#### State of Connecticut

PUBLIC DOCUMENT No. 47

### STATE GEOLOGICAL AND NATURAL HISTORY SURVEY

EDWARD L. TROXELL. Ph.D., Superintendent

**BULLETIN No. 62** 

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HARTFORD

Printed by the State Geological and Natural History Survey

1941

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 $\begin{array}{c} {\bf HARTFORD} \\ {\bf Printed \ by \ the \ State \ Geological \ and \ Natural \ History \ Survey} \\ {\bf 1941} \end{array}$ 

### State Geological and Natural History Survey of Connecticut

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REMSEN BRINCKERHOFF OGILBY, President of Trinity College
JAMES LUKENS McConaughy, President of Wesleyan University
ALBERT N. JORGENSEN, President of the University of Connecticut
KATHARINE BLUNT, President of Connecticut College

#### SUPERINTENDENT

EDWARD L. TROXELL, Ph. D. Trinity College, Hartford, Connecticut

#### DISTRIBUTION AND EXCHANGE AGENT

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> John M. Dowe State Comptroller

Publication approved by the Commissioner of Finance and Control

The Peiper Press, Inc. Wallingford, Conn.

## Eighteenth and Nineteenth Biennial Reports of the Commissioners

OF THE

State Geological and Natural History Survey

1937-1941

BULLETIN No. 62



HARTFORD

Printed by the State Geological and Natural History Survey
1941

#### LETTER OF TRANSMITTAL

Hartford, Conn., Feb. 6, 1941

His Excellency, Robert A. Hurley, Governor of Connecticut Hartford, Connecticut

Sir:

I have the honor to transmit to you herewith, in behalf of the Commissioners of the State Geological and Natural History Survey, for the General Assembly, in compliance with past custom, the eighteenth and nineteenth biennial reports of the Survey, covering the four years ending December 31, 1940.

Respectfully submitted,

Edward L. Troxell

Superintendent

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#### WILTON EVERETT BRITTON

1868 - 1939

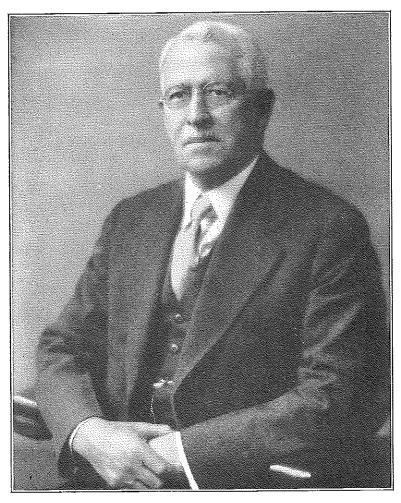
Dr. Wilton Everett Britton, Superintendent of the State Geological and Natural History Survey since 1925, and State Entomologist since 1901, died February 15, 1939. With his passing the State lost a devoted public servant, a great entomologist of international reputation, and a man of sterling character.

Dr. Britton was born at Marlboro, Massachusetts, September 18, 1868, but his family moved to a farm in Gilsum, New Hampshire, when he was a year old. His early education was obtained in rural schools. He received the degree of Bachelor of Science from the New Hampshire College of Agriculture and Mechanic Arts (now the University of New Hampshire) in 1893, Doctor of Philosophy from Yale University in 1903, and Doctor of Science (honorary) from the University of New Hampshire in 1930. In 1894, after a year of graduate study at Cornell University, Dr. Britton became a member of the staff of the Connecticut Agricultural Experiment Station at New Haven, beginning his work in horticulture. In 1901 he was made State Entomologist, a position he held until his death. Between 1901 and 1906 he lectured in Forest Entomology at Yale University. Although his early work was in the fields of horticulture and botany, most of his professional life was devoted to entomology. In 1936 he was awarded Honorary Recognition as a leader in agriculture and rural life by the Connecticut State College.

