EDWARD ALPHONSO GOLDMAN: 1873–1946

BY STANLEY P. YOUNG

It has been said that "It is as natural to die as to be born, and to the little infant, perhaps one is as painful as the other. It is worthy the observance, that there is no passion in the mind of man so weak, but it makes and masters the fear of death, and therefore death is no such terrible enemy when a man hath so many attendants about him that can win the combat of him. Revenge triumphs over death, love slighteth it, honor aspireth to it, grief flieth to it, fear preoccupieth it, pity provoketh it.

"He that dies in an earnest pursuit is like one wounded in hot blood, who, for the time, scarce feels the hurt,. . . Death hath this also that it openeth the gate to good fame."

So died E. A. Goldman.

Again, it is recorded that "Circumstances play odd tricks with history. Because a general didn’t follow orders, Napoleon took the ten-count at Waterloo. As Vice-President, Teddy Roosevelt was washed up in politics, but the shooting of President McKinley booted the Big Stick into the rider’s seat. When an opera conductor in Buenos Aires got a tummy ache while a packed house waited for the curtain to rise, the frantic impresario threw in the cellist as a dummy director and discovered the greatest conductor of modern times, Toscanini.”

Because a black-bearded man rode out of Death Valley in a buckboard in 1892, a budding horticulturist blossomed into one of the country’s best naturalists.

This obituary might well be titled the “Broken Singletree” for ‘twas the requested repair of this instrument of draught that was to shape Goldman’s destiny for more than half a century. More on this later.

Edward Alphonso Goldman, the son of Jacob H. and Laura C. Goltman, was born at Mount Carroll, Illinois, on July 7, 1873. His parents of French-German extraction were former farming Pennsylvanians, who in the early eighties gave up the Mount Carroll holdings seeking greener pastures. Driving 300 head of cattle overland, the Goltman family headed for Falls city, Nebraska. Here, shortly after the Goltmans had settled, a horde of grasshoppers took over the country, resulting in the loss of practically all of the livestock from starvation. While domiciled at this point, Goldman’s father changed the spelling of his name Goltman to Goldman, because it is said “Dad was tired of trying to correct his
(Photographed about 1938)

E. A. Goldman
neighbors (on the spelling) and also on the pronunciation.” Nebraska, however, in the opinion of the elder Goldman, also had its other drawbacks similar to his experiences in Pennsylvania and Illinois, so, once again, the urge to move resulted in the Goldmans settling in Tulare County, California, in 1888, Edward Goldman then being 15 years old, and only a few years before “Broken Singletree” was to change his entire life.

Goldman, in later years, told me his interest in natural history undoubtedly stemmed from his father, who was an amateur nature student. His urge to collect was apparent while on the Nebraska ranch, for during his stay here he was using an old single-barreled muzzle-loading shotgun with good results in collecting bird and mammal specimens. Naturally, this continued after the move to California.

Duties of “boy around the ranch” kept young Goldman occupied until at the age of 17 he accepted a job as foreman in a vineyard near Fresno, California, at $56 a month, with board included. It was while here that the “Broken Singletree” entered the scene, and with it a young naturalist, Edward William Nelson (1855–1934) with whom Goldman’s name was long to be linked as the collectors par excellence in the team of Nelson and Goldman. Nelson looked upon Goldman, in later years, as a father would a son, the result of over forty years of close association. It was a deep friendship, as only such friendship between men is rarely observed. As Goldman himself put it, it was “a friendship and close association with Nelson that was to endure until the latter’s death.”

In the early 1890’s at the conclusion of the Bureau of Biological Survey’s expedition to Death Valley, California, the famous personnel comprising it—Dr. C. Hart Merriam, Dr. A. K. Fisher, Dr. T. S. Palmer, Dr. Frederick C. Coville, Frank Stephens, Basil Hicks Dutcher, Frederick Funston (later Brigadier General, U. S. A.) and Nelson, who was to become the third Chief of that Bureau—dispersed in Visalla, Tulare County. Some went on to other temporary field assignments as planned by the late C. Hart Merriam, then leader of the expedition and Chief of the Bureau. Nelson was requested to travel southward by buckboard through the San Joaquin Valley, and it was while enroute that he experienced trouble with a broken singletree. Approaching the Goldman ranch near Alila (now Earlimart), California, with a view of having the “tree” repaired Nelson struck up an acquaintance with father Jacob. It was not long until their mutual interests in natural history were discovered, and the fact that Nelson was looking for an assistant, soon caused the father to comment: “Maybe my son Ed. would do.”

