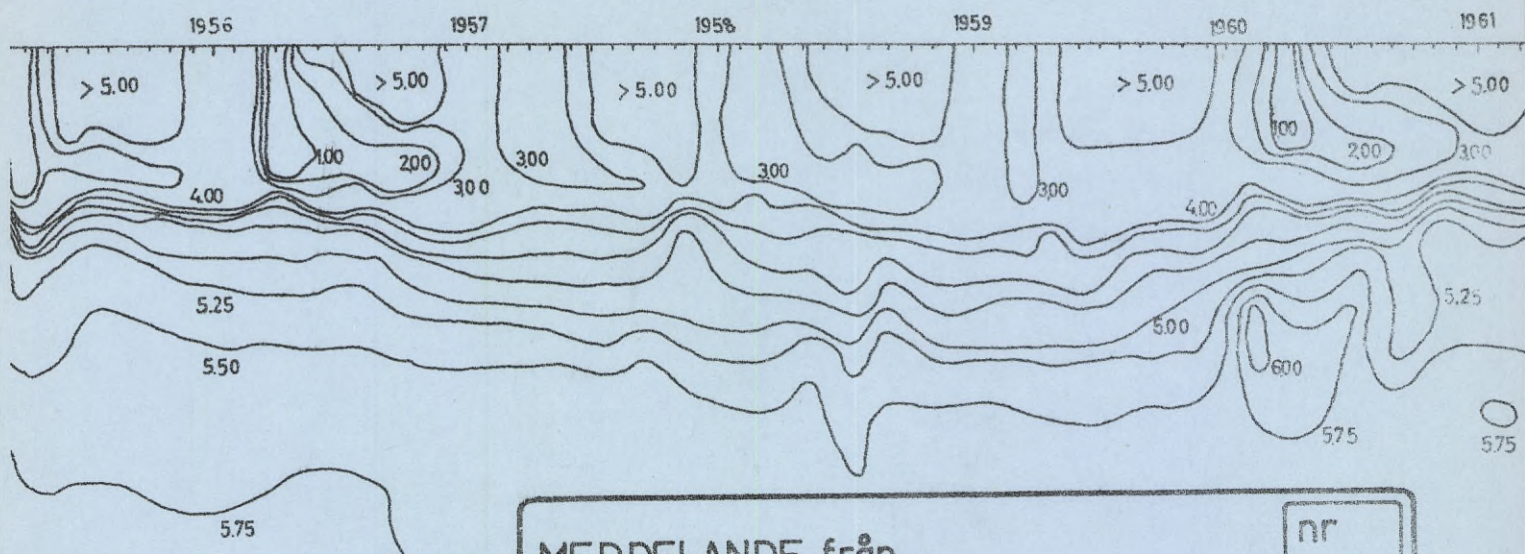




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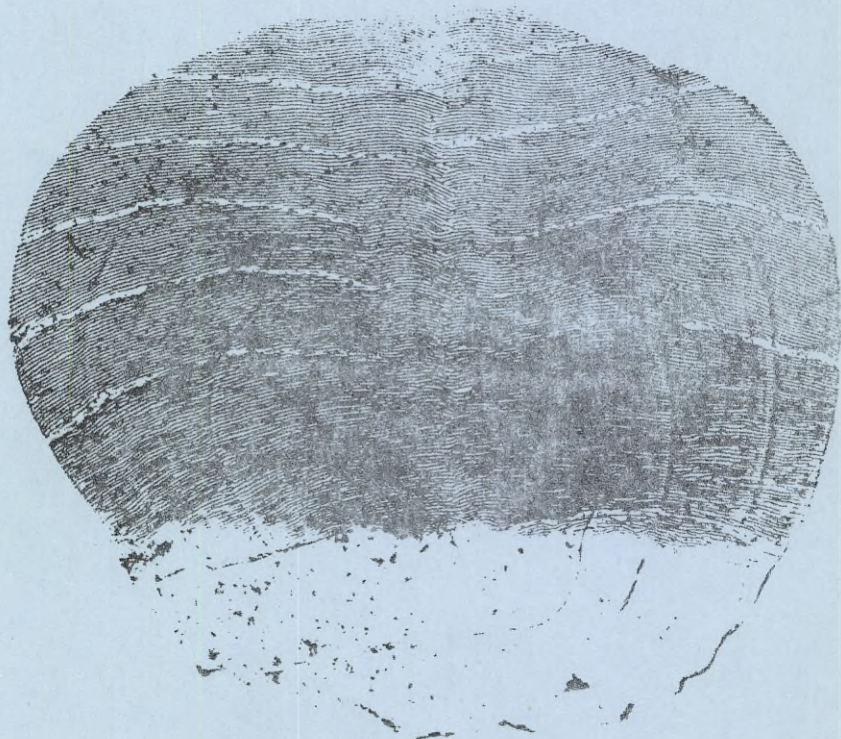
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A Bibliography of the Sprat
Clupea (Sprattus) sprattus

Revised Edition

by Armin Lindquist

September, 1966



A Bibliography of the Sprat, Clupea (Sprattus) sprattus

Revised Edition

by Armin Lindquist, Institute of Marine Research, Lysekil, Sweden

Almost two and a half years ago the first edition of this bibliography appeared in this series of informal publications as No. 4 (February, 1964). At that time the paper comprised about 240 references and colleagues were invited to complete and to correct the list. - Since that time informations have been received by Mr. G. Dannevig, Arendal, Dr. Aage J.C. Jensen, Copenhagen, Dr. P.O. Johnson, Lowestoft, Dr. G. Kurc, Paris, the library of the Fisheries Laboratory, Lowestoft, FAO, Rome, through Mr. E.F. Akyüz, and others. A main source for recent papers, especially from the southern area, has been the Current Bibliography for Aquatic Sciences and Fisheries.

The papers listed below are written in 15 different languages. If there is no original title in English, French, German, Italian, or Spanish, an English translation has been made.

The bibliography has thus become extended and contains now 484 references. But it remains still in a form of a working paper as many references are very incomplete (especially those written in Russian and not available to me). - A key is given to the references in order to make the bibliography more useful. There is a geographical splitting up in papers on eggs and larvae and on adults. There are also some special headings, as parasites, special fishing methods etc.

The bibliography is prepared by a biologist (and not a professional librarian) and should be considered as a help during research on sprat and related species.

The members of the genus Sprattus of the southern hemisphere (S. antipodum and S. muelleri, of Australia and New Zealand, and S. melanostoma and S. arcuatus, of Argentine) have not been considered. For references see SVETOVIDOV 1952 (No. 483 in this bibliography).

