

Resolution of Respect

Alton A. Lindsey

1907– 1999



How do you find words to pay tribute to a life that spanned more than nine decades, whose “home range” encompassed continents, that possessed unbounded intellectual interests, whose scientific contributions were exemplary, and to whom recognitions came in abundance? The very thought is daunting because Dr. Alton Anthony Lindsey was an amazing person who lived a remarkable life.

Al Lindsey, as he preferred to be known to friends and colleagues, died at the age of 92 at his home in Tulsa, Oklahoma, shortly after midnight on December 19, 1999. Elizabeth, his devoted wife of over 60 years, and their daughter Louise were present as he embarked on his final “expedition.”

In late April 1960, during Dr. Lindsey’s plant ecology field trip to one of the best remaining old-growth forests in southern Indiana, we came upon an enormous white ash tree

(at least 4 feet dbh) that had been toppled in a spring windstorm just weeks earlier, creating as it fell, a huge light gap once filled by the tree crown, and uplifting a massive root wad and tip-up mound of soil. Dr. Lindsey surveyed the great fallen trunk that he had often measured and admired, and remarked, somewhat wistfully, “Well, we all have to go sometime.” Now, nearly 40 years later, another forest giant has fallen, one of the last of his generation of ecological giants. The knowledge gap that was created by his passing will be exceedingly difficult to fill.

Alton A. Lindsey was born in the village of Monaca, Pennsylvania, on May 7, 1907, the eldest child and only son of the Rev. Earl C. Lindsey, a Methodist minister, and Lois Houghton Whitmarsh Lindsey. He spent much of his boyhood devoted to nature study in the mountains and along the streams of Western Penn-

sylvania, in Boy Scout activities, and learning to be a skilled taxidermist. In 1925, he graduated from Allegheny High School in Pittsburgh, and entered Allegheny College, Meadville, Pennsylvania, that fall. At Allegheny College he met Paul Siple, the scientist who subsequently developed the well-known Wind Chill Index, while he and Lindsey served on the Admiral Byrd Antarctic Expedition II (BAE II). Siple and Lindsey were life-long friends; both were Eagle Scouts.

Al Lindsey's graduate work at Cornell University, in Ithaca, New York, was interrupted by BAE II, but he returned to finish his Ph.D. in botany and ornithology in 1937, with Dr. Arthur Eames and Dr. A. A. Allen as mentors. His graduate research at Cornell centered on the floral anatomy of the Gentianaceae and Menyanthaceae, with a minor study on the food habits of starlings in New York State. Post-doctoral education included the first NSF Tropical Ecology Institute in Costa Rica (1961), and the first Radiation Ecology Institute at the Oak Ridge National Laboratory (1962).

After completing his doctorate, Al Lindsey held faculty appointments at American University, Washington, D.C. (1937–1940); University of Redlands, California (1940–1942); and the University of New Mexico (1942–1947), before coming to Purdue University in 1947. He taught, directed graduate students, and did research in Plant Ecology at Purdue for 27 years, retiring in 1973 at age 66 to become Professor Emeritus.

"Few investigators, past or present, have achieved excellence in such varied aspects of ecology," the Ecological Society of America stated, in naming him Eminent Ecologist for 1976. Lindsey also served the Ecological Society as Editor of *Ecology* for five years (1956–1961), then as Managing Editor of all ESA publications from 1971 to 1973, the latter as the Ecological Society's first paid employee. He also was editor of the Plant Ecology Section of *Biological Abstracts* for many years (1953–1970), and edited four volumes of the *Proceedings of the Indiana Academy*

of Science (1950–1953). Al Lindsey was the consummate editor, assisting literally hundreds of authors in publishing their research findings with clarity and precision. Ever compassionate and patient, especially with young scientists struggling to become published, he spent thousands of hours correcting inaccuracies and suggesting improvements in content and flow, always without ridicule or acrimony.