“Where is he”, asked Nelson.

“In a fruit-packing plant at Fresno,” replied the father.

Not long thereafter the senior Goldman brought son Ed. from Fresno to the Goldman’s ranch for Nelson’s “size-up.” Result, Edward Alphonso Goldman, a boy of eighteen, left the Goldman’s holdings on October 10, 1891, as personal assistant to Nelson, then 36, with a salary of $30 a month plus board. Nelson paid this out of his own salary, which was then $1,800 per annum.

To this day these two budding naturalists, in their traveling outfit of a buck-
board and its mended "singletree," plus two 42-pound grizzly bear traps dangling from each side, still conjure up a comical picture in the minds of their associates, still living, who knew them so well.

The first field trip was of short duration for the two men in that it was terminated on January 4, 1892, after they had collected in the southern end of the San Joaquin Valley to within 8 miles of Tejon Pass, and onward to the head of San Emigdio Canyon, thence northward to San Luis Obispo. From the last point they went northward to the San Simeon and adjacent mountains, then southward along the coast, where they collected sea birds, to Santa Paula. Apparently, during this time Goldman was being "tried out" and proved "satisfactory."

Now follows Nelson's orders from C. Hart Merriam, authorizing him to journey into western Mexico, on what was purported to be a three month collecting assignment. Taking Goldman with him, Nelson sailed on the steamer "Acapulco", from San Pedro for Manzanillo, Colima, where they landed on January 24, 1892. From the time of sailing until March 1, 1892, Goldman was without salary, receiving only his board for the additional "field experience." On March 1, 1892, Goldman through Nelson's appeals to Merriam had his first Federal appointment, temporary field assistant with the magnificent salary of $75 a month, plus "you pay your own expenses." And what was to be a three month stay in Mexico turned out to be four years, when Goldman was "permitted to come home." In the interim Goldman received new appointments which made his official status more satisfactory and secure with an occasional raise in the way of promotions for excellent field work. All in all, more than fourteen years were spent by him in the southern sister republic. His journeys when mapped completely spider-web Mexico, and with the exception of northern Coahuila, he and Nelson together, or Goldman on his own, traveled, collected, and studied Mexican fauna in every nook and cranny of Mexico. They visited every State and territory in Mexico, and in some instances had crossed and recrossed them several times. Their combined mammal collection from October 10, 1891, until Nelson's death in 1934, totaled 22,756 specimens, and since that time Goldman added another 1,268. His last specimen was collected on April 4, 1946, a pocket gopher from Florida.

From the time of Goldman's official appointment on March 1, 1892, as assistant field agent, he continued to carry on biological investigations in the field service which were interrupted by other assignments as the occasion demanded. These took him over nearly all parts of the United States, where his opinions were eagerly sought in the field of game management, particularly on the deer problems of the various States. During the construction of the Panama Canal he worked on a faunal survey, which covered the Isthmus, a joint work sponsored by the Smithsonian Institution, and the War and Agriculture departments. Results of this work were published under the title "Mammals of Panama," by the Smithsonian Institution in 1920. For six years he was in charge of the Survey's Division of Biological Investigations, and for three years in charge of the Big Game and Bird Reservations. One and one-half years were spent as sanitary officer with the rank of Major, in charge of rodent control work with the American
Expeditionary Forces in France during World War I. Following the close of the war he became Major, Sanitary Reserve Corps, of the Medical Department of the U. S. Army, 1922–1937.

In order that Goldman could devote all of his time to scientific research and writings, he was relieved of all administrative work by the Biological Survey on
May 22, 1928, and from that time until his retirement in December, 1944 (when he was appointed Associate in Zoology, on the staff of the Smithsonian Institution and continued as a collaborator in the Section of Biological Surveys, U. S. Fish and Wildlife Service), his efforts were exceedingly fruitful and productive. Even after retirement he devoted all spare time possible working on his "Mammals of

PLATE 2

Goldman loved his fishing—scene is a baby tarpon taken near Marco Island, Florida, April 2, 1940.
PLATE 3

UPPER: Goldman in his favorite field, revising a group of mammals, pocket gophers of the genus *Thomomys*. May 1940.

