

RIANNA M. WILLIAMS

## Annie Montague Alexander: Explorer, Naturalist, Philanthropist

KAMA'AINA ANNIE MONTAGUE ALEXANDER was a well-known and respected naturalist and explorer in several western states and a philanthropic leader in the development of two natural history museums at the University of California, Berkeley campus. She traveled the world for pleasure, knowledge, and the opportunity to collect natural history specimens that interested her. Over a period of forty-six years, she contributed approximately a million and a half dollars toward the support and endowment of the university's Museum of Vertebrate Zoology and the Museum of Paleontology, contributing immeasurably to the teaching and research facilities of the University.<sup>1</sup>

### CHILDHOOD

Annie was the oldest daughter of Samuel Thomas Alexander and Martha Cooke Alexander of Maui. Samuel was the son of the Reverend William Patterson Alexander and Mary Ann McKinney Alexander, who arrived in Hawai'i in 1832 in the Fifth Company of American Board of Commissioners for Foreign Missions. Samuel was born October 29, 1836, in a grass hut at Wai'oli in Hanalei, Kaua'i. When Samuel was seven his father was transferred to Maui, where he became the headmaster of Lahainaluna School and later manager of

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'Ulupalakua Ranch. It was at Lahaina, while young children, that Samuel and Henry Perrine Baldwin, son of the Reverend Dwight Baldwin, became friends; they later became business partners and brothers-in-law as well. They pioneered in the raising of sugar cane on Maui, founding Alexander & Baldwin, Inc., whose holdings today include Matson Navigation Company, Inc., and Hawaiian Commercial & Sugar Company.

Annie Alexander's eventual interest in natural history was due in part to her childhood experiences. The second of five children, born in the Old Frame House (the original missionary building) in Honolulu on December 29, 1867, she grew up in the country atmosphere of Ha'ikū, Maui. Much of her family life centered on the outdoors: raising chickens, tending the family garden (sometimes taking the produce to be sold in the store of her uncle, Charles Dickey), picnicking, hiking, and swimming.<sup>2</sup> An early story tells of Alexander's knack for business. Henry Perrine Baldwin, her father's business partner and her uncle (having married her father's sister, Emily Alexander), offered to pay her 25 cents for each avocado seedling she could obtain. Entering into the challenge with her usual gusto, she soon presented her uncle with an oxcart full of seedlings, each in its own tin can, along with a bill for \$75, a vast sum of money at that time.

Alexander was perhaps a bit of a tomboy, having a penchant for things such as entering her bedroom through the window by way of climbing onto the roof. She and her father were both carefree, energetic, adventuresome people who loved the outdoors. These attributes later made her a tireless and daring explorer and a compulsive collector. She had no qualms about treading where others had not, nor about the rough and dirty life of digging in caves or pits, nor living for weeks on end in a tent in deserts and mountains in all kinds of weather.

Alexander was educated at home by a governess until age fourteen, when she attended Punahou School in Honolulu for one year. In 1882, at fifteen, she moved with her family to Oakland, California, father Samuel citing health reasons for the move. After four years in public schools in Oakland, Alexander was enrolled at La Salle Seminary in Auburndale, Massachusetts. When the family visited Europe two years later, Annie stayed on to study painting in Paris. She devel-



FIG. 1. Martha Cooke Alexander and Samuel T. Alexander with their children: Martha, on her mother's lap, Wallace, Juliette, and Annie on the far right. (Alexander & Baldwin, Inc.)

oped severe headaches after long hours at the easel and was warned of the possibility of blindness. She returned to Oakland and took up nursing, but the headaches returned. In 1893 Annie, her father, and her sister Martha took a sixteen-hundred-mile bicycle tour of England, France, and Spain.

In 1896 Alexander, her father, her uncle James Alexander, and a friend visited the Marquesas, Samoa, New Zealand, Java, Singapore, Hong Kong, China, and Japan. In 1899 she and Martha Beckwith<sup>3</sup>

camped and explored in Oregon and California, photographing, collecting flowers, and studying birds. In 1900, Alexander and her father traveled to Bermuda and the West Indies.

