of the trip, the four vehicles sustained a blown engine, a transmission problem, a failed rear axle assembly, two broken windshields, and 23 flat tires! (Before the trip's end, the students became as adept at changing tires as an Indy 500 Pit Crew!) Despite problems with vehicles, by conducting field study of four biomes, it was a trip that was etched into everyone's memory for all time.

Overall, Dr. Jackson traveled nearly 100,000 miles with student groups, and discussed their observations around campfires in more than 40 states from Maine to Florida, and from Arizona to Alaska, during more than four decades of field study.

Then, after 38½ years of teaching at ISU, Marion was "retired" for only about 48 hours when St. Mary-of-the-Woods College asked him if he would consider coming there as a Visiting Professor of Ecology. He has been greatly enjoying teaching Earth Literacy Master's Students and undergraduates in biology at SMWC for over four years now!

#### HIS RESEARCH AND PUBLICATIONS

Marion has published a total of over 50 scientific publications, including several book chapters and two books. In addition, he edited Volumes 79–83 (1969–1973) of the *Proceedings* of the Indiana Academy of Science. He also has published an equal or greater number of semi-popular science articles, book forewords, newspaper features, essays in newsletters of environmental organizations, eulogies of colleagues, commentaries, poems, and other Science and Society communications. Many of his scientific publications are indicated in the bibliography that follows. A few of the research highlights of his career are indicated below.

He studied the effects of differences in microclimates on spring wildflower phenology at Allee Memorial Woods Nature Preserve, Parke County, Indiana, for his Ph.D. research (1961–1964). He co-authored a book chapter entitled "Plant Communities of Indiana" as Chapter 16 in *The Natural Features of Indiana*, with R.O. Petty of Wabash College (1966). In 1969, he published two book chapters on Hemmer Woods, Gibson County, and Potzger Woods, Ripley County, in *The Natural Areas of Indiana and Their Preservation*.



Figure 5.—Leading a plant ecology class at Indiana State University on a field trip to Pine Hills Natural Area, Montgomery County, Indiana (Spring 1967).

He and R.O. Petty completed an assessment of synthetic indices for evaluating forest importance values (1971). Jackson analyzed the vegetational ecology of an emperor goose nesting area in the Kokechik Bay Region of the Clarence Rhode National Wildlife Refuge, Alaska (1973).

He studied an old-growth forest at the prairie border in Edgar County, Illinois, as compared to GLO Survey Forest Composition, with Dr. M. Cowell, University of Missouri (2000–2002). Marion is still actively conducting re-surveys of vegetation studies originated early in his career. Dr. Mark Cowell, University of Missouri School of Forestry, Dr. Kem Badger, Ball State University, and former graduate students are assisting in these research studies.

Marion's research career has recently been capped by two clearly outstanding volumes. One is *The Natural Heritage of Indiana*, which he edited (Indiana University Press,

1997). This large-format, four-color book brings together 57 chapters on the Natural History of the State by many of the most knowledgeable scientists, and most gifted nature photographers, of Indiana. Marion contributed eleven chapters and many photographs himself. Few people other than Marion would have had the writing and editing skills, and much more importantly, the broad knowledge, along with the love of the State of Indiana, to do this project justice. And done it justice he has. It has received many accolades from near and far. It is a superb book, a beautiful book, and an outstanding source of information about our state.

The second book is *101 Trees of Indiana* (Indiana University Press, 2004), which is a beautifully illustrated field guide to all of the native trees of Indiana, plus coverage of more than 40 additional species that are widely encountered here. This, too, is a very complete