LOWER: Exchange of ratifications of a treaty between the United States and Mexico, for the protection of migratory birds and game mammals (in Washington, D. C., March 15, 1937). Seated, *left to right*:—Dr. Don Francisco Castillo Najera, Ambassador to the United States from Mexico; Cordell Hull, Secretary of State; Henry A. Wallace, Secretary of Agriculture. Standing, *in center*:—Major E. A. Goldman, of the Bureau of Biological Survey, who assisted in the technical phases of the negotiations for the treaty.
Mexico” until the eventful afternoon he was stricken. In fact as he closed his desk on that afternoon of August 30, when a symptom of thrombosis was making its appearance Goldman had nearly completed his description of a new Mexican mouse, found in the Nelson-Goldman collection as he carried on with the Mexican mammals.

Kindly, patient, he was always willing to drop the most exacting research to aid any associate or young naturalist who might contact him, all of which unselfishness often mitigated against his written production. One of Goldman’s greatest assets was his ability to get along with everybody, never ruffled and seldom irritated. Goldman will remain as one of the outstanding mammalogists of the 20th Century. His name is indelibly inscribed in connection with Middle and North American mammalogy with a goodly sprinkle of ornithology and botany thrown in as he pursued his life’s avocation.

His expertness in ornithology was recognized when he received the assignment to journey to Mexico City to assist in handling the technical phases in the negotiations with respect to the convention between the United States and Mexico for the protection of migratory birds and game mammals. This treaty was concluded on February 7, 1936, in the City of Mexico. As a result of Goldman’s untiring efforts in behalf of the treaty, and following its final adoption, the United States Embassy at Mexico City officially stated to Cordell Hull, then Secretary of State, the following:

“I have the honor to inform the Department that Major E. A. Goldman, Senior Biologist, United States Biological Survey, rendered invaluable assistance in connection with signing of the Convention for the Preservation of Migratory Birds and Game Mammals. Major Goldman was recognized by the Mexicans, with whom the negotiations were conducted, as an authority on Mexican fauna and as one who was more familiar with this subject than were the Mexicans themselves. His interest and cooperation were particularly useful in connection with technical matters relating to the convention. It is respectfully suggested that the Department of Agriculture be informed of the Embassy’s appreciation of the help rendered by Major Goldman throughout the negotiations.”

During the long sojourn in Mexico, mainly during the regime of Porforio Diaz, the natives of that republic in its wilder sections were probably less law-abiding than at the present time. Consequently, both Goldman and Nelson were subjected to many hazardous experiences that often brought close contacts with bodily injuries, holdups, or brushes with the Grim Reaper, at the hand of prowling bandits. I often felt that following official retirement Goldman intended to publish a popular book descriptive of the Diaz regime as only he knew it. In this I believe he planned full accounts of his and Nelson’s turbulent escapades at the hands of Mexican banditry during a time “when everybody carried a six-shooter on his hip by day and kept it under his pillow at night.” There is no doubt he could have written a book dealing solely with hair-raising field experiences.

Several stories among many that Goldman told me in the course of our work on the manuscripts of “The Wolves of North America” and “The Puma, Mysterious American Cat,” were narrated as follows:
One day twenty Indians, who thought Goldman was a government engineer
surveying public lands used by the Indian communities, took after him in an
earnest desire to perforate him with lead, believing that he intended to take
their lands away from them. Some had pistols and others machetes and an un-
passioned urge to lop off his head. For 10 hours he stood in the inner room of
an adobe hut waiting to fight off the murder-bent natives. The Mexican who
owned the hut convinced the Indians that Goldman was not inside. Under cover
of a merciful starless night Goldman slipped through the line of sentries waiting
for the ‘government engineer’ to return.

Another time he was arrested, thrown into a filthy jail following the shooting
of a bird on Sunday near the town limits of a small Mexican hamlet. There he
was confined until frantic appeals were finally relayed on to Nelson, momentarily
held up in an adjacent Mexican town, who hastened pell-mell to Goldman’s
rescue with their American credentials, which Nelson carried. These were used
to convince the Major Domo of the hamlet just what Goldman’s occupation
was. Even all this took additional prolonged entreaties from Nelson before
Goldman was turned loose. When it was finally all settled the Major Domo,
realizing the international faux pas he had committed, could not do enough for
two naturalists, such as inviting them to his spacious apartments with all the
trimmings (incidentally built over the jail where Goldman had been confined),
but both refused with thanks and continued on their way collecting specimens,
and ready for whatever might again come their way.