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1. ANON., 1930: Aufsuchen von Sprotten- und Heringsschwärmen durch Flugzeug. - Mitt. d. deutschen Seefischerei-Vereins 46: 96-97
2. " , 1935: Fettbestemmelse i brisling. Regler for provetegning og analyse utarbeidet av Hermetikkindustriens Laboratorium og Statens Fiskeriforsøksstasjon. - Fiskets Gang (23):
No (Measurement of the fat content in the sprat, Rules for sampling and analysis by the laboratory of the preservation industry and the State fishery laboratory)
3. " , 1959: Fiche technique du sprat et du rouget-barbet. - France pêche 4 (29): 39-40
4. AKŞIRAY, F., 1954: Türkiye deniz balıkları tayin anahtarı. - Istanbul, Hydrobiological Research Institute, 177 pp.
5. ALANDER, HARALD, 1949: Sprat. - Ann. Biol. 5 (1948): 137
Tü
6. - " - 1951: Sprat. Swedish investigations. - Ann. Biol. 7 (1950): 116
7. ALEEV, YU.G., 1952: O tipe neresta Sprattus sprattus phalericus (Risso). - Dokl. Akad. Nauk SSSR 82 (1): 161
Ru (On the type of spawning of Sprattus s. phalericus)
8. - " - 1953: O stroeneli otolitov i tempe rosta Tchernomorskovo shprota. - Dokl. Akad. Nauk SSSR 93 (5): 919
Ru (Structure of otoliths and growth rate of the Black Sea sprat Sprattus sprattus phalericus Risso)
9. - " - 1958: O biologii i khoziaistvennom nachenii Tchernomorskovo shprota Sprattus sprattus phalericus (Risso). - Trudy Sevastopol. biol. stants. A.N. SSSR 10: 90-107
Ru (Biology and economic importance of the Black Sea sprat)
10. ALTAN, H., 1957: Karadeniz balıklarının pelajik yumurta ve larvalarının tayin anahtarı: 6A - Karadenizin çaça (sprot) balığı - Sprattus sprattus phalericus Risso, Sardalya balığı - Sardina pilchardus sardina Günther. - Balik Balıkçılık, 5 (10): 20-23
Tü (A key to pelagic eggs and larvae of Black Sea fishes, sprat and pilchard)
11. ANADON, EMILIO, 1950: Sobre la sustitución alternativa en el litoral gallego de los llamados peces emigrantes (sardina, espadin, anchoa y jurel). - Biol. Inst. Esp. Oceanogr. 24, 20 pp
12. ANTIPA, G., 1905: Clupei delle Marei Negre. - Bucureşti (1903)
Ro
13. ANTONOV, A.E., 1963:
Trudy AtlantNIRO 10: 171-175
Ru (Prognose für die vieljährigen Schwankungsperioden der Fangergiebigkeit des Dorsches, Anshovis (Kilo) und des Strömlings in der südlichen Ostsee für die Zeit von 1961-1980)
14. - " - & G.B. GRAUMAN, 1965 (?):
Voprosy ikhtiolog. (in press ?)
Ru (Dependence of the survival of cod and sprat eggs in the southern Baltic on variability of oceanographic conditions)

15. ANWAND, K., 1960: Der Verlauf der Herings- und Sprottenfischerei der Sassenitzer Kutterflotte in der Ostsee von 1957-1959. - Deutsche Fischereiz. 7 (8): 242-248
16. APSTEIN, C., 1911: Die Verbreitung der pelagischen Eier und Larven in der Beltsee und den angrenzenden Meeresteilen 1908/09. - Wiss. Meeresunters. N.F., Abt. Kiel 13
17. ASLANOVA, N.E., 1954: Shprot Tchernovo Morja. - Trudy VNIRO 28: 75-101.
Ru (The sprat of the Black Sea)
18. AURICH, HORST JOACHIM, 1940: Die Verbreitung der pelagischen Fischbrut in der südlichen Nordsee während der Frühjahrsfahrten 1926-1937 der deutschen Forschungsschiffe "Poseidon" und "Makrele". - Helgol. Wiss. Meeresunters. 2(2): 183-225
19. BABURINA, E.A., 1953: Prispособitelnye osobennosti stroenia glas seldi-tchernospinki, shprota i khamsy. - Trudy Inst. morf.zhiv. im. A.N. Severtsova, 10
Ru (Particulars in the morphology of the eye of the Black Sea herring, sprat and khamsa)
20. BERG, L., 1931: Tchernomorskaja kilka. - Dokl. Akad. Nauk SSSR A: 123
Ru (The sprat of the Black Sea)
21. - " - et al. (Ed.), 1949: Promyslovye ryby SSSR. Moskva, Pischepromizdat, /787 p.
Ru (Food fishes of the USSR)
22. BERTIN, L., 1941: Mise au point sur quelques espèces de Clupéidés. - Bull. Soc. Zool. France 66: 18
23. BIRIUKOV, N.P., 1955: Materialy k izucheneniyu raspdeleniya salaki i kilki v Baltiskom morje. - Trudy BaltNIRO, Part 1, Kaliningrad.
Ru (Materials on the knowledge of the distribution of the Baltic herring and the sprat in the Baltic)
24. - " - 1956:
TRUDY BaltNIRO II
Ru (Verteilung fangwürdiger Fischkonzentrationen im südlichen Teil der Ostsee im Winter und Frühjahr 1956)
25. - " - , 1958: O vozmozhnosti uvelicheniya vylova baltiskoi kilki.- Ryb. Khoz. (4): 13-14
Ru (Regarding the potential increase of catches of Baltic sprat)
26. BJERKAN, P., 1925^{-1945/}: Brislingundersøkelse 1924. - Norsk fiskeritidende, (Bergen) 44: 169-177
No (Sprat investigations in 1924)
Further more publications in Norwegian under the same heading as follows:
27. - " - 1928: ... 1927. - Aarsberetn. vedk. Norges fiskerier 1927 I: 115-127
28. - " - 1929: ... 1928. - ibid. 1928 I: 105-117
29. - " - 1930: ... 1928/9.- ibid. 1929 I: 89-103
30. - " - 1932: ... 1929/30. - ibid. 1930 I: 92-97

31. BJERKAN, P., 1933: Brislingundersøkelser 1930/31. - ibid. 1931 I: 77-82
32. - " - 1937: ... 1934/35. - ibid. 1935 I: 44-48
33. - " - 1939: ... 1938. - Rep. on Norw. Fish. and Marine Investigations 6 (1): 97-104
34. - " - 1940: ... 1939. - ibid. 6 (4): 85-92
35. - " - 1942: ... 1940. - ibid. 7 (1): 58-62
36. - " - 1944: ... 1941. - ibid. 7 (6): 53-60
37. - " - 1945: ... 1942. - ibid. 7 (10): 24-32
38. - " - 1929: On the validity of the "Race characters" of the food-fishes. - Rapp. et Proc.-Verb. 54: 73-77
39. - " - 1930: Fluctuations in the stock of young sprat off the West coast of Norway and its relation to the sprat population as a whole. - Rapp. et Proc.-Verb. 65: 173-181
40. - " - 1930: Methods of investigation into the fluctuation in sprat stocks. - Rapp. et Proc.-Verb. 68: 97-101
41. - " - 1933: Om skarpsillfiske och skarpsillstäng. - Ny Svensk Fiskeritidskrift (3): 25-33
Sy (On the sprat fishery and sprat kept alive by nets)
42. - " - 1950: The biological condition of the sprat stock along the Norwegian coast. - Rapp. et Proc.-Verb. 126: 89-91
43. BLEGVAD, H., 1945: Om Fiskeriet efter Skidtfisk . - Ber. Dansk Biol. Stat. 48: 24 pp.
Da (On fishery for industrial fish)
44. BOEKE, J., 1906: Eier und Jugendformen von Fischen der südlichen Nordsee mit besonderer Berücksichtigung des holländischen Untersuchungsgebiets. - Verh. Rijksinst. voor het onderz. der zee, 1. Teil, 4. 1906, 36 pp.
45. BORCEA, J., 1936: Note sur l'esprot de la Mer Noire. - C.R. Acad. Sc. de Roumanie I: 219-221
46. BORISOV, P.G., 1951: Biologicheskaja kharakteristika kilki, lovimoj u beregov Estonskoi SSR. - Trudy mosrybtusa, part 4, ed. Pishchepromizdat
Ru (Biological characteristics of the sprat caught off the coast of Estonia)
47. - " - 1954: Net dolzhnovo vnimania kilechnomu promyslu v severo-vostochnoi chasti Baltiskovo morja. - Rybnoe khoziaistvo 12
Ru (Not enough attention is paid to the catch of sprat in the north-eastern Baltic)
48. BORKOWSKA, I., 1960 (?): Wydajność łowisk południowo-wschodniego Bałtyku w 1955 r. w świetle biologii poszczególnych gatunków ryb. - Zesz. nauk. wysz. Szk. roln. Olsztyn 9 (71): 67-104
Pl (The productivity of South-eastern Baltic fishing grounds in 1955 in the light of the biology of individual species of fish)

