male taken July 12, 1920 (see fig. 15). When captured, it contained a fully formed egg, and was accompanied by a normal male.

There are admittedly many points in the foregoing paper which are imperfectly covered, or have been passed over more or less hurriedly because of lack of data on which to base conclusions. Our personal field work, however, in the locality in which these observations were made is practically completed. There is therefore so little likelihood of our gaining further information on these points for some time to come that it seems best to contribute without further delay the few items we have to add to the life history of this comparatively little known, but unusually interesting duck.

Pasadena, California, January 25, 1923.

WILLIAM WIGHTMAN PRICE

By WALTER K. FISHER[1]

WITH TWO PHOTOGRAPHS

DURING the pioneer decade following the opening of Stanford University, in 1891, an enviable zeal for exploration characterized the institution's activities in the field of zoology. Natural history was appraised at its real worth, and expeditions, prosecuted under both private and governmental auspices, visited various parts of Alaska, Bering Sea and the Arctic Ocean, Lower California, Mexico, Panama, the Galapagos Islands, Hawaiian Islands, Samoa, and Japan. Nearer home, the valleys and mountains from Washington to Arizona were scrutinized, while the new Hopkins Seaside Laboratory on Monterey Bay stimulated and broadened students as no other experience could have done. Men who have now reached middle age were then emerging enthusiastically from their "teens" and were nothing loath for a spice of action to mix with the pabulum of learning. They approached biology as it should be approached—with a healthy curiosity, through the door of natural history—and grew to be ecologists without the damper of jargon and dogma.

William Wightman Price was one of these men. Doubtless the younger generation of ornithologists know few of that coterie[2] of explorers except by hearsay, an occasional record, or a museum label. In the course of time some

[1]The writer wishes to acknowledge, with thanks, aid rendered in the preparation of this article by Mrs. Bertha de Laguna Price, Mr. Robert M. Price, Dr. Ray Lyman Wilbur, Mr. Dane Coolidge, Dr. O. L. Elliott, and Professor J. O. Snyder.

[2]Among the students most interested in field work of various kinds were the following: J. F. Abbott, Malcolm Anderson, W. F. Allen, Norman Buxton, John Colliver, Dane Coolidge, G. B. Culver, R. W. Doane, Marion Dole, W. K. Fisher, Joseph Grinnell, Arthur Greeley, Flora Hartley (Mrs. C. W. Greene), Lou Henry (Mrs. Herbert Hoover), Edmund Heller, Dora Moody (Mrs. T. M. Williams), A. G. Maddren, R. C. McGregor, Chester McGee, W. H. Osgood, K. Otaki, C. J. Pierson, W. W. Price, Cloudsley Rutter, Alvin Seale, Elsie Shelley (Mrs. Harold Heath), J. O. Snyder, R. E. Snodgrass, Norman Scofield, E. C. Starks, J. M. Stowell, John Van Denburgh, R. L. Wilbur, T. M. Williams. Among the instructors (in the field often rather difficult to identify by current definitions and descriptions of university professors) were Harold Heath and C. W. Greene (as yet with pinfeathers), D. S. Jordan, C. H. Gilbert, O. P. Jenkins, W. W. Thoburn.

have dispersed vocationally, while others, becoming more formally aware of biology, have acquired all the earmarks of irreproachable scientific respectability.