Dr. Britton early planned a series of entomological works, under the general title of "Guide to the Insects of Connecticut", to be published by the State Geological and Natural History Survey. The first two of these, "Part I. General Introduction", by Wilton Everett Britton, and "Part II. The Euplexoptera and Orthoptera of Connecticut", by Benjamin Hovey Walden, appeared in Bulletin 16 in 1911. The third, "The Hymenoptera, or Wasp-like Insects of Connecticut", by Henry Lorenz Viereck and collaborators, was published as Bulletin 22 in 1916. The fourth, "The Hemiptera, or Sucking Insects of Connecticut", by Wilton Everett Britton and collaborators, was published as Bulletin 34 in 1923. In 1927 came the fifth, Bulletin 39, "The Odonata or Dragonflies of Connecticut", by Philip Gorman. In addition to this Doctor Britton wrote the "Check-List of the Insects of Connecticut", published as Bulletin 31, in 1920 and its first supplement, Bulletin 60, "Additions to the Check-List of the Insects of Connecticut", which was published in 1938. Bulletin 60 also contained the "Check-List of the Spiders of Connecticut", by Benjamin Julian Kaston.

In 1925 Dr. Britton was appointed Superintendent of the Survey. A man of broad interests and endowed with a fine personality, he was well

equipped for the position and undertook his duties with energy and enthusiasm. During his term of office Bulletins 36 to 60 inclusive, covering a variety of geological, botanical and zoological subjects, were published.



WILTON EVERETT BRITTON

At the time of his death a number of bullctins were in preparation, including the Diptera of Connecticut. In this, as in other phases of his work, he has left a remarkable record of achievement.

In 1895 he married Miss Bertha Madeline Perkins of Surry, New Hampshire, who died in 1938. There were no children.

Dr. Roger B. Friend

#### EIGHTEENTH AND NINETEENTH BIENNIAL REPORTS OF THE

#### GEOLOGICAL AND NATURAL HISTORY SURVEY OF CONNECTICUT

EDWARD L. TROXELL, Ph. D., Superintendent

#### Administration of the Geological and Natural History Survey:

#### General Statutes—Revision of 1930

continue to be under the direction of a commission composed of the governor, the president of ... [each college and university of the state | ... who shall serve without compensation ...; and said commissioners shall have general charge of the survey,

and shall appoint ... a ... superintendent ... and such assistants and employees as may be necessary .... Said survey shall have for its objects: (1) An examination of the

... The State Geological and Natural History Survey shall

geological formation ...; (2) ... of the animal and plant life of the state, with special reference to its economic and educational value; (3) the preparation of special maps to illustrate the resources of the state; (4) the preparation of special reports,

with necessary illustrations and maps, which shall embrace both a general and detailed description of the geology and natural history of the state ... . . . Said commissioners shall

cause to be prepared a report to the general assembly before each meeting of the same, showing the progress and condition of the survey, together with such other information as they may deem useful or as the general assembly may require ...

... reports ... with illustrations and maps, shall be prepared for publication, and, when printed, ... shall be distributed or sold . . . as the interests of the state and of science may demand, and all moneys obtained by the sale ... shall be paid into the

state treasury.

#### The superintendents to the present time have been:

	William North Rice, Wesleyan University,	1903-1916
2	Herbert Ernest Gregory, Yale University,	1916-1921
	Henry Hollister Robinson, Yale University,	1921-1925
	Wilton Everett Britton, Conn. Agr. Exp. Sta.,	1925-1939
	William Lorenzo Slate (Acting), Conn. Agr. Exp. Sta.,	1939-1939
	Edward Leffingwell Troxell, Trinity College,	1940-

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#### THE GEOLOGICAL AND NATURAL HISTORY SURVEY REPORT

CONNECTICUT GEOL. AND NAT. HIST. SURVEY

Late in 1939 the commissioners of the State prevailed upon Governor Baldwin to reestablish the Survey, the activities of which had been largely suspended during the year since the death of Dr. Britton. The present superintendent was appointed January first, 1940. The work of the survey had been carried on in the interim by Director Slate as Acting Superintendent. One monograph was finally issued in 1940; this was Bulletin Number 61: The Weather and Climate of Connecticut, by Joseph Milton Kirk. There was an inheritance, from Dr. Britton, of a number of papers; it is the publication of these, as bulletins, that constitutes our most urgent need at the present time.

