

variation. The emphasis on the aesthetic in the very first paragraph: "Whatever tends to make the world happier and better is of direct material value though its value may not be measurable in dollars", is a little out of the ordinary for a purely economic paper, but is a good innovation. The many papers now being published dealing with the purely economic point of view have a tendency to over-emphasize the "dollars and cents value" at the expense of other values.

The introductory divisions of the bulletin treat of the usual subjects to be found in papers of its kind: The Balance of Nature, Rescue of Crops, Foliage and Forests by Birds; and Necessity of Protection. Two divisions a little more out of the ordinary are entitled: Quantities of Food Required by Birds, and Methods of Investigation.

The systematic discussion makes up the greater part of the paper. A general discussion of the food of the more important groups (orders) of birds is given with more detailed results of the stomach examination of the most important members of each group.

Two things are noticeable in this discussion. First, the numerous citations of the literature quoted (208 in all), and second, the tables (ten of them) summarizing the results of the stomach examinations made by different investigators. A few paragraphs on the literature of economic ornithology and a bibliography of one hundred and forty-nine papers on economic ornithology concludes the bulletin.

We recommend this paper as being the best brief summary on the subject which has come to our notice. No more valuable bulletin is available for the teacher who desires to know something of the economic relations of our common birds and the available literature on the subject, or for the beginning student in economic ornithology who desires a general idea of the work accomplished.—H. C. BRYANT.

MINUTES OF COOPER CLUB MEETINGS

SOUTHERN DIVISION

MAY.—The regular meeting of the Southern Division of the Club was held at the Museum of History, Science and Art, Thursday evening, May 29, with twelve members present: Messrs. Chambers, Daggett, Fitzpatrick, Howell, Hubbs, Kimball, Law, Layne, Miller, Rich, Willett, and Swarth. President J. E. Law was in the chair.

The following were elected to membership: H. C. Ohl, Los Banos, California; Thomas Trenor, San Francisco, California; E. P. Rankin, El Monte, California; George F.

Sykes, Corvallis, Oregon. New names proposed were: L. H. Duschak, San Francisco, presented by J. Grinnell; Philip Pierpont, Nordhoff, by D. R. Dickey; George H. Stuart, Philadelphia, by W. L. Chambers.

A letter was read, received by W. L. Chambers from Mr. Robert Ridgway, giving many interesting details in regard to the publication of his new book of colors. Mr. Law entertained the members with an account of his recent collecting trip to southeastern Arizona. Adjourned.—H. S. SWARTH, *Secretary*.

JUNE.—The monthly meeting of the Southern Division of the Club was held at the Museum of History, Science and Art, Thursday evening, June 26, with the following members present: Messrs. Bryant, Chambers, Daggett, Fischer, Hubbs, Law, Zahn, and Swarth. Mr. Paul S. Radir and Mr. Carruthers were visitors. As the president was absent during the early part of the evening Mr. Zahn took the chair. The minutes of the May meeting were read and approved. The following were elected to membership in the club: L. H. Duschak, San Francisco; George H. Stuart, Philadelphia; Philip Pierpont, Nordhoff, California.

Mr. Bryant spoke at some length regarding the activities of the Conservation Committee during the session of the State Legislature just ended, summarizing the final results, and considerable discussion followed. Mr. Bryant then entertained the meeting with an account of some of the methods followed in an economic study of the food of birds. Adjourned.—H. S. SWARTH, *Secretary*.

DIRECTORY OF MEMBERS OF THE COOPER ORNITHOLOGICAL CLUB

Revised to July 1, 1913

(Residence in California unless otherwise stated. Year following address indicates date of election.)

HONORARY MEMBERS

- Allen, Dr. J. A., American Museum, of Natural History, New York, N. Y. 1910.
- Beal, Prof. F. E. L., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1910.
- Belding, Lyman, Stockton. 1896.
- Merriam, Dr. C. Hart, 1919 16th St., Washington, D. C. 1909.
- Ridgway, Robert, Route 7, Olney, Ill. 1905.
- Stephens, Frank, 3756 Park Blvd., San Diego. 1912.

ACTIVE MEMBERS

- Adams, Ernest, 298 S. 11th St., San Jose. 1896.
- Alexander, Annie M., Seaview and Union Aves., Piedmont. 1908.

