

Obituary and Tribute to Billie L. Turner: Botanist, Teacher, Mentor, Philosopher, Friend.

Robert P. Adams, Audrey Averett, Tina Ayers, Fred Barrie, Meredith Blackwell, Will H. Blackwell, Mark W. Bierner, Karen Clary, Piero G. Delprete, Wayne Elisens, Dorothy Irwin, Matt Lavin, David Northington, Richard Olmstead, Mike Powell, Susan Plettman Rankin, Peter H. Raven, Harold Robinson, Randy Scott, John L. Strother, Tod F. Stuessy, Spencer Tomb, B. L. Turner II, Matt Warnock Turner, James Walker and George Yatskievych

This is a compilation that includes the obituary of Dr. Turner, printed in the Austin Statesman, 14 June 2020, plus memories by students, colleagues and friends of Billie, slightly edited (but not censored) by Robert P. Adams, ed., *Phytologia*, Biology Department, Baylor University, Waco, TX, 76798, USA, robert_adams@baylor.edu, Published on-line www.phytologia.org *Published on-line www.phytologia.org Phytologia 102(2): 88-105 (June 24, 2020). ISSN 030319430.*

Billie Lee Turner

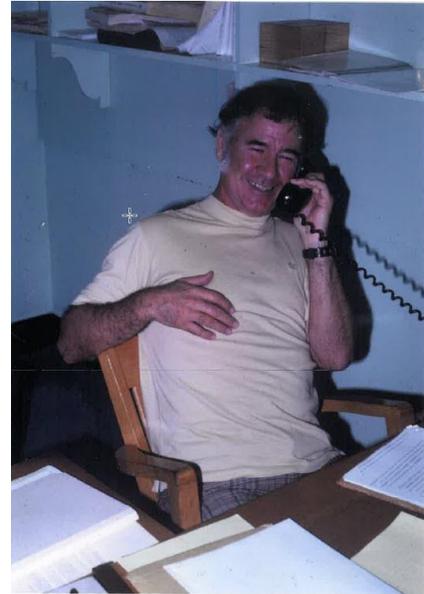
Billie Lee Turner, age 95, Professor Emeritus of the Department of Integrative Biology at The University of Texas at Austin and a long-time resident of the capital city, passed away May 27, 2020 in Round Rock after several years of declining health and a bout of COVID-19. He held the Sidney F. and Doris Blake Centennial Professorship in Systematic Botany until his retirement in 2000.

Billie was one of the nation's foremost plant taxonomists, having propelled biochemical systematics—using chemistry to classify plants—to the forefront of the field where, before the advent of DNA, it remained the vanguard of plant classification for over 20 years. He was particularly known for his expertise in the *Asteraceae*, or sunflower family, especially in the U.S. desert Southwest and Mexico.

Billie served as secretary to the Botanical Society of America (1959-64) and later as vice president (1970). He was president of the Southwestern Association of Naturalists in 1967 and had membership in 10 or more U.S. and international societies. At UT he chaired the Department of Botany (1967-74) as well as the Division of Biological Sciences (1972-73), a period in which the program solidified its status as a prominent center for botanical research. He won the leading research and teaching accolade of the American Society of Plant Taxonomists, the Asa Gray Award, in 1991.

With a publishing career spanning seven decades, he authored over 700 scientific reports and articles, naming over 1,400 plant species, varieties, and new combinations. During a half century of teaching, he mentored or served as the major professor to approximately 25 masters and 60 doctoral students, many of whom became distinguished academics. He quintupled the holdings of the UT herbarium, turning it into a world class research facility.

Born in Yoakum, Texas, on Feb. 22, 1925 to James Madison Turner Jr., and Julia Irene Harper, Billie spent his earliest years in Sanderson and always considered the Trans-Pecos his ancestral home. Following his father's railroad job, the family lived for a short while in Dunlay before settling in Galveston around 1930. Surviving childhood in that island city during the height of the Great Depression was, according to his many stories, a chaotic and exhilarating affair of debt-fleeing moves, dog bites, divorce, and deprivation, set against a ribald backdrop of speakeasies, honky-tonks, gangster-run casinos, and crime.



The family's move to Texas City in 1939 brought much-needed stability. Billie participated in football and track for the Central High Stingarees, while doing janitor work in the evenings and reading the works of Shakespeare. He graduated valedictorian in May of 1943.

A month later, he enlisted in the Army and transferred to the newly created Army Air Corp. By the time he finished navigation school he was among a handful promoted to officer rank (second lieutenant), and by Christmas of 1945 he had joined the 15th Air Force division stationed at the Giulia Airfield in Cerignola, on the east coast of Italy. He served as navigator on B-24s, making bombing runs on Austria and Germany, during which he was awarded the Purple Heart when his was the only plane in the squadron to return from a hell-raising sortie over Brenner Pass. An emergency landing in Switzerland on his 17th mission pulled him out of active combat. He was later stationed in Heidelberg and Straubing, Germany during occupation where he was promoted to first lieutenant.

In spring of 1947, before his military service had officially ended, Billie was so eager to start college that every Sunday he snuck away from El Paso, where he was stationed, to Sul Ross State University in Alpine, to begin his studies, returning to El Paso every weekend for muster. He was aiming to be a lawyer until taking a certain class with Barton Warnock, beloved authority on West Texas flora at the time, forever changed his career trajectory to botany. Taking full advantage of the G.I. Bill, he amassed three degrees in six years: BS Biology, Sul Ross State University (1949); MS Biology, Southern Methodist University (1950); and Ph.D. Botany, Washington State University (1953).

Billie began his academic career as an instructor at The University of Texas at Austin in 1953. An auspicious trip to Africa in 1956-57 with Homer Leroy Shantz, former president of the University of Arizona and arid lands expert, moved his post to tenure track. With the publication of their *Vegetational Changes in Africa over a Third of a Century* (1958), along with his first sole-authored book, *The Legumes of Texas*, a year later, Billie rose to associate professor in fall of 1959, and two years later was promoted to full professor. His skill in using chromosome numbers, and especially chemistry as a tool to classify plants, culminated in the benchmark *Biochemical Systematics* (1963), co-authored with his colleague Ralph Alston. Other noted works include his *Plant Chemosystematics*, with J. B. Harborne (1984), *Atlas of the Vascular Plants of Texas* (1987), and *The Comps of Mexico: A Systematic Account of the Family Asteraceae* (27 volumes, 1996-2017).

An avid field collector, Billie instilled in his students the importance of knowing how species behave in nature. His personal collections, numbering well over 10,000 specimens, informed his research, and much of his heart was centered on UT's herbarium, which he helped grow from 200,000 specimens in 1967 when he became its director, to one million specimens by the time he stepped down in 1998. Since 1984, the collection and facilities, which the university recently named the Billie L. Turner Plant Resources Center in his honor, has been housed in UT's iconic tower, a location that he took pride in having negotiated. The collection ranks fifth among U.S. university herbaria and twelfth across the nation. Its holdings from Texas, Mexico, and northern Central America are world class.

By any reckoning, Billie was a character. Naturally cheerful, optimistic, and gregarious, he was welcoming to anyone who showed the slightest curiosity in the world, and even to those who did not. He was as interested in people and their quirks as he was in plants, and he was magnanimous to his students with his time, support, and pocketbook to ensure their success in what he thought was the best profession in the world. But he also did everything his way, mocked the status quo and social mores, was honest to a fault, and lacked the filters that many see as needed for civil discourse. His flamboyant innuendos and rakish behavior got him called into his dean's office on several occasions. It was a point of honor that he survived the (alleged) attempts by three different university presidents to fire him.



