

HISTORICAL PERSPECTIVES

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HISTORICAL PERSPECTIVE: WILMER W. TANNER

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WILMER Webster Tanner was born on 17 December 1909, in Fairview, Utah. He was the fourth of five children of John Myron Tanner and Lois Ann Stevens Tanner. When Wilmer was born, the family lived in an adobe house near the center of Fairview, Sanpete County, Utah, but had a ranch in the Indianola Valley north of Fairview. Everyone went to the ranch in summers, but returned to the village in the winter. Everyone in the family had chores to perform to keep the ranch going and that included little Wilmer. While he was very young, Wilmer's chores included tending to milk cows, pigs, and chickens and, in later years, sheep and turkeys. Beginning when he was six or seven years old, duties included driving cows to a meadow pasture and returning them to the corral each evening, feeding dogie lambs, feeding chickens and gathering eggs, and keeping the wood box filled. By age 10 or 12, Wilmer milked cows and separated milk with a spinning structure called a "bole," which brought cream to the top. The work horses had to be cared for, and this meant feeding them the best hay and oats.

Wilmer's siblings were Vasco, Ray, Lura, older than he, and Jeanette, the youngest. The children all had pets of some sort. Wilmer had Snider, given to him as a puppy by two Ute women who lived nearby. The dog was his constant companion for 16 years. The women also taught Wilmer how to gather and roast pine nuts from the pinon pines, and he continued this activity long after the Native Americans left Indianola Valley.

The summer before Wilmer turned 12, his father gave him a 22 Remington pump rifle, and he was taught to shoot ground squirrels that invaded the grain fields. He also learned to hunt sage hens, cottontails, and snowshoe hares, which he field dressed and contributed to the family larder. These early years, coupled with hunting and fishing that Wilmer learned from his older brother Ray, apparently contributed greatly to an early love and appreciation of the

outdoors and natural landscapes. These activities provided his greatest recreational satisfaction through most of his life, and to this day he continues to fish.

Wilmer attended school for a few months at Indianola during one of the war years (1917 or 1918). Six grades were taught in a one-room school house by a single teacher, who would apportion some time each day to each of the six grades. Because farm help was limited and Wilmer had to do morning and evening chores, his early school years were not very rewarding. There was little time for study, so school was a struggle until the sixth grade. At age 12, Wilmer became a Boy Scout and a deacon for the Mormon church (Church of Jesus Christ of Latter-Day Saints, LDS). Scouting activities included camping, hiking, and working on merit badges; church activities played a substantial role later in his life.

School became more enjoyable by the sixth grade. Wilmer became active in basketball (being the tallest, he played center). Other activities included games of marbles, sledding on a horse-drawn sleigh, and church or school dances. High school was enjoyable with football, swimming, track and field, and student government activities. Unfortunately, he contracted scarlet fever in April 1929 and missed his high school graduation.

In June 1929, Wilmer received a mission call to the Netherlands. As is traditional in the LDS culture, young men are called to serve for two-plus years as missionaries, and Wilmer had to postpone plans for college. He left Fairview in October and traveled to Europe via Chicago and New York City. He was amazed by the sights of New York. He left the states in November aboard the *LEVIATHAN* and, after a brief stop in France, landed in Southampton, England. He proceeded to Rotterdam and remained in the Netherlands until March 1932. He records tremendous personal growth because he had to be responsible for himself away from home. He became fluent in Dutch and developed a deep un-

derstanding of the people of the Netherlands and their history as well as an ability to deal with the ideas of people from all walks of life. He learned to listen to alternative points of view and accomplish goals by building consensus. These lessons carried over to other parts of his life, and he attributes many later successes to this early experience.

Wilmer returned home to find that the years of 1933 to 1935 were "years of desperation," and although he entered Brigham Young University (BYU) for the winter quarter, he had to return to the ranch in March, then reenter BYU in the fall of 1933. The constant struggle for financial support resulted in "too many B grades." However, he persisted and graduated with a BA degree in the spring of 1936, with a major in zoology and a minor in geology. While at BYU, he met Helen Brown, whom he married and formed a partnership that lasted 60 years until her death.