- Allen, Arthur A., 115 Stewart Ave., Ithaca, N. Y. 1911.
- Anderson, Malcolm P., Menlo Park. 1901.
- Appleton, J. S., Simi, Ventura Co. 1901.
- Arnold, B. W., 465 State St., Albany, N. Y. 1910.
- Arnold, E., Freight Claim Agt., Grand Trunk Ry., Montreal, Quebec. 1910.
- Arnold, Ralph, 917 Union Oil Bldg., Los Angeles. 1893.
- Arnold, W. W., 504 N. Nevada Ave., Colorado Springs, Colo. 1911.
- Atkinson, W. L., 28 E. Santa Clara St., San Jose. 1901.
- Atsatt, Sarah R., 1207 W. 5th St., Los Angeles. 1911.
- Bade, Wm. F., 2616 College Ave., Berkeley. 1903.
- Bagley, J., Box 46, Eureka. 1913.
- Bailey, Bernard, Corvallis, Montana. 1911.
- Bailey, Florence Merriam, 1834 Kalorama Rd., Washington; D. C. 1910.
- Bailey, H. H., Box 154, Newport News, Va. 1903.
- Bailey, Vernon, 1834 Kalorama Rd., Washington, D. C. 1904.
- Bales, Dr. B. R., 151 W. Main St., Circleville, Ohio. 1906.
- Bangs, Outram, Museum of Comparative Zoology, Cambridge, Mass. 1910.
- Barbour, Rev. Robert, Y. M. C. A., Montclair, N. J. 1911.
- Barnes, R. Magoon, Lacon, Ill. 1908.
- Barrows, Albert L., 1430 Arch St., Berkeley. 1912.
- Barrows, Prof. Walter B., Box 183, East Lansing, Mich. 1909.
- Batchelder, Chas. F., 7 Kirkland St., Cambridge, Mass. 1910.
- Baynard, Oscar E., Clearwater, Fla. 1911.
- Beck, Rollo H., R. D. 21, San Jose. 1894.
- Beekman, Orland, Sespe, Ventura Co. 1911.
- Beers, Henry W., 91 Denver Ave., Bridgeport, Conn. 1910.
- Bell, W. B., Agricultural College, N. D. 1912.
- Bennett, R. H., Room 409, 444 Market St., San Francisco. 1909.
- Bent, A. C., Taunton, Mass. 1909.
- Bicknell, Mrs. F. T., 419 N. Broadway, Los Angeles. 1913.
- Bigelow, Homer L., Old Orchard Rd., Chestnut Hill, Mass. 1910.
- Bishop, Dr. Louis B., 356 Orange St., New Haven, Conn. 1904.
- Blain, Merrill W., 1026 N. Coronado St., Los Angeles. 1909.
- Blayney, Nita A., 920 O St., Fresno. 1911.
- Bliss, J. G., 2148 B, Clinton Ave., Alameda. 1908.
- Bohlman, Herman T., 202 Occident St., Portland, Oregon. 1903.
- Bolander, L. P., Jr., 2517 21st Ave., Oakland. 1907.
- Bowdish, B. S., Demarest, N. J. 1910.
- Bowles, Chas. W., 1325 Lincoln Way, San Francisco. 1903.
- Bowles, J. H., "The Woodstock", Tacoma, Wash. 1903.
- Boyce, John J., Box 280, San Francisco. 1910.
- Boyer, Edgar, Tyro, Kansas. 1911.
- Braislín, Wm. C., M.D., 556 Washington Ave., Brooklyn, N. Y. 1910.
- Brandreth, Courtney, Ossining, N. Y. 1911.
- Brauer, W. G., Silver Lake. 1911.
- Brewster, William, 145 Brattle St., Cambridge, Mass. 1904.
- Brooks, Allan, Okanogan Landing, B. C., Canada. 1906.
- Brown, C. Emerson, Boston Society of Natural History, Boston, Mass. 1911.
- Brown, D. E., Room 11, Federal Bldg., Tacoma, Wash. 1909.
- Brown, Dudley H., 166 Parnassus Ave., San Francisco. 1911.
- Brown, Wm. J., 250 Oliver St., Westmount, Quebec, Canada. 1911.
- Brown, W. W., Jr., 76 Atlantic Ave., Long Beach. 1909.
- Bryant, Harold C., Museum of Vertebrate Zoology, University of California, Berkeley. 1910.
- Buckland, Hon. James, Royal Colonial Inst., Northumberland Ave., London, England. 1912.
- Burnett, W. L., Box 691, Ft. Collins, Colo. 1910.
- Burnham, Dr. Clark, Bushnell Place, Berkeley. 1907.
- Burnham, Mrs. Clark, Bushnell Place, Berkeley. 1907.
- Burns, Frank L., Berwyn, Pa., 1909.
- Burt, H. C., Monolith, Kern Co. 1910.
- Burtch, Verdi, Branchport, N. Y. 1910.
- Buturlin, Sergius A., Wesenberg, Esthonia, Russia. 1909.
- Caduc, Eugene E., 563 Massachusetts Ave., Boston, Mass. 1911.
- Camp, Chas., 2250 Telegraph Ave., Berkeley. 1909.
- Carpenter, Nelson K., Box 127, Escondido. 1901.
- Carriger, Henry W., 5185 Trask Ave., Oakland. 1895.
- Carriker, M. A., Jr., Cincinnati Coffee Co., Santa Marta, Colombia, South America. 1911.
- Case, Rev. Bert F., R. D. 2, Ferndale, Wash. 1913.
- Case, C. M., 7 Holcomb St., Hartford, Conn. 1911.
- Chamberlain, C. W., 36 Lincoln St., Boston, Mass. 1912.