Billie is survived by two sons from his first wife Virginia Ruth Mathis: Dr. Billie L. Turner II, of Fountain Hills, Ariz., Regents Professor and Gilbert F. White Professor of Environment and Society, Arizona State University, member of the National Academy of Science, and his wife Carol Snider; and Matt Warnock Turner, Ph.D., of Austin, writer, market researcher, and instructor in UT's Liberal Arts Honors Program. He is also survived by adopted sons Robert Lee Turner of Austin and Roy Parker Turner of Dublin, Calif., children of his third wife Gayle Langford, of Santa Fe, New Mexico. Billie is further survived by his granddaughter, Victoria Kelly Turner, Ph.D., assistant professor at University of California Los Angeles; great-granddaughter, Siena Leigh Turner-Rudy; many nieces and nephews in Texas, Alabama, and West Virginia; and by his beloved and devoted personal friend of many years, Jana Kos of Austin.

A celebration of his life will be arranged at a later date. Donations in Billie's memory can be made to the herbarium that was his life's work and to which he bequeathed a large part of his estate: Billie L. Turner Plant Resources Center, c/o University Development Office, The University of Texas at Austin, P.O. Box 7458, Austin, TX 78713-7458, or simply use the link: txsci.net/billieturner

On May 27, 2020, 2 pm (Austin), Billie Lee Turner passed away at 95 years young. The immediate impact was traumatic to his former students and friends. In an effort for us to pay tribute to his life, I asked his students and friends to send me a special memory they have of Billie (always will be Dr. Turner to me). Below are brief paragraphs from colleagues, friends and students that I hope will give the reader (including me) a more complete picture of this unique 'bigger than life Texan'.

The following two memories are by Billie's two sons, Matt and Billie II and give their recollections of their dad.

B. L. Turner II, Ph. D.

Big Billie was the family name until Dad divorced Mom. I was Little Billie. Throughout my youth—which included Dad's entire higher education and his early professional career at U.T.—Big Billie was not the personality he would later become, at least not completely. He was the consummate father, a cross between a playground friend-coach and an academic-intelligentsia version of "father-knows-best."

Dad always rose late, after I departed for school, but came home at 5 pm for dinner, after which he would attend to my desire to be an athlete, before he would depart back to the herbarium. With Ramsey Park five minutes away, he would hit fly balls to me, which gave me a leg up to make Little League early. On weekends, the neighborhood kids would come over to attend to Mr. Turner's track-and-field "school", where we were taught the "western roll" for high jumping and engaged in races on Ramsey Street, which invariably culminated in an around-the-block, long distance event. Big Billie enjoyed such engagements even more during my teen-years as sport moved to football. In late August, before junior-high classes began, the gang would migrate every evening to the lighted park for tackle football. Dad often played. He had a shoulder injury which prevent him from throwing well overhand, so he invented an underhanded, sidearm technique, akin to a discus throw. He was pretty accurate and could heft the ball about 30 yards! After the game, he often loaded all the boys in our car for a trip to A&W and a root beer float. Then back to the herbarium he would go. He came to every sporting event in which I participated but he never really encouraged me to be an athlete—perhaps he observed what I did not want to admit, my level of athletic abilities. His real legacy as a Father, however, was not the playground—although he was the only Father ever there—it was the extensive time he spent as an intellectual and moral mentor. Big Billie did not believe in children books. He read to me most nights, focused first on poetry, advancing from "Little Boy Blue" to "If" and "Ozymandias," before elevating to Shakespeare, foremost Hamlet. By 5ish I could recite "to be or not to be." Such readings were not be read alone; each line elicited a question for me to answer. This challenge to think never ceased. A typical dinner conversation began with a pronouncement. The two I most vividly recall were: "A recent study identifies

that the little toe is the sexist part of the human body”; and, “A nuclear missile was launched this evening from Cuba to the East Coast.” It was then up to Little Billie to argue why such claims were nonsense. Beyond such proceedings, were constant articulations of the significant qualities that individuals should develop and maintain—to be the person identified in Kipling’s poem. I can’t possibly count the number of times I was told: “I don’t care if you are a ditch-digger as long as you are the best ditch-digger you can be, and are honest and happy.” His decision to divorce Mom generated the most difficult discussions between us. In retrospect, I understand these were justifications of his decision and an effort to gain some small measure from me that the decision was correct, or at least understandable. At the time, however, these discussions were embarrassing to me, and I failed to respond as Big Billie would have wished, with empathy and insight. Dad changed in many ways during my college years, especially in the time and attention given to family, and in taking on the characteristics that Matt identifies. Yet another entire story is required for that part of his life.

Matt Warnock Turner, Ph. D.

Dad was compulsively curious about people. “Too soon made glad,” he’d call it, with a nod to the poet Robert Browning. He wanted to know their stories, what idiosyncrasies they had, or what passions ruled them. Colleagues were daily fodder, but strangers were a special treat, and women a delicacy. The first great taxonomic question—as if he were separating monocots from dicots—was always, “Are you married?” And with their answer, the great dichotomous key would begin. If married, what do you think of your spouse? (Love them deeply? Marriage of convenience? Ready to trade them in?) If not married, why not? (Haven’t found the right person yet? Divorced? Gay? Monastic?) Each answer led to new binaries, and by the end, I think he had sorted them into some sort of species, or at least variety. This *performance*—in gentle mock I called it “The Billie Turner Show” and would start to hum the theme music to the Tonight Show with Johnny Carson—rarely caused offense, such was the power of his unaffected humor and white hair. The act usually ended with a standing invitation to stop by the Herbarium, Main 127, in the Tower, you know, THE TOWER. If they actually did show up, they’d get a brisk welcome, a mini-tour, and an invitation to date whatever poor soul was mounting specimens that day. He sometimes later complained, “I thought I’d never get rid of them.”

In my more cynical moments, I would seize upon these words as proof that Dad’s obsessive inquiries were mere egotism. He really wanted to talk about *his* life, *his* marriages, *his* hard-scrabble upbringing. YOU merely provided a venue. Yet, as I peruse the letters and cards that flood in from his former students, colleagues, and friends over the past weeks, I see that I am largely mistaken. Your tributes attest to his sincere devotion: “Your dad launched my career;” “He found me this job;” “If it weren’t for him, I wouldn’t have met my spouse;” “After my parents, he is the most important person in my life;” “He changed my life forever.” Clearly YOU were loved after all, each of you, individually. His penchant for naming species after people, rather than traits or geography, reflected this. And even you strangers...he might have forgotten your names, but without fail he remembered your faces, years later, as if you had been corollas collected once, long ago, in a sun-drenched ravine in Durango. If Dad’s curiosity was compulsive, his inquiries obsessive, his heart was always in the right place. His attention to uniqueness, whether in plants or humans, left the world a brighter place.

The following memories are by Billie's graduate students, colleagues and friends, listed in order of the date when they first came to know Dr. Turner.

Dorothy Irwin, younger daughter of Howard Irwin (deceased), Ph. D. 1960, B. L. Turner, UT Austin.

In 1954, Howard Irwin began his second year as a Fulbright instructor teaching biology at a boys’ school in British Guiana. He had just started to search for a graduate program at a U.S. university through which he could continue pursuing his newfound interest in tropical botany, specifically *Cassia*. His prospects brightened in April when he began a correspondence with Dr. Billie Lee Turner at the University of Texas in Austin. It was a propitious connection since, as Irwin’s wife, Marian, wrote to her

parents in the States, “some of the botanical groups that are found here [in the South American colony, now Guyana] are also found there—different species, but the same families.” Turner “suggested an intensive study of one family both here and in Texas, then forming a thesis around the conclusions.” The two men, who were just a few years apart in age, met in June. To make the trip, Irwin flew from British Guiana to Trinidad, then to Panama, on to Houston, followed by Dallas, and finally to Austin. Turner met him at the airport. By the following year, Turner was mailing microfilm about *Chamaecristae* to Irwin for him to examine. In return, Irwin sent a series of vials containing plant buds in a fixative solution. “Dr. Turner writes nice letters, mostly business,” Marian wrote her parents in March 1955. “In this one he said he was sure we’d like Austin, that it’s uncivilized enough for most people to be genuinely friendly, yet civilized enough to have most of the amenities.” And the following year, to Austin the Irwins went.