Near Toluca, late one evening as Goldman was returning from field work, he
noticed three men with serapes wrapped tightly about them, approaching toward
him along a narrow pathway. The men exchanged greetings with Goldman,
but just as they were passing, one of them pulled his hand from beneath his
serape and struck Goldman above the temple with a stone he had been concealing.
The blow knocked him unconscious, and he was left for dead, but not until
these renegades robbed him of all his possessions, including a bag of traps, alti-
meter, and shotgun. However, in a short time Goldman recovered sufficiently
to stagger into town for help which was given to him. Later his belongings
were recovered, following the rounding up of a gang of thieves in the immediate
surroundings, and given back to him. The scar of that foul blow was carried
on Goldman’s left temple the rest of his life.

Educationally, Goldman was very much self-made. He was of the type often
referred to and flippantly so, by some, as from the school of “range-raised
naturalists and biologists.” If what he accomplished in more than a half
century’s work in the field of conservation, zoology and natural history is any
criteria, then the more we have of “range-raised naturalists” the better will be
the great out-of-doors of these United States and its wildlife heritage in the future
to come.

Grammer and high schools completed, Goldman’s additional training came
mainly in the “University of Hard Knocks” as the years passed by, during which
interim he took several courses that fitted his particular calling.

From my long association with Goldman, I came to learn (and his immediate
family concurs with me) that though his expertness in his field came by long nerve exacting work, he had chosen his life's motto from the thoughts expressed in the words of Rudyard Kipling's "If", concerning which that eminent Englishman wrote:

If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
But make allowance for their doubting, too;
If you can wait, and not be tired by waiting,
Or being lied about, don't deal in lies,
Or being hated, don't give way to hating,
And yet don't look too good, or talk too wise;

If you can dream, and not make dreams your master;
If you can think—and not make thoughts your aim,
If you can meet with Triumph and Disaster
And treat these two imposters just the same;
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you've given your life to, broken
And stoop and build 'em up with worn-out tools;

If you can make one heap of all your winnings
And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings
And never breathe a word about your loss;
If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the will which says to them, "Hold on!"

If you can talk with crowds and keep your virtue,
Or walk with Kings—nor lose the common touch,
If neither foes nor loving friends can hurt you,
If all men count with you, but none too much;
If you can fill the unforgiving minute
With sixty seconds' worth of distance run,
Yours is the Earth and everything that's in it,
And—what is more—you'll be a Man, my son!

His command of Spanish was almost perfect. Having mastered the rudiments of this language during his many years of work in Mexico, he later took courses in the subject so as to improve his mastery of it, particularly in the way the Castilians speak it. Thus, he was able to write and speak Spanish fluently. True was this also with respect to English. As opportunity and finances permitted, Goldman took special courses in rhetoric, proofreading, and the writing of manuscripts. His old personal files show his gradings in these subjects on the part of his professors as being almost one hundred percent. He had the art of using words that gave their greatest meaning in sentence construction and expressiveness. He was an inveterate reader, always seeking to better his technique. Few were ever so methodical.
Goldman also took up a deep study of photography, resulting in his becoming one of the best outdoor photographers in the old Biological Survey, and its successor, the present Fish and Wildlife Service. Few know that at one time in early manhood Goldman had seriously considered the study of medicine. Whether his early associations with Dr. A. K. Fisher, Dr. C. Hart Merriam, or Dr. T. S. Palmer had a bearing on this I was never able to ascertain.