His own writings, both scientific and popular, are noteworthy among his wide readership for their economy of wording, yet wonderfully informative and entertaining content. He had the great gift of making ecology and natural history not only intellectually enlightening, but also exciting to his readers. *Naturalist on Watch*, his memoirs published in 1983, which includes 41 essays on his lifetime experiences, plus some literary sketches of famous naturalists of years past, is a model of insightful natural history writing. Dr. Louis Sherman, current Chair of Purdue's Biological Sciences Department, stated last October (1999) at the dedication ceremony of the Lindsey Field Laboratory at Purdue's Ross Reserve field station, that, "Every time I read an essay in that little book, I learn something new and wonderful about ecology."

Al Lindsey's somewhat stern demeanor sometimes belied his wholesome sense of humor and his love of clever expression. He had a whimsical side that only those closest to him knew and understood. Puns, witticisms, epigrams, rhymes, poetry, and prose flowed from his well-stocked mind like a spring freshet when he was in a jovial, even playful mood. He particularly loved word reversals. One time we were discussing that some political scoundrel had finally got his come-uppance, when Lindsey blithely said, "Oh well, time wounds all heels!" His two light-hearted books, *Limericks for Land Lovers* and *Eco-logic and Eco-laughs*, both published under his pseudonym, Windan Waters, are filled with literary gems, each containing ecological wisdom. Both are a joy to read.

Eschewing such modern devices as word processors and computers,

or, as far as I know, even typewriters for his own personal use, typically Al would handwrite his manuscripts (usually with a stubby little pencil), then have the office staff type his draft copy. He would then make a few minor changes or corrections to the typescript and mail the manuscript to the appropriate editor for publication. Most of his manuscripts were accepted on first submission, subject to only minor revision. His secret and gift? He first carefully "wrote" everything in his mind before putting pencil to paper, whereupon, writing the draft was relatively straightforward.

Al Lindsey actively corresponded, usually in longhand, with a host of friends and colleagues throughout his professional life. Prompt responses were his trademark, even in advanced age. Among my most treasured keepsakes are his cheerful, informative letters, especially those written during his last weeks, while in failing health. Ever the scientist, in his last lengthy letter to me, he critiqued the evolution–creation debate, validating Darwin's position by reflecting on his personal remembrances of the John Scopes trial in the 1920s.

Early in the 20th century, Dr. Charles E. Bessey, botanist at the University of Nebraska, would challenge his students, "To keep their minds in meristematic condition." I am unsure whether Al Lindsey was aware of the Besseyan admonition, but he surely followed it throughout his life. Few scientists have experienced greater longevity in scholarly activity.

In fact, Lindsey's writing career spanned nearly 80 years, from his first publication in the *Pittsburgh Chronicle-Telegraph* at age 13, until he authored a paper in which he clarified Admiral Byrd's role as a polar explorer in *Inside Byrd's Second Antarctic Expedition*, a 24-page manuscript produced in 1997, at age 90. In all, Dr. Lindsey authored 10 books (and completed a manuscript for the 11th), more than 70 technical papers, including two monographs, and about 20 magazine articles on conservation and natural history. His best known

books are *Natural Features of Indiana* (1966) and *Natural Areas in Indiana and their Preservation* (1969). These companion volumes, which were the first such works for any state, helped launch efforts to protect Indiana's natural diversity. Nearly 30 years later, at well past age 80, he authored four excellent chapters in *The Natural Heritage of Indiana* (1997), a large-format book recently published by Indiana University Press. Another major work was a biography entitled *The Bicentennial of John James Audubon* (1985), also published by IU Press.