- Chamberlain, W. J., 331 N. 5th St., Corvallis, Oregon.
- Chambers, W. Lee, R. D. 1, Box 73 D, Los Angeles. 1897.
- Chandler, Asa C., Maplewood, N. J. 1912.
- Chapman, Frank M., American Museum of Natural History, New York, N. Y. 1903.
- Childs, John Lewis, Floral Park, N. Y. 1904.
- Clark, Josiah H., 238 Broadway, Paterson, N. J. 1910.
- Clarke, Frank C., 218 East Hall, University of California, Berkeley. 1912.
- Clay, C. Irvin, Box 353, Eureka. 1910.
- Clifton, H. T., 509 E. Walnut St., Pasadena. 1904.
- Coale, Henry K., Highland Park, Ill. 1907.
- Coffin, Sherwood, 35 2nd St., San Francisco. 1911.
- Coggins, Herbert L., 776 Mission St., San Francisco. 1910.
- Cohen, Donald A., Alameda. 1894.
- Colburn, A. E., 806 S. Broadway, Los Angeles. 1905.
- Cooke, Wells W., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1911.
- Cookman, Alfred, 956 Elm Ave., Long Beach. 1912.
- Cooper, James S., 830 53rd St., Oakland. 1903.
- Craven, Jesse T., 811 Roosevelt Ave., Detroit, Mich. 1909.
- Crosby, Maunsell S., Grasmere Farms, Rhinebeck, N. Y. 1911.
- Currier, Ed. S., P. O. Drawer 21, St. Johns, Multnomah Co., Oregon. 1904.
- Daggett, Frank S., 2833 Menlo Ave., Los Angeles. 1895.
- Darlington, E. J., 1111 West St., Wilmington, Delaware. 1911.
- Davenport, Mrs. Elizabeth B., Lindenhurst, Brattleboro, Vermont. 1911.
- Davis, Evan, Orange. 1894.
- Davis, J. M., 811 O St., Eureka. 1908.
- Dawson, W. Leon, R. D. 3, Box 83, Santa Barbara. 1906.
- Day, Chester S., 15 Chilton Road, West Roxbury, Mass. 1910.
- Dean, W. F., Three Rivers. 1901.
- Deane, Ruthven, 135 Adams St., Chicago, Illinois. 1904.
- Deane, Walter, 29 Brewster St., Cambridge, Mass. 1907.
- Dearborn, Ned, Linden, Maryland. 1909.
- Dial, Dr. E. A., 466 E. 32nd St., Los Angeles. 1913.
- Dickey, Donald R., Box 701, Pasadena. 1910.
- Dickey, Samuel S., 31 S. West St., Waynesburg, Pa. 1911.
- Dille, F. M., 2927 W. 28th Ave., Denver, Colo. 1903.
- Dixon, Joseph, Escondido. 1904.
- Douglas, J. S., Bin 7, Bakersfield. 1911.
- DuBois, Alexander Dawes, 327 S. Glenwood Ave., Springfield, Ill. 1911.
- Dunbar, W. Linfred, care of Remington Arms Co., Bridgeport, Conn. 1911.
- Duprey, H. F., Dixon. 1907.
- Durfee, Owen, Box 125, Fall River, Mass. 1911.
- Duschak, L. H., 506 U. S. Custom House, San Francisco. 1913.
- Dutcher, Wm., 990 Central Ave., Plainfield, N. J. 1905.
- Dwight, Dr. Jonathan, Jr., 134 W. 71st St., New York, N. Y. 1904.
- Earle, Miss Eleanor P., Palma Sola, Manatee Co, Florida. 1911.
- Eastgate, Alf., Tohia, North Dakota. 1913.
- Eastman, Lieut. F. B., Plattsburg Barracks, N. Y. 1904.
- Edson, J. M., Marietta Road, Bellingham, Wash. 1911.
- Esterly, C. O., Occidental College, Los Angeles. 1908.
- Everett, E. E., Ventura. 1913.
- Evermann, Barton W., Bureau of Fisheries, Washington, D. C. 1911.
- Finley, Wm. L., 651 East Madison St., Portland, Oregon. 1900.
- Fischer, E. J., 525 W. 57th St., Los Angeles. 1910.
- Fisher, Dr. A. K., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1904.
- Fisher, Miss Elizabeth W., 2222 Spruce St., Philadelphia, Pa. 1910.
- Fisher, Dr. Walter K., Box 373, Palo Alto. 1900.
- Fitzpatrick, T. J., General Delivery, Los Angeles. 1913.
- Flanagan, John H., 153 Power St., Providence, R. I. 1904.
- Fleming, J. H., 267 Rusholme Road, Toronto, Ontario, Canada. 1910.
- Flint, Wm. R., R. F. D. 1, Box 221 C, Pasadena. 1912.
- Forrest, E. R., 261 Locust Ave, Washington, Pa. 1910.
- Fortiner, J. C., Brawley. 1910.
- Fowler, Frederick H., 221 Kingsley Ave., Palo Alto. 1901.
- Fox, Mrs. L. L., Los Olivos, Santa Barbara Co. 1911.
- Frazier, J. F., Independence, Mo. 1911.
- Fuertes, Louis A., Cornell Heights, Ithaca, N. Y. 1904.
- Gage, Miss Mabel C., care of Smith, Gage and Dresser, Worcester, Mass. 1913.
- Gane, Henry Stewart, Long Beach, Pacific Co., Wash. 1903.
- Gardner, Leon L., Claremont. 1911.
- Gault, Benj. T., Glen Ellyn, Ill. 1905.
- Gay, Harold S., 200 S. Wilson Ave., Alhambra. 1901.