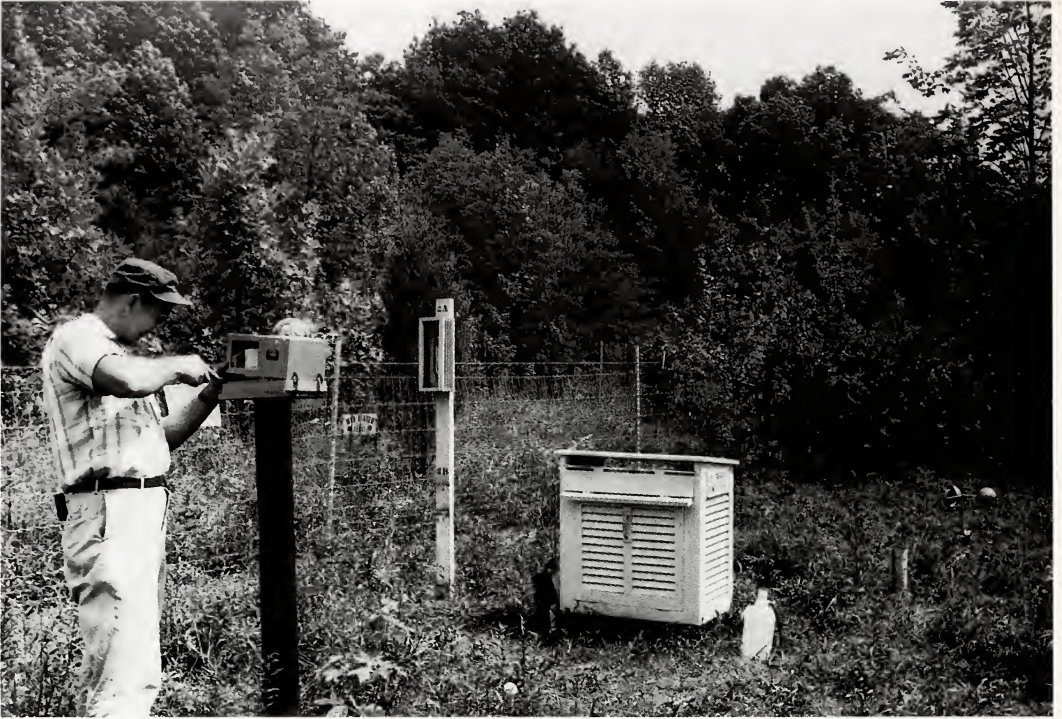


Figure 6.—Microclimatic field station with instrumentation in woody old field at Allee Woods, Parke County, Indiana (Spring 1963).

and beautiful volume which can only bring more admiration for his writing skills.

#### HIS STUDENTS

Fortunately, a number of the several thousand undergraduate students that Marion has taught were stimulated to continue in the fields of ecology or natural resource management, which is itself a measure of a master teacher. More than 40 students have completed the research requirement for their non-thesis M.S. degrees under his direction. An additional 18 M.S. and Ph.D. candidates completed their thesis or dissertation research under Dr. Jackson's mentorship. Much of his own work has been in close cooperation with graduate students.

Six of the 16 M.S. thesis students later received Ph.D. degrees in Plant Ecology from other institutions. Several of his other former M.S. degree students are now in practical or applied ecology positions such as state natural resource departments, and some are in teaching positions.

He and four of his M.S. Students (H. Donselman, C. Dunn, B. Hollett, and J. Levenson)

studied the structure and dynamics of ground-layer, shrublayer, and canopy tree strata in 40 old-growth beech-maple stands in a five-state area (Indiana, Illinois, Michigan, Ohio, and Wisconsin) as part of an analysis of the beech-maple forest association (1973–1978).

Along with three M.S. students (E. Donselman, D. Kaminski, and L. Leitner) he analyzed GLO Survey Record data for presettlement forests in Vigo County, Indiana; the prairie border area of Indiana-Illinois; and in unglaciated southern Illinois (1974, 1978–79).

He and two M.S. students (K. Badger and L. McClain) described the ecological life histories of two tree species uncommon in Indiana, *Magnolia tripetala* and *Gymnocladus dioica* (1979, 1984).

Studies of the vegetation and floristics of two national parks were completed by Jackson and A. Faller on Wizard Island, Crater Lake National Park (1966–1969), and at Mammoth Cave National Park (1969–1973).

Old-growth forests in Jennings County, Indiana, and along the White River floodplain in Marion County, Indiana, were examined by

Jackson with W.B. Barnes and B. Hollett, respectively (1975, 1984).