Turner and Irwin collaborated on two journal articles published in 1960, in *American Journal of Botany* and *Rhodora*. Upon his commencement from UT that spring, Irwin was hired by the New York Botanical Garden, where he worked for the next 18 years, rising to its presidency in 1973. He and Turner stayed in touch, and when Turner and his wife visited New York City in the 1980s, they paid a visit to Irwin and his second wife, Anne, in Huntington, on Long Island. Irwin’s Ph.D. had been bestowed with a gift: an original 1816 edition of Colladon’s *Histoire Naturelle et Médicale des Casses*, which, following Irwin’s death last year, is now in my collection. The book is inscribed: “To Howard, for a job well done! B. L. Turner, 1960.”

James (“Jimmy”) Walker, Ph. D. 1969, Harvard, Botany Undergraduate at UT 1961-64, B.A. in Botany with High Honors 1964,

I first met Billie the summer, 1961, before I was to enter UT as a freshman botany major. I knocked on his office door and said that I was interested in angiosperm systematics. After telling him all about my desire to become a plant systematist he said: “My God young man you know more already about what you would like to do than most of my graduate students! Come with me and I will give you a desk in the herbarium that you can use while you are a botany major”. From that moment on Billie took me “under his wing” and treated me like one of his graduate students. I particularly enjoyed working with him to identify new herbarium specimens to family and sometimes even to genus. I went on a field trip to Mexico with him and some of his graduate students (see Billie’s book “All My Academic Children,” p.73). I often went with him and Ralph Alston to have coffee in the cafeteria near the Botany Building. It was Billie who suggested I get into the Plan II Honors Program, which I did. Having a one-on-one interview with John Silber, who was the Director of the Plan II Honors Program, is a story in itself. Billie also wrote a supporting letter that helped me get elected a Junior Fellow in the Society of Fellows. John Silber was the Head of the Society of Fellows which is also another interesting story, particularly since that story involved both Billie and John Silber. When I got inducted into Phi Beta Kappa, I invited Billie and his wife Ruth to the induction ceremony and dinner instead of my own parents. If he had not been in my life I would never have gone to Harvard for my doctorate and had my career in systematic botany, although that story involves Harold Bold as well. I have so many memories of Billie. I loved it that I was able to have him as a visiting professor for a semester when I was a faculty member in the Botany Department at UMass/Amherst. Over the years Billie and I always kept in touch by phone, and he must have sent me dozens of clippings from my hometown newspaper the “Taylor Daily Press”. I am so glad that I was able to have a nearly two-hour long talk with him in his nursing home in Austin when I visited Texas for the first time in more than 20 years in June, 2017. Talking with Billie then was the highlight of my trip back to Texas.



Billie Turner in his extended care home in Austin, Texas, June 26, 2017

Billie Turner was undoubtedly one of the most important people in my life.

Peter H. Raven, President Emeritus, Missouri Botanical Garden (event - summer, 1963)

From the time I visited Billie Turner in the summer of 1963, searching for evening primroses in Texas, I loved him. He welcomed Dave Gregory and me to his home, and we started a warm relationship that lasted from then on. His own difficult youth experiences probably helped to make him supportive of those around him, encouraging them in any way that he possibly could. He unfailingly greeted others with a broad smile and encouraging words and plans. Obviously disliking posturing of any kind, he used gruff words to shake up people if he considered them too serious or self-centered, and that habit made some people dislike him, misunderstand him, or be afraid of him. He was very proud of the fact that his two sons earned Ph.D.'s and excited at the later success of his granddaughter Kelly, who earned a Ph.D. at UCLA.

Billie once told me his story about Texas really being five countries, the other four defined by specific inborn dislikes, but ending with "Right here in Central Texas we are fortunate to have the most loving place on Earth." Billie certainly was a major contributor to keeping Austin that way, as generations of students, faculty, and neighbors will affirm. Joining the faculty of the University of Texas – Austin when he was 28 years old (1953), he worked for nearly 70 years to help make it the fine academic center that it is today. The many people he encouraged over the years will rightly honor his memory and remember his smile, as I certainly shall.

Mike Powell, Ph.D. in Botany, 1963, B. L. Turner, UT Austin.

I am forever grateful that in 1960 Professor Turner accepted me as one of his graduate students in systematic botany, and that he remained a mentor and friend throughout his life. Off and on for ca. 40 years, Professor Turner and I collaborated in a number of research projects, some of them long-term, including a series of papers dealing with chromosome numbers in Compositae, and the study of plant species endemic to gypsum exposures in northern Mexico and parts of the southwestern U.S. Some of my favorite memories of Billie Turner are associated with our numerous field trips, usually with other botanists and friends along. In the early 1970s we made two trips to Baja California, Mexico, collecting and camping, where particularly memorable activities included camping in a boojum (*Fouquieria columnaris*) forest near Bahia de los Angeles, and farther south stopping for a day and night at Bahia Concepcion (Fig. 1), where Billie's somewhat embellished improvisation, the "Baja Olympics" took place (see pp. 16-17, Turner, B.L. 2015. *All My Academic Children*, Texensis Publishing, www.phytologia.org). Most trips to Mexico took us east of Sonora, Sinaloa, and Durango (Fig. 2), at many gypsum sites in northeastern states, including the magnificent white gypsum dunes near Cuatro Ciénegas, Coahuila, Billie loved to get in the field, and to me he was exceptionally perceptive in recognizing (or imagining) populational variation. "Probably this is a new species" he would proclaim excitedly, sometimes more than once in a day. Field excursions with Billie were always inspirational botanical experiences

Fig. P2. Prof. B. L. Turner, year not certain, possibly early 1970s, Durango Mexico, posing with *Perityle turneri* (Asteraceae), one of many species named in his honor.

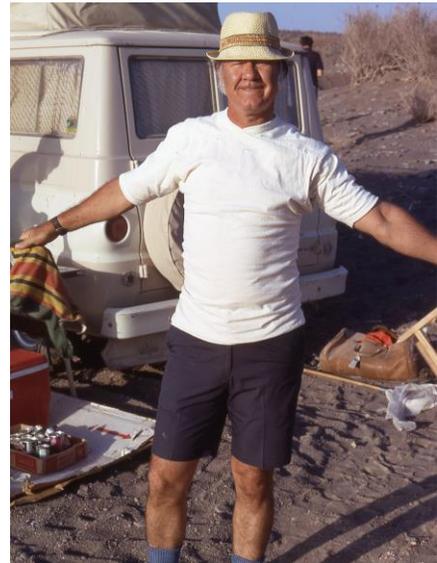
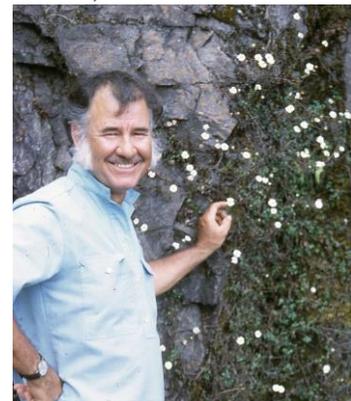


Fig. P1. Prof. B. L. Turner, 1972, in camp at Bahia Concepcion, Baja California Sur, Mexico.



Will H. Blackwell, Ph. D. 1967, M. C. Johnston, UT Austin.

