## REMEMBERING BERNARDO VILLA

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Bernardo Villa Ramírez is, in my humble opinion, the greatest of Latin American mammalogists. As a result, these comments about this fine gentleman and my cherished friend and colleague for more than forty years will be naturally biased.

He was engaged in advanced study at The University of Kansas in the autumn of 1946 when I first made his acquaintance. I had just been released from active duty in World War II (WWII) and had also enrolled as a graduate student at Lawrence. Our mutual reason for going there was to study at the Museum of Natural History under the direction of Professor E. Raymond Hall, our generation's leader in training field/museumoriented mammalogists.

Bernardo and I were unaware at the time that we would prove to be proud "charter members" of an exclusive club. The membership would be restricted to a succession of sterling students who chose to receive graduate training under the expert guidence of Professor Hall. His tenure during this "golden age" of Kansas Mammalogy was destined to continue for more than twenty years.

I can see, in my mind's eye even at this late date, Bernardo working diligently in the mammal range on the third floor of the Museum of Natural History. His usual pose was bending over a specimen tray filled with study skins and skulls of midwestern pocket gophers (genus *Geomys*), his subject of investigation at the time.

However, there were a few less serious occasions. The one I remember best was that very first visit which my family and I had with the Villa family. In company with fellow graduate student, ornithologist Dale Arvey, wife Mary and I along with young daughter Betsy spent a delightful evening at the comfortable house which the Villas had rented for their stay in Lawrence.

In the course of the evening, Dale conversed mostly with Mrs. Villa —she spoke Spanish while he ansvered in a mixture of French and Italian. Surprisingly, they were able to communicate effectively using this mixture of Romance languages and got along famously.

Meanwhile, Mary and I listened to Bernardo discuss Mexican mammals—especially those living in his favorite state of Michoacán. Naturally, I also spoke with enthusiasm about my then incomplete study of the Coahuilan mammalian fauna and my adventures there while collecting mammals in the summer of 1938. He was most sympathetic and encouraging. In fact, his support and suggestions were indeed helpful, since I finally did get back there and completed that project—after a delay of about fifteen years.

However, the highlight of this visit was when we adjourned downstairs to the expansive and largely-unfurnished basement. This was the playroom for the

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Villa children. That evening they took great delight in placing our little Betsy (age four years) in the back of their red wagon and gaily pulling her around the room—fun for all.

Nevertheless, most of our time was spent in the serious business of being graduate students —concentrating on lecture and laboratory sessions, presenting seminars, assisting the professors with laboratory classes, engaging in research and dissertation preparation, and above all studying subject matter for oral and written exams. Of course we also constantly added to our own personal knowledge about the fascinating mammals themselves, even though as the professorial staff warned us, our degrees were to be in Zoology —not Mammalogy.

With our graduate work completed, each of the several members of this first post-(WWII) Hall-trained group went separate ways. Henry Setzer, for example, joined the staff in Mammalogy at the Smithsonian Institution; Joao Moojen returned to his work in Brasil; Lendell Cockrum ultimately went to the University of Arizona, Robert Finley became a staff member of the U.S. Fish and Wildlife Service, and as for myself, I was destined to stay on at Kansas before going to Michigan State University in 1955.

The Villas returned to Mexico and Bernardo to his position at his cherished Instituto de Biologia. This location was a long way from Kansas. Even so, our association was destined to flourish.

However, it was not until 29 January 1951 that I next visited with Bernardo. Walter Dalquest and I plus two other members of our field party had just come from a journey to the headwaters of the Rio Coatzacoalcos in the Isthmus of Tehuantepec. According to my field journal, Bernardo, always a gracious host, took us on a tour of the Museo Nacional de Historia Natural.

I need rely on notes to recall our visit to his office and the research collections of mammals in the Instituto de Biologia. This scholarly facility was then housed in Casa del Lago in Bosque de Chapultepec. It was a handsome building in a most attractive and stimulating setting. My recollection of this picturesque locale is enhanced by a 16-mm film sequence showing Bernardo greeting us as he descended steps which adorned the front exposure of that tree-shaded edifice.