- Gee, Wilson P., 2606 Bancroft Way, Berkeley. 1912.
- Gilman, M. French, Sacaton, Arizona. 1901.
- Goldman, E. A., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1901.
- Goldman, Luther J., Orosi. 1908.
- Goodwin, Rev. S. H., Box 284, Provo, Utah. 1910.
- Gould, Jos. E., 5 Clifton St., Norfolk, Va. 1909.
- Grant, U. S., 4th, Box 113, Cambridge, Mass. 1909.
- Grey, Henry, R. D. 2, Box 154 A, San Diego. 1901.
- Grinnell, Mrs. Hilda Wood, 2543 Durant Ave., Berkeley. 1912.
- Grinnell, Joseph, Museum of Vertebrate Zoology, University of California, Berkeley. 1894.
- Guion, Geo. Seth, Napoleonville, La. 1911.
- Halladay, Daniel S., 1609 N. Main St., Santa Ana. 1910.
- Hanford, Forrest, Santa Maria. 1912.
- Hann, H. H., Parkdale, Oregon. 1909.
- Hanna, Wilson C., Box 146, Colton. 1902.
- Harmon, Mrs. Frances M., Marlborough School, Los Angeles. 1912.
- Harris, R. Park, care of Wm. Wood, Renton, Wash. 1909.
- Hathaway, Harry S., Box 1466, Providence, R. I. 1912.
- Hawver, Dr. J. C., Box 214, Auburn. 1909.
- Hazard, R. G., Peace Dale, R. I. 1909.
- Head, Miss Anna, 2730 Belrose Ave., Berkeley. 1912.
- Heinemann, Oluf J., 1662 Grove St., San Francisco. 1908.
- Heller, Edmund, U. S. National Museum, Washington, D. C. 1894.
- Helme, Arthur H., Miller Place, Suffolk Co., N. Y. 1911.
- Henderson, Hon. Junius, Box 398, Boulder, Colo. 1909.
- Henshaw, H. W., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1909.
- Hersey, L. J., 2121 W. 34th Ave., Denver, Colo. 1909.
- Hochbaum, Hans, 1436 Calumet Ave., Los Angeles. 1912.
- Holland, Harold M., Box 515, Galesburg, Ill. 1901.
- Holt, Wm. L., Nagelesestr. 33, Frieberg im Breisgau, Germany. 1909.
- Hoover, Theodore J., 1 London Wall, London, E. C., England. 1898.
- Howard, O. W., Box 484, Los Angeles. 1895.
- Howell, Alfred Brazier, Covina. 1908.
- Howell, B. F., Jr., 6 North West College, Princeton, N. J. 1909.
- Howes, Paul G., Stamford, Conn. 1910.
- Howsley, L. B., Culver, Oregon. 1909.
- Hubbard, Samuel, Jr., 98 Montecito Ave., Oakland. 1912.
- Hubbs, Carl L., 1536 E. 33rd St., Los Angeles. 1910.
- Huey, Lawrence, 32nd St. and Clay Ave., San Diego. 1909.
- Hunter, J. S., Union Hotel, San Mateo. 1903.
- Husher, Mrs. Gertrude H., 434 W. 20th St., Los Angeles. 1913.
- Illingsworth, J. F., College of Hawaii, Honolulu, H. T. 1896.
- Ingersoll, A. M., 832 5th St., San Diego. 1895.
- Irving, F. N., care of Southern Express Co., Columbia, S. C. 1910.
- Isham, C. Bradley, 27 W. 67th St., New York, N. Y. 1909.
- Jackson, Thos. H., 304 N. Franklin St., West Chester, Pa. 1911.
- Jacobs, J. Warren, 404 S. Washington St., Waynesburg, Pa. 1909.
- Jay, Alphonse, 1622 Pennsylvania Ave., Los Angeles. 1901.
- Jay, Antonin, 1622 Pennsylvania Ave., Los Angeles. 1901.
- Jeffreys, Chas., 15 Beaufort West, Bath, England. 1912.
- Jessee, Dr. R. L., Philo, Ill. 1909.
- Jewett, R. D., 1238 Cahuenga St., Los Angeles. 1912.
- Jewett, Stanley G., 582 Bidwell Ave., Portland, Oregon. 1909.
- Johnson, Frank Edgar, 16 Amackassin Terrace, Yonkers, N. Y. 1911.
- Johnson, Morris, 711 W. 5th St., Valley City, N. D. 1912.
- Johnson, Miss Myrtle E., 450 N. Madison St., Pasadena. 1908.
- Jonas, Coleman, 1023 Broadway, Denver, Colo. 1910.
- Jones, Prof. Lynds, Museum of Oberlin College, Oberlin, Ohio. 1911.
- Jordan, A. H. B., Everett, Wash. 1911.
- Jordan, Dr. David Starr, Stanford University. 1902.
- Judson, W. B., 409 Mason Opera House, Los Angeles. 1894.
- Julien, Miss Lillian M., Yreka, Siskiyou Co. 1901.
- Kaeding, Geo. L., Battle Mountain, Nevada. 1903.
- Kellogg, Miss Louise, Box 371, Suisun. 1911.
- Kellogg, Prof. Vernon L., Stanford University. 1901.
- Kennard, Frederic Hedge, Dudley Road, Newton Centre, Mass. 1911.
- Kennedy, C. H., Vinecrest Ranch, Sunnyside, Wash. 1912.
- Kermode, F., Provincial Museum, Victoria, B. C., Canada. 1911.