Plan of the Survey: From the beginning it seems to have been the general plan of the Survey to have a Superintendent whose duty is to look after the detailed operations; the Commissioners in whose hands is complete responsibility have served as advisors, have acted as a check on the activities of the Superintendent, and have kept the Survey running toward a high objective. There is a third important element, the financial factor; without this the Survey could not function and for this it is dependent upon the Governor of the State and the General Assembly.

Although the Survey is not one of the large agencies, yet it has been supported generously by the authorities and they have taken pride in the past in its accomplishments. On one occasion only, 1933, has the support been withdrawn, that was during the depression.

The Superintendent in large measure is occupied with correspondence, conferences, studies and field work; the State Survey renders service answering calls for information from many sources: business enterprises, individuals, from groups studying natural science and it even responds to inquiries and requests that come from without the State of Connecticut. It is active in promoting new investigations, directing the scientific work and editing, in a broad way, the manuscripts submitted. These activities of the Survey, doubtless of great importance, might go unnoticed; it is therefore highly desirable to have something permanent to show for the work the State is doing. We refer to our publications. Our Bulletins have gained a wide and favorable reputation and it is largely on these that the prestige of the Survey rests. One Bulletin, only, was published in 1940, the last before that—one in 1938.

That the researches carried on through the Survey are of high quality is due to the willingness of the scientists in our State to contribute their services generously; much of this work is done by the staff members of our colleges and universities, not only in Connecticut but elsewhere, who are willing to give of their time and talent with little or no remuneration. They do this on the assumption that the State will publish the results of their investigations, and it offers a fine arrangement for putting important scientific matter before the people of the State. In many other commissions and agencies it is necessary to employ all of their assistants while we are able to draw from the best minds in the region practically without cost.

Along some lines it is advisable to cooperate with the Federal government, particularly in projects such as mapping where the national government is able to supply the printed results.

Manuscripts Available: The more important manuscripts at present in the hands of the Superintendent or practically completed are as follows:

- 1. The First Fascicle of the Diptera, authors: Alexander, Crampton and Curran.
- Nine other short papers on the Diptera by various authors. Some of these are complete and ready for publication, others need only slight revision.
- The manuscript of Dr. Foye and a more extensive study of the geology of Connecticut, soon to be completed, by Dr. Agar and others collaborating.
- A Fisheries Survey of Important Connecticut Lakes, by Mr. L. M. Thorpe, Dr. E. S. Deevey, Dr. George W. Hunter, III, and Mr. Dwight A. Webster, is now ready.
- 5. A Check-list of Mollusks of Connecticut, by Wm. J. Clench and R. T. Abbott of Harvard, manuscript now on hand.
- 6. The Spiders of Connecticut, by Dr. B. J. Kaston, completed this spring.
- The Triassic Geology of Connecticut has been submitted by Dr. Paul D. Krynine.

Our First Need: It should be repeated that our greatest need now is a sum of money for the publication of these manuscripts. They were begun at the suggestion of Dr. Britton and with his support the authors were inspired to continue their studies. This matter is the more pressing because a long delay in printing would decrease definitely the value of these papers. Some of them will constitute classical studies in their particular fields and will be used and welcomed by scientists all over the country. Some ten thousand dollars would cover these publication costs; it is important to note that in large measure the printing of these papers will be financially repaid through sales and exchange for other books which the various state departments need.