Marion has conducted long-term ecological research on the structure and dynamics of a number of old-growth forests as follows: (1) Hoot Woods, Owen County, Indiana, for many years with four M.S. Students (B. Abrell, P. Allen, B. Morgan, and R. Strait), and with Dr. M. Cowell (1965–2005); (2) Dobbs Park Nature Preserve, Vigo County, Indiana, with M.S. students (N. Hoalst and R. Helms), and with Dr. M. Cowell (1975–2000); (3) Kramer Woods, Spencer County, Indiana with B. Abrell, and Dr. D. Schmelz (1992–2002); (4) Stout Grove, Jedediah Redwoods State Park, California with B. Abrell (1966–2006). Pre- and post-burn analyses and other studies were conducted at Little Bluestem Prairie Nature Preserve with three M.S. students (D. Dubis, M. Sheerer, and R. Strait) (1984–1989). The impact of different levels of trail use in Indiana Nature Preserves was examined with M.S. student, G. Adkison (1991–1996).

#### HIS CONSERVATION EFFORTS AND SERVICE

Dr. Jackson is one of the few who fully understands the adverse effects that we humans are having on our only home, Planet Earth; and throughout his academic career, he has been in a position to help people to decide what to do to correct these problems. He can vividly bring out the facts, lead students or environmental groups into drawing their own conclusions, and then develop solutions to problems. Marion has lived the life that he has taught his students to lead. He understands that many of the major problems of the world are environmental, and that they often dwarf all the other major problems of the world.

Marion is perennially a member of 20–30 environmental or conservation organizations, and has been quite actively involved with, or an officer in, a number of them. He holds Life Memberships in several of these.

Marion spent four summers working for the Federal Government in the American West: for the U.S. Forest Service in the St. Joe National Forest, at Moscow, Idaho, in forest fire detection and suppression in 1961; at Crater Lake National Park, Oregon, as a seasonal Interpretive Ranger-Naturalist in the summers of 1965 and 1966; and on the Clarence Rhode National Wildlife Refuge, Bethel, Alaska, sur-

veying the nesting ecology of the emperor goose in wet tundra along the Bering Sea, in 1973.

In 1967, Marion gave testimony at hearings before the Indiana State Legislature urging passage of the Indiana Natural Areas Protection Act, the enabling legislation for the Indiana Nature Preserves System, and the Indiana Division of Nature Preserves, within the Indiana Dept. of Natural Resources.

During 1973–1974, he prepared evaluation reports for 28 Indiana Natural Areas being considered for National Natural Landmark status by the National Park Service. Following submission of Marion's reports, Indiana had more National Natural Landmarks than any other state.

Marion served on the Organization Committee when the Natural Areas Association was founded at a meeting in St. Louis during the late 1970s. He served on the Board of NAA for three years.

At Dr. Alton Lindsey's suggestion, Marion became a member of The Nature Conservancy in 1961, and became a Life Member in 1980. He served as President of the Indiana Chapter of The Nature Conservancy for seven years, 1975–1983. During that period, the Indiana chapter received the annual best chapter award for the U.S. on two occasions. Marion served as Acting State Director of the Indiana Chapter in 1978–1979, during State Director Dennis Wolkoff's sabbatical. He has been a Life Trustee of the Indiana Chapter for more than 20 years.

Marion has worked closely with William B. Barnes, Sr., James Keith and John A. Bacone, successive Directors of the Division of Nature Preserves, for more than 35 years toward the identification, protection, and management of natural areas throughout Indiana. During 1979–1980, while on sabbatical leave from ISU, Marion served as Program Ecologist for the Indiana Natural Heritage Protection Program during its formative year. During that time, he worked up a Land Classification System for the entire State of Indiana. He worked with Bill Barnes on the designation of Dobbs Park and Flesher Woods Nature Preserves in Vigo County, Hemmer Woods in Gibson County, Lubbe Woods in Dearborn County, Tribbett's and Commiskey Woods in Jennings County, and several other natural areas.