- Kessing, Lawrence R., 1430 Santa Clara Ave., Alameda. 1899.
- Keyes, Prof. Chas. R., Mt. Vernon, Iowa. 1900.
- Kimball, H. H., 523 E. Seaside Blvd., Long Beach. 1909.
- Knickerbocker, Chas. K., 445 N. Sacramento Ave., Carpenter Sta., Chicago, Ill. 1905.
- Knowlton, Dr. F. H., U. S. National Museum, Washington. D. C. 1910.
- Kofoed, Prof. C. A., East Hall, University of California, Berkeley. 1909.
- Kohler, Louis S., 98 Watsessing Ave., Bloomfield, N. J. 1909.
- Kuser, John D., Bernardsville, New Jersey. 1912.
- Lamb, Chester C., 549 W. 43rd Place, Los Angeles. 1899.
- Lancashire, Mrs. J. H., Alma, Mich., 1911.
- Lane, F. M., 346 Blackstone Ave., Fresno. 1911.
- Layne, J. Gregg, 232 S. Spring St., Los Angeles. 1912.
- Law, J. Eugene, Hollywood. 1900.
- Lelande, H. J., Court House, Los Angeles. 1897.
- Letchworth, Pierre E., Jr., Covina. 1912.
- Lewis, L. Alva, 809 Yeon Bldg., Portland, Oregon. 1912.
- Libby, Miss Gretchen L., care of Fish and Game Commission, Mills Bldg., San Francisco. 1911.
- Linton, C. B., 125 W. Ocean Ave., Long Beach. 1906.
- Litsey, John B., Jr., 1722 Alston Ave., Fort Worth, Texas. 1911.
- Littlejohn, Chase, Redwood City. 1909.
- Loomis, Leverett M., California Academy of Sciences, San Francisco. 1902.
- Loshinski, John N., 2630 Channing Way, Berkeley. 1912.
- Love, Chas. A., 3353 22nd St., San Francisco. 1901.
- Lusher, Ernest E., Van Nuys, 1913.
- Luther, Clarence H., 8 McIlroy Bldg., Fayetteville, Ark. 1909.
- Magee, Wm. A., Jr., R. F. D. Box 433, Fruitvale, Oakland. 1912.
- Mailliard, Ernest C., Bank of California, San Francisco. 1909.
- Mailliard, John W., 300 Front St., San Francisco. 1894.
- Mailliard, Joseph, 1815 Vallejo St., San Francisco. 1895.
- Marsden, H. W., Witch Creek. 1905.
- Marshall, Benj. M., M. D., 2036 D St., Eureka. 1913.
- Martin, Jno W., 339 N. 1st Street, San Jose. 1907.
- Massey, Herbert, Ivy Lea, Burnage, Didsbury, Manchester, England. 1909.
- Mathews, Dr. Ellen, 142 Kenwood Ave., Glendale. 1901.
- McAtee, W. L., Biological Survey, Dept. of Agriculture, Washington, D. C. 1907.
- McGraw, Kate W., 2301 Hearst Ave., Berkeley. 1912.
- McGregor, R. C., Bureau of Science, Manila, P. I. 1893.
- McLain, R. B., Market and 12th St., Wheeling, West Va. 1897.
- Mearns, Maj. Edgar A., U. S. National Museum, Washington, D. C. 1905.
- Meeker, Jesse C. A., 51 Washington Ave., Danbury, Conn. 1907.
- Meister, H. D., Wauseon, Ohio. 1909.
- Merrill, E. W., Sitka, Alaska. 1912.
- Mershon, W. B., Saginaw, Mich. 1911.
- Messenger, G. H., Linden, Iowa. 1910.
- Miller, Prof. Loye Holmes, State Normal School, Los Angeles. 1905.
- Miller, Mrs. Olive Thorne, 5928 Hayes Ave., Los Angeles. 1911.
- Miller, W. DeWitt, American Museum of Natural History, New York, N. Y. 1909.
- Miner, Dr. H. N., Mohawk. 1903.
- Mitchell, Dr. Walton I., 603 Beacon Bldg., Wichita, Kan. 1909.
- Moore, Chas. S., Box 222, San Diego. 1913.
- Moore, Robt. T., 46 Mansion Ave., Haddonfield, New Jersey. 1911.
- Moran, R. B., 380 Kingsley Ave., Palo Alto. 1897.
- Morcom, G. Frean, 734 Belden Ave., Chicago, Ill. 1904.
- More, R. L., Vernon, Texas. 1911.
- Mueller, Carl, Marysville. 1911.
- Munk, Dr. J. A., 337½ S. Hill St., Los Angeles. 1909.
- Murie, O. J., 809 Yeon Bldg., Portland, Ore. 1913.
- Myers, Mrs. H. W., 306 Ave. 66, Los Angeles. 1912.
- Nelson, E. W., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1904.
- Newberry, F. E., 210 Post St., San Francisco. 1904.
- Nicholson, Donald J., Orlando, Florida. 1911.
- Nicholls, J. T., American Museum of Natural History, New York, N. Y. 1909.
- Noack, H. R., 309 Perry St., Oakland, Cal. 1901.
- Norris, Joseph Parker, Jr., 2122 Pine St., Philadelphia, Penn. 1911.
- Norris, Roy, 735 N. 10th St., Richmond, Indiana. 1911.
- Oberholser, Harry C., 1444 Fairmont St., N. W., Washington, D. C. 1904.
- Ohl, H. C., Los Banos, 1913.
- Ohlendorf, W. C., M. D., 1922 Blue Island Ave., Chicago, Ill. 1910.
- Osgood, Wilfred H., Field Museum of Natural History, Chicago, Ill. 1893.
- Overton, Mrs. Eugene, 651 West 23rd St., Los Angeles. 1913.