One of our earliest Bulletins should be assigned to the First Fascicle of the Diptera by Dr. C. H. Curran, Prof. C. P. Alexander and Prof. G. C. Crampton. This would make a larger volume of approximately five to six hundred pages when it is published. We should pause to note that this was in part the work of Dr. Britton, himself, and was an investigation which he had been promoting with great enthusiasm.

Other Important Projects: Even before his appointment as such the present Superintendent was making an effort to secure for Connecticut a seismograph. The need for such an instrument is emphasized by the recent quakes so distinctly felt at the close of the year; the value of a seismograph here is made even more clear because there have been other tremors in this section that went unnoticed except as reported from other states that have instruments for their detection. A seismograph has wide

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appeal because of the human interest attached to earthquakes; earthquake studies promise unpredictable benefits as always in pure science. There is, moreover, an economic value in having a seismograph in Connecticut: first, to assist insurance underwriting, where now this must be done by conjecture and the rates are necessarily high; second, a seismograph would aid building and construction, indicating where greater or less precaution should be taken. A careful study of seismology here might reassure us that no serious earthquake is imminent or it might warn us, for instance, that the so-called "Moodus noises" are not mere rumblings but a premonition of something more severe to follow. High authorities have recently predicted more severe earthquakes in the near future for Connecticut.

Still another important matter, pressed upon the attention of the Survey from many sources, is the making of new relief maps for the State. The old, government maps, inaccurate as they are and lacking as they do many of the new roads and other cultural elements, have always been widely used by our citizens. They have been valuable to geologists and to naturalists and to those working on our economic products and they have been of great use to our state engineers in every field. Revised contour maps of greater accuracy and larger scale may someday be important to us in time of war. They will always be of value in war maneuvers.

The State Highway Department is now revising all the road maps. This revision offers an excellent basis for the topography, the sketching in of contour lines. Such mapping as we suggest could be carried on with the generous assistance of the national government.

Other Activities of the Survey: For some years past, the Survey has been cooperating with the State Forest and Park Association, particularly with the Nature Study Committee. The interests of this committee are definitely in harmony with the purpose of the State Survey which includes the advancement of our knowledge of geology, botany, and zoology for the benefit of the people, and prescribes that all information be put into such form as to be useful in the educational work in the various schools. The Superintendent has also been serving on a committee which has for its object a study of the mineral resources of the states of New England; this committee, organized by the New England Council, is particularly active along the lines of preparedness—the searching out of our strategic resources in the present emergency.

Studies Now in Progress: Several years ago Governor Cross authorized the publication of a treatise on the geology of eastern Connecticut by Professor Wilbur Foye (posthumously). Although the first step in the printing of this paper had been taken it was so long delayed that it was found necessary either to make a complete revision or to incorporate parts of the manuscript into a broader treatise of the geology of Connecticut. It is now recommended by leading geologists of the State that the Foye manuscript be made an important part of a bulletin on the general geology. The valuable researches of Professor Foye will be given a conspicuous place in this new treatment. It is planned to have contributions for this general study of Connecticut from the following men: Drs. Longwell, Flint, Agar, Peoples, Keppel, Krynine, and others who are especially qualified to bring our knowledge of the geology up to date; they will be able to offer an even more valuable bulletin report than was the old one by Rice and Gregory. 1906, now out of print, which had such wide usefulness and popularity,

Dr. B. J. Kaston will soon have completed a fine study on the Spiders of Connecticut, listing some six hundred species, treating of the life habits. the evolution, etc., of this very familiar type. It has been suggested that the publication of this manuscript might be supported in part by the New England Museum of Natural History which has funds definitely set aside for such a purpose. No important work has been done on the spiders here since 1880.

Dr. William Agar has been studying the geology of the western part of the State. This work has been carried on for a number of years and money has been advanced from time to time to further his investigations. He has to his credit a dozen or more papers on the geology of that part of the State in various scientific journals; his work, now practically completed, includes a detailed areal geological map. For the sake of economy it is planned at this time to include only a part of his results in the broader treatment of the geology of the State; it would, however, be well worth the cost to publish his complete report.

