XXXII.—DESCRIPTIVE LIST OF THE PUBLICATIONS OF THE UNITED STATES FISH COMMISSION, FROM ITS ORGANIZATION IN 1871 TO DECEMBER 31, 1879.

Compiled by C. W. SMILEY.

1871.

1. [Serial mark E_2^n .] Letter addressed to fishermen and others living on the shores of Lake Michigan, and announcing that fishes with metallic tags had been liberated at twenty points, and asking for information about their subsequent capture. Circular and 5 questions. 1 page. 16 by 19^{cm} .

1872.

- 2. [Serial mark $\mathbf{E}_{\mathbf{4}}^{n}$.] Memoranda of inquiry. Circular. 1 page.
- 3. [Serial mark E_3^n .] Questions relative to the food-fishes of the United States; name, distribution, abundance, size, migrations and movements, relationships, food, reproduction, artificial culture, protection, diseases, parasites, capture, economical value, and application. SS questions. 7 pp. 9.5 by 17^{cm} .
- 4. [Serial mark E_1^n .] Letter to accompany No. 3, inviting information concerning food-fishes. Circular. 1 page. 16 by 14^{cm} .

1873.

- 5. [Serial mark $\mathbf{E}_{\mathbf{b}}^n$.] Statistics of the menhaden fisheries. Announcement of a proposed investigation, with questions concerning name, abundance, migration and movements, food, reproduction, enemies and fatalities, capture, economical value, and applications. Circular and 65 questions. 4 pp. 16 by 20^{cm} .
- 6. [Serial mark E_1^{\wedge} .] Part I. Report on the condition of the sensisheries of the south coast of New England in 1871 and 1872, by Spencer F. Baird, Commissioner. Pamphlet. Svo. 47 pp. 11.2 by 19. 5^{cm}.
- 7. Part I. Report on the condition of the sea-fisheries of the south coast of New England in 1871 and 1872, by Spencer F. Baird, Commissioner, with supplementary papers. Cloth. Svo. Pp. xlvii-852. Plates xxxviii, with 38 leaves explanatory to plates. 2 maps.

8. [Serial mark E₂.] Part II. Report of the Commissioner for 1872 and 1873. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States. Pamphlet. 8vo. 102 pp. 11.2 by 19.5^{cm}.

9. Part II. Report of the Commissioner for 1872 and 1873. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States, with supplementary

papers. Cloth. 8vo. Pp. cii, 808. Plates xxxvii. 4 maps.

10. [Serial mark 12.] Statistics of the menhaden fisheries. Reprint of No. 5.

1875.

11. [Serial mark E_2^c .] Statistics of the fishing vessels of the United States. Blank for recording all particulars of vessel, crew, and occupation. Also specimen table. Ruled in 11 columns, 2 pp. 22 by 12^{cm} and 42 by 31^{cm} .

12. [Serial mark 10, E_1^c .] Statistics of the fishery marine. A circular letter to collectors of customs to accompany No. 11. On reverse is same specimen table that is given in No. 11. 2 pp. 13.5 by $16^{\rm cm}$ and 20 by $13^{\rm cm}$.

1876.

13. [Serial mark E₃.] Part III. Report of the Commissioner for 1873-74 and 1874-75. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States. Pamphlet. 8vo. 52 pp. 11.2 by 19.5°.

14. Part III. Report of the Commissioner for 1873-774 and 1874-775. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States, with supplementary papers. Cloth. 8vo. Pp. lii, 777.

1877.

15. [Serial mark \mathbf{E}_3^n .] Questions relative to the food fishes of the United States. Reprint of No. 3. Circular and 89 questions. 4 pp. 13.5 by 25^{cm} .

16. [Serial mark E_6^n .] Statistics of the mackerel fisheries, &c. Circular-letter alluding to the importance of the information desired, and asking replies to questions accompanying (No. 15). 1 p. 13.5 by 13^{cm} .

17. [Serial mark E_{7}^{n} .] Statistics of the cod fisheries, &c. Circular-letter soliciting information. To accompany questions (No. 15). 1 p. 13.5 by 13^{cm} .

18. [Serial mark $E_{\overline{s}}^n$.] Statistics of the mullet fisheries, &c. Circularletter for southern coast, soliciting information. To accompany questions (No. 15). 1 p. 13.5 by 11.5cm.

19. [Serial mark E₃.] Statistics of the coast and river fisheries.

Questions concerning fishing vessels, shore and boat fishing, pounds, weirs, traps, and fykes, gill-nets, seines, fish-pots and eel-pots, the three-mile line, disposition of the fish, estimates of annual yield, and address of fishermen. Circular and 55 questions. 4 pp. 13.5 by 26cm.