I was a student of Dr. Marshall C. Johnston during my doctoral training at the University of Texas (Austin), 1963-1967. I will always be appreciative of Marshall's superb mentorship throughout my dissertation work on *Bouvardia* (Rubiaceae). But the present little essay concerns interactions with Dr. Billie L. Turner during that time period. I remember coming back to work, many nights, during my stay at Texas, particularly (of course) to work on my seemingly unending dissertation project; the 'toil' and 'tedium' in such a project could surely weigh heavily on a person, as it did on me at times—the 'finish-line' always seeming 'out there,' indefinitely in the future somewhere (I actually graduated on schedule, 1967). Anyway, my spirits, during the potential drudgery of such night-work, were frequently bolstered by the bright spirit of a professor also coming back to work nights in a nearby location associated with the herbarium—This person was Billie Turner, who was working, most effectively, on 'one Composite genus after another' (with 'no end in sight,' and no wish for any). Just seeing a professor still so excited to personally do research gave me not only a lift in spirit, but confidence that this sort of work could (would!) have good outcomes—perhaps for a lifetime. Dr. Turner would often stop by my work-station saying something like, "Keep up the hard work, kid; you're going to get there!" This seemingly small thing meant so much to me in maintaining the perseverance it took to complete my dissertation, and to go on to be a 'practicing taxonomist'—even though my efforts (still taxonomic) eventually shifted back to algae and fungi (reflecting initial interests). I will always be grateful to Dr. Turner for giving me, time and again, those little reinforcements of inspiration that I feel proved vital to my success at Texas, and later as a professor, Miami University (Ohio). After retiring (emeritus) from Miami, I went on to further 'practice taxonomy' as adjunct professor, The University of Alabama. Thoughts of Dr. Turner's great enthusiasm for botanical research are still an inspiration. In each taxonomic project I work on—no matter how difficult—I can hear him say, "You're going to get there!"

John L. Strother, Ph. D. 1967, B. L. Turner, UT Austin.

The Dr. Billie Lee Turner I knew and studied with (1964--1967 and beyond) was smart and enjoyed proving it. He especially enjoyed "testing" newly-met people. In getting to know a newly met person, Dr. Turner would ask questions related to topics that might have two or more sides (politics, religion, sports, et al.), if he got a sense of which "side" a newly met might favor, he would proceed to defend an alternate position, seemingly trying to persuade the newly met that they were on the "wrong" side. I suppose that was Dr. Turner's way of quickly assaying a newly-met's intellect.

And, if someone questioned a Turner taxonomic position, he would strongly defend his position: pointing out differences that supported his splitting a taxon into two or pointing out similarities that justified his lumping two taxa into one, voice and vigor rising higher and higher, sweat breaking out on his forehead.

An instance: species circumscriptions in *Schistocarpha*. He being the "splitter" and "I being the lumper." Would we should all be so passionate about our work.

RIP Dr. Turner.

Tod F. Stuessy, Ph. D. 1968, B. L. Turner, UT Austin.

I arrived in the Department of Botany at Austin in June of 1965, a neophyte with a B.A. from DePauw University, a small liberal arts school in Greencastle, Indiana. I had worked for two summers in the herbarium of the Field Museum, which had given me some idea of what research in systematic botany was all about, but only at a very general level. During my first week in the herbarium in Austin, Dr. Turner (he was always Dr. Turner to me until many years after graduation) took me into the hallway, opened up a cabinet and said: "Here is the genus *Melampodium* (Compositae), and I think it would be a good thesis project for you." I, knowing nothing about this, said simply: "OK, sounds good to me." And that was that. He had neglected to mention that a previous student, Robert Merrill King, had started on the group and left the program, but the problems were due primarily with personality issues, as I learned later. The genus with about 36 species was very suited to my abilities and interests, among which included traveling in Latin America. Dr. Turner was an excellent major professor in several significant ways. He

was not an organized classroom lecturer, nor was he always available for serious consultation about research or career issues. This was in part because during my years in the program, he was undergoing his divorce from his first wife, Ruth. He was now in a new world of relationships, and he was fascinated by what he was learning. This was understandable, but it was easier to get a conversation with him about love problems than about the systematics of *Melampodium*. I did not enjoy the “coffee” in the Student Union, which often revolved around embarrassing personal questions about other graduate students. For career guidance, Tom Mabry and Marshall Johnston both were willing to counsel students, especially Mabry, and they filled in this important need. But Turner achieved a very important thing—he instilled confidence in his students, supporting us and letting us believe in ourselves, which is one of the essentials for success after graduation. We learned from him by watching his discussions in meetings and seminars, seeing him shuffling sheets in the herbarium late at night, and sensing the excitement and challenge that systematic botany offered.

One specific event may be worth relating. In Spring of 1968, I was scheduled to defend my Ph.D. thesis in May, followed by getting married in Austin in June. My parents came down from Illinois for the wedding, and in a spirit of appreciation, asked me to invite Dr. Turner to dinner. When I had graduated from DePauw, they had done this with my undergraduate mentor, Dr. Preston Adams (a student of Reed Rollins from Harvard), and it worked wonderfully. Well, I dutifully invited Dr. Turner to dinner and he accepted, much to my dismay. This to me was going to be “The dinner from Hell.” Turner at this time loved to ask very embarrassing sexual questions just to see how persons would react. My father was not pugnacious, but he was proper and conservative, and I could only imagine how badly this event would turn out. On the appointed evening, Turner arrived at the restaurant well dressed, and he miraculously was polite and gracious throughout, resulting in a very lovely evening, giving pleasant memories for my parents. They related afterward how engaging he was in conversation, and I was relieved that this was the only side of Dr. Turner on display that evening.

Summing it all up, I am extremely appreciative of having had the chance to study and work under the guidance of B. L. Turner in Austin. He was a dynamic role model, the research environment within the department was excellent, and the other students were highly motivated and helped me a great deal, especially John Strother and David Flyr. I asked so many questions of these two in the first year that John finally said: “Stuessy, are you also going to ask me to write your thesis for you?” It was a great start on a career in systematic botany, and I feel lucky to have been given the opportunity to apprentice under this brilliant but very untypical professor B. L. Turner.

Meredith Blackwell, PhD, 1968, CJ Alexopoulos (1964-1968, 1970-1973); BLT plant speciation class, 1967.

Billie Lee Turner, outrageous friend, May 28, 2020

There’s a lot to remember:

hour quiz 2 (Bot 392) with question on a *Baptisia* PNAS paper, discuss “Alston and Turner claimed ...”, saved since 1967 for the note, “fine paper, thank you”; coffee some Saturday mornings when no one else was there to go; the day in 1971 when he learned David had died; occasional parties, one when Stafleu drank some of my beer in the kitchen; distinguishing junipers by fungus-like splotches on bark; a beaded curtain; the early morning he helped Mrs. Alex out of a dumpster where she’d searched for letters, thought thrown out in her husband’s office clear out; encountering his father and brother, popping out from behind a 2nd floor hallway incubator; his vault over a 4-foot post, saying, pretty good on my 50th birthday.

Because of a photo he showed of *Baptisia* shielding a cottonmouth, I planted some in my yard three years ago. I thought of him yesterday as I looked at those plants, noticed one lagging far behind the others, despite the rain; today I heard, yesterday he’d died. Billie wrote a memorial poem for someone close, “Friend, first day dead” (February 18, 1967). The poem, kept in my various office desks more than fifty years, now is locked in a building, closed by a virus. Fortunately, Johns Hopkins University Press granted permission¹ for Phytologia to reprint the poem:

Friend, First Day Dead*

Friend, first day dead,
This is the place
We used to have coffee;

You sitting there, just opposite,
Finger to temple immersed
In your own thought-logic
Discussing what counts
In life and what doesn't count,
High-planned rhetoric yours;
Mine the smile and flippant phrase
Designed to ease so much seriousness,

I miss you friend
This morning over coffee,
Your silence now the deepest
Philosophy yet, and
How can I answer the
Question you pose?