Dr. Lindsey's wide range of ecological and natural history interests, as well as his discipline, foresight, and imagination, are reflected in his life list of technical papers. Two monographs were seminal studies in landscape ecology, long before that term was a part of the ecological lexicon. His pioneer research on a huge lava bed area near Grants, New Mexico, during the mid-1940s, led to "Vegetation and Habitats in a Southwestern Volcanic Area" (*Ecological Monographs* 21:227–253, 1951) and, in 1988, to the establishment of the 114,440-acre El Malpais National Monument in New Mexico. A decade later, his ecological study of 430 riverine miles, which culminated in "Vegetation and Environment along the Wabash and Tippecanoe Rivers" (*Ecological Monographs* 31:105–156, 1961), called early attention to a developing interest in riparian ecology. He and others strenuously opposed several proposed projects to make the Wabash River navigable. Today the Wabash remains as one of the largest free-flowing streams in the eastern United States.

He and his graduate students published regularly in a variety of quality journals on subjects ranging from field efficiencies of forest sampling methods, spring flowering phenology, ecological analysis of presettlement vegetation of Indiana, studies of midwestern old-growth forests, LTER (Long-term Ecological Research) studies using large-scale maps of old-growth forests, ecological life histories of forest herbs and forest trees,

the Holdridge biozone system, microclimatic studies, the vegetation and life zones of Costa Rica, a 40-year redocumentation of photo points at Mt. Rainier, and aspects of the natural history of such diverse vertebrates as starlings, the New Mexican duck, Weddell and crab-eater seals, and penguins.

Before age 30, Al Lindsey had established himself as one of a very few scientists with expertise in polar ecology. Being a former Eagle Scout, and a ranger-naturalist with mountaineering experience at Mt. Rainier National Park, probably favored his selection from among some 3000 applicants for the position as vertebrate zoologist and taxidermist for the Byrd Antarctic Expedition II, from 1933 to 1935. While there, he wrote one of the first published papers on the biogeography of Antarctica and studied the natural history of several seal and penguin species. During an interview late in his life, he described Antarctica and his experience there as: "The beauty of the place was so tremendous, so totally unspoiled; that, alone, was reason to go. We went for the motive of escape – the good kind of escape. We were escaping to rather than escaping from. It was a wonderful place to work as an investigator." Upon their return to America, President Franklin D. Roosevelt personally awarded BAE II members a Special Congressional Medal. Then in 1960, at Admiral Byrd's suggestion, 12 unspoiled islands off Antarctica were named the Lindsey Islands in his honor, and in recognition of his work there. At his death, he was the last surviving scientist of the Byrd Expeditions. During his early years at Purdue University, as a mature scientist, he also studied permafrost and vegetation patterns in the Mackenzie River delta region of the North American arctic.

For decades, Alton Lindsey stood at the ramparts of natural area preservation in Indiana, and had an important role nationally as a member of the Ecologist's Union, the ESA Committee that initiated biodiversity protection before that term was coined, and prior to the establishment of The

Nature Conservancy itself in 1951. As early as 1949, he established the Ross Biological Reserve for field study in ecology and taxonomy at Purdue University. His series of permanent plots there still serve as the basis of long-term studies of ecological succession that continue today under the able leadership of Purdue ecologist Dr. Kerry Rabenold and other Purdue ecologists. Scores of students have conducted part or all of their undergraduate or graduate research there. In October 1999, a symposium was held in Al Lindsey's honor to dedicate the new log-construction field laboratory at the site. Although his precarious health prevented his attendance, being the dedicated preservationist as long as he lived, Dr. Lindsey sent a videotape in which he stressed the importance of protecting natural sites for field research in ecology. He once told me that ecologists have a moral imperative to actively pursue the protection of natural lands, and should not expect private citizens or environmental organizations to "pull their chestnuts from the fire," as he phrased it.

Dr. Lindsey was a founder and career-long advocate of The Nature Conservancy, both nationally and in Indiana, and guided TNC–Indiana Chapter in the purchase and protection of the 600-acre Pine Hills, Indiana's first dedicated nature preserve (1959). He was a principal in the establishment of the Indiana Dunes National Lakeshore, and promoted the protection of Merry Lea Environmental Center and Big Walnut Nature Preserve, all among Indiana's finest natural lands. He also helped to originate and assure passage of the Indiana Nature Preserves Act (1967), and secured a \$35,000 Ford Foundation Grant in the same year to fund the nation's first statewide inventory of natural sites. Visiting 340 of Indiana's most outstanding natural sites, Lindsey described and ranked the areas as to their quality and importance. This effort culminated in the 594-page volume, *Natural Areas in Indiana and their Preservation* (1969), co-authored with Dr. Damian V. Schmelz and Stanley

Nichols, graduate students who worked on the project. In 1974, The Nature Conservancy awarded him its Indiana Chapter Award for his long and meritorious service in protecting natural areas in Indiana.