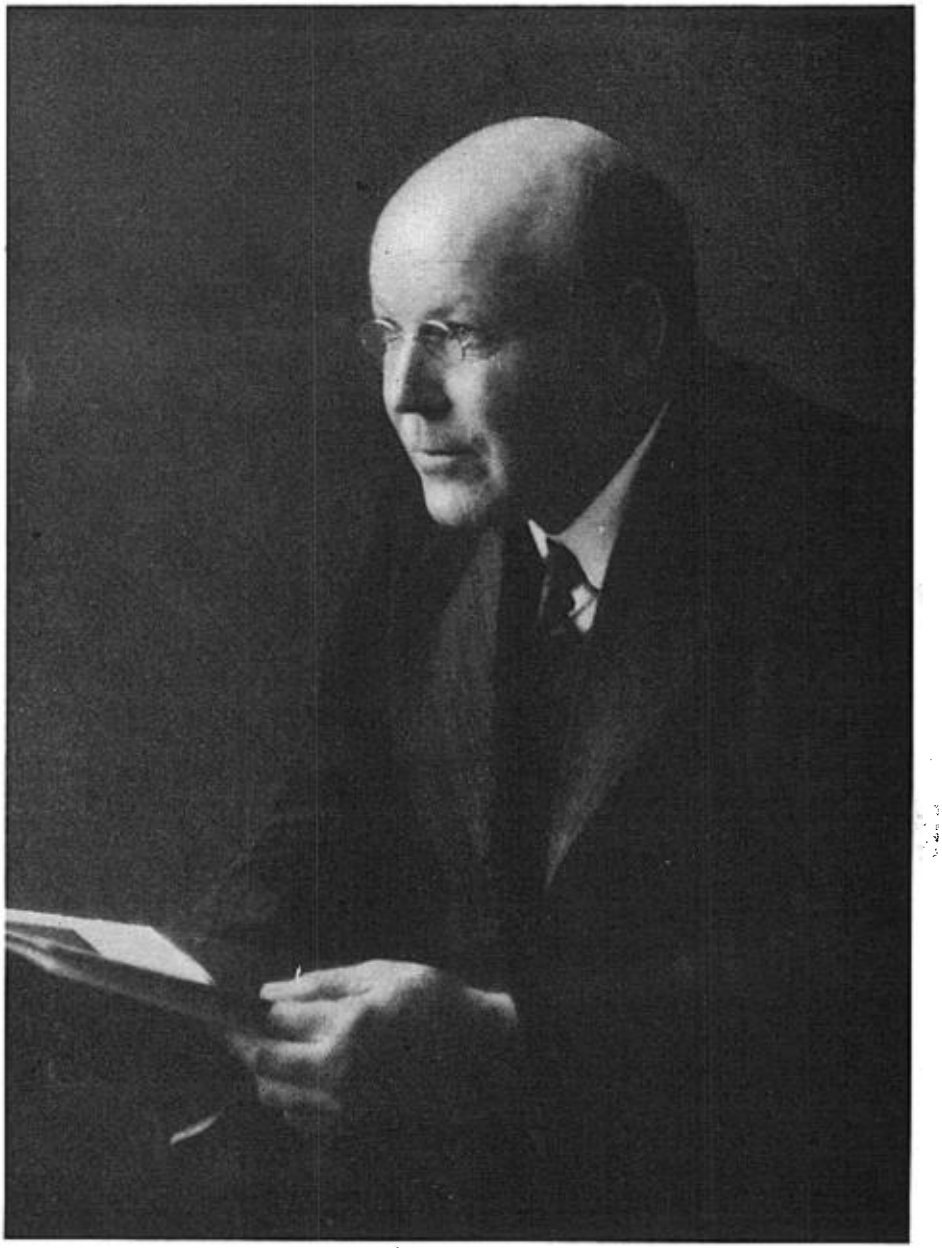

Fig. 20. WILLIAM WIGHTMAN PRICE: 1871-1922.

But in those days W. W. Price was a successful collector of birds and mammals, and established his reputation through expeditions to southern Arizona and the Sierra Nevada Mountains.

I encountered "Billy" Price for the first time toward the close of his collecting career, in 1897, when as a freshman at Stanford I found him on the Quad, unpacking some natural history plunder from the Sierras. He was attired in splendid white trousers and was bubbling over with the enthusiasm and good nature which were his most endearing characteristics. I fancy the trousers were evidence of fraternity communism, enforced by a sudden return to civilization, for in later years he stoutly denied ever having succumbed to such blandishments of society. He had taken his A. B. in Economics at Stanford the previous spring and was then commencing an account of the mammals of California, for which he later received his Master's degree. The restraint and rather exacting routine of the laboratory were not to his liking. He loved field work, and it was only this side of zoology that strongly ap-

Fig. 21. FIELD PARTY OF STANFORD STUDENTS, EARLY IN 1895, UNDER LEADERSHIP OF W. W. PRICE (WHO STANDS AT EXTREME LEFT); MALCOLM P. ANDERSON (SITTING ON GROUND AT LEFT); THEN W. A. PRITCHARD (SEATED); NELLO JOHNSON (STANDING); BEN CONDIT (STANDING); JACOB DIEFENBACH (THE PACKER, ON HORSEBACK).

pealed to him. When the strain of confinement became too great he simply disappeared.