- Owen, Virgil W., U. S. District Court, Federal Bldg., Los Angeles. 1896.
- Palmer, Elizabeth Day, 1741 Harvard Blvd., Los Angeles. 1909.
- Palmer, Dr. T. S., 1939 Baltimore St., N. W., Washington, D. C. 1903.
- Parker, Herbert, South Lancaster, Mass. 1911.
- Paul, Lucius H., 202 Edinburgh St., Rochester, New York, N. Y. 1911.
- Peabody, Rev. P. B., Route 6, Birch Haven, New Richmond, Wis. 1904.
- Pearson, T. Gilbert, 2257 Loving Place, New York, N. Y. 1910.
- Peck, Morton E., 244 N. 12th St., Salem, Ore. 1909.
- Pemberton, J. R., 18th and Corbett Road, Simons-Fout Brick Co., San Francisco. 1900.
- Pennock, Chas. J., Kennett Square, Chester Co., Penn. 1909.
- Perrin, J. B., Tucson, Arizona. 1913.
- Peyton, Lawrence, Sespe. 1909.
- Peyton, Sidney B., Sespe. 1913.
- Phelps, Frank M., 212 4th St., Elyria, Ohio. 1912.
- Philipp, Philipp Bernard, 220 Broadway, New York, N. Y. 1911.
- Phillips, Don C., 49 N. Main St., Napa. 1912.
- Phillips, John C., Knobfields, Wenham, Mass. 1911.
- Pierce, Wright M., Box 116, Claremont. 1912.
- Pierpont, Philip, Nordhoff. 1913.
- Pilsbury, Frank O., 90 Main St., Walpole, Mass. 1911.
- Pieasants, Mrs. J. E., R. D. 3, Orange. 1900.
- Pomeroy, H. K., Box 575, Kalamazoo, Mich. 1909.
- Price, A. E., Grant Park, Ill. 1905.
- Randolf, Miss Flora A., 2962 Derby St., Berkeley. 1907.
- Rankin, Edward P., El Monte. 1913.
- Rathbun, S. F., 217 14th Ave. N., Seattle, Wash. 1912.
- Ray, Milton S., 220 Market St., San Francisco. 1899.
- Redington, A. P., Box 66, Santa Barbara. 1897.
- Renick, Frank H., 1424 Belmont Ave., Seattle, Wash. 1912.
- Rich, Guy C., M. D., 1820 El Cerrito Place, Hollywood. 1911.
- Richards, E. B., 412 Kate Hayes St., Box 803, Grass Valley, Nevada Co. 1909.
- Richards, Dr. T. W., 1911 N. St., N. W., Washington, D. C. 1908.
- Richardson, Chas. H., Jr., Bussey Institution, Forest Hills, Boston, Mass. 1902.
- Richmond, Dr. Chas. W., U. S. National Museum, Washington, D. C. 1904.
- Riley, J. H., U. S. National Museum, Washington, D. C. 1909.
