Chuck Carpenter grew up fascinated with snakes and lizards and with a desire to become a naturalist. Recently, in his modest way, he confessed that he wondered whether he made it. His numerous students, colleagues, and awards can certainly testify that he made it many times over! Chuck is now Professor Emeritus of the Department of Zoology and Curator Emeritus of Amphibians and Reptiles of the Sam Noble Oklahoma Museum of Natural History at the University of Oklahoma.

Charles Congden Carpenter was born on 2 June 1921, in Denison, Iowa. Family lore has it that at the time of his birth, a Baltimore oriole was singing in the backyard, although apparently, the bird's song was not loud enough to attract Chuck to the study of birds rather than lizards and snakes. Chuck's parents were Harry Alonzo Carpenter and Myrtle Barber Carpenter. Myrtle Barber was a playwright and a poet who wrote for children, and Chuck has kept a cherished scrapbook of her many poems. Chuck describes his father as a "jack of all trades," working in a series of jobs from selling tires to being a Fuller Brush man. By Chuck's fifth birthday, the family had moved north to Marquette, Michigan. Chuck had two older siblings, Dorothy Kathleen, born 10 July 1912, and Harold Barber, born 6 June 1917.

Like many herpetologists, Chuck's fascination with reptiles and amphibians began when he was a child. He remembers catching his first garter snake at about age eight in a beach pool near Little Presque Isle on Lake Superior in northern Michigan. A fine artist, he later did an oil painting of that beach pool, which hangs in his house even today. While growing up, he kept an assortment of live frogs and snakes. One of his early projects was building a miniature pond in his backyard. Much to his delight and excitement was the appearance of a painted turtle that laid eggs near the pond. He credits his eighth-grade science, and high school biology teacher, Rollin Thoren, with fostering his interest in field biology. They went on field trips that yielded mud puppies and other fascinating creatures, opening up the world of biology, and specifically herpetology, for him. Years later, Chuck went back for his 55th high school reunion and was thrilled to see Mr. Thoren again, who was well into his 80s at the time.

Chuck credits Alexander Ruthven's "Herpetology of Michigan," which he found in the local public library during his high school days, as one of the first books that influenced him. He began collecting similar books and his interest in "herps" became solidified. He also read Ditmars' "Reptiles of the World" many times through as a child. His teachers came to know his "peculiarities"; once he had a snake in his shirt pocket that escaped during class. As soon as the teacher saw it on the floor, she said, "Charles, get that snake out of here!" But Chuck's abilities in many areas besides herpetology were obvious during high school. In their will, his high school class left him a Jitterbug in a bottle, symbolic of his dancing abilities and his love of animals and natural history. He can also play many musical instruments "by ear" and played with many groups in high school and later years. One of his graduate students, Neil Ford, noted that Chuck frequently played the accordion for campfires at the Oklahoma Biological Station. In high school, he won a poetry reciting contest and also wrote poetry. One of his poems, later published in his college newspaper, was called "Ode to a Toad."

ODE TO A TOAD

One day when I was walking
Along a country road
I heard a croak in front of me
Looked, and saw a toad.

He was sitting in the tall grass
Where I could hardly see
And croaking hoarsely
And looking up at me.

Suddenly I reached for him
But to no avail
For he'd vanished in the tall grass
Leaving me no trail.

Now what I've often wondered is
Has every country road
Tall grass and a quiet spot
That harbors a little toad?

For if it has, I know
That I should go awalking
Along all the country roads
Just to hear the toads atalking.

Charles C. Carpenter, 1939
Marquette, Michigan
By the time Chuck entered college in 1939 at Northern Michigan College of Education (now Northern Michigan University), his choice of study was definite. During college, he met his first “real” herpetologist, Dr. James A. Oliver, who had just graduated from the University of Michigan and who taught Chuck comparative anatomy.