Friend, first day dead,
You take unfair advantage'
Were it me instead.

*Ralph E. Alston, 41, professor of botany at the University of Texas, died suddenly February 17, 1967.

¹Guthrie, R.D. and B.L. Turner. "The Ethical Relationship Between Humans and Other Organisms." Perspectives in Biology and Medicine 11:1 (1967), 62. © 1967 Johns Hopkins University Press. Reprinted with permission of Johns Hopkins University Press.

Robert P. Adams, Ph. D. 1969, B. L. Turner, UT Austin (1966-1969).

Although, I thought that I was pretty unusual as a student entering the Ph. D. program (with about 70 graduate students in the Dept. of Botany, ranked as number one in the US), in hindsight, most of us were unusual. My introduction to 'Prof. Turner' was his class in General Biology when I (as a senior math major) was forced to take Biology in order to get a BA in math at U. Texas, Austin. Prof. Turner really made genetics and plant adaptations so interesting that I thought, "If I had it to do over, I would have majored in biology". But, I was ready to graduate in math/ computer science and it was not until four years later: 2 years computer programming in California and 2 years farming in the Texas Panhandle, that I was back at UT, enrolled in grad school in Botany. Billie was on sabbatical on safari with Homer Shantz in Africa that spring. When he returned in the fall, I went to his office to meet him. He (of course) said "Sure, I remember you". Even if not truthful, it still made me feel good. The Botany department had accepted me with only 2 semesters in freshman biology. So, I knew nothing. Billie was interested in me because in 1966, very few botanists were math - computer science majors! One day when we went to 'coffee' at the nearby student union, and he asked me if I could write a computer program to analyze data over a large geographic area (as I later learned, Billie was very interested in clinal variation within a species). I said "yes", and we immediately went up to the herbarium on the 4th floor. He pulled out a specimen of *Cercis canadensis*. Billie said 'I have noticed there is variation in the morphology of redbuds from Austin, up through Oklahoma and beyond'. Billie paused, kind of smiled that mischievous way, then said, in true Texanese style, "No, that won't work. Those damn Oklahoma

highway people have planted it all along the highway. You won't know what is natural or planted". Then Billie said "You need to study a common tree that is easy to find, and you could sample at regular intervals." And he said, "There is an interesting problem in *Juniperus*. Dr Hall says *Juniperus ashei* and *Juniperus virginiana* hybridize, but I don't think they do. Do you know what a juniper is?" I guess I had a 'deer in the headlights look', so he asked "Do you know what a cedar tree is?" Of course, being from East Texas, I knew that. We went back for 'coffee' the next day, and he took a table napkin and drew out the distributions of *J. ashei* and *J. virginiana*, put some Xs, equally spaced, across the range of *J. ashei*. And that was the end of Thesis 101. Thesis 102 was a practical lesson I have never forgotten. A few days later, Billie told me "You can do lots of computer work using morphology, but that won't get you ahead of other good candidates in getting a good position. You need to do chemistry also. Dr. von Rudloff has just published a paper on volatile leaf oils of juniper and he has quantitative data for each terpene." So, that started my long love affair with both *Juniperus* and terpenes/ mass spectrometry and, recently, DNA sequencing. End of Thesis 102 lesson, and a special insight into Billie's care for his students to try to prepare them to succeed. In some ways, Billie was an enigma, just as the blind men describing an elephant by feeling the tail, trunk, ear, etc. Aside from Billie usually opening most meetings asking about my sex life (which I soon learned to say 'fine', else the conversation would be way too long), I found him to a good mentor as he 'took me under his wing' as a very naive graduate student, but gave me tremendous freedom to pursue my thesis and continued to encourage me throughout my academic career. Some of the most precious memories have been working with Billie to publish his 'Comps of Mexico' series from 2007 - 2017 (ending just 3 years ago), when he began to complain 'My memory is getting so bad', but, together, we succeeded in publishing 19 volumes in the series. Especially, later, from about 2015 through 2017, Billie would always finish a telephone conversation by saying 'I will be eternally grateful for you helping me.' And, I can say the same about him. Billie often said "I hope my last academic words might be, while examining a batch of comp specimens: "be damned if its not new to Science!"

Harold Robinson, Ph. D., Smithsonian Institution

I was not a student of Dr. Turner, but I was drawn into the study of Asteraceae by a person who was his student, R. M. King. Our interaction with Billie was an odd one since we saw so many flaws in the classification of the Compositae at that time, while Billie and Arthur Cronquist were both rooted in the Bentham system. We had to publish in the, then, unreviewed *Phytologia* since Billie and Arthur and their followers would have blocked publication of our papers in any reviewed journal. Nevertheless, in later years, Billie and I exchanged friendly messages, and I accept that Billie had a brilliant mind that he later began to use constructively. In fact, while he helped educate me through Bob King, I felt I later returned the favor by providing him with the basis of his later work. It is interesting to consider what he might have done with DNA sequencing. You know, I might even name a Comp after him some day.

Spencer Tomb, Ph.D. 1970, B.L. Turner, UT Austin, 1967-1970

My three years in Austin as one of Billie Turner's graduate students was a special time in my life. I was in a great bunch of grad students. Professor Turner loved life, his work and his students. From the first day I met him and throughout my career, I felt he was genuinely interested in my success.

We often went to coffee in the Student Union with Dr. Turner. He loved to jump on the banister side saddle and slide down and jump off at the right time and then hop on the next banister and leave us behind. One time he jumped off on the second floor just as Dr. Arnott appeared, reading something. Billie brushed the papers out of his hands and jumped on the next banister as he said, "Hello Howard." He left us to help Dr. Arnott gather his papers. It was hard for us to keep a straight face.

In 1969, Dr. Turner went through the entire herbarium looking at every specimen. Over the years, some specimens had been misfiled and others had been accessioned to the herbarium that were useless. The job was like one of the labors of Hercules. You could tell where he was working by the full trashcans. We pasted a Playboy centerfold on a herbarium sheet and put it ahead of him. Two days later the sheet with the Playboy Playmate appeared in the herbarium prep room with a thank you note. It said, "Thank

you for reminding me what is important in life.” We put several more ahead of him after that and he left a note when he found them.

While Dr. Turner was on a collecting trip a new refrigerator was delivered to the herbarium. We leveled it and transferred what was in the old refrigerator, but we kept the crate, and put it in Dr. Turner’s office, making it difficult for him to get to his desk. We got one of the secretaries to write a note saying, “Dr. Turner: We were not sure where this refrigerator was supposed to go.” The next morning he returned you could hear him complaining. “Dang, I am gone a few days and I come back to this. It will take three men and a dolly to get this to the herbarium. It is going to cost the department money.” I made my way through the small crowd that had gathered to see what he was whining about. I told Dr. Turner that I can get it up to the herbarium. “You can’t move this up there,” he said. I picked up the crate and walked out of the room. He flopped into his chair grinning from ear to ear.

Near the end of my dissertation defense, Dr. Turner asked me if I thought I was trained and prepared for the 1970s. I said, “Yes sir; I think I am.” He did not like my answer because new methods and new ideas were appearing all of the time. I explained that I had an open mind and I could adapt to the changes. The committee supported me and the next time I looked at Dr. Turner he had tears rolling down his cheeks. I thought I had hurt his feelings. I apologized to him that evening. He explained that he was pleased at my defense, but very sad because I was the first of his students that had defended without a job or a post doc. He felt he had let me down.