The field work originally begun by Dr. Joe W. Peoples of Wesleyan University on the pegmatites of eastern Connecticut is now being advanced by his assistant, Dr. David Keppel, It is hoped this will someday lead to a separate manuscript and publication; but again, it is felt necessary to abbreviate this treatment and include it, also, in the larger study of the geology of the State.

It has fallen to the lot of Dr. Roger B. Friend, sometime Acting Director of the Agricultural Experiment Station, to father the preparation and presentation of numerous other manuscripts likewise on the Diptera; they are researches envisioned by Dr. Britton and carried out by the highest authorities in the country on their respective subjects. These nine or more shorter papers seem valuable studies and their publication should be given complete support for the benefit of the citizens of this and other states.

A check-list of the mollusks of our State (36 pages, typed) by William J. Clench and R. T. Abbott, of Harvard University, has been in our hands for some time; the authors began this work at the solicitation of Dr. Britton and they were urged by him from time to time to hurry the completion of their investigations. The check-list has been finished but the study of the taxonomy and morphology continues.

Dr. Paul Krynine has made an extensive and detailed study of the physical qualities of the red sandstones of Connecticut. While it is planned to include much of this in a general treatment of the geology of the state yet his scholarly studies deserve a separate publication. His paper has been highly recommended to us by the authorities at Yale who have followed his work from its inception. Mr. William E. Benson of Yale has completed a useful compilation of data on our mineral resources. It is not intended that this should be published, but it will serve for reference and as a supplement to Bulletin 51—The Minerals of Connecticut.

These additional papers are being prepared: The Acarina or Mites of Connecticut, Philip Garman; Fungi of the Trees and Shrubs, G. P. Clinton

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and Rush P. Marshall; Rusts of Connecticut, G. P. Clinton and W. R.

Recommendations: It is urged that all our natural resources be studied exhaustively. Superintendents heretofore have divided the work of the Survey broadly into geology and biology; in connection with the latter our studies should be pursued in collaboration with the State Forester, the Secretary of the Forest and Park Association, the Fish and Game Commission. The geological work has received definite assistance from the Development Commission and the New England Council. All of our activities should be carried on with many other agencies, official and unofficial, which in the past have worked enthusiastically with us.

At this time in particular we should look to the added production of all our mineral resources that offer the possibility of strategic importance. Specifically, we would promote the use of our large garnet and quartz deposits and of the diatomaceous earth, all of which can be used for abrasives. Pyrophyllite offers a substitute for the better asbestos minerals and talc. We have the proper ingredients for the manufacture of rock wool. Old iron mines might be reopened, particularly for their maganese content. There is valuable mica and feldspar in our abundant pegmatites; kyanite seems to be available in commercial quantities; our kaolin deposits might be further investigated. It is urged that we make greater use of our extensive peat beds.

It is further recommended that we continue the lines of investigation so extensively carried on by Dr. Britton in entomology broadly and on the Diptera in particular, but it is obvious that this can not be done satisfactorily until the present manuscripts are made available to the public.

#### List of Bulletins

#### of the

#### State Geological and Natural History Survey

Any of the following bulletins that are not out of print will be sent postpaid on receipt of the price.