#### EARLY FIELD TRIPS

Alexander started attending lectures at the University of California in 1900, becoming particularly interested in lectures on paleontology given by Dr. John C. Merriam. That summer she organized her first paleontological field trip, to the Fossil Lake region of Oregon. The next two summers were also spent fossil hunting in northern California and Oregon. She apparently had an independent income as she personally financed these and many future expeditions.<sup>4</sup>

The next summer was spent exploring Shasta County, California, on an expedition led by Vance C. Osmont, an assistant professor of mineralogy at the University of California. They were joined by several others, including her instructor, Dr. Merriam. It was on this trip that Annie began to gain her reputation for discovery, delving into obscure places on the assumption that because they were obscure no one else had bothered to investigate. She made the "find" of the trip: three saurians, or fossil lizards,<sup>5</sup> related to the ancient ancestors of lizards.

Alexander then financed<sup>6</sup> and led an expedition into the black limestone region of Shasta County, where she made her first discovery of something new to the scientific world, a reptile from the upper Triassic (225 million years ago to 190 million years ago), an era characterized by the appearance of many reptiles, including dinosaurs. The newfound reptile was later named *Thalattosaurus alexandre* in her honor by Merriam.<sup>7</sup>

She then became interested in wild animal skulls and within a short time amassed the skulls of forty different species, mostly carnivores. Around this time, she was quoted as saying, "Why not take risks now and then? It adds to the zest of life."<sup>8</sup>

#### AFRICAN ADVENTURE

In 1904 Alexander and her father, along with his boyhood friend, the Reverend Thomas L. Gulick, took a long-planned three-month

hunting trip to Africa. Like Samuel Alexander, Gulick was the son of a missionary, the Reverend Peter J. Gulick. Thomas's brother, John T. Gulick, devoted his life to the study of Hawaiian land snails.<sup>9</sup> Unfortunately, Gulick became ill part-way through the trip and died in Africa a short time later.

Alexander's baggage included a rifle and three cameras, probably her most precious possessions. She and her father covered nearly eight hundred miles on foot, all the time exploring, hunting game, and collecting skulls and horns of several kinds of African antelopes. Samuel Alexander wrote home of his pride in Annie's prowess with a gun:

If Annie had my chance she would have gotten her lion share, as she has developed into a very fine shot. She can put a ball through an animals neck at 100 yards most every time. In fact on this trip she brought from 200 to 400 lbs. of meat into camp every day.<sup>10</sup>

Father and daughter visited Mombasa, Mozambique, Rhodesia, and Victoria Falls on the Zambezi River, where their adventure ended tragically. On their second day at the falls, they worked their way down a trail to the river's edge for Annie to take photographs. Knowing excavations were taking place for the building of the Zambezi Railway Bridge, they moved to what they must have felt was a safe area. They followed a trail into a ravine in order to view the falls from below.

Small rocks began to fall down the 350-foot precipice. They turned and ran, Annie reaching safety first and setting up her camera. While Samuel stood just a few feet from her, a large boulder fell, striking a rock, veering and hitting Samuel on his left foot, disabling him. He was transported, in agony and with much loss of blood, to a doctor's house six miles away where his leg was amputated. He died the next morning, September 10, 1904, at the age of sixty-seven, Annie having sat by his side during the operation and throughout the night. Annie buried her beloved father in a small cemetery at Livingstone, Zambia.<sup>11</sup>

Beyond this tragedy the trip was a remarkable adventure. Alexander took more than two hundred photographs, which she developed in the field. The *San Francisco Chronicle* of September 3, 1905,

gave a detailed account of the expedition and published a number of the photographs. The article stated, "Miss Alexander's eagerness to undertake this exciting trip led to the securing of the finest, most complete big game photographs that ever came out of Africa." An album of these photographs and some of her and her father's letters are on file at the University of California.<sup>12</sup>

#### ANNIE'S MUSEUM

Alexander was next heard of six months later on a paleontology expedition in the Humboldt Range of Nevada. The first three weeks were spent shivering in wind, thundershowers, and sleet storms, all forgotten after twenty-five specimens of fossil material were found.