49. BOWERS, A.B., 1950: Note on the migration of 'O'-group sprats into Manx bays. - Mar. biol. stat. Port Erin, Ann. Rep. 1949
62: 18-19
50. BRACKEN, I., 1960(?): Herring investigations on the south and east coasts of Ireland 1959-60. - Rep. Sea Inl. Fish. Ire. 1959: 74-80
51. BROWNE, FRANK BALFOUR, 1903: Report on the eggs and larvae of teleostean fishes observed at Plymouth in the spring of 1902.-
J. Mar. Biol. Ass. Plymouth N.S. 6: 596-616
52. BUCHANAN-WOLLASTON, H.J., 1911: Report on the fish-egg cruise of the "Huxley". - Mar. Biol. Ass., Intern. Fish. Investig., Rep. 3
(Southern Area)
53. BUCKLAND, F. and S. WALPOLE, 1878: Report on the Herring Fisheries of Scotland, 1878. - The Garvie (Sprat) Fisheries of Scotland, 189-202
54. - " - 1879: Report by Frank Buckland & Spencer Walpole on the Sea Fisheries of England & Wales. - HMSO 1879, 210-213 (Whitebait), 205-206 (The Sprat).
55. BUEN, F. de, 1926: Catálogo ictiológico del Mediterráneo español y de Marrueco. - Madrid, 221 pp
56. - " - 1929: La alternancia en la pesca de peces emigrantes. - Trab. del Inst. Esp. de Oceanograf. No. 1
57. - " - 1930: Rapport sur les Clupeides et leur Pêche (3rd Rapport).
Comm. Int. pour L'Explor. Mer Medit., 5: 173-194
58. BUȘNIȚA, TH., 1959: Corelația dintre condițiile hidrometeorologice și pescuitul marin de la gurile Dunării. - Bul. Inst. Cerc. piscic. 18 (2): 11-27
Ro (Correlation between hydrometeorological conditions and the sea fishery of the mouth of the Danube)
59. CAUȚIȘ, I., 1958: Contribuții la cunoașterea biologiei șprotului (*Sprattus sprattus phalericus* Risso) în dreptul litoralului românesc. - Acad. R.P. Romîne, Hidrobiologia I: 141-164
Ro (Contribution à la connaissance de la biologie du sprat (*Sprattus sprattus phalericus* RISSO) de la région du littoral roumain)
60. - " - & M. ILIESCU, 1962: Caracteristicile cîrdurilor de șprot, hamsie și stavrid și comportarea lor în condițiile excepționale ale anului 1961 de la coasta românească a Mării Negre. - Bull. Inst. Cerc. pisc. 21 (2): 46-58
Ro (The characteristics of sprat, anchovy and horse mackerel and their behaviour in the exceptional conditions of the year 1961 on the Roumanian coast of the Black Sea)
61. CĂRĂȘU, S.J., 1952: Tratat de ichtiologie. București. Editura Academiei Republicii Populare Române, 802.
62. CARUS, V., 1893: Prodrömus fauna mediterraneae. Vol. 2. Stuttgart, 854
63. CEDERSTRÖM, C.J., 1855: Slutsatser i anledning af försöken till fiskafvel genom konstbefruktning. - Stockholms läns Kongl. hushållningssällskaps Handl., Stockholm.
Sw (Conclusions with respect to investigations on breeding of fish by artificial fertilization)
64. CHAYANOVA, L.V., 1958: Pitanie tchernomorskovo shprota. - Trudy VNIRO 36: 106-127.
Ru (Feeding of the Black Sea sprat.)

65. CLARK, ROBERT S., 1920: The pelagic young and early bottom stages of teleosteans. - J. Mar. Biol. Ass. Plymouth N.S., 12: 159-240
66. CLIGNY, A., 1905: Sur un Lernaeenicus parasite du Sprat. - Comp. Rend. Mem. Soc. Biol. 59: 165
67. - " - 1909: Deux clupéidés à supprimer de la nomenclature: Harengula latula C.V. et Meletta phalerica Risso. - Ann. Stat. Aquio. Bologne-sur-Mer 2: 65-
68. COBB, J.N., 1919: Utilization of the Sprat abroad, with recipes for pickles etc.-Fish. Trades Gazette 1st March 1919
69. - " - 1919: The German Fish Smoking Industry: Kieler Bücklinge, Kieler Sprotten. - Fish Trades Gazette 24th March 1919.
70. COSTA, ORONZIO GABRIELE, 1844: Storia naturale di quei pesciolini volgarmente tra noi conosciuti col nome di Cicinelli o Cicinielli (Atherina hepsetus, Clupea sprattus e Gobius aphyra). - Ann. Accad. Aspir. Nat. 2:88
71. COUCH, J., 1865: A History of the Fishes of the British Islands. IV: 109-112 Sprat; 114-116 Whitebait.
72. CUNNINGHAM, J.T., 1886: The eggs & larvae of Teleosteans. - Trans. Roy. Soc. 33 (1): 106
73. - " - 1889: Studies on the reproduction of teleostan fishes. - J. Mar. Biol. Ass. 1: 10-54
74. D'ANCONA, U., 1959: Fluctuations et apparition saisonnière des clupéides sur les marchés de la haute Adriatique. - World Scientific Meeting on the Biology of Sardines and Related Species, Rome 14-21 September 1959. Exp. Pap. No. 4, 6 pp
75. DANIEL, R.J. & J. ATKINS, 1947: Note on whitebait sprats. - Proc. Trans. Liverpool Biol. Soc. 55 (2)
76. DANNEVIG, ALF, 1947: The number of vertebrae and rays of the second dorsal fin of fishes from the Norwegian Skagerack coast. - Ann. Biol. 2 (1942-1945): 131-146
77. DANNEVIG, GUNNAR, 1949: Sprat. Norwegian investigations. - Ann. Biol. 5 (1948): 84-85
78. - " - 1950: Sprat. Norwegian investigations. - Ann. Biol. 6 (1949): 110-111
79. - " - 1950: Litt om brislingen og utbyttet av brislingfisket. - Tidsskr. for Hermetikindustri 36 (6): 303-306, 331
No (On the sprat and the yield of the sprat fishery.)
80. - " - 1951: Sprat from Norwegian waters. An analysis of vertebrae counts. - Fiskeridirekt. skr. Ser. Havunders. 9 (12)
81. - " - 1952: Sprat larvae in the Skagerack. - Ann. Biol. 8 (1951): 120-121
82. - " - 1952: Litt om forekomsten av brislingyngel i Skagerack. - Tidsskr. for Hermetikindustri 38 (6): 297-300
No (On the occurrence of sprat larvae in the Skagerack).
83. - " - 1954: Brislingens gyting. - Fiskeridirektoratets småskrifter 3: 3-10
No (The spawning of sprat)
84. - " - 1954: Brislingens gyting. I. Undersøkelser i Skagerack og Ryfylke. - Fiskets Gang 40 (17): 207-208 & 214
No (The spawning of sprat. I. Investigations in the Skagerack and Ryfylke)