After his degree, Helen and Wilmer worked to support themselves. In the fall of 1936, Wilmer began work on a MS degree in zoology. He completed the degree in 1937 with a thesis on the snakes of Utah. Before Wilmer began his doctoral work, the country entered World War II. Food stamps and restrictions on tires made travel impossible, so he continued teaching high school until the fall of 1946, when he entered the doctoral program at the University of Kansas (KU). He had contemplated finishing his graduate program before the war and had studied marine biology briefly at Friday Harbor, Washington, in 1940, and some biology at the University of Michigan in 1941.

Wilmer was accepted into the graduate program at KU with an assistantship, so he took a one-year leave of absence from his high school job and boarded a bus for Lawrence. Helen and their now three children remained in Provo for the first year then moved to Kansas in June 1947. Moving the family to Kansas was made possible by Wilmer's advancement from a teaching assistant to instructor, in charge of general zoology. E. H. Taylor was his advisor, and he suggested that Wilmer study the comparative throat anatomy and musculature of Mexican and Central American plethodontid salamanders. Tanner's graduate program was interrupted by the death of his father in July 1948, but he returned and completed all requirements for his degree by August. He had received a contract to teach zoology at BYU, so returned to Utah where he has lived to the present.

Wilmer's time at KU was memorable. He describes Ed Taylor as "a marvelous advisor." Others especially helpful to him were Byron Leon-

ard and Mary Larson. His colleagues George Lowrey, Dick Lumas, Dale Arvey, Linell Cochran, Wayne Reeve, and others made his graduate studies interesting and competitive.

In June 1947, Wilmer was teaching zoology and had just come from the Natural History Preserve with materials he had gathered for class. He encountered E. Raymond Hall, and they discussed the value of the preserve as a natural history area. Hall mentioned that he was looking for an individual who could manage and conduct research on the preserve. Wilmer asked if Henry Fitch's name were on the list of candidates. It was not, so Wilmer, although he had never met Fitch, enumerated Henry's fine qualifications in field research. Soon after, Henry got the job.

Wilmer's interest in herpetology came largely from family influence. In his last year at BYU, Wilmer took a herpetology class taught by his older brother, Vasco M. Tanner, on the zoology faculty there. The class visited a snake den west of Utah Lake in May 1936. On the trip, Wilmer collected the third known specimen of *Hypsiglena torquata* in Utah and was encouraged by Vasco to consider additional study in herpetology. As an undergraduate, Wilmer had trained for a possible career in forestry or as a park naturalist, but during the depression people were being laid off in those professions. Vasco advised him that herpetology was an open field and much work was needed. Hence, Wilmer settled on studying the snakes of Utah for his degree and his career path was set.

Other individuals were also influential in his choice of herpetology. He mentioned especially Joseph R. Slevin at the California Academy of Sciences. Laurence Klauber loaned Wilmer his entire collection of *Hypsiglena* while Wilmer was a graduate student. E. H. Taylor had supported Wilmer's taxonomic and revisionary studies of this genus before he entered KU and, then later, his work on throat anatomy of salamanders. Others who had very positive influences either in the field or in academe were Helen Gaige, Norman Hartweg, Carl Hubbs, and A. H. Wright.

Wilmer joined and has been a member of ASIH since 1934. In his early academic years, because of finances, Wilmer attended few meetings of any kind unless they were in Utah. After becoming editor of *Herpetologica* in 1960 (see Smith, 1986), he attended AAAS, HL, and ASIH for the next 15 years. When asked about differences in ASIH then and now, his singular impression was his amazement in the advances in technologies with which data are collected and analyzed. He is impressed, and also somewhat

intimidated, by the plethora of molecular techniques now available and the precision with which these can address questions that were not approachable during the height of his research career. He perceives that systematics has shifted away from an emphasis on species and subspecies issues and that more research in herpetology is now directed toward studies of ecology, life history, and functional morphology. (His perception may be colored by his not now reading journals such as *Cladistics* and *Systematic Biology*).