Among his immediate associates Goldman was often referred to as the real “Noah” of the old Bureau of Biological Survey, because of the large number of mammals, birds, plants, reptiles and mollusks named for him, totaling something more than fifty. Briefly among the mammals given his name are a coyote, two pocket gophers, shrew, jaguar, flying squirrel, two pocket mice, a rabbit, ground squirrel, cotton rat, weasel, two wood rats, a rice rat, tree squirrel, white-footed mouse, and a harvest mouse. There are also a genus of wood rat and one of hummingbirds. Also a subspecies of trogon; and a species each of song sparrow yellowthroat, warbler, whippoorwill, shrike, vireo, ovenbird and motmot; a rattlesnake, a turtle, and a frog; and a univalve mollusk (Bostricho centrum goldmani) collected near Oaxaca, Mexico. Even the field of geography may be included pursuant to the name of Goldman Peak (5,000 feet) in Baja California, as a result of the Nelson-Goldman Expedition 1905-1906 that covered most of that peninsula. The results of this expedition were published by Nelson as a National Academy of Sciences memoir “Lower California and its Resources” in 1921. This will always remain a classic description of this Mexican State.

During his lifetime Goldman described well over 300 forms of mammals, most of them subspecies. At the time of the annual meeting of the American Society of Mammalogists in Chicago in June 1941, Wilfred H. Osgood as master of ceremonies concerned with the annual banquet frolics submitted the following question among others (to test the assembled members’ knowledge of mammalogy): Who now living has described more forms than anyone else? The answer was Edward A. Goldman!

Goldman was a strong believer in evolution. His philosophy, as exemplified in the great number of mammals he described, is that any amount of constant variation in a geographic population, no matter how small, is incipient evolution and as such should be recognized. He relied mainly upon the standards of personal judgment when validating his descriptions. The recent developments of taxonomy in the fields of genetics and statistical analysis may show an ephemeral character to some of Goldman’s described forms. However, such careful analysis will undoubtedly corroborate some of his findings and prove that accurate observations and seasoned personal judgment generally run parallel to the most complicated impersonal analysis.

At various times when fraternizing with mammalogists I have often heard it stated by many of them that if the opposite sex whom our various mammalogists had inveigled into marriage could be “Gallup polled” on the question: “Would you again marry a mammalogist?”, the answer would overwhelmingly be “No”! What probably would cause the negative vote is that ever incessant urge on the part of the male member of such a calling “to be in the field”, “collecting”,
more collecting; "just one more specimen to round out a series."! All of which means much sacrifice of home life against milady's wishes. Goldman did his share, but the understanding Mrs. Goldman was a good soldier in this respect, and that "means everything to a man who scurries to all corners of a continent on a moment's notice."

Goldman, while attending a dancing party near Washington, D.C., in 1901, met, wooed and married Emma May Chase the following year. Throughout the happy years that followed, this union was blessed by a family of three stalwart sons, Nelson, Orville, and Luther, and a grandson Edward Luther Goldman. Of these Luther, a first Lieutenant in World War II, and employed in civilian life as a Refuge Manager by the Fish and Wildlife Service, is following in his father's footsteps, probably more in the field of ornithology at present than mammalogy. Other than his immediate family, Goldman has two living brothers, George and Luther, both of California.

His demise came suddenly. Returning to his office on the afternoon of August 30 from a visit to his beloved four-acre holdings at Shady Side, Maryland, where he and Mrs. Goldman and friends had spent so many pleasant times the past several years, he worked on his Mexican mammals. Post diagnosis showed that near 4 p.m. of that day symptoms of a thrombosis made its appearance. He, apparently ignorant of the symptom, journeyed home by bus, following which a doctor was called. He was put to bed, spent a restless following day, but the next day he improved, so much so, that one of his sons, Orville, and wife stayed with him until nearly midnight, talking over items of mutual interest. Common topic was what he intended to do when on his feet once again. But this was never to be, for at 5 a.m., on September 2, 1946, Goldman's end came suddenly and without suffering or pain.

His passing was a shock to all of his immediate friends, for physically, other than a developing slight deafness, he looked the picture of health. A common jocular remark often made to him by his acquaintances and fellow associates was to the effect he would "live to be 100".

Funeral services were conducted by the Masonic Order, to which Goldman belonged, in cooperation with the U. S. Army. Burial, with full military honors took place in Arlington National Cemetery on Friday, September 6, 1946.

(Goldman's published works, covering a span of 44 years (1902-1946) include a total of 206 titles. Among these in the press at the time of his death were "The Puma, Mysterious American Cat," in joint authorship with me; The Pocket Gophers, Genus Thomomys, of Arizona," which will be North American Fauna No. 59; and "A New Cotton Rat," in co-authorship with Marshall C. Gardner.