85. DANNEVIG, GUNNAR, 1955: Brisling og Makrell. - Årsber. vedk. Norges Fisk., 6: 72-80(1952)
No (Sprat and mackerel)
86. - " - 1956: The occurrence of sprat larvae in Norwegian waters. - Ann. Biol. 11 (1954): 160
87. - " - 1957: Vekslingene i brislingfisket. - Tidskr. for Hermetik-industri 43 (1): 23-27
No (Fluctuations in the sprat fishery)
88. DAVIS, F.M., 1937: An account of the Fishing Gear of England & Wales. M.A.F. Fish. Invest. Ser. II, XV No. 2, London 1937 (HMSO)
(Revised edition): XXI No. 8, London 1958 (HMSO)
p. 45 Stow net fishing for Sprat, p. 57 Sprat Drift Nets.
89. DEMEL, K., 1937: Kilka uwag o polskich połowach szprota w sezonie zimowym 1936/37. - Bull. Stat. Mar. Hel. 2
Pl (Quelques remarques sur la pêche des sprats au cours de la saison 1936/37)
90. - " - 1938: Próba wyjaśnienia czynnikami klimatycznymi katastrofalnego braku połowów szprota w zatoce Gdańskiej w sezonie zimowym 1937/38. - Bull. Stat. Mar. Hel. 2 (3): 25-39.
Pl (Quelques remarques sur les causes climatiques de l'absence des bancs de sprats dans le Golfe Dantzigois durant la saison hivernale 1937/38)
91. - " - 1938: Ruchy ławic szprota u naszych brzegów w świetle czynników hydrograficznych. - Arch. Hydrob. i Ryb. 11: 229-253
Pl (Les migrations du sprat dans les eaux côtières polonaises et les conditions hydrographiques locales)
92. DEMENTEVA, T.F., 1953: O sostoyanii zapasov treski i salaki v Baltijskom morje.- Trudy VNIRO 26: 79-101.
Ru (On the condition of the stocks of cod and sprat in the Baltic)
93. DEMIR, M., 1963: Synopsis of biological data on sprat, *Sprattus sprattus* (Linnaeus) 1758 (Mediterranean and adjacent seas) Provisional draft. FAO Fish. Synopsis 27, 38 pp
94. DEVEDJIAN, K., 1926: Pêche et pêcheries en Turquie. Istanbul, p 52
95. DIMOV, IVAN, 1961: Verkhy denonoschnija ritm na khranene pri khamsijata (*Engraulis encrasicolus ponticus* Alex.) i tritsonata (*Sprattus sprattus sulinus* Ant.). - Izvest. tsentr. nauchn.-issl. inst. rib. i ryb. - Varna I: 79-93
Bu (Sur le rythme nyctemeral de la nutrition chez l'anchois et le sprat)
96. DIXON, B., 1932: The mixture of herrings with sprats in catches with the sprat trawl, and the composition of the sprat stock of the Gulf of Danzig in 1932. - J. Cons. 7 (3): 386-396
97. - " - 1937: The composition of the Polish sprat catches in the Bay of Danzig in the seasons 1934-35 and 1935-36. - Rapp. et Proc. Verb. 102: App.
98. - " - 1937:
Pl (The Parasitic Copepoda on the Sprats caught in the Sund)
Bull. Stat. Mar. Hel. 1 (2): 13-14
99. - " - 1938: O spadku połowów szprotów w sezonie 1937/38. - Bul. Stat. Mar. Hel. 2 (3): 44-53
Pl (The diminution of the Polish sprat catches in the season 1937/38)

100. DIXON, B., 1950: Polskie rybołówstwo szprotowe w 1949 r. - Bull. Inst. Pêch. Mar. Gdynia 5: 19-23.
Pl (The Polish Sprat Fishery in the year 1949).
101. - " - & Z. MULICKI, 1948: Badania szprotowe na środkowym Bałtyku w lecie 1938 r. - Bull. Lab. Mar. Gdynia 4: 13-32.
Pl (Sprat investigations on the middle Baltic during the summer 1938)
102. DRAGESUND, OLOV, 1958: Reactions of fish to artificial light, with special reference to large herring and spring herring in Norway. - J. Cons. 23 (2): 213-227
103. DUGE, F., 1911: Das Wiederauftreten von Herings- und Sprottschwärmen in der Elbmündung. - Der Fischerbote 3: 65
104. - " - & Dr. EICHELBAUM, 1914: Ueber das Auftreten der Sprotten und Heringe in der Elbmündung im Winter 1913-4. - Mitt. Deutsch. Seefisch.-Ver. 30 (5-6): 185-205
105. EHRENBAUM, E., 1897: Eier und Larven von Fischen der Deutschen Bucht. - Wiss. Meeresunters. Helgoland 2: 253-324
106. - " - 1908: Mehr Eier und Jugendformen der Seezunge und anderer im Frühjahr laichender Fische der Nordsee. - Wiss. Meeres. N.F. Abt. Helgoland 9: 201-270 (Cl. sprattus 257)
107. - " - 1909: Eier und Larven von Fischen. Nordisches Plankton, Zoologischer Teil 1: 366-370
108. - " - 1910: Sprottenschwärme in der Deutschen Bucht. - Der Fischerbote 2: 265
109. - " - 1919: Mitteilungen über die Lebensweise unserer Fische. 15. Der Sprott oder Breitling, Clupea sprattus L.. - Der Fischerbote 11 (1/2, 9): 23-, 228-
110. - " - 1920: ibid., ibid., 12 (3, 5): 132-, 258-261
111. - " - 1927: Der Sprottfang an der belgischen Küste. - Der Fischerbote 19 (8): 159
112. - " - 1929: Rassenuntersuchungen an Nutzfischen, besonders am Hering. - Rapp. et Proc. Verb. 54: 5-16
113. - " - 1936: Naturgeschichte und wirtschaftliche Bedeutung der Seefische Nordeuropas. - Handb. Seefisch. Nordeurop., 2: 24-26
114. - " - & W. MIELCK, 1910: Fang-Tabellen - Wiss. Meeres. N.F. Abt. Helgoland 9: 174-177, XXXIV-LXXIII
115. - " - & S. STRODTMANN, 1904: Eier und Jugendformen d. Ostseefische. I. Bericht. - Wiss. Meeres. N.F. Abt. Helgoland 6: 57-126
116. EICHELBAUM, E., 1911: Über das Auftreten von Sprotten und Heringen von und in der Elbmündung im Winter 1910-11. - Mitt. d. Deut. Seef. Ver. 27: 238
117. EKMAN, TH. TH., 1908: Hvasbuksfisket i Finland och Estland. - Medd. K. Lantbruksstyrelsen No. 136, Stockholm.
Sv (Sprat fishery in Finland and Estonia)
118. ELWERTOWSKI, JAN, 1957: Polish investigations on the sprat. - Ann. Biol. 12 (1955): 216
119. - " - 1957: Biologiczna charakterystyka polskich połowów szprotów w Bałtyku południowym w latach 1950-1954. - Prace MIR Gdynia 9: 175-219.
Pl (Biological characteristics of Polish sprat catches in southern Baltic in 1950-1954)