Marion also worked closely with The Na-



ture Conservancy, Indiana Chapter, and the Indiana State University Administration to protect three other Natural Areas in Vigo County (Little Bluestem Prairie, Kieweg Woods, and Oweneel Woods) and guided the transfer of these tracts to ISU for use as teaching and research areas.

For many years, Marion has been actively involved with the Wabash Valley Audubon Society, serving as Vice President, President for three years, Environmental Service Award Selection Committee, and several other posts.

Marion served as an unpaid consultant to Pat Daugherty, Director of Terre Haute City Parks, on the development of the Dobbs Park Nature Center/Environmental Education Program during the early 1970s. His former M.S. student, Ronald Helms, became the first Interpretative Naturalist when the Nature Center was dedicated. For decades, he has worked with Keith Ruble, Director of the Vigo County Parks on the establishment, implementation and use of the county park system, and the development of recreational, educational and interpretive programs at the county parks. Marion has served for many years as an Honorary Trustee of ACRES Land Trust, Inc., a very successful Natural Areas protection group in northeastern Indiana.

Marion has been a member of the Indiana Academy of Science since he first entered graduate school in 1961. He was the first chair of the newly-formed Ecology Division, and chaired that division on at least one other occasion. He was also chair of the Plant Taxonomy Division (now Plant Systematics and Biodiversity). He and his students have presented at least 25 papers at annual meetings of IAS.

Marion served as Editor of the *Proceedings* of the Indiana Academy of Science for five years, 1969–1973. During his tenure as Editor, he instituted full peer-review as a prerequisite for all full-length submitted papers before acceptance for publication. He personally published at least 13 research papers, plus numerous abstracts, in the *Proceedings*.

Marion served as President-Elect of the Academy in 1998, when Dr. Rebecca Dolan was President, then served as President in 1999. He was a member of the Executive Committee for at least 10 years, plus service on the Publications, Biological Survey, Preservation of Natural Areas, and Membership

committees for multiple years each. He served on the Program Committee for the Indiana State University Meetings in 1987, and was Co-Program Committee Chair, with Dr. Joyce Cadwallader, for the St. Mary-of-the-Woods College Meetings in 2005. He became a Fellow of the IAS in 1976.

For his service, teaching, and research, Marion has received numerous awards. Marion received a Certificate of Appreciation from the Indiana Conservation Council, Inc., in 1974 for Indiana Natural Areas work; and he was awarded a Certificate of Merit from the U.S. National Park Service in 1975 for National Landmark evaluations. The Nature Conservancy presented him their highest member recognition, the Oak Leaf Award, in 1981, for distinguished Natural Areas work in Indiana. The Wabash Valley Audubon Society granted him its James H. Mason Environmental Service Award in 1994.

Indiana State University has presented him a number of awards and recognitions. He received the Caleb Mills Distinguished Teaching Award in 1997; the College of Arts and Sciences Distinguished Professor Award in 1999; and the College of Arts and Sciences Medallion in 2000. His life and career were featured in the *Indiana State University Magazine* in its Summer 1998 issue, in an article entitled *A Natural Life*.

## PRESENTATIONS

During his career, Marion has reviewed and/or edited a number of books, laboratory manuals, and popular articles, both before and after publication. He serves as Ecological Consultant for *Snowy Egret*, reported to be the nation's oldest nature magazine.

During his career, Marion has been a popular and effective invited speaker before groups ranging from national and state scientific and environmental organizations, to K-thru-12 school classes, civic organizations, Scout troops, church groups, etc. He has made literally hundreds of presentations during his career. For example, he has made at least 20 presentations on each of his two books.

“As the Twig is Bent”  
Marion Jackson (2006)

An old proverb states, “As the twig is bent, so the tree shall grow.” This is also true of

humans. As the mind is conditioned, so shall we think.

When a person nears the end of their career and enters the Autumn Years of one's life, it is only natural to become more reflective regarding the events that have made them *who* and *what* they are. This is especially true if one has the inquiring mind of a scientist.