- Ritter, Prof. W. E., La Jolla, San Diego Co. 1901.
- Roberts, Dr. T. S., 1603 4th Ave., Minneapolis, Minn. 1909.
- Robertson, Howard, 526 Merchants Trust Bldg., Los Angeles. 1896.
- Robertson, John McB., Buena Park, Orange Co. 1913.
- Rockwell, Robert B., 535 Clarkson St., Denver, Colo. 1908.
- Rossignol, Gilbert R., Jr., 2116 Bull St., Savannah, Ga. 1909.
- Rowley, J., 42 Plaza Drive, Berkeley. 1909.
- Rust, Henry J., Box 683, Coeur d'Alene, Idaho. 1911.
- Sage, John H., Portland, Conn. 1910.
- Sampson, Walter B., 814 Kohl Bldg., San Francisco. 1894.
- Saunders, Aretas A., 16 S. 9th Ave., Mt. Vernon, N. Y. 1909.
- Saunders, W. E., London, Ontario, Canada. 1910.
- Schneider, J. J., Box 363, Anaheim. 1899.
- Schussler, Geo. W., 1345 Oak St., San Francisco. 1911.
- Sclater, William Lutley, 10 Sloane Court, London, S. W., England. 1909.
- Sharp, Clarence S., Escondido. 1902.
- Sharples, Robert P., West Chester, Pa. 1911.
- Shaw, W. T., 600 Linden Ave., Pullman, Wash. 1911.
- Shelton, Alfred, 2237 Bancroft Way, Berkeley. 1909.
- Sherman, Miss Althea R., Route 2, McGregor, Iowa. 1911.
- Shufeldt, Dr. R. W., 3356 18th St., Washington, D. C. 1911.
- Silliman, O. P., Castroville. 1913.
- Skinner, E. H., 745 W. 17th St., Los Angeles. 1900.
- Sleeth, Asa, 1025 Michigan Ave., Portland, Oregon. 1913.
- Sloanaker, Jos. L., Box 661, Palisades, Mesa Co., Colo. 1910.
- Smith, Allyn G., Box 107, Redlands. 1909.
- Smith, Austin Paul, Winslow, Arkansas. 1907.
- Smith, Prof. Frank, University of Illinois, Urbana, Ill. 1911.
- Smith, Franklin J., Box 98, Eureka. 1913.
- Smith, Wilfred, 1111 6th St., Santa Monica. 1911.
- Snyder, Gaylord K., 1425 W. Jefferson St., Los Angeles. 1910.
- Snyder, Prof. J. O., Box 775, Stanford University. 1900.
- Spaulding, E. S., 1408 Chapala St., Santa Barbara. 1910.
- Spaulding, F. B., Lancaster, N. H. 1910.
- Spielman, Oscar P., 1440 Warner Ave., Chicago, Ill. 1909.
- Squires, Rev. W. A., 1137 E. Main St., Stockton. 1912.