- 1. First Biennial Report of the Commissioners of the State Geological and Natural (Out of print). History Survey, 1903-1904; 18 pp., 23 cm., 1904.
- 2. A Preliminary Report on the Protozoa of the Fresh Waters of Connecticut: by Herbert William Conn, Ph.D.; 69 pp., 34 pls., 23 cm., 1905. (Out of print).
- 3. A Preliminary Report on the Hymeniales of Connecticut: by Edward Albert (Out of print). White, B.S.; 81 pp., 40 pls., 23 cm., 1905.
- 4. The Clays and Clay Industries of Connecticut: by Gerald Francis Loughlin, S.B.; 121 pp., 13 pls., 23 cm., 1905.
- 5. The Ustilagineae, or Smuts, of Connecticut: by George Perkins Clinton, S.D.; 45 pp., 55 figs., 23 cm., 1905.
- 6. Manual of the Geology of Connecticut: by William North Rice, Ph.D., LL.D. and Herbert Ernest Gregory, Ph. D.; 273 pp., 31 pls., 22 figs., (10 maps), 23 cm., 1906. (Out of print).
- 7. Preliminary Geological Map of Connecticut: by Herbert Ernest Gregory, Ph.D. and Henry Hollister Robinson, Ph.D.; 39 pp., 2 maps (1 in pocket), 23 cm., 1907. (Out of print).
- 8. Bibliography of Connecticut Geology: by Herbert Ernest Gregory, Ph.D., 123 pp., 23 cm., 1907.
- 9. Second Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1905-1906; 23 pp., 23 cm., 1906.
- 10. A Preliminary Report on the Algae of the Fresh Waters of Connecticut: by Herbert William Conn, Ph. D., and Lucia Washburn (Hazen) Webster, M.S.; 78 pp., 44 pls., 23 cm., 1908.
- 11. The Bryophytes of Connecticut: by Alexander William Evans, Ph.D., and George Elwood Nichols, B.A.; 203 pp., 23 cm., 1908.

12. Third Biennial Report of the Commissioners of the State Geological and Natural (Out of print). History Survey, 1907-1908; 30 pp., 23 cm., 1908.

- 13. The Lithology of Connecticut: by Joseph Barrell, Ph.D., and Gerald Francis (Out of print). Loughlin, Ph.D.; 207 pp., 6 tables, 23 cm., 1910.
- 14. Catalogue of the Flowering Plants and Ferns of Connecticut Growing Without Cultivation: by a Committee of the Connecticut Botanical Society consisting of Charles Burr Graves, A.B., M.D., Edwin Hubert Ermes, M.D., Charles Humphrey Bissell, Luman Andrews, Edgar Burton Harger, Ph.B., and Charles Alfred Weatherby, A.M.; 569 pp., 23 cm., 1910.
- 15. Second Report on the Hymeniales of Connecticut: by Edward Albert White, B.S.; 70 pp., 28 pls., 23 cm., 1910.