He mentored about 30 masters, pre-doctoral, and postdoctoral students, their research largely centered on projects involving plant ecology and biodiversity protection. My generation of graduate students affectionately referred to him as A2, because of his double A initials. He taught by his personal approach to science and to life, including his strong commitment to preserving the integrity of the biosphere, as frequently as he instructed us in ecological theory. Dr. John O. Sawyer, Jr. of Humboldt State University, who completed both his M.S. and Ph.D. under Dr. Lindsey's direction, commented to me recently that Al Lindsey's example as a person was easily as valuable to him during his academic career as was the classroom and field instruction that he received. No one else in my acquaintance has personified foresight, discipline, dedication, diligence, organization, persistence, and attention to detail at quite the level that Al Lindsey did.

Always a model of efficiency and clarity of expression in the classroom, Dr. Lindsey used an array of techniques to bring the environment into his lectures, to summarize data, and to elucidate ecological principles. An excellent photographer, he had a vast collection of beautiful Kodachrome slides from years of travel to a variety of biomes. Decades before the availability of such electronic presentation techniques as Power Point, he put together highly informative and entertaining slide lectures, sometimes employing two or three projectors si-

multaneously. Rather than use lecture time putting detailed information on the chalkboard, he prepared, in advance, a multitude of charts on posterboard, which he placed strategically around the room as he talked animatedly; one such diagram of hydrosere and xerosere successions (about 30 feet long), was unrolled as he spoke, in effect causing succession to advance before your eyes!

In recognition of his lifetime achievements, both Allegheny College and Purdue University presented Al Lindsey with Honorary Doctor of Science degrees (in 1988 and 1995, respectively). Moreover, Goshen College in Indiana established the Lindsey Fellowship in Environmental Education (1985) to provide funding to worthy undergraduate students; likewise, Purdue University founded the Alton A. Lindsey Fellowship in Ecology (1992) to assist outstanding graduate students majoring in ecology. In 1995, the Natural Areas Association honored him with the George B. Fell Award for his lifetime dedication to biodiversity protection. In 1996 the Indiana Academy of Science recognized his life's work with only its second Distinguished Scholar Award. The first went to a Nobel Laureate. Four books have been dedicated to Dr. Lindsey, and his biographical sketches have appeared in more than 10 *Who's Who* and similar publications, including *Who's Who in the World*.

In the 1976 words of the late Dr. Robert O. Petty, those who knew him well have an "image of a wholly concerned human being, a man of stern self-discipline but compassionate insight, who quoted poetry at length over the tedious portions of field work ... a dedicated scientist, teacher, editor, poet, and supremely human

being whose sustained commitment continues" To this I would add, " He was a modest, gentle, humble man whose incisive wit, ever-present good humor, and life-long achievements inspired us all."

On April, 22, 2000, appropriately on Earth Day, because Dr. Alton A. Lindsey was truly an Earthperson, his family, and close friends, some coming from as far away as Rome, Italy, assembled at a beautiful location just off the Blue Ridge Parkway in far southern Virginia, and celebrated, by words of tribute and readings of poetry, the remarkable life of this caring, sensitive, human being. His ashes were interred at that site during the memorial service.

Overview

The gathering raindrops flow
To fill the seas.

Each night knows when to end
So day can break,

A single bud will burst
To start the spring.

A love will find its own;
A child come true.

Mankind will learn at last
And life go on.

—Alton A. Lindsey, from *The Natural Heritage of Indiana* (1997)

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