120. ELWERTOWSKI, JAN, 1958: The sprat in the southern Baltic. - Ann. Biol. 12 (1956): 229
121. - " - 1959: Polish investigations on Baltic sprat in 1957. - Ann. Biol. 14 (1957): 202-203
122. - " - 1959: Preliminary investigations on the dynamic of the sprat living in the Southern Baltic. - ICES paper, Sardine Cte. , No. 45
123. - " - 1960: Polish investigations on sprat from the southern part of the central Baltic 1958. - Ann. Biol. 15 (1958): 192-193
124. - " - 1960: Biologische Grundlagen der Sprottenfischerei in der östlichen und mittleren Ostsee. - Fischereiforschung-Informationen für die Praxis 3 (4): 1-19
125. - " - 1961: Polish investigations on North Sea sprat in the summer of 1959. - Ann. Biol. 16 (1959): 226
126. - " - 1961: A Biological characteristic of Polish Sprat Catches in the Autumn-Winter Season of 1960/61, & Spring Season of 1961.- ICES paper Sardine Cte. Publ. No. 33
127. - " - 1964: The influence of the 1956 and 1963 Winter Seasons of the life of the Southern-Baltic Sprat. - ICES paper, Sardine Cte. No. 75, 5 pp
128. - " - 1965: Sprat stock of the open sea in the Southern Baltic. - ICES paper, Sardine Cte, No. 68, 5 pp
129. - " - & H. JANKO, 1960: Age-Composition of Sprat Catches in the Bay of Gdansk in the Winter of 1960. - ICES paper Sardine Cte. Publ. No. 66
130. - " - & H. JANKO, 1961: Polish investigations on sprat in the southern Baltic in 1959. - Ann. Biol. 16 (1959): 230-231
131. - " - & JERZY MACIEJCZYK, 1959: Wahanie zawartości tłuszczu w szprocie zatoki Gdańskiej w zależności od warunków hydrograficznych i biologicznych. - Prace MIR Gdynia 10/A: 375-382. Pl (Changes of the fat content in the sprat of the Gdańsk Bay in relation to the hydrologic and biologic factors)
132. EWART, J.C. & J.D. MATTHEWS, 1886: On the nature of Thames and Forth whitebait. - 4. Rep. Fish. Bd. Scot. 1885, App. F: 98-100
133. FABER, FR., 1829: Naturgeschichte der Fische Islands. Frankfurt A.-M. (p. 179: Clupea sprattus)
134. FABER, G.L., 1883: The fisheries of the Adriatic and the fish thereof. London, B. Quartich, 292 pp
135. FAGE, L., 1920: Engraulidae, Clupeidae. - Rep. Danish Ocean Exped. 1908/10 to the Mediterranean & adj. seas. No. 6, Vol. 2 (Biology). A.9.
136. - " - 1938: A propos du sprat de la Mer Noire. - Volume jubilaire "Grigore Antipa" (Homage à oeuvre du G. Antipa) Bucarest, 1938
137. - " - et als., 1923: Contributions de l'office Scientifique et Technique des Pêches sou VII^e Congress National des Pêches et Industries Maritimes, Marseilles 1922.- Notes et Mémoires, No. 22
138. FAURE, LOUIS, 1950: Le sprat de la Baie de Douarnenez, pêche, biométrie et biologie. - Proc. et Rapp. Verb. 126: 96-102

139. FERNANDEZ, 1850: Ordonnancas de pesca para las provincias de Pontevedra (1750) y la Coruña (1769). Madrid
140. FLETCHER, J., 1905: (1) On the Tay Sprat Fishery, 1904-05. - 23rd Ann. Rept. Scottish Fishery Board Part III Sci Invest.: 156
(2) On the Tay Sprat Fishery, 1905-06. 24th Ann. Rept. Scottish Fishery Board Part III Sci. Invest.: 159
141. FORD, E., 1931: Growth in length during the transition from larva to adolescent in the pilchard and sprat. - J. Mar. Biol. Ass. Plymouth N.S. 17 (3): 977-986
142. FOREST, J., 1950: Observations sur les concentrations de sprats des côtes Françaises. - Rapp. et Proc. Verb. 126: 103-113 & Mémoire Office Pêche Marit., mém. No. 14: 103-113
143. FRANZ, V., 1910: Untersuchungen über das spezifische Gewicht der planktonischen Fischeier. - Wiss. Meers. N.F. Helgoland 9: 177-196
144. FULTON, T.W., 1904: III, The rate of Growth of Fishes. 5. The sprat. p. 171
VIII Ichthyological notes. The fecundity of the sprat. p. 285
22nd Ann. Rep. Fish. Bd. Scotland 1903, pt III, Glasgow
145. FURNESTIN, J., 1948: Observations sur le sprat (*Clupea sprattus* Linné) des côtes méridionales de France (Atlantique et Méditerranée). - Rev. Trav. Office de Pêches Marit. 14 (1-4): 39-69
146. - " - 1950: Quelques notions de zoologie sur quatre espèces de clupéidés mis en conserve en Europe et en Afrique du Nord. - Rev. Conserve marocaine; No. 7: 20-24
147. - " - 1952: Biologie des clupéidés méditerranéens "Vie et Milieu", Bull. lab. Arago, Banyuls, suppl. No. 2: 97-117
148. GILIS, C., 1950: Les concentrations de sprats sur la côte Belge. - Rapp. et Proc. Verb. 126: 114-121
149. GOEGEBEUR, I.K., 1960: Het pelagisch sprot-net aangepast om gesleept te worden door een schip. - Visserijblad No. 12: 7-9. Ostende.
Ne (The pelagic sprat trawl modified to be towed by one fishing boat)
150. GOLENCHENKO, A., 1940: Shprot v Tchernom more. - Rybn. khoz (6): 14
Ru (The sprat in the Black Sea)
151. GORBUNOVA, N.N., 1958: Razmnozhenie i razvitie tchernomorskovo shprota *Sprattus sprattus phalericus* (Risso). - Trudy Sevastopol. biol. stants. An SSSR 10: 108.
Ru (Reproduction and development of sprat, *Sprattus sprattus* (Risso) in the Black Sea)
152. GRAUMAN, G.B., 1965: Some data on the reproduction of sprat in the southern part of the Baltic Sea in the period 1958-1964. - ICES paper, Baltic-Belt Cte, No. 121, 8 pp
153. GUNDERSEN, KAARE R., 1954: Åteundersökelse i noen fjorder på Vestlandet, spesielt med henblikk på brislingens ernæringsforhold. - Fiskets Gang 40 (2): 21-27
No (Plankton investigations in some fjords of Vestlandet with special regard to the food conditions of the sprat)
154. - " - 1954: Brislingens gyting. II Undersökelse i Hordaland og Sogn. - Fiskets Gang 40 (18): 221-223.
No (The spawning of the sprat. II. Investigations in Hordaland and Sogn)

155. GUNDERSEN, KAARE, R., 1959: Merkeforsök på brisling 1958. - Fiskeridirektoratets småskrifter 7, 17 pp & Fiskets Gang 45 (16): 233-237
No (Tagging experiments on sprat in 1958)
156. - " - 1960: Tagging experiments on sprat in Norwegian waters. - Ann. Biol. 15 (1958): 189
157. - " - 1960: Merkeforsök på brisling 1959. - Fiskets Gang 46 (12): 178-182
No (Tagging experiments on sprat in 1959)
158. - " - 1961: Tagging experiments on sprat in Norwegian waters. - Ann. Biol. 16 (1959): 226
159. - " - 1961: Merkeforsök på brisling i fjordene sør for Bergen i juni-september 1960. - Fiskets Gang 47 (): 425-426
No (Tagging experiments on sprat in the fjords south of Bergen during June - September, 1960)
160. - " - 1962: Tagging experiments on sprat in Norwegian waters. - Ann. Biol. 17 (1960): 227
161. - " - 1963: Merkeforsök på brisling i fjorder på Vestlandet 1961-1962. - Fisker og Havet 1963 (2): 5-9.
No (Tagging experiments on sprat in fjords of the Vestland during 1961-1962)
162. - " - 1963: Tagging experiments on sprat in Norwegian waters. - Ann. Biol. 18 (1961): 194
163. HALCOMB, J. et als., 1883: Report from the Select Committee on British Channel Fisheries; with Minutes of Evidence & Appendix. - London. (Sprat refs. pp 11, 50, 57, 65, 70-71, 77, 136)
164. HALME, E., 1948: Vassbukens uppträdande och produktionsområden. - Sv (Occurrence and reproduction areas of the sprat) See errata.
165. HARDING, J.P. & WHEELER, A.C., 1958: Heavy infestation by the Parasitic Copepod *Lernaeenicus* of Sprats in the River Crouch. - Nature 182 (4634): 542-543
166. HEEGAARD, P., 1947: Investigations of eggs of the food-fishes of the Kattegat and the northern Belt Sea. - Medd. Komm. Danmarks Fiskeri og Havundersökelse, Ser. Fiskeri 9 (4).
167. HEFFORD, A.E., 1903: Notes on Teleostean ova and larvae, observed at Plymouth in Spring and Summer 1909. - J. Mar. Biol. Ass. 9: 1-58
168. HEIDRICH, H., 1925: Ueber die Fortpflanzung von *Clupea sprattus* in der Kieler Bucht. - Wiss. Meeresunters. Helgoland, Abt. Kiel N.F. (1) 20, 48 pp
169. - " - 1962: Norwegische Untersuchungen über den Spratt.- Der Fischerbote 18 (12): 278
170. - " - 1927: Der Spratt an der schwedischen und an der holsteinischen Ostküste. - Der Fischerbote 19 (8): 157-158
171. HEINCKE, FRIEDRICH, 1881: Die Varietäten des Herings. Zweiter Teil. VII Bericht der Commiss. zur Wiss. Unt. d. Deutschen Meere in Kiel, 86 pp
172. - " - 1898: Naturgeschichte des Herings. - Abh. d. deutschen Seefischerei-Vereins 2 (Teil 1 Die Lokalformen und die Wanderungen des Herings in den europäischen Meeren) Text und Tabellen und Tafeln, 128 + 223 pp.