Audrey Averett (widow of John Averett, Ph. D. 1970, B. L. Turner, UT Austin, John passed away January 1, 2017).

One incident I recall really showed Billie’s tenacity and competitiveness on the tennis court. As soon as he learned John had some tennis championships and a cupboard full of trophies to his credit, Billie (some twenty years older) saw a challenge. He and John spent many lunch hours and frequent weekends on the tennis court in Austin’s blistering summer heat. According to John, what Billie lacked in finesse, he made up for in determination, attempting to run down every shot, strategic or not. He didn’t want to miss a thing and perhaps that’s how he approached life. Billie Turner surely lived his 95 years to the fullest and with the utmost exuberance.

Mark W. Bierner, Ph. D. 1971, B. L. Turner, UT Austin.

I knew Billie Turner for 56 years. I met Billie in 1964 when I was a 17-year-old high school senior taking advanced biology at St. Mark’s School of Texas in Dallas. As part of that course, we were required to do a research project. My biology teacher, who had been a Turner student as an undergraduate at The University of Texas, suggested that I do a paper chromatography study of the orchid species in the St. Mark’s greenhouse. He then gave me a couple of papers by Alston and Turner on paper chromatography and hybridization in *Baptisia*. If I told you I understood those papers I’d be lyin’ like a rug! At any rate, I ran chromatograms on the orchid species, and then my teacher and I took a trip to UT to visit with Professor Turner. He looked at the chromatograms as if he knew what he was looking at (Ralph Alston was, after all, the chemistry guy), and told me that they were basically worthless. Undaunted, I was still excited about the combination of botany and chemistry, and I told Billie that I wanted to get my Ph.D. in biochemical systematics with him as my major professor. After he got finished laughing, he shook my hand and wished me well. I matriculated (that’s what we said at St. Mark’s) at UT in the fall of 1964, took freshman biology from Billie, got to know Ralph Alston and Tom Mabry, graduated with my B.A. in Botany in 1968, and received my Ph.D. in systematic botany in 1971 with Billie Turner as my major professor. I made good on what I told him as a high school senior. During my undergraduate and graduate years, Billie was my teacher and my mentor. In the years that followed, he was my colleague and friend. I loved him dearly, and I miss him terribly. May his memory be a blessing for us all.

David Northington, Ph.D., 1971, B. L. Turner, UT Austin. (1967-1971).

In 1967, I was a newly accepted candidate to work toward my graduate degree in Botany under the guidance of Billie Lee Turner as my major professor. That next Spring (as best I can remember) there was an uprising by UT students protesting the rerouting of Waller Creek on campus near the football stadium. This rerouting was planned to allow the stadium to add an upper deck on the west side. On the day the bulldozers were to remove several old live oaks, dozens of ecologically minded students tried to block the dozers. This strategy was handled fairly easily by campus police. However, a few enterprising protesters managed to zig zag through the police and climb up fairly high into a couple of trees. One of the Regents present ordered the dozers to go ahead and clear the trees with the students in them! (Cooler heads decided that was not really a good idea so the dozer drivers clocked out early). The "Daily Texan" (school newspaper) had a photographer covering the event so the next morning there was an article complete with a picture of me fairly high up a tree. From that picture the Dean of the College found out the name of the student and then found out he was in graduate school and was a student of Dr B. L. Turner - who was told the Regent in question wants that student kicked out of school, immediately! Short story, somehow Billie talked the Dean into not kicking me out of school if Billie could convince me to reconsider my career choices and focus on a herbaceous genus instead of a woody one. Good advice! I did.

A few years later after I graduated and attained a tenured Assoc. Professor in the Department of Biological Sciences at Texas Tech University, I ventured on a week-long field trip to Oaxaca (mentioned by Wayne Ellison above), which included me, Billie, Wayne and another UT graduate student just starting an MS program. The trip was not totally a spur of the moment idea, as Billie and I had talked about collecting that area for several months previous. I volunteered to check out a vehicle from Texas Tech's motor pool and do most of the driving - so I rolled in to the parking lot East of the UT Biology building to meet up with Billie and meet Wayne and the other grad student (apologies for not remembering their name). The UT crew had ample plant presses, snacks, water bottles, maps, etc. including a small piece of luggage to allow for changes of clothes and toiletries - except Billie who had a smallish paper bag of a tooth brush and a few items of apparel. As Wayne has mentioned, we collected a substantial amount of taxa that had not previously been described - so a successful botanical collecting trip - which included a couple of non-botanical events. On one of the days heading down the Oaxaca highway, a roadblock manned by four men dressed in typical Kakhi uniforms, rifles and a sedan parked at an angle on the side of the road appeared ahead, so I started to slow down a bit. Billie looked up from the back seat and said to wait until he gave me the word and then to floor the gas pedal and absolutely do not stop! About 50 yards from the roadblock, Billie shouted "hit it!!" - or some similar suggestion - which I did and blew through the roadblock gaining speed toward 85 mph. As realistic as the men and guns looked, Billie noticed that their sedan was certainly not a police car - it was an attempt of bandidos to stop us and rob us! Apparently, Billie had been around that block previously. Having burned a lot of adrenaline induced energy, later that day we decided to look for a motel for the night. Our first stop was a collection of separate one room units that had three-sided carports on the back side. Billie went up to the office to secure our lodging for the night - but when he came back he said they rented only by the hour, not by the night. We went on down the road to find more conventional lodging. Oh, the curious choice of Billie's "luggage" that held only a few items of clothing was clarified early on the trip as he shed his shorts and shirt to keep them clean - within the first hour of leaving campus (as I recall). Wayne probably has greater clarity about the timing - as he shared the back seat with Billie for the entire week. I do remember suggesting to Billie that he should get dressed before we came to the Mexican border. He did.

Susan Plettman Rankin, Partners 1975-1979

I remember spending time with Billie in Glacier National Park. The joy with which he pointed out the emerging glacier lilies, expanses of fireweed, puffs of bear grass, and then the little Saxifragaceae, "delicate and beautiful" he said in his happy lilt, was a wonder of his joy in the field. And I recall his comment about how he would have leapt down the snowy steep wildflower-covered slope only to save his son Matt. He was always thinking, and talking, at speed and his mind was always going.

And, of course a comp memory- We were botanizing in the Everglades driving along a bladed shell road. As always, Billie spotted a comp and said “will you please hop out and collect that ___ (comp)?” I jumped out of the car, and over the hump of bladed shell and was headed toward the comp. Billie then said in a calm and slow voice “STOP, you just stepped over a BIG rattlesnake.” I looked down and indeed right next to my foot was a huge Eastern diamondback rattlesnake, as big as my leg. She was lying out sunning, not coiled. Of course, we all hear to freeze when we encounter a rattlesnake, but nobody says what to do next. I eventually circled back to the car anxiously scanning for the snake's mate. About that time, a swamp geezer pulled up in an old station wagon and said - do you want that snake? We said, no, you can have him. Then Billie and the man proceeded to catch the snake with a snake pole the man had. Then he put him in a cage in his beater. We asked what the man planned to do with it and he replied that he planned to cook it and eat it. The man asked if I wanted to touch him and I said -sure. When the snake wiggled, I realized that Billie and the man had caught it alive. Billie was game to try most anything.