Goldman belonged to the American Association for the Advancement of Science (fellow), Washington Academy of Sciences, Biological Society of Washington (past president), American Ornithologists' Union, Cosmos Club, Explorers Club of New York, Cooper Ornithological Club, The American Society of Mammalogists (president of which he became in April 1946), the Baird Club (of which he was vice-president), and the Washington Biologists Field Club.
There are two ways to learn about the character of a man. First, camp in
the field with him. Second, sit daily across a desk from him for a number
of years. Either one or both might be called the great determinator in a man's
appraisal of a man. It was my good fortune to have done both of these with
Goldman. Never, did I find him wanting. His understanding, generosity,
almost God-like even temperament probably accounts more than anything else
for the fact that he never had, to the personal knowledge of his associates, one
single personal enemy. He has left a host of sorrying friends.

Following is a list of Goldman's publications.

SCIENTIFIC PUBLICATIONS OF EDWARD A. GOLDMAN
   March 21, 1904.
   2, 1905.
4. The green-winged teal (Nettione carolinense) breeding in California. The Condor, 10
   (3): 129. May-June, 1908.
   1908.
   March 10, 1909. [E. W. Nelson and E. A. Goldman.]
   139-142. June 25, 1909.
   1911. [J. N. Rose and E. A. Goldman.]
    375. June 8, 1911. [Paul C. Standley and E. A. Goldman.]
11. Revision of the spiny pocket mice (Genera Heteromys and Liomys). North American
    237-240. Nov. 28, 1911.
    1911.
15. Descriptions of twelve new species and subspecies of mammals from Panama. Smiths.
    1912.
    Sept. 20, 1912.
    Dec. 24, 1912.
20. Descriptions of new mammals from Panama and Mexico. Smiths. Misc. Coll., 60 (22)
    22, 1913.


37. The rice rats of North America (Genus *Oryzomys*). North Amer. Fauna, 43: 1-100, pls. 1-6, figs. 11. Sept. 23, 1918.


44. Cutting our $200,000,000 rat bill. The Quartermaster Review, Jan.-Feb. 1922: 27-34, figs.


One of the biologists I soon met when I first came to Washington to work in the United States Biological Survey, February 16, 1910, was Edward A. Goldman. It was Goldman who that first morning escorted me from the old red brick "Entomology Building" of the Department of Agriculture, across the Mall, through a locked gate in an eight-foot construction guard-fence, into the back entrance of the just-completed new National Museum, past the watchmen, and introduced me to the Biological Survey mammal collection and workers thereon, such as Arthur H. Howell, Clarence Birdseye, Daniel D. Streeter, and others. I had already met some of the old-timers previous to my coming to Washington, and others such as C. Hart Merriam, E. W. Nelson, Vernon Bailey, David Lantz, Ned Dearborn, Wells W. Cooke, Harry C. Oberholser, F. E. L. Beale, that morning at the main office. Goldman and I soon entered a friendship that gripped firmer each year of the 36-odd it lasted. We chatted and argued on all sorts of biological, sociological, and administrative subjects. We often differed in opinions, but our differences cemented our respect for each other, and our friendship. For many years we went to lunch together, usually accompanied by Barton W. Evermann and Harry C. Oberholser, to a little grab-as-you-can restaurant on 11th Street, where the proprietor was so honest he expected his customers to be equally so, and allowed them to state to the cashier the price of the meal, and then pay. Possibly the owner gained by this, because I know that Goldman, as well as myself and the others with us, often in doubt as to the amount, gave the proprietor the benefit to the extent of a nickel or a dime.

With the exception of E. W. Nelson, I probably have spent as much time in official field work with Goldman as any other biologist, a considerable amount of which was in Arizona in 1915 and 1916, and more recently in Florida, Maryland, and Virginia. Although not so experienced in mammal field work at the time of the Arizona project as my companion, I nevertheless had made several successful field trips for the Biological Survey, as well as several for other institutions and myself before I came to the Bureau and was not exactly a novice at it. I was, therefore, often amused at the extent Goldman would go to explain the minutest details of trapping and preparing specimens, or even of camp cooking (the doing of which he actually disliked), so intent was he on having his ideas, usually excellent, properly instilled in other Survey personnel. He was a firm believer in setting many traps to insure a representative catch, and as a rule worked on a