Billy Price was an impulsive, emotional, generous, grown-up boy, one of the most likable men I have ever known. He was of those fortunate folk to whom life is a series of absorbing enthusiasms. He loved nature to the point of preoccupation, and his especial delight was the high Sierra Nevada Mountains. Here he spent the best years of his life. Deserts, too, held an especial lure. He revelled in their great expanses, their pungent vegetation, and their evening splendor of purple and gold. They had always been for him new worlds to explore, and had become indelibly painted upon the subconscious background of his life—upon that curious, often dim curtain, before which we

say our lines and play our parts. The deserts and mountains were his mental environment.

Your true nature lover with a strong sentiment for the fitness of things will readily sympathize with Billy's attitude one afternoon when we had stolen away from our responsibilities at Fallen Leaf Lake. To provender of hardtack and bacon, we added a trout or two from one of the small lakes. Billy suddenly confessed a longing for the desert and insisted that only a supperfire of sagebrush would afford the proper "atmosphere" for his mood. So over coals of sagebrush we broiled the bacon and trout, but we walked several miles for the fuel.

Although addicted to mountains and fond of the silent places, Price was nothing of a recluse. He was an unusually good "mixer", and his interest in people led him into all sorts of queer places and to fraternize with very unusual specimens of humanity. His genial, friendly spirit and boyish outlook gave him his hold upon boys and grown-ups alike, an influence which contributed greatly to the success of his school at Alta, Placer County, and his summer camp at Glen Alpine, later at Fallen Leaf Lake, near Tahoe. Most of the friends of his later years knew him not as an ornithologist but as a delightful companion on innumerable hikes and camping trips from his Fallen Leaf resort—a companion with a fine feeling for life and a poetic appreciation of the beautiful.

President Ray Lyman Wilbur was a member of one of Price's most successful expeditions and has written the following recollections of the trip.

I first met W. W. Price during my freshman year at Stanford in 1892-93. He had at that time a reputation as a collector. I was immensely pleased when in the spring he asked me whether I would go with him on a collecting trip to Arizona, which was to be financed by Mr. Timothy Hopkins, one of the original trustees of the University.

We took with us Malcolm Anderson, the young son of Professor Anderson, of the Department of English, who later on made a considerable reputation as a collector in Asia and elsewhere. "Billy," as we knew him, was somewhat casual in making his plans for the trip. We took along plenty of dust shot, which we had a good deal of difficulty in securing, auxiliary barrels for our shotguns, arsenic and skinning tools, canvas and bedding, and a few simple cooking utensils. With all our plunder together, we landed at Third and Townsend streets, San Francisco, on a late May afternoon. Billy skirmished around and finally found an old driver with an express wagon. Loading everything on, we drove up, and went along, lower Folsom street, where at that time there were a considerable number of old, broken-down wooden boarding houses used largely by workmen and sailors. One, that looked promising, was selected for a night's lodging. All of us, including our baggage, were given the former bridal suite on the second floor. The trappings were decidedly grimy and the beds looked suspicious. I remember only two things about this phase of our trip. One was that I slept on the floor, and the other was the enormous bowl of oatmeal that we were given along with the other boarders at breakfast-time.

We took the train in the early morning for Arizona, going in the tourist coach. The trip across the desert east from Los Angeles was very dusty at that time. Such things as a quarter of an inch of dust on the seat of the car in no way disturbed the equanimity of the leader of the party. In Tucson where we arrived in the middle of the night—sleeping then until morning on the floor of the station—we came in contact with the editor of one of the papers, who was interested in birds. On his suggestion and advice we went out to old Fort Lowell, near Tucson, where we remained for some six weeks collecting in the willows along the stream and in the sahuaro forests.