Helen Brown Tanner was a tremendous asset to Wilmer throughout his career. She was born to Henry Thompson Brown and Mary Katurah Vincent Brown on 22 July 1911, in Eureka, Utah. She and Wilmer were married 4 January 1935, in the Salt Lake Temple. Helen and Wilmer raised three children, W. Lynn Tanner (now in consulting business in Calgary, Alberta), Mary Ann Tanner Barnett (a teacher in Palmdale, California), and David W. Tanner (foreman at Geneva Steel, Springville, Utah). After graduating from the Provo City schools, Helen worked at various jobs to support Wilmer during his graduate school years. After the children were in school, she became the chief registration officer at BYU and supervisor of the Alumni House, then Executive Secretary to the Director of Development and Annual Giving at BYU. It was in this latter capacity that she referred an offer of a trophy collection from the Monte Bean family to Wilmer, who at the time was in charge of all natural history collections. The BYU administration was initially inclined to turn down the offer, but Wilmer pursued and cultivated a relationship with the Bean family that eventually led to the contribution supporting construction of the Life Science Museum. Helen Tanner, throughout this decade-long effort, served a major public relations role in the development of the Bean Museum Project.

Because of her secretarial and organizational skills, Helen was a tremendous aid to Wilmer in the preparation of theses and manuscripts. She also had good laboratory skills and assisted Wilmer in dissection and drawing of salamanders for illustration of manuscripts. Wilmer records some humorous occasions in which Helen suffered some minor indignities while helping her husband. Once she was bitten while holding a racer for Wilmer when he had to take a phone call. On another occasion, she and her mother accompanied Wilmer on a class field trip to a snake den in Utah's west desert, and Wilmer inadvertently seated his mother-in-law next to a sack of rattlesnakes for the drive back to Provo.



Fig. 1. Wilmer W. Tanner in 1979.

Helen was active in several community organizations. She passed away 24 June 1995.

Wilmer has maintained journals and notes of most of his fieldwork (extensive for western Mexico), and these will be archived and made accessible through the Bean Museum at BYU. In May 1993, he completed his autobiography (Tanner, 1993), which describes many of the major events of his life. A copy is being deposited in the ASIH archives.

A major effort in Wilmer Tanner's life was the establishment of the Monte L. Bean Life Science Museum on the BYU campus. He served as director of the Museum from 1976–1979 after retiring from teaching (Fig. 1). Wilmer devotes 50 pages of his 215-page autobiography to the description of the events leading up to the donation by the Bean family to support construction of a life science museum on the campus. What a remarkable accomplishment! Tanner's legacy here may be more important than any of his earlier research. More than any other single person, Wilmer Tanner was responsible for working directly with the Bean family, of Seattle, over a period of years to accomplish this. The Bean Museum was formally dedicated and opened 28 March 1978, but over six years of effort were required to bring this to fruition. Several years of additional work were required

to transfer all research collections in botany and zoology, hire staff, develop education and outreach programs, and continue fund raising for endowments.

The Bean Museum includes nine major research collections, not including public displays: fungi, bryophytes, vascular plants, arthropods, crustaceans and soft-bodied invertebrates, fishes (70,000 specimens), amphibians and reptiles (35,000), birds (9,500) and mammals (17,000). Collections are growing annually. All 10 curators are research-active and are cross appointed either in the botany or zoology departments. The Department of Zoology has specified Systematic Biology as a focal area for future research development, so the number of systematists will increase as faculty in nonfocal areas retire. Both botany and zoology have retained great strength in the undergraduate “-ology” course offerings, in striking contrast to many other biology programs in the United States. From 1990 when zoology identified Systematic Biology and Ecology as focal areas targeted for growth, there have been quality improvements in faculty hires, granting success, and research quality. These decisions were made precisely because of the existence of the Bean Museum and the large research collections housed therein and because BYU’s geographic location provides access to millions of acres of public lands representing a great variety of western landscapes. It is fitting that one of the museum endowments is used to sponsor an invited lecture each year and that the lecture is held in the W. W. Tanner Auditorium in the Bean Museum. Tanner’s earlier systematic studies have been and will continue to be modified, but his efforts to establish a museum and a museum-based research focus at BYU will yield increased benefits. This will be his lasting legacy to science.