George Yatskievych, Curator, Billie L. Turner Plant Resources Center (TEX-LL), met Billie 1981
University of Texas at Austin

I first met Billie Turner in December 1981, when I was considering the University of Texas for my doctoral studies. Like so many young botanists, I was intimidated to meet the great man, but he put me at ease with his open friendliness and off-color jokes. I went elsewhere for my studies, so did not meet Dr. Turner again until April 2015, when I interviewed for the curatorship of the Plant Resources Center. Even then, I was a bit intimidated, especially as I needed to make a good impression and really wanted the job. Thus, I got to know Billie personally only in his silver years. He was always very kind to my wife and me, and it felt humbling to receive compliments from someone who devoted so much of his career into developing the facility I was hired to care for. Billie still came in daily and was driven to finish work on as many tribes of his Comps of Mexico project as possible, knowing that Father Time was leaning on his shoulder. I have vivid memories of him shuffling slowly through the herbarium using a walker that had a shelf on it where he balanced folders of specimens that he was taking to his office to study. When moving past the cabinets deep in thought, it always seemed as though he had a personal memory to accompany some of the specimen treasures in each case (and maybe he did).

When the university decided to rename the Plant Resources Center in his honor, Billie did not seem pleased. By that point in his life, he was a bit shy of further accolades. Shy is not a word normally associated with Billie Turner! He was convinced to attend the small celebration that was held to celebrate the renaming of the Center and cried a bit as friend after friend praised him for his vision and accomplishments.

Billie would become agitated whenever the Colorado botanist, Bill Weber, called the herbarium to speak with him. Dr. Weber, who passed away recently at the age of 100, liked to annoy Billie by pointing out that Billie was a youngster among botanists compared to him. Billie wasn't happy about growing old, but he owned his age and was proud to still be working past his 90th birthday. Yet, when it was time to quit, it was Billie's decision to step away from his "herbarium walker" and to enter full-time retirement. In doing so, he left behind a number of unfinished projects, including undescribed taxonomic novelties, as well as unpublished treatments for the Flora of North America project and a second edition of his Atlas of the Flora of Texas. Billie had a remarkable clarity of vision about such things and when he



Billie and Dr. Jose Panero, his fellow asterologist, at dedication of the Billie Resources Center, L. Turner Plant 31 Oct. 2017.

decided it was time to retire, he never looked back. Had arthritis not affected his ability to type, we might have expected more juicy memoirs to follow-up his books on his graduate students and his early association with Homer Shantz, or perhaps he finally would have published a collection of his poems. A busy life is never finished, especially when it lives on in so many persons' memories.

Wayne Elisens, Ph. D. 1982, B. L. Turner, UT Austin, 1978-1982.

The genus name that almost was. Based on my dissertation monograph on subtribe Maurandyinae (Plantaginaceae), I was preparing to describe two new genera in 1982. I mentioned to Billie that I would like to honor him, but there was already a genus *Turnera*. Did he have any suggestions for a name? With a smile on his face and a tongue in his cheek Billie suggested the name *Turnerovera*, which I quickly rejected. We both shared a hearty laugh at this novel but not wholly unexpected nomenclatural proposal. With professional aplomb, he then suggested that I honor another individual.

Fieldtrip to Sierra Madre del Sur, Oaxaca. In 1980 I was fortunate to spend a week in the field with Billie, David Northington, and another graduate student. Since the trip entailed hours in a car sitting next to Billie, we both shared many experiences that shaped our lives. What an incredible opportunity to obtain a deeper understanding of the man behind the legends. Suffice it to say that Billie admirably rose above difficult childhood and adolescent circumstances through force of personality and intellect. He has my deepest respect for that aspect of his life. He remembered some of my stories as well, since they turned up in altered form in his memoir "*All my Academic Children*". There also were many botanical highlights of this trip to a biodiverse but poorly botanized region. I'll always recall Billie exclaiming "*new species!*" at several roadside stops in the Sierra after a quick perusal of a plant (comp and non-comp). His knowledge of the Mexican flora was truly remarkable and he described several new species from this collecting foray. Besides new species, enough memories and stories were generated to last a lifetime.

Photos taken in 1980 on the aforementioned field trip in Oaxaca along Mexico route 175, Carretera a Tuxtepec. Billie was never one to miss an opportunity to have some fun, which made the trip enjoyable yet somewhat unpredictable.

In the upper photo, Billie is showing his macho and loco side with a machete found alongside the highway. The bottom photo shows Billie posing with an araceous substitute for a fig leaf hoping to attract a roadside Eve. He was very proud of his petiole.



Randy Scott, Ph. D. 1986, and Tina Ayers, Ph. D. 1986, B. L. Turner, UT Austin, (1981-1986).

Most people's first meeting with Billie Turner are undoubtedly memorable. His office door was open, but I knocked, then entered when he called out from the back. I introduced myself and he asked, "What can I do for you?" When I told him I was a new graduate student of his (later, it became clear that there were a number of us who came to study with him that year, so he can be forgiven), he asked questions, many questions, as I had been warned he would by certain older grad students, but one that stands out was whether I was married or had a girlfriend. When I said that I wasn't married but had a girlfriend who would be joining me in December, he quickly said that, no, she wouldn't come, but not to worry, he had a wonderful woman in mind for me. As might be guessed, the girlfriend stayed in Montana and, after a year of avoiding each other, in spite of Billie's cajoling, the woman Billie "had in mind" and I went out for dinner and we are still together. Two or three years later, Billie, Tina and I went to northern Mexico to collect plants. Nearly on a whim, he introduced us to the Hintons at their family compound south of Saltillo where we spent the afternoon chatting with them while watching innumerable Monarch butterflies that had momentarily taken up residence there. We would spend a few more days collecting before we ended up in Monterrey where Billie paid for a large suite at the luxurious Hotel Chipinque overlooking the city. Early the next morning, Billie slipped into our room, jumped on our bed, and said, in his inimical way, "There. You can tell people you woke up in bed with Billie Turner!" With that, he turned and left. Afraid that we would never get married, he "married" (his term) us with the specific epithet "ayerscottiana." There are numerous stories we could tell of Billie's generosity not only financially, but in many other ways during both our graduate careers and afterwards. Over the years, we would visit not only in Austin, but, also, at his house in Bigfork, MT and, later, in Alpine. In every setting, he was always Billie, welcoming, questioning, feisty. Never a dull moment.

Matt Lavin, Ph. D. 1987, B. L. Turner, UT Austin.

Billie loved his academic children. Billie expressed this when I was his PhD student, 1983-1987, by the way he reviewed our proposals and manuscripts, hosted graduate student parties, occasionally took us to lunch at the faculty club, helped fund our collecting trips to Mexico, wrote us highly supportive reference letters for job applications, attended celebrations of our newborns, and carried on in a positive manner while encouraging our scholarly independence. His love was evident also by the way he maintained contact after his academic children departed Austin. In my case, post-Austin contact started out with a summer visit to Bozeman when Billie and family were making their way up to Big Fork, Montana, and ultimately settled on just a love note from Billie, which was penned on the back of the holiday card we had just sent him. The exception to this latter routine was when my daughter, Amanda, visited her friends in Austin in 2015, which was about 30 years after her Austin birth. Amanda had the good fortune of having lunch with Billie and Matt at the faculty club. For a brief time, Amanda's visit rejuvenated my communication with Billie. This included a phone message (I still have it on my phone), a couple of phone calls, and a photograph. In these exchanges, Billie conveyed his satisfaction of having a fine relationship with not only his academic children but also with at least one his academic grandchildren of sorts, Amanda. Billie's expression of love for his academic children, although intermittent, remained highly palpable even after 30 years from the last time I saw him.



Billie and Matt Turner with Amanda Lavin during lunch at the faculty club, 9 July 2015.