Chuck's college years coincided with World War II, a time when many were called to service. Chuck received his B.A. degree from Northern Michigan College of Education in 1943 and, having previously joined the Enlisted Reserve Corps, immediately was inducted into the Army Medical Corps at Fort Sheridan near Chicago. He spent three years and 10 days in service, stationed in places all over the country. He was sent to Abilene, Texas, where he took an examination to qualify for the medical program. His ranking qualified him for the Army Specialized Training Program at Stephensville, Texas, and then at Stanford University. After completing premedical training there, he was sent to Vaughan General Hospital (now Hines General Hospital) in Chicago, where he worked as a medical technician, doing blood counts and other related work. Near the end of the war, Chuck was sent to medical school at Wayne University College of Medicine in Detroit, where he took human anatomy and other medical courses. Chuck was there when VJ (Victory over Japan) Day arrived, and Chuck noted that mobs of people swarmed the streets of Detroit in a wild celebration, everyone kissing everyone else.

As the war ended, Chuck was in Medical School, but he knew that profession was not for him and he wanted out. However, he was first sent to South Carolina, which provided the opportunity to get out in the field again to look for “herps.” He was eventually sent back to Chicago, where he got his discharge from the Army and joined the 52-20 Club, that is, when discharged from the Army with no job, a person was given $52 a week for 20 weeks. This money was Chuck's only income until he went back to college.

Chuck then applied for and was accepted to graduate school at the University of Michigan (UM). He received both his master's degree (1947) and his Ph.D. (1951) from UM. He took courses at the University of Michigan Biological Station, specifically herpetology, mammalogy, and ornithology. Most important, he notes, on a blind date on a Saturday night he met the young woman who would become his wife. That young woman was Mary Frances Pitynski. Mary's mother and father were born in Poland. She recently visited Poland and traced her extended family in Europe, where many of them are biochemists and teachers.

Chuck and Mary were married in the fall of 1947, while they were both in graduate school. Their honeymoon to northern Michigan was full of unusual mishaps, not the least of which was when Chuck put all their luggage on the train in Chicago, went back to get Mary, and returned to find that the train had already pulled out. They waited for the next train, but when they arrived back in Ann Arbor in a pouring rain, they were dismayed to find that their luggage had been tossed out on the side of the track in the rain and was completely soaked!

Both Chuck’s and Mary’s studies were in the field of zoology. Chuck received his Ph.D. in 1951 and Mary received hers in 1952. Chuck's advisor at Michigan was Frederick H. Test. Some of Chuck’s fellow graduate students at the time included Herndon Dowling, George Rabb, Jim Peters, Bernard Martof, and Owen Sexton, all successful herpetologists. Chuck remembers making a personal appointment to see Alexander Ruthven, who was president of the University of Michigan at the time, and inviting him to his doctoral defense seminar. He told President Ruthven that his book, *Herpetology of Michigan*, had been a great source of information on herpetology during his high school years.

One of Chuck's fondest memories while at Michigan was spending the summer of 1947 as an assistant on a paleontology field expedition in southern Kansas and eastern Colorado with Claude Hibbard, the famous Michigan paleontologist. He had taken courses in paleontology from Hibbard and worked for him. One of Chuck's jobs was to separate and catalog Hibbard's collection of reprints. Hibbard gave Chuck all the duplicates, including papers by Ed Taylor, Joe Tihen, and Hobart Smith. These papers were the first reprints in Chuck's eventually extensive library. (Chuck generously donated his reprint library in 2001 to the Charles C. Carpenter Library of the Division of Herpetology at the Sam Noble Oklahoma Museum of Natural History).

After graduation, Chuck stayed on at the University of Michigan for a year as an instructor. A fortuitous encounter with Carl Riggs, then at Michigan as a graduate student but teaching at Oklahoma, led to an offer of a position to teach at the Oklahoma Biological Station on Lake Texoma. Riggs had been instrumental in establishing the biological station, which opened in 1950. Chuck knew that teaching at the station would be a great opportunity for him, so in the summer of 1952, he headed to Oklahoma. He
taught natural history of the vertebrates and ornithology. The latter course was normally taught by the well-known Oklahoma ornithologist, George Miksch Sutton, but Sutton was working on paintings for a book that summer.

Mary, also very successful in her own career, made some early concessions to Chuck's career. Raised in Detroit, she was not enthusiastic about moving to Oklahoma. Mary did accompany Chuck to Oklahoma, thankfully. Mary joined the staff at the Oklahoma Medical Research Foundation where she became a member, and a professor of Biochemistry and Molecular Biology in the College of Medicine at the Oklahoma University Health Science Center. She had her own successful career for 35 years, making many discoveries in her field. As testimony to her fine work, Mary was elected a Fellow of the American Society of Nutritional Science in 1994.