For decades, I have been telling my students that the secret of success can be summed up in six words—namely, “*We become what we think about.*” When our life nears completion, perhaps what distills down from our human sojourn is *the sum total of our thoughts*, especially as our thoughts are translated into action.

But this admonition is a two-edged sword. Successful people think positive thoughts; those less so spend much of their time wallowing in negative thinking. It behooves one to choose their thoughts carefully, and to associate with positive thinkers who, themselves, are successful. You see the mind is a lot like fertile soil. Soil does not care what is planted in it, but will return what *is* planted in abundance—it will produce weeds or useful crops in equal measure. So will the human mind.

At this time, I should like to recognize those who have been most influential in shaping and guiding my lifelong thinking, and, as such, those who have given me a “leg up” toward whatever success I have achieved. In the words of Coleridge, “The dwarf sees farther than the giant, when he has the giant's shoulders to mount on.”

Besides my parents, siblings, close relatives, neighbors, and friends who lived in the rural Tanglewood neighborhood of my early years, I need to mention certain teachers who were at the Versailles School during the 1940s and early '50s. Five emerge above the usual plateau of competence: Forest G. Waters, Principal, who represented fairness and firmness in education; Olive S. Smith, who excited me with the discipline of mathematics; Walter Phinney, a handicapped teacher on crutches who epitomized dedication and perseverance; Rex B. Davis, who taught me how to take organized class notes; and Edna Koehne, who taught me to read.

It was my extraordinary good fortune to encounter 14 professors at Purdue University who were among the finest scientists and ed-

ucators of the Midwest: \*Alton A. Lindsey (plant ecology); Durward L. Allen (wildlife ecology); \*Howard Michaud (conservation education); Leland Chandler (insect ecology); Russell E. Mumford (wildlife ecology); Charles M. Kirkpatrick (wildlife management); \*Arthur T. Guard (plant anatomy); \*Samuel Postlethwaite (plant morphology); Grady L. Webster (plant taxonomy); James Ahlrichs (soils); \*Wilton N. Melhorn (glacial geology); James E. Newman (bioclimatology); David C. “Pappy” Pfendler (Asst. Dean of Agriculture); and Paul B. Alexander (Dean, School of Education). Collectively, they provided the nucleus of both my undergraduate and graduate degrees.

Colleagues at Indiana State University who must be mentioned are: William J. Brett (Chair, Life Sciences Department); John O. Whitaker, Jr.; (vertebrate ecology); \*Benjamin Moulton (Chair, Geography-Geology Department); \*William B. Hopp (Chair, Science Division); Jack R. Munsee (entomology); and Marshall Parks (science education).

Co-workers in the field of natural area preservation include: William B. Barnes, Sr., and John A. Bacone (successive Directors, Division of Nature Preserves); Lynton K. Caldwell (first President, Indiana TNC); Dennis Wolkoff, and William Weeks (successive Directors, Indiana TNC); Paul Carmony (Registry Director, Indiana TNC); \*Damian V. Schmelz (Natural Resources Commission); Robert C. Weber (ACRES Land Trust); and Robert O. Petty (Wabash College, and *my closest professional friend*). (“\*” indicates former presidents of the Indiana Academy of Science).

For years, I have said that, “When I stop learning from my students, I will quit teaching.”

Of the thousands of former students who have passed through my classes, W. Keith Ruble (Director, Vigo County Park Department) has earned my greatest admiration for his integrity, his accomplishments, and his dedication to protecting Indiana's historical heritage, and its natural resources. He has taught me so much.

And finally, I will mention the two books, (both of which I read during my freshman year at Purdue), that have influenced my thinking, and my career more than any dozen others, namely: Aldo Leopold's *A Sand County Almanac*, and Durward Allen's *Our Wildlife*

*Legacy.* These two men's understanding of how the natural world *should* work has become my second religion.

In sum, it has been a rich and most enjoyable career and life. When I see these highlights set down in one writing, it somehow seems impossible that all these things did indeed happen. But perhaps they did, and as old-time baseball pitcher, "Dizzy" Dean, once observed in his inimitable manner of speaking, "It ain't braggin' if you actually dun it."

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