In the fall of 1905, Alexander met C. Hart Merriam, cousin of her mentor, John C. Merriam, and chief of the United States Biological Survey.<sup>13</sup> His special interest was Alaskan grizzly bears. In 1906 Alexander and friend Edna Wemple set out for the Kenai Peninsula in Alaska. This trip was repeated during the next two summers. The outcome was, according to Merriam, the largest and most important collection, after that of the United States Biological Survey, of bears in existence at that time.<sup>14</sup>

It was during this period that Alexander met Joseph Grinnell, a young Pasadena, California, naturalist who had also done field work in Alaska. His research museum consisted of a small parlor in his home,<sup>15</sup> but Alexander was impressed with his enthusiasm and his precise, scholarly records. He told her of the need for a natural history museum on the west coast, with an emphasis on California fauna, possibly to be housed at Stanford University. She insisted that any such museum must be housed at the University of California, where she had attended her first lectures on paleontology.

The cost of the Museum of Vertebrate Zoology, built in 1908, was covered predominantly by Alexander. She insisted that she and Joseph Grinnell would have complete control of the museum and its employees. She wanted the staff scientists to be young, "men with their accomplishments ahead of, rather than behind them."<sup>16</sup> Grinnell chose the name, the Museum of Vertebrate Zoology, and at Alexander's desire, became the director. She gave generously to the museum all of her life, including \$200,000 in 1919 as a perpetual



FIG. 2. Annie Montague Alexander on a 1923 expedition to see a newly discovered cave at Lombriver, France. (Alexander & Baldwin, Inc.)

endowment and a \$225,000 endowment in 1936. She also made sure that funds were always available for travel and field trips for staff members and for the purchase of equipment or specimens. The museum moved into the university's new Life Sciences Building in 1930, allowing more exhibit, study, and research space.

Alexander also had a lifelong interest in finance. On rainy winter days, she loved to follow stock market reports and once wrote:

I have to confess that a great deal of my spare time is spent in pouring over Barron's Financial Weekly instead of uplifting literature. There is something that captivates one's imagination in the big propositions that are being undertaken these days and in the struggle for mastery, as in the case of Standard Oil of Indiana, Stewart against Rockefeller—an era of expansion—everyone is caught in the whirl of it.<sup>17</sup>

When a wealthy Island friend tried to talk her into an investment promising large returns, however, Alexander took him to the museum, pointed to a group of students, and said "Here are my investments."<sup>18</sup>

Alexander had several motives in founding a museum: she saw the rapidity with which birds and mammals of the west were disappearing; she became aware of the need for skeletons of present-day vertebrates for use in tracing fossil relationships; and she hoped to stimulate interest in the natural history of the west. Long letters between Alexander and Grinnell, preserved in the museum's archives, contain discussions of museum policies, personnel, salaries, expenses, field work, and exhibits, all a priceless record of the care taken to insure the museum's standards and usefulness.

In 1909 Alexander and the university shared the cost of founding and funding the Department of Paleontology. (This department, along with parts of the Departments of Botany and Zoology were merged in 1989, forming a new Department of Integrative Biology.)<sup>19</sup> In 1921 she established the university's Museum of Paleontology, endowing it in 1948 with scholarships. Around this time she also helped finance the University Herbarium.

#### CATTLE BREEDING AND OTHER INTERESTS

In 1911 Alexander and Louise Kellogg, her friend and co-worker since 1908, bought a 440-acre farm on Grizzly Island in Suisin Bay, outside of San Francisco, in order to raise prize-winning cattle. The two women made a significant contribution toward improving California's dairy cattle by purchasing a foundation herd of "Milking Shorthorns," acquired from breeders on the East coast and in England.<sup>20</sup> Finding that the keeping of a dairy herd confined them too closely to the farm, they first leased and then sold the herd. They continued their interest in cattle breeding, however, and often acted as judges at cattle fairs. There is a story that at the age of eighty, because of her experience, Alexander was asked by a nephew to select and purchase blooded stock for his cattle ranch in Hawai'i.<sup>21</sup> Alexander and Kellogg eventually changed from raising cattle to raising asparagus, a spring crop, in order to be able to spend winters in Hawai'i or in the desert.