Chuck and Mary have three children: Janet Eleanor, born in 1953, Caryn Sue, born in 1955, and Geoffrey Congden, born in 1960. All have been successful in their own right. Janet struggled with diabetes as a child and lost her sight as a result, but went on to attain her master's degree in zoology and anthropology. Caryn earned a Ph.D. in zoology and is now a professor in the Department of Zoology at the University of Oklahoma and Director of the Oklahoma Biological Survey. Geoff also earned a Ph.D. in zoology and has an environmental consulting firm in New Mexico. Chuck now has three grandchildren, ranging in ages from seven to 20.

Chuck became a member of ASIH in 1946 and published the first paper of his career, on copulation in the Fox Snake, in a 1947 issue of Copeia. This paper was to foretell many other papers of his that would appear in Copeia and other journals on behavior of reptiles. The first annual meeting of the society that he attended was at Houghton Lake in Michigan in 1947. He reminisces that the early meetings were small (100-150 people), and everyone knew everyone else. Many close friendships were forged in those early days.

At the 1978 joint meeting of ASIH, the Society for the Study of Amphibians and Reptiles, and the Herpetologists' League in Tempe, Arizona, Chuck was invited to be the Master of Ceremonies at the banquet. This meeting coincided with Chuck's 57th birthday, and his graduate students that came to the meeting, Beth Leuck, Mike Morton, Dan Fong, Jim Gillingham, Tom Jenssen, Neil Ford, Bill Preston, and Dale Marcelini, threw a surprise birthday party for him, giving him a cake and a walking cane. This meeting also provided an interesting experience in that Chuck's dorm mate was Dirk Parvus from Johannesburg, South Africa. Dirk had brought to the meeting with him a large collection of live reptiles and amphibians, which he kept in the closet in their room. He apparently caused the president of ASIH at the time, George Rabb, considerable consternation when he exercised a live cobra on the lawn next to the dorm.

Chuck served on the faculty of the Department of Zoology at the University of Oklahoma until his retirement on 31 December 1987 (Fig. 1). During his tenure he served as curator of amphibians and reptiles at the Stovall Museum of Natural History (now the Sam Noble Oklahoma Museum of Natural History). As testimony to Chuck's broad background and interests in biology, over the years he taught courses in general zoology, comparative anatomy, ecology, animal behavior, herpetology, vertebrate embryology, human anatomy, anatomy and physiology, and zoogeography, among others. He taught at the Oklahoma Biological Station at Lake Texoma for 35 summers. He had numerous graduate students over the years. He produced 26 Ph.D. students, 22 master's stu-
HISTORICAL PERSPECTIVES

Chuck's philosophy was that students learn best in the field, and over his career, he has led or participated in 16 field expeditions. Among them were two trips to the Galapagos Islands to study behavior of lava lizards, marine iguanas, and land iguanas, one in 1962 and the other in 1964 (Fig. 2). The 1964 trip involved 60 scientists and was sponsored by the Galapagos International Scientific Project of the Extension Division of the University of California, Berkeley. On one of the trips, a close encounter with a land iguana resulted in the end of his thumb being bitten off. His thumb was treated on the hospital ship Hope in Guayaquil, where the doctors used a teflon bandage to patch him up.

Chuck notes how his career in biology began with making observations on lizards, and further, how fortuitous events can change the course of many plans. When he first arrived at the Oklahoma Biological Station, he found large populations of Sceloporus undulatus and Cnemidophorus sexlineatus living in similar habitats. He began studying the comparative ecology of these populations. This project was going very well, and he thought this would be the focus of his research for many years to come. However, in the spring of 1957, heavy rains came and resulted in floods that completely wiped out the lizard populations at his study sites. This event forced him to reassess his research. He thought about those long hours every day in the hot sun, watching the behavior of individual lizards in their natural habitat. He had noticed that the lizards maintained territories using head-bobbing behavior and push-ups, and he had timed them with a stopwatch to see whether patterns could be discerned. His initial work led him to realize that there were patterns and that each species was different. He realized that this was a fascinating but unstudied area in lizard biology, so his new research direction was set. This work eventually led to numerous studies of many species, several of which were published in Copeia (1963:406-412; 1970: 497-505; 1977:754-756). Many graduate students were involved in this work and many expeditions to faraway places were undertaken to study other species. The National Science Foundation and other funding agencies enabled Chuck to invest in cameras and other sophisticated equipment to use in his work. The extensive collection of original films made by Chuck and his students, now deposited at the Sam Noble Oklahoma Museum of Natural History, has been digitized by Dr. Emilia Martins at Indiana University in Bloomington.