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- 16. Guide to the Insects of Connecticut, prepared under the direction of Wilton Everett Britton, Ph.D. Part I. General Introduction: by Wilton Everett Britton, Ph.D. Part II. The Euplexoptera and Orthoptera of Connecticut: by Benjamin Hovey Walden, B. Agr.; 169 pp., 11 pls., 16 figs., (1 map), 23 cm., 1911. (Out of print).
- 17. Fourth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1909-1910; 3l pp., 23 cm., 1910.
- 18. Triassic Fishes of Connecticut: by Charles Rochester Eastman, Ph.D.; 78 pp., 11 pls., 8 figs., 23 cm., 1911.
- 19. Echinoderms of Connecticut: by Wesley Roswell Coe, Ph. D.; 152 pp., 32 pls. 29 figs., 23 cm., 1912.
- 20. The Birds of Connecticut: by John Hall Sage, M.S., and Louis Bennett Bishop, M.D., assisted by Walter Parks Bliss, M.A.; 370 pp., 23 cm., 1913.
- 21. Fifth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1911-1912; 27 pp., 23 cm., 1912.
- 22. Guide to the Insects of Connecticut, prepared under the direction of Wilton Everett Britton, Ph.D. Part III. The Hymenoptera, or Wasp-like Insects, of Connecticut: by Henry Lorenz Viereck, with the collaboration of Alexander Dyer MacGillivray, Ph.D., Charles Thomas Brues, M.S., William Morton Wheeler, Ph.D., and Sievert Allen Rohwer; 824 pp., 10 pls., 15 figs., 23 cm., 1916.
- 23. Central Connecticut in the Geologic Past: by Joseph Barrell, Ph.D.; 44 pp., 5 pls., 23 cm., 1915.
- 24. Triassic Life of the Connecticut Valley: By Richard Swann Lull, Ph.D., 285 pp., 3 maps, 12 pls., 126 figs., 23 cm., 1915.
- 25. Sixth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1913-1914; 24 pp., 23 cm., 1915.
- 26. The Arthrostraca of Connecticut: by Beverly Waugh Kunkel, Ph.D.; 261 pp., 84 figs., 23 cm., 1918.
- Seventh Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1915-1916; 17 pp., 23 cm., 1917.
- 28. Eighth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1917-1918; 21 pp., 23 cm., 1919. (Out of print).
- 29. The Quaternary Geology of the New Haven Region, Connecticut: by Freeman Ward, Ph.D.; 80 pp., 9 pls., 17 figs., 23 cm., 1920.
- 30. Drainage Modifications, and Glaciation in the Danbury Region, Connecticut: by Ruth Sawyer Harvey, Ph. D.; 59 pp., 5 pls., 10 figs., 23 cm., 1920.
- 31. Check List of the Insects of Connecticut: by Wilton Everett Britton, Ph.D.; 397 pp., 23 cm., 1920.
- 32. Ninth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1919-1920; 18 pp., 23 cm., 1920.
- 33. Geology of the Stonington Region, Connecticut: by Laura Hatch Martin, Ph.D.; 70 pp., 1 map, 8 figs., 23 cm., 1925.
- 34. Guide to the Insects of Connecticut, prepared under the direction of Wilton Everett Britton, Ph. D. Part IV. The Hemiptera or Sucking Insects of Connecticut: by Wilton Everett Britton, Ph.D., with collaboration of James Francis Abbott, Ph.D., Arthur Challen Baker, Ph.D., Harry Gardner Barber, A.M., William Thompson Davis, Dwight Moore DeLong, PH.D., William Delbert Funkhouser, Ph.D., Harry Hazelton Knight, Ph.D., Asa Chandler Maxson, Herbert Osborn, D.Sc., Howard Madison Parshley, Sc.D., Edith Marion Patch, Ph.D., Louis Agassiz Stearns, M.Sc., José Rollin de la Torre-Bueno, F.E.S., Edward Payson Van Duzee, Harley Frost Wilson, M.S.: 807 pp.. 20 pls., 169 figs., 23 cm., 1923.