## HAWAI'I VISITS

Alexander, often with Kellogg, made almost yearly visits to both Maui and O'ahu, where she kept a beach house in Kāhala. The Islands always had a strong hold, but Alexander apparently felt she would only be comfortable living in the Islands if she had the conventional husband and children—probably not a possibility for someone with her wanderlust. At one time, she wrote:

I have been staying at the beach with my sister and the family since coming here. The booming of the surf is constantly in our ears. Through a fringe of coco palms we can watch the waves crashing on the reef. The balmy air and tropical foliage make this a different world from California. In spite of all the years I have lived there I still feel an alien and that this is my rightful home! Perhaps this is not to be wondered at when so many of my kin and childhood friends live here.<sup>22</sup>

Alexander and Kellogg remained companions until death, complementing each other in various ways. Louise had a B.A. in Latin from the University of California and was a schoolteacher in Oakland. She was thirteen years younger than Alexander, but with a similar background. She was also close to her father, often accompanying him on hunting trips in California, loved the outdoors, and was a dead shot. But where Alexander was precise and business-like in her note keeping, Kellogg would include tidbits about an encounter with a porcupine and a tale of her adopted goslings enjoying a feast of mosquitoes and cornmeal while sitting on top of an owl one of the camp members was skinning.

On a visit to Hawai'i in 1919, Alexander spent several days alone on the three-acre, ten-foot-elevation Popoi'a islet, commonly called Flat Island, off Kailua Beach Park, O'ahu, home to many birds and rats, the latter dispassionately trapped by the indomitable Alexander. One result of Alexander and Kellogg's regular Island visits was the collection of 150 species of shells for the Department of Paleontology. The next year, Alexander wrote to Mrs. Joseph Grinnell about the beauties of the Hawaiian sea and sand and wondered why she did not retire there. She answered her own question by adding, "Perhaps I shall when I can't climb mountains anymore."<sup>23</sup> She might have