We averaged a half-dozen rattlesnakes a day and saw many Gila monsters. We had to get up early in the morning to be sure to get our traps before the sun brought

about decomposition or before the screw-worm fly infected our specimens. Billy was a first-class collector, but was somewhat noisy in moving about so that he saw many fewer rattlesnakes than did I and he also missed certain kinds of birds which I picked up rather frequently. He was a hard worker and we spent the whole afternoon skinning mammals and birds in the old broken-down adobe buildings of the Fort.

We had many contests as to who was the best shot. These were principally manifested in shooting bats in the evening light as they came out from the old buildings. We made quite a collection in this way.

From Fort Lowell we went to the Huachuca Mountains, where we spent a number of weeks in the upper and lower parts of Ramsey Canyon. We also collected along the San Juan River near Tombstone.

Our food supply was very simple. We lived largely on pancakes, coffee, prunes and game. At one time we were completely cleaned out by some Mexicans, who took everything except our specimens. But we soon managed to get a new outfit. The Anderson boy had to return to California because of malaria apparently acquired along the river. We were joined by a Dr. Timmerman, a dentist, who was with us for a while.

During the three months that we were collecting, we worked all of the time getting specimens and had good results. The collection became the property of Stanford University. As I remember it, we brought in some dozen or thirteen varieties of rattlesnakes, one a new species. The country at that time was full of interesting characters. "Apache Kid" had been loose in the Chiricahuas and we were none too comfortable at times in that portion of the Huachucas that extended over into Mexico. There were a considerable number of soldiers at Fort Huachuca who gave us a considerable sense of comfort.

Price was a delightful companion, very much interested in all forms of animal life, particularly in birds and their nesting habits. His enthusiasm was contagious. I look back with renewed pleasure as my mind goes over the many pleasant incidents of the trip. The great Blue-throated and Rivoli hummingbirds, the Vermilion and Sulphur-bellied fly-catchers, and the various little doves of Arizona were a constant source of pleasure to us both.

Little is known of Price's boyhood. He was the son of Robert Martin and Harriet Wightman Price and was born at Milwaukee, Wisconsin, January 20, 1871. Two years later his mother died, and for several years thereafter he lived with his grandparents, Mr. and Mrs. William Wightman, in West Bend, Wisconsin; a little later and until he was six, he lived in a small village called Young America. The family then moved to St. Edward, Nebraska, a town which had just been started thirty miles north of Columbus. When he was quite a youngster his father offered him a dollar for every swallow he could kill with bow and arrow. The budding Tell bagged about twenty-five before the offer could be withdrawn, with a financial compromise on the original contract. About this time, while the family was away, his experimental proclivities led him to paint his sleeping grandmother's face with ink "to see what she would look like". When seven or eight years old he ran away for several days with a band of Indians in order to see real hunting. At the age of nine he was taken to Riverside, California, and five years later his father died. Price had accumulated a collection of eggs, which he sold, but was given worthless money in exchange. After his father's death, in 1885, and although he was only fourteen, he started for Arizona, where he remained a year and a half, exploring deserts and mountains. On his return he entered the Oakland High School and paid part of his expenses from the sale of bird and mammal skins.

The free and easy outdoor life in Arizona rendered the classroom extremely onerous. He found existence in the pines of the Sierras much more

to his liking and was wont to play hookey for considerable periods. Being a lad of parts, he gained the interest of that splendid woman, Irene Hardy, whose memory so many Californians have reason to cherish with affection. Miss Hardy, who later became Instructor in English at Stanford, was then a teacher in the Oakland High School. Her superb common sense, poise, and sympathy won young Price, and between the two arose a friendship which was to be a determining factor in the boy's life. Hers was the stabilizing influence which carried him through school and college to the degree of Master of Arts in 1899. He was very much a son to her for thirty years.

Price had to keep down rather than keep up his interest in collecting while attending the Oakland High School. For example, in December, 1887, we find him at Dutch Flat, where he remained for several months and studied English by correspondence with Miss Hardy.