20. [Serial mark 1013] Statistics of the fish trade, New York market. Dealers' statement. Blanks for the number of pounds each of thirty leading kinds of food-fish, received each day during the month. 32 columns, 2 pp. 41.5 by 31.5^{cm} .

21. [Serial mark E₄.] Statistics of the whale fisheries. Census blanks. Blanks for recording the number and kind of vessels, tonnage, and yield of oil. 13 columns, 2 pp. 13.5 by 11^{cm} and 21 by 31^{cm}.

22. [Serial mark A.] Record of hatching operations. Blank for recording temperatures, wind, tide, fish and eggs taken. 22 columns, 2

pp., each 41.5 by 32 cm.

- 23. [Serial mark B.] Record of operations of State fish commissioners in hatching and distributing young fish. Blanks for recording number of eggs received, time of journey, condition, loss in unpacking, in hatching, in distributing, place where planted, &c. 18 columns, 2 pp., each 41.5 by 32 cm.
- 24. [Serial mark C.] Record of distribution of fish. Blanks for recording date, number, place of introduction, stream, person in charge, &c. 12 columns, 1 p. 41.5 by 32 cm.
 - 25. Record of collection of eggs.

1878.

26. [Serial mark $E_{\frac{1}{4}}$.] Part IV. Report of the Commissioner for 1875–76. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States. Pamphlet. 8vb. 69 pp. 11.2 by 19.5 cm.

27. Part IV. Report of the Commissioner for 1875-76. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States, with appendices. Cloth. 8vo. Pp. 69,

1029. Plates vi.

28. [Serial mark E_Bⁿ.] Questions relative to the cod and the cod fisheries. Circular-letter acknowledging responses to questions on food-fishes and soliciting further information. Questions regarding name, characteristics, distribution, movements, food, reproduction, enemies, fatalities, in-shore fisheries, off-shore fisheries, and the products. 90 questions. 4 pp. 13.5 by 26.5 cm.

29. [Serial mark $\frac{n}{10}$, $\frac{n}{10}$.] Questions relative to the alewife and the alewife fisheries. Circular-letter stating that Mr. C. G. Atkins desires to prepare a report and asking concerning the name, characteristics, abundance, movements, food, reproduction and growth, enemies, fatalities, capture, curing and marketing, sources of information. 82 questions.

4 pp. 13.5 by 26cm.

30. [Serial mark E₁₁.] Questions relative to the smelt and the smelt

tisheries. Circular-letter soliciting specimens and information. Inquiries concerning name, characteristics, abundance, migrations, food, reproduction, enemies, capture, markets and consumption, sources of information. 69 questions. 3 pp. 13.5 by 26cm.

31. [Serial mark $\mathbf{E}_{\mathbf{7}}^{c}$.] Statisticts of the fresh-fish trade, New England markets. Dealers' statements. Blanks for the number of pounds each of 36 different kinds of fish, as received each day during the month. S8 columns, 2 pp. 42 by 32^{cm} .

32. Questions relative to the mackerel and the mackerel fisheries. Reprint of No. E_{12}^{B} . Circular-letter soliciting information, and questions upon name, size, shape and color, migrations and movements, abundance, food, reproduction, enemies and fatalities, off-shore and in-shore fishery, apparatus, and products. 78 questions. 3 pp. 13.5 by 26^{cm} .

1879.

- 33. Letter of acknowledgment of receipt of returns on the mackerel fishery. Letter in blank. February 8, 1879. 2,000 copies. 1 p. 10 by $15^{\rm cm}$.
- 34. Letter acknowledging menhaden replies to circular of 1873 and cod replies of 1876, and asking full information concerning the mackerel. Circular to accompany No. 32. December, 1878. 1 p. 16 by 17^{cm}.
- 35. Record of ocean temperatures. Blank for recording time, temperatures, winds, weather, and movements of fishes. 20 columns. 1 p. 43 by 35^{cm}.
- 36. Application for fish. 13 questions. April 12, 1879. 2,000 copies. 1 p. 10 by 19^{cm} .
- 37. Part V. Report of the Commissioner for 1877. A. Inquiry into the decrease of food-fishes. B. The propagation of the food-fishes in the waters of the United States. Pamphlet. 8vo. 48 pp. 11.2 by 19.5^{cm}.
- 38. Part V. Report of the Commissioner for 1877. A. Inquiry into the decrease of the food-fishes. B. The propagation of food-fishes in the waters of the United States. Supplementary papers. Cloth. 8 vo. Pp. 48, and 972.
- 39. Record of dredging stations. Blanks for ten observations—date, locality, bearing, state of tide and sky, depth of water, temperature at different depths, air, wind, currents, instrument and observer. September, 1879. 31 columns, 2 pp. 43 by 33cm.
- 40. Circular inviting co-operation. Circular-letter to postmasters and fishermen in coast-towns, to accompany No. 41. July, 1879. 1 p. 16 by 20.5^{cm}.
- 41. Returns of circular inviting co-operation. 6 questions concerning fishing-vessels, apparatus, fishermen, and fish-markets. July 1, 1879. 1 p. 13.5 by 27^{cm}.
 - 42. Circular relating to the fish trade and consumption of fish. Cir-

cular-letter for every postmaster in the United States. July, 1879. 1 p. 16 by 17 cm.