When asked what were the changes he had observed in his area of research during the past 50 years, Chuck noted especially the rapid advances in technology, such as computers for handling and storing data and producing manuscripts and graphics, and other instruments used in fieldwork such as pit tags, radio transmitters, and GPS units. Even though these advances have increased the sophistication of gathering and handling of data, Chuck pointed out that knowing the animals one is studying and making detailed observations are still the most critical parts of the research process.

Chuck developed close relationships with his graduate students over the years; all affectionately call him “Doc.” They note what an inspiration he was to them. His knowledge of natural history is legendary, and one of his major lessons to his students was to learn as much as possible about the biology of the organisms they worked on, not just by reading about them, but by going in the field and observing them. He always had ideas for student projects and instilled his curiosity solidly in those who worked with him.

From 1956 to 1982, Chuck led 11 field expeditions to the southwest United States and Mexico, always accompanied by numerous undergraduate and graduate students. These expeditions were called “safaris,” and each one was given a special name (Fig. 3). One of Doc's students, Jim Gillingham, noted that these expeditions were by no means boring, sleepy treks down miles of highway. Instead, Doc constantly quizzed his students about plants and animals they expected to see in the field, and he apparently did not stop there. Jim noted that Doc didn’t hesitate to correct everyone's English
grammar, especially his pet peeve, the dangling preposition! Another of Doc's students, Stephen Secor, recalled how he was driving down a back road on one of these expeditions when Doc, sitting on the passenger's side, began yelling "Oh, no; oh, no!" Stephen was expecting a major collision, but, too late to stop, he realized he'd run over a 6-foot bullsnake stretched across the road. Doc yelled at Stephen, "You killed it! You killed it!" Chuck's son, Geoff, jumped out of the van and ran back to the snake and found that it had escaped injury. That helped to cool tempers, but Doc continued to chide Stephen about his observational skills, while Stephen mumbled about Doc's communication skills.

Both Jim and Stephen reminisced about the hours they and Doc's other graduate students spent chatting with Doc in his laboratory. Doc would sit back over a cup of fresh-brewed tea smoking his corn cob pipe and recount his experiences about past expeditions, his Galapagos fieldwork, his first encounter with a new reptile, or his youthful days in Marquette, Michigan. Chuck and Mary considered the graduate students as part of their family; the students were always invited to join the Carpenters for Thanksgiving and other holidays (Fig. 4).

Over the years, Chuck has received many awards for his work. He was recognized as Scientist of the Year in 1991 by the Oklahoma Academy of Science. He was the first recipient of the W. Frank Blair Eminent Naturalist award given by the Southwestern Association of Naturalists, and he received the Distinguished Alumni Award from Northern Michigan University in 1972. In 1980, he received the Regents' Award for Superior Accomplishment in Research and Creative Activity from the University of Oklahoma.

By 2000, Chuck had published 142 papers, and several others are in preparation. His work is frequently cited by many current researchers. Chuck has left his mark on the field of biology in many ways, including his family of successful biologists, his graduate students, and his ground-breaking work in the field of behavior. He definitely accomplished the main goal he set for himself, to be a naturalist, but he also accomplished so much more.

Postscript.—Chuck was interviewed by Janalee P. Caldwell and Laurie J. Vitt in June 2002 in the Charles C. Carpenter Library of the Division of Herpetology at the Sam Noble Oklahoma Museum of Natural History. For providing stories, fond memories, and other information, the authors would like to thank Caryn C. Vaughn, James Gillingham, Stephen Secor, and Neil Ford.

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