During the summer of 1892 he made an extensive collecting trip through the Sierras taking specimens at Colfax, Rocklin, Red Point, Summit, Mt. Tallac, in California, and Carson Valley, in Nevada. It was his first visit to Tahoe, from whose spell he never recovered[3]. On one of the streams flowing into the Middle Fork of the American River, he found the most northern stand of the giant sequoia, a small grove of six trees heretofore unknown to naturalists[4]. On this trip he collected the type of *Thomomys monticola* at Mt. Tallac.

In the autumn of 1892 he entered Stanford University, but was not in attendance until the following year.

In the spring of 1893 he made a short trip with Dr. C. H. Gilbert to Bear Valley, San Benito County, and described one of the wood-rats taken as *Neotoma californica*[5].

During the late spring and summer of that year he conducted to Arizona the expedition concerning which Doctor Wilbur has written; and encouraged by its success he returned to the Huachuca and Chiricahua mountains the following season. This venture ended rather disastrously, for a fire burned all his supplies and the railroad strike of that year prevented his getting more[6].

In the summer of 1895, with Dane Coolidge and Arthur Greeley, he collected in the Sierras, going by way of Mt. Hamilton, the San Joaquin, Ione, Amador grade, Silver Lake (above the American River), and the Pyramid Peak-Mt. Tallac region. Coolidge and Greeley continued into Nevada.

During the following summer Dane Coolidge, Loye Miller and J. F. Abbott collected for him in Lower California. Mr. Coolidge writes that Price was then at San Francisco and Stanford classifying specimens.

In the summer of 1897 Price was at Tahoe, where, the following year, he had his first camp for boys, in Glen Alpine. During late November and December, 1898, he visited the lower Colorado River and the head of the Gulf of California, and contributed to THE CONDOR[7] a list of the birds observed. He very nearly lost his life. He had penetrated into the gulf with some Mexi-

[3]"Notes on a Collection of Mammals from the Sierra Nevada Mountains," Zoe, **4** (1894), p. 315.

[4]"Discovery of a New Grove of Sequoia Gigantea," Zoe, **3** (1892), p. 132.

[5]"Description of a New Wood-rat from the Coast Range of Central California," Proc. Calif. Acad. Sci., ser. 2, **4** (1894), p. 154.

[6]In The Auk for January, 1895, he published one of the results of this trip, "The Nest and Eggs of the Olive Warbler (*Dendroica olivacea*)," p. 17.

[7]"Some Winter Birds of the Lower Colorado Valley," Condor, **1** (1899), p. 89.

cans in a ramshackle craft, and, having become too seasick to think clearly, abandoned the boat and attempted to walk to Yuma. The gulf is here bordered by desolate, saline mud flats, ten to twenty miles wide and forty or fifty miles long, intersected by meandering sloughs. He lost his way, and after wandering far too long—days in fact—without food and with little or no water, finally reached an Indian settlement. The following Christmas saw him back in the same general region with a well-equipped outfit and a party of boys from the Thacher School, where he had become a teacher in the autumn of 1899. At this time he received an offer from the British Museum to make collections in South America. But he had other projects in view, and Perry O. Simons, who was later murdered by a native guide, went in his place.

On June 6, 1900, he was married to Bertha de Laguna (Stanford University, 1894).

The following autumn saw the opening of a school for boys, Agassiz Hall, at Alta, Placer County. Price was well fitted for this work and the venture prospered. In 1909 the school was moved to Auburn and in 1911 was discontinued because the growing business at Tahoe required his entire attention. In the meantime his summer camp at Glen Alpine grew into Camp Agassiz, to which at first only boys, but later grown-ups were admitted. In 1906 this was moved to Fallen Leaf Lake where Price built up the widely known Fallen Leaf Lodge, managed during the past few years by Mrs. Price. The boys' camp became an entirely distinct project, and was subsequently conducted by the present writer until closed, on account of the war, in 1917.