- Steinbeck, Wm., 1029 N. Hunter St., Stockton. 1897.
- Stevens, G. W., Alva, Oklahoma. 1912.
- Stevens, Dr. J. F., Box 546, Lincoln, Nebraska. 1911.
- Stock, Chester, 492 7th St., San Francisco. 1912.
- Stone, D. D., R. F. D. 3, Oswego, N. Y. 1909.
- Stone, Geo. E., 2545 B, Benvenue Ave., Berkeley. 1912.
- Storer, Tracy I., East Hall, University of California, Berkeley. 1910.
- Strecker, John K., Jr., Baylor University, Waco, Texas. 1909.
- Strong, Wm. A., 41 Grand Ave., San Jose. 1912.
- Stuart, George H., n. w. corner Broad and Chestnut Streets, Philadelphia, Pa. 1913.
- Suksdorf, P. J., Bingen, Wash. 1910.
- Swales, Bradshaw H., Grosse Isle, Michigan. 1906.
- Swarth, H. S., Museum of History, Science and Art, Exposition Park, Los Angeles. 1897.
- Sweeney, Joseph A., care of Forest Service, Laramie, Wyoming. 1912.
- Swett, Miss Helen, Martinez. 1901.
- Sykes, George Francis, Corvallis, Oregon. 1913.
- Tarbell, Miss Olga S., 1 Cabrillo Place, Pasadena. 1906.
- Taverner, P. A., 55 Elmhurst Ave., Highland Park, Mich. 1909.
- Taylor, E. F., Grass Valley, Nevada Co. 1910.
- Taylor, Loren E., Box 482, Reno, Nevada. 1897.
- Taylor, Walter P., Museum of Vertebrate Zoology, University of California, Berkeley. 1905.
- Tawcett, F. H., Narrows, Harney Co., Oregon. 1912.
- Telford, Harry, Klamath Falls, Oregon. 1912.
- Terrill, L. McL., St. Lambert, Quebec, Canada. 1911.
- Test, Louis Agassiz, Rolla, Missouri. 1908.
- Tevis, L. K., Bakersfield. 1912.
- Thayer, John E., Box 98, Lancaster, Mass. 1906.
- Todd, W. E. Clyde, Carnegie Museum, Pittsburgh, Pa. 1909.
- Tracy, H. C., 504 N. Highland Ave., Hollywood. 1910.
- Treganza, A. O., 62 Hooper Bldg., Salt Lake City, Utah. 1907.
- Tremper, Lauren, 136 Dewey St., Philadelphia, Pa. 1911.
- Trenor, Thomas, 1501 Scott St., San Francisco. 1913.
- Trippe, Thomas M., Howardsville, Colo. 1911.
- Trumbull, J. H., Plainville, Conn. 1911.
- Tyler, John G., 1114 Belmont Ave., Fresno. 1905.
- Ulrich, Al. G., 3966 Arsenal St., St. Louis, Mo. 1909.
- Unglish, W. E., Box 233, Gilroy. 1910.
- Van Fleet, Clark C., 2020 Pacific Ave., San Francisco. 1906.
- Van Rossem, Adriaan, R. D. 2, Box 99 A, Pomona. 1909.
- Visher, Prof. Stephen Sargent, University of South Dakota, Vermilion, S. D. 1911.
- Walker, Alex., Mulino, Oregon. 1911.
- Walker, Ernest P., Laramie, Wyoming. 1910.
- Wall, Edward, Box 554, San Bernardino. 1913.
- Warren, E. R., 20 W. Caramillo St., Colorado Springs, Colo. 1909.
- Waterman, Miss Edith S., 728 Paru St., Alameda. 1906.
- Wear, Miss Winifred N., 2448 Monterey St., Fresno. 1909.
- Weber, H. B., Blackfoot, Idaho. 1910.
- Weed, Benj., 1950 Jones St., San Francisco. 1911.
- Welch, L. W., 527 E. 15th St., Long Beach. 1911.
- Wells, Gurni, R. F. D. 6, Box 73, Santa Rosa. 1911.
- Wetmore, Alex., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. 1909.
- Wheeler, Mrs. J. W., Box 847, Tucson, Arizona. 1912.
- Wheeler, Roswell S., 296 Park View Terrace, Oakland. 1894.
- Wheelock, Mrs. H. B., 1040 Hinman Ave., Evanston, Ill. 1909.
- Whitcher, Chas. L., Los Olivos. 1911.
- Widmann, Otto, 5105 Von Versen Ave., St. Louis, Mo. 1904.
- Wilder, H. E., Carlotta, Humboldt Co. 1909.
- Willard, B. G., 30 Huntington Ave., Boston, Mass. 1910.
- Willard, F. C., Tombstone, Arizona. 1905.
- Willett, George, 2123 Court St., Los Angeles. 1905.
- Wood, George, 7403 Hawthorne Ave., Hollywood. 1912.
- Wood, J. Claire, 179 17th St., Detroit, Mich. 1909.
- Wood, Jesse J., 121 Montecito St., Santa Barbara. 1912.
- Woodruff, Frank M., Academy of Sciences, Lincoln Park, Chicago, Ill. 1906.
- Wright, Frank S., 14 Cayuga St., Auburn, N. Y. 1910.
- Wright, Howard W., 830 N. Orange Grove Ave., Pasadena. 1907.
- Wueste, Rudolph, Morena Dam, San Diego. 1901.
- Wyman, L. E., R. D. 3, Nampa, Idaho. 1908.
- Wythe, Miss Margaret W., 4247 Terrace St., Oakland. 1912.
- Zahn, Otto J., 2115 Estrella Ave., Los Angeles. 1896.