173. HEINCKE, FRIEDRICH, 1927: Über das Auftreten und Ausbleiben der Herings- und Sprottenschwärme in der Elbe. - Der Fischerbote 19: 77
174. HEINEMANN, B., 1905: Der Fischfang an der russischen Ostseeküste. - Land- und Forstwirtschaftliche Zeitung, Nr. 34, 35, Riga
175. HENKING, H. 1929: Die Ostseefischerei. - Handb. d. Seef. Nordeuropas 5 (3): 34 & 139
176. HENSEN, V., 1882: Ueber das Vorkommen und die Menge einiger Ostseefische. - IV. Bericht d. Komm. wiss. Unters. d. deutschen Meere in Kiel, 7.-11. Jahrg.
177. - " - 1887: Ueber die Bestimmung des Planktons oder des im Meere treibenden Materials an Pflanzen und Tieren. - V. Bericht d. Komm. wiss. Unters. d. deutschen Meere in Kiel 12.-14. Jahrg.
178. - " - 1920: Die treibenden Fischeier und Fischlarven der Westlichen Ostsee. - Wiss. Meers. N.F. Kiel 18: 157-184
179. - " - & C. APSTEIN, 1897: Ueber die Eimenge der im Winter laichenden Fische. - Wiss. Meeresunters. N.F. Abt. Kiel. 2: 1-96
180. HESSLE, CHR., 1923: Skarpsillens lek i Mellersta Östersjön ? - Svensk Fiskeri Tidskrift 32 (5): 134-136.
Sy (On the spawn-of the sprat in the Central Baltic).
ing
181. - " - 1927: Sprat and sprat-fishery on the Baltic coast of Sweden. - Medd. K. Lantbruksstyrelsen Nr. 262, 29 pp, Stockholm
182. HINKELMANN, A., 1899: Versuchsfischerei im Frühjahr 1899 im Kaiser-Wilhelm-Kanal. - Mitt. d. deutschen Seefischerei-Vereins 15: 127
183. HJORT, J., 1912: Den Franske Industris Kamp mot de Norske Sardinere. - Aarsber. vedk. Norges Fiskerier. Heft 4, Bergen
No (The French industry's fight against Norwegian Sardines)
(Also German Translation published by H. Kampen, Hamburg 1913)
184. HOEK, P.P.C., 1888: Rapport over Ankerkuil en Staalboomen-Visscherij, Bijlage C. Aanteekeningen omtrent larven en jongen der voornaemste in het verslag besproken vischsoorten.
Du (Report on the Ankerkuil and Staalboomen fishery. Appendix C. Notices on larvae and juveniles of the most important fish species mentioned). - Tijdschr. der Nēderl. Dierkund. Vereen. Supplement Deel II: 285-313
185. HÖGLUND, HANS, 1938: Ueber die horizontale und vertikale Verteilung der Eier und Larven des Sprotts (*Clupea sprattus* L.) im Skagerak-Kattegatt-gebiet. - Svenska Hydr.-Biol. Komm. Skr. N.S. Biologi, 2 (3), 40 pp
186. HOLDSWORTH, E.W.H., 1874: Deep Sea Fishing and Fishing Boats.
133-135 Drift Net; 161-165 Stow Net; 165-166 Trim Net.
187. HOLT, E.W.L. and SCOTT, S.D., 1897: A record of the Teleostean Eggs and Larvae observed at Plymouth in 1897. - Journ. Mar. Biol. Assoc. U.K.N.S. 5: 156. Plymouth 1897-99
188. HOST, H.E., 1873: Nogle Oplysninger om Fiskeriet paa Faerøerne. Tidskr. f. Fiskeri. 7 Aarg.: 97-125.
No (Some informations on the fishery of the Faroes)
189. HUXLEY, T.H. et als., 1866: Sea Fisheries Commission - Minutes of Evidence. - Report of the Commissioners Appointed to inquire into the Sea Fisheries of the United Kingdom. Vol. I: The Report and Appendix. H.M.S.O. London 1866.

190. ILES, D.T. & P.O. Johnson, 1962: The correlation table analysis of a sprat (*Clupea sprattus* L.) year-class to separate two groups differing in growth characteristics. - J. du Cons. 27 (3): 287-303
191. JACOBSEN, I.P. & JOHANSEN, A.C., 1908: Remarks on the changes in specific gravity of pelagic fish eggs and the transportation of same in Danish waters. - Medd. fra Komm. for Havunds. Series F, 3 (2), 24 pp
192. JÄRVI, T.H., 1934: Die Seefischerei von Finnland. - Handb. Seefisch. Nordeuropas 8 (4)
193. JENKINS, J.T., 1902: Altersbestimmung durch Otolithen bei Clupeiden. - Wiss. Meeresunters. Abt. Kiel, N.F. VI: 81-122
194. JENSEN, AAGE, J.C., 1952: Undersøgelse af Industrifisk-Fiskeriet i Danmark, særlig i 1949-51. - Medd. f. Danm. Fiskeri- og Havunders. Ny Serie 1 (1), 81 pp.
Da (The Danish fishing for processing /industrifisk/).
Engl. summary.
195. - " - 1956: Undersøgelser af brislingens biologi i de danske farvande. - Dansk Fiskeritidende 1956: 461-467.
Da (Investigations on the biology of the sprat in Danish waters)
196. - " - 1958: Danish investigations in the Skagerak and northern Kattegatt. - Ann. Biol. 13 (1956): 227-228
197. - " - 1958: The sprat in the Belts and westernmost Baltic. - Ann. Biol. 13 (1956): 228-229
198. - " - 1959: Sprat in the Danish catches. - Ann. Biol. 14 (1957): 200-202
199. - " - 1960: Danish catches of sprat from the North Sea, Skagerak, and Kattegatt. - Ann. Biol. 15 (1958): 189-191
200. - " - 1960: Danish investigations on sprat in the Belts and Baltic proper. - Ann. Biol. 15 (1958): 191-192
201. - " - 1961: Danish catches of sprat from the North Sea, Limfjord, Skagerak, Kattegatt, Belts, and Baltic in 1959. - Ann. Biol. 16 (1959): 227-230
202. JOHANSEN, A.C., 1930: Om brislingen (*Clupea sprattus* L.) in the Limfjord). - Rep. Dan. Biol. Stat. 36: 57-67.
Da (The sprat /*Clupea sprattus* L./ in the Limfjord)
203. JOHNSON, P.Q., 1961: Sprat stocks of the Wash. - Rep. Challenger Soc. 3 (13): 33
204. JOHNSTONE, JOS., 1919: The dietic value of sprats and other clupeoid fishes. - Rep. Lancs. Sea Fish. Lab.: 27
205. - " - 1921: The Methods of Fish Canning in England. - M.A.F. Fish. Invest. Ser. I,2 (1), London H.M.S.O. 1921
206. KAND, & GORGACHEV, 1950:
Rybn. Khoz. (5): 39
207. KÄNDLER, RUDOLF, 1949: Die Häufigkeit pelagischer Fischeier in der Ostsee als Masstab für die Zu- und Abnahme der Fischbestände. - Kieler Meeresf. 6: 73-89
208. - " - 1950: Jahreszeitliches Vorkommen und unperiodisches Auftreten von Fischbrut, Medusen und Decapodenlarven im Fehmarnbelt in den Jahren 1934-1943. - Ber. Dtsch. wiss. Komm. Meeresf. 12: 49-85