The central idea or aim of both school and camp was to expose boys to an out-of-doors life in the mountains in order to bring out that love of nature which is latent, if not active, in every boy; and to build up self-reliance and initiative by having the boys carry a share of the responsibilities of existence.

Price entered Red Cross work in December, 1917, and served unofficially in the vicinity of Palo Alto with Mr Wheeler. He became officially Assistant Field Director, in January, and had charge of the Red Cross building at the Palo Alto Base Hospital, where he served until after the armistice. It was while engaged in this work, or frequent overwork, that he had his first serious physical setback. For many years he had led a strenuous existence, never free from the worries of an exacting business, whether at Alta or Fallen Leaf. What his near friends feared, happened; his splendid health broke. He made a determined fight against the handicap of encroaching Bright's disease and a weakening heart. He kept in the harness, however, and seemed never to lose his admirable nerve and optimism. I saw him last in late September. He seemed more than ever the genial Billy Price, grown something of a philosopher, as all nature lovers do sooner or later. He died in Palo Alto, November 9, after a few days of serious illness. He leaves his wife and two daughters: Frances Irene (Mills College, 1922), a postgraduate student at Stanford; and Harriet Fredericka, a student at Mills College.

Price did not publish a great deal, largely because he did not like writing. In addition to the articles already cited, he described in The Auk (vol. 14, 1897, p. 182) *Pinicola enucleator californica* from Echo, Eldorado County, and contributed extensive distributional data to Chester Barlow's "Birds of the Placerville-Lake Tahoe Stage Road" (Condor, November 1901, p. 151). "Some Winter Birds of the High Sierras" (Condor, 1904, p. 70) contains observa-

tions made during several midwinter trips to the Mt. Tallac region. Later (1911-12) he spent an entire winter at Fallen Leaf. He contributed to the Overland Monthly and Sunset.

The following species, named in Price's honor, indicate a wider field than birds and mammals in his collecting activities: two fishes, *Villarius pricei* Rutter and *Campostoma pricei* Jordan and Thoburn; a rattlesnake, *Crotalus pricei* Van Denburgh; a chipmunk, *Eutamias pricei* Allen, and a pocket mouse, *Perognathus pricei* Allen[8]. Dr. Grinnell writes that the Xantus Becard (*Platypsaris aglaiae albiventris*) remains known north of the Mexican line only from a specimen taken by Price or his assistants in the Huachuca Mountains, Arizona; and the Yellow-green Vireo (*Vireosylva flavoviridis*) is known from California only on the basis of a specimen taken by him near Riverside.

Price was at one time a Member of the American Ornithologists' Union and of the Cooper Ornithological Club. He was a member of the California Academy of Sciences, Sierra Club, American Historical Association, and Beta Theta Pi.

Price's service to ornithology lay not alone in his considerable collecting operations in then very imperfectly explored or unknown regions, but also in his ability to infect others with his enthusiasm and love of nature. Price was always strongly attracted by the personality of Louis Agassiz (so ably interpreted to us by Doctor Jordan), and a very real desire of his was to practice the methods of the great teacher. It was a splendid aim and focused the energies of a useful career.

Through his activities in the Sierra Nevada, he enlarged and made happier the lives of many hundreds.

Hopkins Marine Station, Pacific Grove, California, January 29, 1923.

BLACK WING TIPS

By CHARLES K. AVERILL

THE HERRING GULL, whether floating overhead, skimming over the water, or at rest, shows, as a conspicuous mark, the black wing tip. This mark is common to all our gulls, except a few Arctic species; and its persistence in so many species indicates that it is of importance in the life of the bird.

The Herring Gull moults its wing feathers in the autumn. I have before me a number of the primaries, forming the tip of the wing, that have been discarded after nearly a year's wear. Before the feather has become at all worn there is a narrow white margin at the tip. This has entirely disappeared in the specimens before me, being worn away to the black. Some of these primaries have a small, round white spot near the tip; this in the moulted specimens has nearly disappeared, being worn away. Still other gulls have a white patch near the tip extending across from front to rear margin. The margin, where white, is badly worn, leaving the black portion scarcely altered.

[8]To these should be added a mosquito named by Dyar.