43. [Serial mark, 7-032.] Returns of circular relating to fish trade and consumption of fish. Questions upon local fishing, local supply of fresh and salt fish, oysters, lobsters, clams, &c. Check-lists of fishes, and circular-letter of Thomas J. Brady, Acting Postmaster-General. 18 questions. July 14, 1879. 3 pp. 16 by 22.5cm.

44. [Serial mark, 7-040.] Plan of inquiry into the history and present

condition of the fisheries of the United States. August, 1879. Pam-

phlet. 54 pp., 11 by 20cm.

45. Statistics of fishery marine. Note book for name of vessel, rig, tonnage, construction, value, crew, fishery, stock, profits, catch and sale of fish, and officers. September, 1879. Roan. 60 pp. 11 by 20cm.

46. Statistics of the fishing vessels of the United States. Second edition of No. 11, revised. Circular form of No. 45. September, 1879. 34 columns. 2 pp. 43 by 35cm.

47. Letter to persons interested in fish-culture, and calling for information. Hektograph. October 20, 1879. 1 p. 18 by 24° in.

48. Fish-cultural returns. Questions upon fish-culture, hatcheries, stocking public waters, articles published, &c. November 6, 1879. 15 questions. 1 p. 16 by 31cm.

49. Circular to practical fish-culturists. Circular-letter. October,

1879.

50. Cheap fixtures for the hatching of salmon. By Charles G. Atkins, assistant, United States Fish Commission. An extract from the annual report. October, 1879. Pamphlet. 25 pp. 11 by 19.5cm.
51. Coast-town index. Blank for fishing statistics of the coast-towns

for use in compilation of returns of No 41. October, 1879. 8 columns.

1. p. 20 by 29cm.

52. Letter to Rhode Island postmasters who failed to answer No. 43. Hektograph. November 26, 1879. 5 questions. 1 p. 18 by 24cm.
53. [Serial mark, 7-119.] The river fisheries. Questions concerning

fishing towns, periods, distance up the river, tide-water, obstruction, kinds of fish, apparatus used. October, 1879. 8 questions. 1 p. 16 by 33cm.

54. [Serial mark, 7-151]. Circular-letter of D. M. Key, Postmaster-General, and of Thomas J. Brady, Acting Postmaster-General, to all postmasters. October, 1879. 1 p. 16 by 20cm.

55. [Serial mark, 7-149]. Returns of circular relating to fish trade and consumption of fish. Reprint of No. 43. Revised edition. October, 1879. 20 questions. 3 pp. 16 by 23cm.

56. Property record. Blanks for date, number, name, application, description, maker, where used, cost, and remarks. October, 1879. 9 columns, 1 p. 46 by 33cm.

57. Blank for measurements of fishes. Issued 1875 or 1876. 8 col-

umns, 2 pp. 19 by 34cm.

- 58. [Serial mark, 3179.] Property receipts. Blank for number, articles, condition, value, remarks. Filing blank on reverse. 6 columns, 1 p. 24 by 18^{cm}.
- 59. Questions relating to the menhaden. Movements, quantity, food, eggs, fatality, parasites, fishing-vessels, quantity of oil made, price, &c. Hektograph. November, 1879. 2 pp. 18 by 30cm.
- 59 A. Letter to manufacturers of menhaden oil, to accompany No. 59. Hektograph. November 18, 1879. 1 p. 18 by 24cm.
- 60. Measurements of fishes. Reprint of No. 57. Revised edition. December, 1879. 8 columns, 2 pp. 19 by 34cm.
- 61. Record of observations at hatching-stations. Blank for recording date, temperature, wind, sky, and tide. December, 1879. 26 columns, 1 p. 51 by 38cm.
- 62. Record of hatching operations. Reprint of No. 22. December, 1879. 20 columns, 1 p. 51 by 38cm.
- 63. Record of observations of State Fish Commissioners in hatching and distributing young fish. Reprint of No. 23. December, 1879. 18 columns, 2 pp. 44 by 34°m.
- 64. Record of distribution of fish. Reprint of No. 24. 18 columns, December, 1879. 1 p. 51 by 38cm.
- 65. Record of collection of eggs. Book form of No. 25. Blank for operator, date, place and nature of fishery, description of seine, haul, number of each kind of fish taken, number stripped, eggs impregnated, &c. 24 questions. 88 pp. 8 by 19 cm.