Wilmer’s other accomplishments of which he is most proud include earning a Ph.D. in zoology under E. H. Taylor at KU (1949); securing a teaching position, and then implementing a research program at BYU during a time when there was virtually no support for doing so (BYU was devoted strictly to undergraduate teaching in the 1940s through the 1960s); describing a new genus of plethodontid salamander (*Lineatriton*, 1950. *Great Basin Nat.* 10:37–44) and a colubrid snake (*Eridiphas*, 1960. *Occ. Pap. Calif. Acad. Sci.* No. 27, coauthored with A. Leviton). Wilmer’s early revisionary work on *Hypsiglena* is a source of pride to him, and he is especially fond of repeating the compliments E. H. Taylor made of this early work. Wilmer is continuing to study this genus at present (Fig. 2). The dissertation work on plethodontid salamander



Fig. 2. Wilmer Tanner at the bench in the Monte L. Bean Life Science Museum, November 1983. Photo by Jack Sites.

throat anatomy demonstrated that Taylor’s taxonomic knowledge of tropical salamanders was sound, and it solidified Taylor’s interpretations of salamander relationships, in opposition to those of E. R. Dunn. Again, Taylor was very complimentary of Tanner’s work on this group. Tanner (1993) recounts some interesting aspects of these projects.

Another major contribution Tanner made to herpetology was to edit the journal *Herpetologica* from 1960 through 1967. He visited Chapman Grant (grandson of Ulysses S. Grant) in California to pick up and bring to Utah all records and correspondence of the Herpetologists’ League (HL); Major Grant vacillated about handing over *Herpetologica* (Smith, 1986; Tanner, 1993). Tanner is credited with restoring HL to fiscal solvency and moving the journal toward a more respected interdisciplinary and international focus. During the “Tanner Era,” many changes were accomplished such as shifting to a more secure press location (BYU printed the 16th volume of the journal at cost), addition of covers for each issue, an expanded number of pages in each, enactment of a new constitution and bylaws, and initiation of the Herpetological Monograph series (the latter was not realized until 1982). When his editorial service ended, Wilmer served as Vice-President, President, and member of the Executive Council, a total service of 18 years (1960–1977) as officer of HL. This was longer than any other officer (even Chapman Grant) except for Pete Chrapliwy in his role as Index Editor (1956–1979). In 1965, Wilmer was elected Secretary-Treasurer of the Utah Academy of Sciences and its president of the Academic Conference in 1971.

When asked about important problems for herpetology today, Wilmer’s main concerns are twofold. Like many professionals, he is concerned over long-term funding and institutional

commitments to the maintenance of natural history collections. Throughout the negotiations with the Bean family, Wilmer stressed the value of management of collections and the contributions basic research could make to a fully integrated natural history museum. The Bean family had originally been interested only in displays, dioramas, and the public education functions of museums, but Tanner and other BYU faculty convinced them to broaden their vision. Wilmer stresses the value of basic research on collections made from populations that are now protected, rare, or in some cases completely extirpated. His other concern is that institutions with little or no long-term commitment to collection support often allow collections to deteriorate rather than donate them to large collections with institutional support. He is a firm believer in regional centers (see *Copeia* 1975:391–404) in part because of his graduate tenure at KU, and he envisions BYU eventually becoming a regional center for systematics in the intermountain West (the Great Basin). He is concerned about issues of National Science Foundation support of such regional centers and suggests that professional societies such as ASIH and HL need to continue the dialog with agencies sponsoring basic research for support of such centers. He also clearly recognized the role of institutions in supporting such centers and is still actively involved in fund raising and building endowments for the Bean Museum at BYU.

From 1939 to 1999, Wilmer Tanner published

more than 130 scientific papers, notes, and reviews. Of these, 15 are descriptions of new species or genera. These works are based primarily on extensive fieldwork in Utah, the Great Basin, and in northwestern Mexico. He trained six doctoral students and several master's students. He taught numerous courses throughout his career. On 26 October 1999, two months before his 90th birthday, Wilmer married Ottella Watson, a retired BYU faculty member in child development. He continues to come to his office in the herpetology range in the Bean Museum several times each week and to pursue donor support for collections and research programs.

Postscript.—Jack Sites initially interviewed Wilmer Tanner 20 December 1996. Additional material has been added subsequently.

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