209. KÄNDLER, R. 1959: German Investigations in the Belts and Western Baltic.-Ann. Biol. (1957) 14: 96-97
210. - " - 1960: Eggs and larvae of various species. - Ann. Biol. (1958) 15: 79
211. - " - 1961: Ueber das Vorkommen von Fischbrut, Decapodenlarven und Medusen in der Kieler Förde. (5. Beitrag über langfristige Beobachtungen in der Kieler Förde). - Kieler Meeresf. 17 (1): 48-64
212. - " - 1962: Eggs and larvae of various species. - Ann. Biol. (1960) 17: 110
213. KAZANOVA, I.I., 1949: Tchernomorskii shprot. - in: Promyslovye ryby SSSR, ed. Pischchepromizdat.
Ru (The sprat in the Black Sea cp. 140)
214. - " - 1953: On extraordinary pigmentation of embryos of the Black Sea sprat. - Dokl. A.N. SSSR 92 (4): 867
215. - " - 1958: O razmnozhenii baltiskoi kilki (shprota) v 1956 g. - Annotatsii k rabotam, vypolnennym VNIRO v 1956 g. Sb. E.M.
Ru (On the propagation of the Baltic sprat during the year 1956)
216. - " - 1960: Biologia i promysel kilki v severnoi chasti Baltoskovo moria. - Trudy VNIRO 42: 84-98.
Ru (The Biology and fishery of the sprat in the northern part of the Baltic)
217. - " - 1960:
Ru (The Biology and fishery of the Sprat in the Northern part of the Baltic)
Trudy VNIRO 42: 84-98
Translation: M.A.F.F. Transl. N.S. No. 19 (1963)
218. KESSLER, 1864: Ryby Sankt Peterburgskoi gubernii (p. 190)
Ru (Fishes of the Region of St. Petersburg)
219. KLEINENBERG, S.E., 1936:
Byulleten Moskovskovo Obshchestva Ispytatelei Prirody, otdel biologii, 45 (5): 349
Ru
220. - " - 1937:
Dokl. A.N. SSSR 15 (8): 510
Ru
221. - " - 1940:
Moskovskoe obshchestvo ispytatelei prirody, Yubislineoe izdanie: 13
Ru
222. KNIPOVICH, N., 1932:
Trudy Azovsko-Tchernomorskoi Nauchno-Promyslovoi Ekspeditsii 5: 361
Ru
223. KOEFOED, E., 1909: Brislingen. The sprat. - Rep. Norw. Fish. Mar. Investig. 2 (1): 128-133
224. - " - 1911: see SUND 1911
225. KOSYAKINA, E.G., 1938: Pelagicheskaya ikra ryb v rayone Novorossiiska. - Trudy Novorossiiskoi biol. stants 2 (2): 14
Ru (Pelagic eggs of fish from the region of Novorossisk)

226. KRAMP, P.L., 1913: Report on the Fish Eggs and Larvae collected by the Danish Research Steamer "Thor" in the Langelands Belt in 1909. - Medd. Komm. Dansk Fisk- og Hav. Ser. Fiskeri 4 (5)
227. KROTOV, A.V., 1941: Plodovitost nekotorykh promyslovykh ryb severo-zapadnoi chasti Chernovo morya. - Dokl. A.N. SSSR. 33 (2): 162.
Ru (Fecundity of some commercial fish of the northwestern parts of the Black Sea)
228. - " - 1949: Zhizn Chernovo morya. - Oblgiz.
Ru (The Life of the Black Sea)
229. - " - 1958: Rezervele principalelor specii de pești din bazinul mărilor Neagră și Azov. - Bul. Inst. Cerc. piscic. 17 (2): 9-20
Ro (The stock of the main species of fishes of the Black and Azov Seas)
230. KUZMINSKI, B., 1931: Rybołówstwo szprotowe w ostatnim sezonie. - Ryba 9-10.
Pl (The sprat fishery during the last season)
231. - " - 1933: Rybołówstwo szprotowe w latach 1931/32. - Ryba 11-12.
Pl (The sprat fishery in the years 1931/32)
232. KUZNETZOV, V.V., 1961: Biologicheskie osnovy ratsionalnogo ispol'zovaniia promyslovykh bogatstvo Belovo morya. - Izv. Akad. Nauk SSSR (biol.) (4): 608-619.
Ru (The biological basis of rational exploitation and increase in food productivity of White Sea)
233. KYLE, H.M., 1897: Report on the Pelagic ova, larvae and young fishes procured by the S.S. "Garland" during the greater part of 1896. - 15th Ann. Rept. Fishery Board for Scotland 1896 Part III, 7: 249.
234. ZASZCZYŃSKI, STANISŁAW, 1957: Wydajność połowów bałtyckich w latach 1953-1954 na tle lat ubiegłych. - Prace MIR Gdynia 9:705-738.
Pl (Yield of Baltic catches in 1953-1954 in the light of previous years)
Engl. summary. Transl. U.S. Dept. Commerce OTS 61-11363
235. LEBOUR, MARIE V., 1921: The food of young clupeoids. - J. Mar. Ass. Plymouth, N.S. 12 (3): 458-467
236. " - " 1921: The larval and post-larval stages of the pilchard, sprat and herring from Plymouth district. - J. Mar. Ass. Plymouth, N.S. 12 (3): 423-457
237. LEE, J.Y., 1963: Note biométrique sur le sprat du golfe du Lion (*Clupea sprattus* LINNE). - Rev. Trav. Inst. Pêches marit., 27 (2): 185-188
238. LEKSUTKIN, A.F., I.V. NIKANOROV & A.Kh. PATEEV, 1955: Lov kilki rybonosom & ispolzovaniem elektricheskoy sveta. - Trudy VNIRO 30: 4-30.
Ru (Capture of sprat with a fish-pump using electric light)
239. LELOUP, E., 1954(1) Contributions à l'étude de la faune Belge. - Inst. Roy. Sci. Nat. de Belgique Bull. 30 (4), 32 pp
240. - " - 1955: (2) Les apponts d'esprots, de langoustines et de calmar dans les ports Belges. - Inst. d'Etudes Marit.