And so a pattern of Villa-Baker associations began. Aside from seeing him occasionally at annual meetings of the American Society of Mammalogists, it was mostly my meeting with Bernardo in Mexico rather than his coming north—even to my favored mammalian study sites in Coahuila, Durango, and Zacatecas. His hospitality, however, never wavered. He seemed to relish my visits to his headquarters and especially meeting the student members of my field parties. Bernardo was photographed (Fig. 1) on one such occasion in 1964, while talking to my students.

As it turned out, I always made a point to stop by his office every time my itinerary for field work put my party within a hundred or so kilometers of the capital. In fact, I usually timed these visits as midway "breaks" in our often arduous camping and collecting activities. Some of the students, I must admit, looked forward more to the soft beds and indoor plumbing of a hotel plus the added treat of seeing a bullfight than visiting the Instituto de Biologia. Both Bernardo and I could sympathize with this attitude.

These periodic visits also gave me the opportunity to observe progress being made in the growth of the science of Mammalogy in Mexico. From the early



Fig. 1. Bernardo Villa Ramírez. Photograph taken by Charles Warner, Jr., at the Instituto de Biologia in Mexico in July 1964.

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1950s until the early 1980s, I noted with pride the acceleration of this activity. I watched Bernardo's study collection of mammals expand. I noted the move to the new facilities on the Pedregal. I met a procession of Bernardo's bright and eager students.

Their contributions have swelled the scientific output of scholarly papers in Mammalogy being produced by the Instituto de Biologia. Taking time from his busy schedule, Bernardo edited and often translated into Spanish several of my papers in order for them to appear in the Anales. I remain deeply in his debt for this bothersome drudgery.

Visiting in Coyoacán and at the Villas' spacious home at Privada de San Lucas No. 9 was also a highlight of many of my visits. In the summer of 1964, we became most neighborly when my family sublet a house not far away at 61 Carranza. On weekdays my field party and I searched for cotton rats (genus *Sigmodon*) in various parts of southern Mexico. Howe- ver, Mary and I got several chances to see the Villas on weekends.

In the summer of 1953, my field party had been experiencing either totally arid or totally mesic camps in such states as Coahuila, Durango, and Sinaloa. Naturally, we were most happy to have a weekend break in Mexico's capital city prior to departing for some more rainy camp sites in Oaxaca. The Villas were most thoughtful in asking Mary and I to join them on a half-day holiday and motor over the newly-opened and highly-scenic toll road to Cuernavaca. We did, and for once in our lives played genuine turistas instead of serious field biologists. We shopped, asked about prices, and strolled around in typical visitor fashion. However, we did note some sour-looking faces on vendors.

It turned out, to our surprise, that the shop keepers had decided that the Villas were "professional guides" and that we, as wealthy gringo tourists, were seeking their advice when pricing articles for sale. Naturally, this was an amusing experience for all concerned. Because the Villas did such a good job at acting like guides I jokingly suggested to Bernardo that he should consider giving up Mammalogy and organizing a tourist agency!

Bernardo held a standing invitation to join any or all of our field parties. So each time that we visited his area, I held out this offer —for Bernardo to join us even for just a few days in camp. Mostly, he declined because of his busy schedule. In the summer of 1952, however, I was determined not to take no for an answer. As it turned out we almost did not get to make the arrangements. This was because (1) my caravan of trucks contained what looked like a motley crew and (2) our camping in near-border situations at the time of the presidential election apparently looked suspicious to local authorities. In fact, we were detained for questioning on one occasion. Happily, the election was a usual, peaceful one. The next day the soldiers and their guard posts along roadways disappeared and the police inspections ceased. We were then able to conduct our authorized field work as usual.

At any rate, as we headed toward the Valley of Mexico from the state of Guanajuato, I stopped to call Bernardo on the telephone and advise him that we were coming. He seemed so pleased that he actually came to meet us at our camp site on 17 July in the highlands near Salazar in the state of Mexico. At the time he was enroute to an area west of Toluca to inspect a preserve for white-tailed deer (Odocoileus virginianus) and a game farm for the purpose of rearing ring-necked pheasants (Phasianus colchicus). I add this last comment to show some of the varied duties which he performed. I even went with him myself to

see the facility. He agreed, as we conversed during this motor trip, to accompany us for a few days in the field.