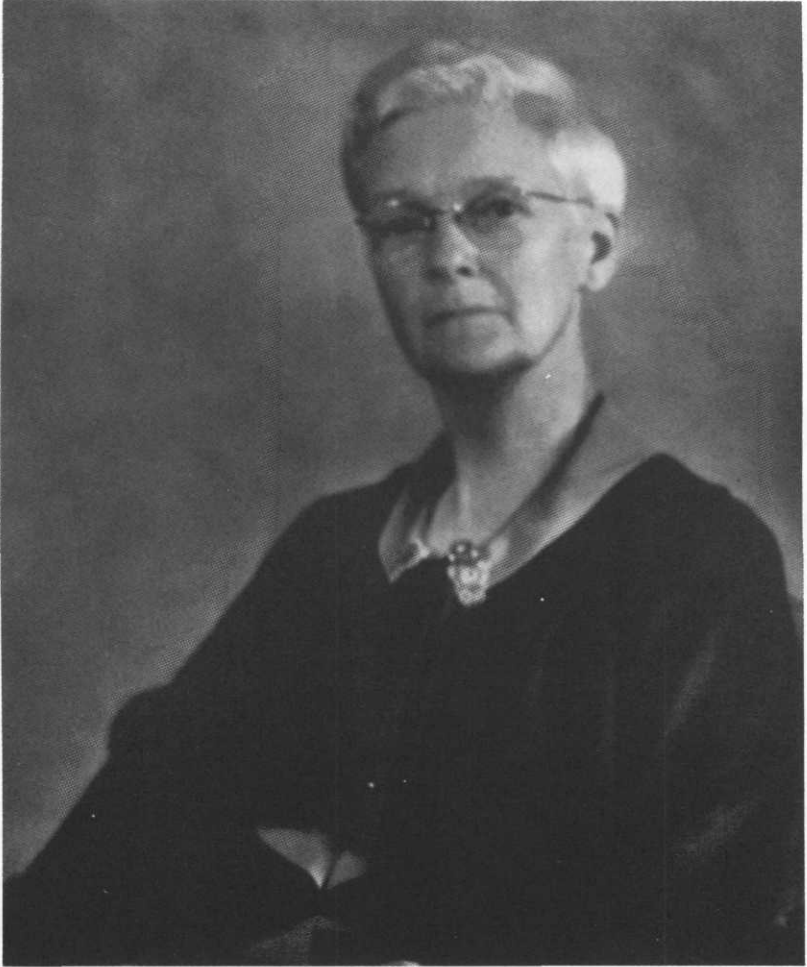


FIG. 3. Annie M. Alexander in a portrait published in Hilda W. Grinnell's *Annie Montague Alexander* (Grinnell Naturalists Society, 1958).

added "or camp outdoors, explore deserts and lakebeds, and dig for fossils."

#### MORE COLLECTIONS

Alexander continued her collecting trips, visiting Vancouver Island, California, Hawai'i, Colorado, Arizona, Utah, New Mexico, Texas, and Baja California. In 1922 she and Kellogg made important discov-

eries of camel, horse, and deer remains in the Mohave Desert of California, often digging with jackknives and chisels. On a trip to Utah in 1929, they collected 177 mammal specimens, four birds, and one amphibian. According to Joseph Grinnell's report, three species were new to the museum's collections and two were probably new to science. On the same trip, they collected eight specimens of the Colorado wood rat and one of the Arizona striped skunk, the first recorded findings of these species in Utah.

Combining their travel and scientific interests, the two women visited England, France, Italy, and Egypt in 1924, after which Alexander presented "her" museum with a valuable collection of birds, mammals, reptiles, and amphibians purchased in Palestine and Egypt. This was followed by more expeditions in California and Nevada, often the two women alone, collecting camel and bear jaws, mammal bones, small animal skulls, and freshwater fish fossils from an old lake bed. Around this time they also began serious botanical collecting.

#### THE SIXTIES: AN APPROPRIATE AGE FOR FIELD WORK

Alexander and Kellogg spent the Fourth of July of 1931 in Nevada, eating kangaroo rat, which they decided was as good as chicken, catching two rattlesnakes, "putting chains on [the car tires] at the mouth of the canyon, climbing a grade and crossing several gullies without much trouble in spite of the sand."<sup>24</sup> She was sixty-four years old at the time, and the following year she wrote to Joseph Grinnell: "I consider the sixties a very appropriate period in one's life to do field work—an out-of-doors quest that always will have a certain charm and excitement about it."<sup>25</sup> Christmas day that year was spent in Palm Springs, hiking six and a half miles to Palm Canyon to identify birds and put out traps.

February of 1936 Alexander and Kellogg spent exploring Death Valley for gophers, crawling under barbed wire fences, setting traps at night in the cold rain, and tramping over lava beds. The latter months of 1936 found them exploring desert mountains in eastern California. Although the weather was dreadfully cold, they camped in tents, stuffing their camp stove with wood they took from deserted cabins. They found their specimens were frozen solid inside traps frozen to the ground and had to be pried loose with screwdrivers.

These were inconsequential nuisances; it was results that counted. Alexander once wrote:

People naturally count it among their blessings to have a roof over their heads at night; but how oppressive this roof seems to you, and the four walls of your room after a month or two in the open!<sup>26</sup>

In 1937 Alexander and her nephew, Jack Waterhouse, spent the summer in Tahiti and the Society Islands. In 1947 she and Jack visited South America.