- 35. Tenth and Eleventh Biennial Reports of the Commissioners of the State Geological and Natural History Survey, 1921-1924; 17 pp., 23 cm., 1924.
- 36. The Uredinales or Rusts of Connecticut and Other New England States: by Willis Roberts Hunt, Ph.D.; 198 pp., 2 figs., 23 cm., 1926.
- 37. Catalogue of the Lichens of Connecticut: by Alexander William Evans, Ph.D. and Rose Meyrowitz, M.S.; 56 pp., 23 cm., 1926.
- 38. Twelfth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1925-1926; 23 pp., 1 pl., 23 cm., 1927.
- 39. Guide to the Insects of Connecticut. Part V. The Odonata or Dragonflies of Connecticut: by Philip Garman, Ph.D.; 331 pp., 22 pls., 67 figs., 23 cm., 1927.
- 40. The Geology of the Shepaug Aqueduct Tunnel, Litchfield County, Connecticut: by William Macdonough Agar, Ph.D., with a chapter by Robert A. Cairns; 38 pp., 8 pls., 2 maps, 3 figs., 23 cm., 1927.
- 41. Guide to the Geology of Middletown, Connecticut, and Vicinity: by William North Rice, Ph.D., LL.D., and Wilbur Garland Foye, Ph.D.; 137 pp., 3 pls., 33 figs., 23 cm., 1927.
- 42. The Algae of Connecticut: by Clarence John Hylander, Ph.D., 245 pp., 28 pls. 23 cm., 1928.
- 43. The Life Forms of Connecticut Plants and Their Significance in Relation to Climate: by Beulah Ennis, Ph.D.; 100 pp., 20 pls., 23 cm., 1928.
- 44. Report on the Water Resources of Connecticut: by Roscoe Henry Suttie, C.E. 168 pp., 7 figs., 23 cm., 1928.
- 45. Thirteenth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1927-1928; 32 pp., 23 cm., 1929.
- 46. The Physical History of the Connecticut Shoreline: by Henry Staats Sharp, Ph.D.; 97 pp., 8 pls., 28 figs., 23 cm., 1929.
- 47. The Glacial Geology of Connecticut: by Richard Foster Flint, Ph.D.; 294 pp. 64 pls., 42 figs., 1 map (in pocket), 23 cm., 1929.
- 48. Additions to the Flora of Connecticut (First Supplement to Bulletin No. 14): by a Committee of the Connecticut Botanical Society consisting of Edgar Burton Harger, Ph.B., Charles Burr Graves, A.B., M.D., Edwin Hubert Eames, M.D., Charles Alfred Weatherby, A.M., Richard William Woodward, A.B., and Goerge Henry Bartlett, Ph.B.; 94 pp., 23 cm., 1930.
- 49. Public and Semi-Public Lands of Connecticut: by Philip Laurance Buttrick, M.F.: 151 pp., 13 maps, 6 figs, 23 cm., 1930.
- 50. Fourteenth Biennial Report of the Commissioners of the State Geological and Natural History Survey, 1929-1930; 26 pp., 23 cm., 1931.
- 51. The Minerals of Connecticut: by John Frank Schairer, Ph.D.; 121 pp., 14 figs. 23 cm., 1931.
- 52. Fifteenth Biennial Report of the Commissioners of the State Geological and Natural'History Survey, 1931-1932; 24 pp., 23 cm., 1933.
- 53. The Mammals of Connecticut: by George Gilbert Goodwin; 221 pp., 33 pls., 19 figs., 23 cm., 1935.
- 54. The Reptiles of Connecticut: by George Herbert Lamson, M.S.; 35 pp., 12 pls., 23 cm., 1935.
- 55. The Petrology of the Prospect Porphyritic Gneiss of Connecticut: by Lincoln Stewart, M.A.; 40 pp., 8 pls., 2 figs., 23 cm., 1935.
- 56. Marbles and Limestones of Connecticut: by Fred Holmsley Moore, M.A. 56 pp., 14 pls., 23 cm.
- 57. The Amphibia of Connecticut: by Lewis Hall Babbitt; 50 pp., 20 pls., 4 figs. 23 cm., 1937.
- 58. The West Wall of the New England Triassic Lowland: by Girard Wheeler; 73 pp., 7 pls., 43 figs., 23 cm., 1937.

- 60. Additions to the Check-List of the Insects of Connecticut: (First Supplement to Bulletin No. 31): by Wilton Everett Britton, Ph.D.; Check-List of the Spiders of Connecticut: by Benjamin Julian Kaston, Ph.D.; 201 pp., 23 cm., 1938.
- 61. The Weather and Climate of Connecticut; by Joseph Milton Kirk; 253 pp., 12 figs., 23 cm., 1939. \$1.25

#### BOUND VOLUMES

A few hundred copies of each bulletin of the foregoing list have been reserved for binding, and these have been assembled and bound in the following order:

Volume	Contains Bulletins	Price Prepaid
1	· 1-5	Out of print
II	6-12	Out of print
III	13-15	Out of print
IV	16-21	\$2.50
$\mathbf{v}$	22	2.75
VI	23-32	4.15
VII	33-35	3,75
VIII	36-42	5.00
IX	43-48	5.00

Correspondence concerning projects, and subject matter of the bulletins, should be sent to

Edward L. Troxell, Superintendent, Trinity College, Hartford, Conn.

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