After Bernardo had made the necessary arrangements to be absent from his office, we met him up at the Instituto de Biologia at 1600 hours on 22 July, fitting him comfortably among the party members in our three-truck caravan. With Bernardo along we made two camps, one in an agricultural district near Calpulalpan in the state of Tlaxcala and another along highway 85 squeezed between the edge of the road itself and a steep hillside. This was near Jacala in the State of Hidalgo.

Getting Bernardo into an action role was indeed worth the trouble. He gave the members of our field party lessons in efficient field methodo- logy. He set trap lines quickly and must have placed them in just the proper locations since he always caught an assortment of interesting small mammals. He also showed us a few short-cuts in the preparation of study specimens. What we admired most was his speed in producing well-made museum skins. Naturally we were reluctant to lose this energizing party member when on 27 July he watched him depart, taking the bus at Cuidad Valles for his return home.

Before he left, we persuaded Bernardo to pose for a photograph showing himself and a tray of specimens (Fig. 2) and with members of our field party (Fig. 3). The latter included, among others, that superb field collector, Ray Alcorn, and such noteworthy Kansas graduate students as Sydney Anderson and Robert Russell.

My regret is that Bernardo could not personally join more of my field parties. He would have indeed given the students (and me as well) the benefit of associating with a person with his experience and expertise in field situations. Instead, Bernardo graciously suggested that some of his students join my field parties.

However, it was not until the summer of 1971 that one of Bernardo's students actually became a member of one of my parties. We met Antonio Martínez Guerrero when he arrived at the Durango airport from Mexico City on 9 July. We wasted no time in getting him into the field with us. In fact, we immediately departed for a series of camps in the highlands of western Durango and adjacent parts of Sinaloa.

Our most notable field experience with Tony as a party member was packing several kilometers into the coastal uplands of Nayarit to a then-abandoned mining district called Mineral del Tigre. This is located about 10 kilometers east of Huajicori. We spent several profitable days collecting bats and other small mammals as well as amphibians and reptiles in hilly arid-tropical, thorn-shrub habitat.

Tony proved to be a dependable, knowledgeable, and durable field associate. Ultimately, he, herpetologist Robert Webb, and I co-authored a short paper on the amphibians, reptiles, and mammals found at this mine (*Anales Inst. Biol. Univ. Nac. Auton. Mexico, 51, Ser. Zool.,* (1): 699-701, 1981).

In 1972, Bernardo sent a second student, Cornelio Sánchez Hernández. He also joined our field party in Durango, arriving on 9 July. This was just in time to assist us in the laborious task of establishing live-trapping stations for small mammals at regular intervals on surveyed study plots. These sizeable plots were to be used for the purpose of studying small mammals living on steep Durangan hillsides in the pine-oak highlands near Llano Grande.

Later that summer he joined us in setting up similar study plots in dense,

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Fig. 2. Bernardo Villa with tray of museum study skins of mammals. Photograph taken by Rollin H. Baker in camp near Jacala, Hidalgo, 25 July 1952.



Fig. 3. Members of a field party from The University of Kansas Museum of Natural History in company with Bernardo Villa. Photograph taken by Rollin H. Baker at a camp near Salazar, Mexico, 18 July 1952. Shown left to right are: Jack Mohler, Sydney Anderson, Albert Alcorn, Bernardo Villa, Olin Webb, Robert Russell, Ray Alcorn, Peter Chrapliwy.

arid-tropical, thorn-shrub coastal woodlands at Estación Chamela in the state of Jalisco. Cornelio also helped devise trapping-marking-releasing-recapturing techniques for obtaining maximum data on the several kinds of small mammals captured one or more times on these grids. Undergraduate student Mauro Alberto Ramos also assisted with the work at the Chamela site.

Cornelio joined our party again in July of 1973 and of 1974, both times at the Chamela site to help again with these studies of small mammals. Like Tony, Cornelio proved to be a willing, ingenious, and cooperative worker. He became one of the co-authors of our paper, reporting on the results of this three-year study of small mammals (*Anales Inst. Biol., Univ. Nac. Auton, Mexico, 46, Ser. Zool.* (1): 101-124, 1975).