#### LATER YEARS

Alexander's last extended trip was in the winter of 1947-48 to Baja California, when she and Kellogg and an associate spent three months collecting more than forty-six hundred botanical specimens, some of them new to science.<sup>27</sup> She celebrated her eightieth birthday on the trip doing what she loved to do, camping among oak and pine trees in the remote Sierra de la Laguna mountain range, enjoying the great outdoors. Just a few years earlier, in 1942, B. P. Bole, Jr., of the Cleveland Museum of Natural History, wrote a friend that "Miss Annie M. Alexander and Miss Kellogg are certainly charming old ladies, and mighty robust ones, too, I might add."<sup>28</sup>

#### BURIAL ON MAUI

After spring and summer field trips in 1949, Alexander planned to leave in the fall for her usual winter trip to Hawai'i. Before she could leave for the Islands, she had a stroke and remained in a coma until she died, on September 10, 1950, at the age of eighty-two. Her ashes were buried in Makawao Cemetery, Maui, overlooking her beloved childhood home in Ha'ikū. Her simple headstone reads "Annie M. Alexander Dec. 29 1867 Sept. 10 1950."

Although frail in appearance,<sup>29</sup> Alexander had an unflinching zest for life and a dedication to enhancing humanity's knowledge of the natural sciences until the very end.

## THE BERKELEY CONTRIBUTION

Annie Alexander is considered one of the “builders of Berkeley,”<sup>30</sup> having long been recognized at the University of California as a leader in the growth of the natural sciences departments of the school. Her contributions were recognized by zoologists and botanists, who named two mammals, two birds, six fossils, and two plants after her,<sup>31</sup> including a species of grass found in 1942 rare enough to have been put on the federal endangered species list when it was established in 1973. According to museum records in 1958, a total of 20,564 specimens resulted from Alexander’s collecting and purchases, and Alexander and Kellogg together collected nearly seven thousand mammals, birds, reptiles, and amphibians along with almost eighteen thousand plant specimens. She also established two fellowships at the university, one in zoology and one in paleontology.<sup>32</sup>

As of 1992, the Annie Alexander endowment to the Museum of Vertebrate Zoology made up nearly 10 percent of its annual budget. (This is a largely unrestricted source of funds for innovative and creative activity, considered to be more important to the university than the percentage signifies.)<sup>33</sup> Her field notes are still read by students, and her life and adventures are legendary in the history of the school science departments.

Alexander’s history of contributing was continued by Matson Navigation Company when, in 1990, on behalf of the Alexander & Baldwin, Inc., family of companies, it donated \$50,000 toward the \$80 million renovation of the university’s Life Sciences Building.<sup>34</sup> “Annie’s museum” will be the first to move back into the building, followed by the Museum of Paleontology and the University Herbarium.

A University publication states:

The name of Annie Montague Alexander cannot be found on any of the museums, classrooms or laboratories she helped to establish at the University of California at Berkeley, yet her vision and generosity have helped build a biological sciences program of world renown.<sup>35</sup>

In Alexander's mind, she was not important: specimens, study, and research were important. Because of its varied and enormous collections, the Museum of Vertebrate Zoology is an internationally recognized center for the study of natural history.<sup>36</sup>

And it all started with Annie Montague Alexander of Maui and her love of the outdoors. Continuing in the natural history footsteps of earlier missionaries and residents of Hawai'i such as Sarah Joiner Lyman, Mrs. Francis (Isabella) Sinclair, Titus Coan, and Sanford Ballard Dole,<sup>37</sup> Alexander was a *keiki o ka 'āina* of whom Hawai'i can be proud.