Richard Olmstead, Ph.D. 1988, University of Washington, Student of Billie Turner: 1971 (U Montana Field Biology Station), 1973-74 (grad student at UT; no degree earned);

My undergrad curriculum required that all biology majors spend a summer at a field biology station. Our school maintained a good one at a beautiful location in the Adirondacks, staffed and attended by faculty and students from the College, but I was counseled by a botany professor, instead, to go to the Montana field biology station on Flathead Lake, where students came from around the country to take classes from prominent professors from many institutions. It was a fateful choice; a Texan named Billie Turner taught the Plant Taxonomy class the summer of 1971. Three days a week for 8 weeks of Billie – lecturing, in the field, in the lab – what an entertaining summer! Two years later I started grad school with Billie. A classmate of mine also attended that summer; Tom Wendt started at Texas the year before. When I arrived, beard, long hair, VW microbus, and all, I was assigned an office with the other ‘hippie’ in the department, Michael Dillon. While Tom and Mike went on to careers recognized for their work on the Peruvian and Mexican floras, respectively, I washed out. It was neither the time nor place for me to be in grad school. I don’t know how many UT professors told me to “Stay and salvage a Masters,” or “If you quit here, don’t ever expect to get back into grad school anywhere,” or things that implied that I just didn’t have what it takes to do a Ph.D. How right they were – then. Billie said: “Follow your heart and when you’re ready to go back, get in touch.” Ten years later the time was right and I got back in touch with Billie. I applied to three schools that year and Billie wrote letters on my behalf. He didn’t just write letters of recommendation to the institutions, he reached out personally to the faculty with whom I might study at each institution where I had applied to explain why they should give me a second chance. I don’t think I would have succeeded without those personal contacts. He had no reason besides the love he had for his students to do that for me.

I was a student at UT for a year and a half and never identified a thesis project, but I remember one conversation with Billie in which I said I was interested in how families of plants were related to each other. Billie said that if I wanted to contribute in that area I should start by working on a genus and learn how species are related, then look at the genera in a family, etc. and by the time I was his age (~50), I might have something to contribute. Years later, when I was a postdoc and sequencing DNA, something Billie predicted in his 1969 essay, I published one of my first papers on the relationships among families in Asteridae.

Fred Barrie, Ph.D. 1990, B. L. Turner, UT Austin, currently at Missouri Botanical Garden, 4344 Shaw Blvd. St. Louis, MO 63110.

When Amy Jean Gilmartin, my advisor for a Masters at Washington State, learned that I was headed to Austin to study with Billie Turner, she smiled, chuckled and shook her head, thinking of the experience I had in store. She thought we’d get along well. Arriving in Texas, I met an energetic man with a charming grin, a tremendous enthusiasm for botany, and a penchant for asking questions so personal that they would embarrass a therapist. Billie could get away with doing that, in a way that no one else I’ve ever encountered could.

Billie was not a helicopter advisor. He did not hover over his students. Although in the 1980’s, when I was there, his focus was on Mexican Asteraceae, he was happy to let his students work on whichever group piqued their interest. We were free to design our own research programs and independent work was encouraged. Whenever there was a question, however, or when an issue of any kind arose, he was always available, generous with his knowledge and insights. He was committed to education, not only of graduate students but undergraduates as well. He made a point of teaching freshman biology every year, committed to exposing the students to the evolutionary concepts that, if they came out of Texas public schools, he believed they had never before encountered.

In the fall of 1984, or possibly 1985, Billie spent a term in residence in Xalapa, Veracruz. That year I was collecting extensively in Mexico and right around Thanksgiving I found myself in Xalapa, where Billie put me up for the better part of a week. One hot and muggy day we went collecting on Mt. Orizaba. After we finished, we stopped in a restaurant. It was a nice place, more upscale than most I had been frequenting on that trip. We sat down and the waiter brought us menus and two big glasses of ice

water. As anyone who has travelled in the tropics knows, drinking ice water in an unfamiliar restaurant is ill-advised. But I was hot, tired and thirsty and, against my better judgement, I grabbed that big glass and started drinking it down. Billie was sitting opposite me and, as the water level got lower and lower in the glass, Billie's eyes opened wider and wider, and his jaw dropped closer and closer to the tabletop. When I slapped the glass back on the table, Billie was staring in stunned amazement. It was the only time I can remember seeing Billie speechless. I paid for my recklessness the next day, but it was worth it for the look on Billie's face.

Piero G. Delprete, Ph.D, 1996, B. L. Turner, UT Austin, 1990-1996

Christmas presents. Billie studied mostly the flora of Mexico and of Texas. He had a special relationship with the Hinton family, based in Mexico, whose several generations collected plants in numerous localities in that country. While I was a doctoral student at UT Austin, boxes of dried specimens collected by the Hintons arrived regularly at the herbarium. A quick search in the databases available in the internet results in 52 specific epithets that Billie dedicated to members of the Hinton family, in genera of the Asteraceae, Amaryllidaceae, Boraginaceae, Nyctaginaceae, Caryophyllaceae, Papaveraceae, Rubiaceae, Commelinaceae, Fabaceae, Gentianaceae, Campanulaceae, Polemoniaceae, Oleaceae, Loasaceae, Hydrophyllaceae, Lentibulariaceae, Crassulaceae, and Melianthaceae. As soon as a Hinton's box arrived, he and Guy Nesom, the herbarium curator at that time, ran to it with the same excitement of two kids discovering their new Christmas present. As they were going through the specimens in the box, they would immediately recognize the new undescribed species, because of their knowledge of the flora of Mexico. One of them would say "This is mine" and the other "No! This is mine! Oh well, ok, this is yours, but the next one is mine." And so on, until both of them had a bundle of specimens of new species to describe. The next day, after careful study of pertinent literature and herbarium specimens, they started writing their manuscripts. By the evening of the same day they had a few manuscripts finished, and they exchanged them with each other for checking the texts before submitting them. Billie often returned the manuscripts to Guy with the note "clean as a cat's ass!" Billie often asked me to make the accompanying line drawings. At that time I had no experience with botanical line drawings. So, I bought technical pens and paper, and started to produce some drawings. The first ones were not very good. But after some practice, they became acceptable. And as the drawings were finished, the manuscripts were submitted to *Phytologia*.

Work ethic. I never had the occasion to accompany Billie in field trips for botanical collections. The only excursions in natural vegetation with him were those made as teaching assistant for his field course "Plants of Texas" at the Brackenridge Field Station of UT Austin, along with groups of students. The real learning experience for me was working side by side with him in the herbarium. We shared the same bench for more than five years. What most impressed me was his work ethic and his keen capacity of observing morphological details, which allowed him to discriminate morphological differences used to describe new species. He loved what he was doing. Botany was his main entertainment. He arrived at the herbarium at 8 am every day, including many Saturdays and Sundays, and would leave at 5-6 pm. We exchanged morphological observations and discussed just about any topic, while looking through our dissecting microscopes. He was generally a very loving and entertaining person, and always very direct when he had things to say to anyone. One day, a box arrived that contained specimens that have been on loan to another herbarium for several years. He noticed that none of the specimen were annotated by the supposed specialist. He immediately picked up the phone and called the curator of the other herbarium. After a conversation where the volume of the two curators was raised a few times, he concluded the discussion with "there is only one reason for not annotating specimens that were received on loan: death!"

Karen Clary, Ph.D. 1997, B. L. Turner, UT Austin.

Billie led a long and amazing life and was an academic father to so many UT botanists. I can't think of any adjective or even list of adjectives that would fully describe Billie Lee Turner. He was so many things and truly bigger than life. I have many memories of Billie from my days at UT Botany and beyond. I spent a lot of time in the UT herbarium. Billie loved to talk and would tell me many a tale about

his life and botany, which I came to realize were one and the same for him. He named a little sunflower (*Senecio claryae*) that grows on the gypsum slopes of Cerro Alto in Coahuila in my honor. Billie, Tom Patterson and I had found it while botanizing the area in 1993. Billie, a most prolific collector of *Senecio*, had already named another *Senecio* after Patterson, so he decided to name it after me.