Unfortunately, this cooperative student arrangement did not get started until my Mexican field program was near the end—as I approached retirement. My limited observations, however, indicated that cooperative field studies including both North American and Mexican students of mammalogy can be highly successful and mutually instructive. These young people surely learned from each other despite occasional difficulties in communication.

My students were most impressed with the amount of detailed biological knowledge posseseed by the UNAM students. The Mexican students were much better versed in nomenclature —for example, in their knowledge of the scientific names of an array of the flora and fauna.

Bernardo Villa and I cooperated in many other ways (Figure 4). For example, we co-authored short papers (Rev. Soc. Mex. Hist. Nat., 14: 149-150, 1953; Sob. Anales Inst. Biol., 30: 369-374, 1960). I was indeed flattered on one occasion by his hospitality. I arrived in March 1972 at the airport at the Mexican capital in order to co-chair a session at the meeting of the North American Wildlife and Natural Resources Conference to find Bernardo waiting for me with official car and driver. This was at the time when he was serving as Director of the Mexican Department of Wildlife. Maybe he was paying me back for naming a pocket gopher *Thomomys umbrinus villae*.

In 1973, wa again joined forces to organize a symposium entitled "Flora y Fauna Silvestre y su Medio Ambiente en el Continente Americano" for the CONACYT/AAAS meeting in Mexico. Our introductory remarks and eight of the papers presented were ultimately published thanks to Bernardo's perseverance (Publ. Biol., Inst. Invest. Cient., Univ. Auton, Nuevo Leon, 1(1): 88-219, 1975).

In 1974, he also came to my aid —and placed me deeper in his debt—by agreeing to present a paper entitled "Major game mammals and their habitats in the Chihuahuan Desert Region" for a session on mammals at a symposium in Alpine, Texas. His remarks subsequently appeared on pages 155-161 in the Transactions of the Symposium on the Biological Resources of the Chihuahuan Desert Region, United States and Mexico (U.S.D.I., Nat. Park Ser., Trans. and Proc. Ser., 3:1-558, 1978).

The stage was certainly set in the 1940s for a person of the stature of Bernardo Villa to enter the field of Mexican Mammalogy. In the nineteenth century there had been a flurry of preliminary collecting-and-describing of Mexico's mammals. Most notable were the late-century exploits of North Americans E. W. Nelson and E. A. Goldman, most of whose collections were actually not studied until the first decades of the twentieth century. This interest in the Mexican mammalian fauna generally declined in the early decades of this century. Meanwhile Mexican biomedical workers, for example, gained promi-



Fig. 4. Bernardo Villa and Rollin H. Baker. Photograph taken by Mary Baker at Mexico, D.F., on 15 May 1985.

nence mostly in strictly indoor, laboratory-oriented endeavors.

Then (WWII) waned and along came Bernardo Villa, as one of a new class of nature-observers on the staff of the Instituto de Biologia. He found the outdoors and its fascinating mammalian life to be as exciting a laboratory as any enclosed in a building. He learned to cope with inhospitable environments and enjoyed visiting out-of-the-way places in order of observe first hand the mammals in their natural habitats. He used traps and other field techniques to learn more about elusive rodents. He did not mind invading unsanitary caves in order to find bats. Moreover, he brought back preserved examples for his museum studies.

Besides that, he began to attract students who did not mind roughing it in the field to acquire essential data on mammalian life styles. He challenged them to investigate those secretive, nocturnal critters with bright eyes, furred ears, twitching vibrissae, and tails of different lengths. Bernardo sent some of these graduates to teach at other Mexican institutions where they could start their own environmental science programs. Others became natural resource conservationists with the emerging Mexican agencies designed to guard the republic's environment.

Yes, Bernardo Villa, a field/museum-oriented biologist, was just what Mexican mammalogy needed. He initiated his exciting program with determination, intellect, energy, class, leadership, integrity, scholarship, and a burning interest in the study of mammals. He is surely the Latin American "father" of this great movement to advance our knowledge of mammals and even of other vertebrate animals and their life habits in nature.

Not only did he appear at the right place at the right time but one of his major contributions, in my opinion, is that he has acted as a catalyst to energize a new generation of Mexican environmental biologists, who surely trace their roots to his mentorship. These then are among his greatest contributions —his legacy—to his spectacular country.

Hurray for Bernardo!