#### NOTES

- <sup>1</sup> Robert G. Sproul, A Tribute to *Annie Montague Alexander*, 1958.
- <sup>2</sup> Hilda Grinnell, *Annie Montague Alexander* (Berkeley: Grinnell Naturalists Society, Museum of Vertebrate Zoology, University of California, 1958) 2. Charles Henry Dickey, son-in-law of the Reverend William Patterson Alexander, moved his family from Oakland, California, to Maui in 1873. He established general stores, the principal one located in Ha'ikū. His son, Charles William Dickey, became well known in Hawai'i and California as an architect.
- <sup>3</sup> Martha Warren Beckwith was a folklorist, ethnographer, teacher, and author. Among her many accomplishments was her translation of *The Kumulipo*, the ancient chant of the birth of Hawai'i, published in 1951. She dedicated this master work to Annie M. Alexander, "lifelong friend and comrade from early days in Hawai'i."
- <sup>4</sup> Marcia Myers Bonta, *Women in the Field: America's Pioneering Women Naturalists* (College Station: Texas A & M UP, 1991) 50.
- <sup>5</sup> Bonta, *Women in the Field* 51.
- <sup>6</sup> Janet Zullo, "Annie Montague Alexander: Her work in Paleontology," *Journal of the West* 8.2 (1969) 185.
- <sup>7</sup> Zullo, "Annie Montague Alexander" 185.
- <sup>8</sup> Bonta, *Women in the Field* 51.
- <sup>9</sup> Addison Gulick, *Evolutionist and Missionary: John Thomas Gulick* (Chicago: U of Chicago P, 1932) cover flap.
- <sup>10</sup> Grinnell, *Annie Montague Alexander* 5.
- <sup>11</sup> "The Final Journey," *Ampersand* (spring 1992) 10.
- <sup>12</sup> David B. Wake, director, Museum of Vertebrate Zoology, U of California, Berkeley, letter to author, 4 Mar. 1994.
- <sup>13</sup> Bonta, *Women in the Field* 53. The correct name for this organization is Bureau of Biological Survey. It was established in 1885 under the United States Department of Agriculture and was the forerunner of the Fish and Wildlife Service. The bureau investigated food habits of birds and mammals, conducted biological investigations of native animals and plants, supervised national mammal

and bird reservations, and administered bird and mammal treaties and laws. Library of Congress, *Guide to U.S. Government Publications*, 1992 edition; *Report of Chief of Bureau of Biological Survey*, 30 June 1920, 1.

- <sup>14</sup> Bonta, *Women in the Field* 53.
- <sup>15</sup> Grinnell, *Annie Montague Alexander* 7.
- <sup>16</sup> Grinnell, *Annie Montague Alexander* 8.
- <sup>17</sup> Grinnell, *Annie Montague Alexander* 9–10.
- <sup>18</sup> Grinnell, *Annie Montague Alexander* 10.
- <sup>19</sup> Wake, letter to author, 16 Aug. 1993.
- <sup>20</sup> Grinnell, *Annie Montague Alexander* 13.
- <sup>21</sup> Grinnell, *Annie Montague Alexander* 13.
- <sup>22</sup> Grinnell, *Annie Montague Alexander* 17–18.
- <sup>23</sup> Bonta, *Women in the Field* 56.
- <sup>24</sup> Bonta, *Women in the Field* 57.
- <sup>25</sup> Hull, “Investing in Nature” 17.
- <sup>26</sup> Hull, “Investing in Nature” 15.
- <sup>27</sup> Bonta, *Women in the Field* 60.
- <sup>28</sup> Grinnell, *Annie Montague Alexander* 23.
- <sup>29</sup> Zullo, “Annie Montague Alexander” 199.
- <sup>30</sup> Hull, “Investing in Nature” 17.
- <sup>31</sup> Grinnell, *Annie Montague Alexander* 25.
- <sup>32</sup> Grinnell, *Annie Montague Alexander* 27.
- <sup>33</sup> Wake, letter to author, 4 Mar. 1994.
- <sup>34</sup> Alexander & Baldwin, *Ninety Years A Corporation 1900–1990* (June 1990) 6; Hull, “Investing in Nature” 17.
- <sup>35</sup> Hull, “Investing in Nature” 17.
- <sup>36</sup> Hull, “Investing in Nature” 17.
- <sup>37</sup> E. Alison Kay, *A Natural History of the Hawaiian Islands* (Honolulu: U of Hawaii P, 1972) 618–27.