241. LINDQUIST, ARMIN, 1961: Swedish investigations of the spawning of sprats in the boundary areas between Skagerrak and Kattegat. - ICES, C.M. 1961, Plankton Cte Paper No. 20, 3 pp, 8 figs (mimeo)
242. - " - 1962: Skarpsillträlfisket under oktober månad från Synan till Morup. - Medd. från Havsfiskelaboratoriet, Lysekil (1), 9 pp, 3 tab., 3 figs (mimeo).
Sv (Sprat trawl fishery during october from Dynan to Morup)
243. - " - 1962: Aktuellt om skarpsillundersökningar. - Svenska Väst-kustfiskaren 32 (3): 56-58.
Sv (Current investigations on sprat)
244. - " - 1962: Some of the principal features of Swedish sprat fishing in the Skagerak and the Kattegat during autumn and winter. - ICES, C.M. 1962, Sardine Cte, Paper No. 89, 3 pp., 2 figs. (mimeo)
245. - " - 1963: Skarpsillträlfisket från Dynan till Morup under oktober 1962 (och februari 1963). - Medd. från Havsfiskelaboratoriet, Lysekil 2, 3 pp, 4 tab., 2 figs (mimeo)
Sv (Sprat trawl fishery from Dynan to Morup during October 1962 - and February 1963)
246. - " - 1963: Skarpsillen - ett fiskerihydrografiskt exempel. - Zoologisk Revy (4): 81-89.
Sv (Die Sprotte - en Beispiel zur Fischereihydrographie)
247. - " - 1964: On the size of a Spawning Area of a Pelagic Spawning Fish. - Rapp. et Proc. Verb. 155: 171-173
248. - " - 1964: Zur Fischereihydrographie der Sprotte (*Clupea sprattus*) an der schwedischen Westküste. - Inst. Mar. Res. Lysekil, Ser. Biol., Rep. No. 15, 87 pp
249. - " - 1965: Swedish Sprat Investigations in the Skagerak. - Ann. Biol. 50:
250. - " - 1965: Skarpsillfisket från Dynan till Morup under oktober 1964 och februari 1965. - Medd. fr. Havsfiskelaboratoriet, Lysekil, nr 5, 9 pp, 1 fig. (mimeo).
Sv (Sprat trawl fishery from Synan to Morup during October 1964 and February 1965)
251. LINNÉ, C. von, 1758: Syst. nat. ed. X (p 318)
252. - " - 1761: Fauna Svecia, ed. II (p 128)
253. LIPSKAIA, N.I., 1960:
Ru (Ages variations in the morphology of sprat (*Sprattus sprattus phalericus*) in the Black Sea and their Functional Significance)
Trudy Sevastopol. Biolog. Stant. No. 13: 180-184
254. - " - 1960:
Ru (Diurnal and Seasonal Variations in the Feeding of Sprat *Sprattus sprattus phalericus*) in the Black Sea)
Trudy Sevastopol. Biolog. Stant. No. 13: 190-203
255. LIUBIMOVA, T.G., 1957: O raspredelenii shprota v severo-zapadnoi chasti Tchernovo moria. - Fish. Ind. Moscow (12): 62-64
Ru (Distribution of sprat in the N.W. areas of the Black Sea)
256. LISIVNENKO, L.N., 1961:
Ru (Plankton and the Feeding of Baltic Herring /Salaka/ larvae in the Gulf of Riga)
Trudy Nauch. Issled Inst. Ryb. Khoz. Latvian SSSR 3: 105-138
Translation: M.A.F.F. Transl. N.S. No. 33 (1964) (Lowestoft)

257. LJØEN, RIKARD, 1962: Om hydrografiske forhold i Skagerak og den nord-østlige del av Nordsjøen, og deres betydning for fordelingen av brislingegg og yngel. - Fisken og Havet 1962 (1): 15-23
No (On the hydrographical situation in the Skagerak and the north-eastern parts of the North Sea and its role for the dispersion of eggs and larvae of the sprat)
258. LOGAN, 1863: Further notice of the herring and sprat fishery of the Firth of Forth. - Proc. Roy Phys. Soc. Edinburgh, 1859-62, 2: 288
259. LOVETSKAYA, A.A., 1958: O reaktsii kilki na svet. - Akad. nauk SSSR, Trud. Soveshch. ikhtiol. Komm. 8: 121-123
Ru (On the reaction to light in the sprat). Available from the Library of Congress as translation (1959): Bureau of Comm. Fish. No. 59 - 20956
260. LÖWE, F., 1957: Bemerkungen zur Sprottfischerei 1957. - Deutsche Fischereiz. 4 (10): 289-291
261. LOZANO-REY, D.L., 1947: Peces ganoideos y fisóstomos. - Mem. R. Acad. Madr., 9:840
262. - " - 1950: Etude systématique des clupéidés et des engraulidés de l'Espagne, du Maroc et du Sahara Espagnols. - Proc. et Rapp. Verb. 126: 7-20
263. LÜHMANN, M., 1952: Fettgehalt und Preisgestaltung bei Ostseesprotten. - Fischereiwelt (6):
264. MALYATSKII, S.M., 1938: Priroda 5: 96
265. - " - 1940: Materialy po ekologii naseleniya pelagialii Chernovo morya. - Trudy Novorossiskoi biol. stants. 2 (3).
Ru (On the ecology of the populations of the pelagial of the Black Sea)
266. MAŃKOWSKI, W., 1947: Odżywianie sie pokarm szprote (Clupea sprattus L.) Bałtyku Środkowego. - Arch. Hydrob. i Ryb. 13: 37-90
Pl (Feeding and food of the sprat in the middle Baltic)
267. - " - 1948: The quantitative distribution of eggs and larvae of *Cl. sprattus* L., *G. morrhua* L. and *O. cimbrius* L. in the Gulf of Gdansk in 1938, 1946 and 1947. - J. de Cons. 15 (3): 268-276 & Biul Morsk. lab. Ryb. Gdynia (1948) 4
268. - " - & J. ELWERTOWSKI & J. MACIEJCZYK, 1961: The plankton production in the southern Baltic and its effect on the sprat biology. - ICES C.M. 1961, Sardine Cte, Paper No. 32, 2 pp
269. MARQUARD 1936: Die ostpommersche Sprottenfischerei. - Deutsche Fischwirtschaft 3: 523-526, Berlin
270. MARTIN, 1862: The sprat and other products of our winter fishery. - Recreative Science 3: 271
271. MASTERMAN, A.T., 1896: A review of the work of the "Garland" in connection with the Pelagic eggs of the Food Fishes 1890-96. - 15th Ann Rept. Fish. Board Scotland Part III, 7: 233-236 (Sprat)
272. MATTHEWS, J.D., 1884: Report on the Sprat Fishing during the Winter of 1883-84. - 2nd Ann. Rept. Fish. Board Scotland for 1883. App. F. No. III: 48
273. - " - 1886: On the structure of the Herring and other Clupeids. - 5th Ann. Rept. Fish. Board Scotland App. F 7, Sci. Invest.: 257

274. Mc INTOSH, W.C. & A.T. MASTERMAN, 1897: The Life-histories of the British food-fishes. - London 1897 (Sprat p. 429)
275. MEJA, 1909:
Vert. Fennice p. 478
276. MEYER, H.A., 1878: Biologische Beobachtungen bei künstlicher Aufzucht des Herings der Westlichen Ostsee. - Mitt. aus. d. Komm. z. Wiss. Unters. d. Deut. Meere in Kiel 1: 1-20
277. MEYER, P.F., 1943: Die Zeesenfischerei auf Hering und Sprott, ihre Entwicklung und Bedeutung für die Ostseefischerei und ihre Auswirkungen auf den Blankfischbestand der Ostsee. - Z.f. Fischerei 40 (4/5):
278. MEYER-WAARDEN, P.F., 1962: The German Oil Herring Fishery in 1960. - ICES Ann. Biol. 17: 174-175 (Refers to sprat by-catch)
279. - " - 1965: By-catch in the German Oil Herring Fishery. ICES Ann. Biol. 20 (1963) 109 (Sprat by-catch)
280. MIKHIN, & ANTIPOVA, 1932:
Izvestiya VNIORKH 15: 54
281. MIKICIŃSKA, JANINA, 1955: Skład chemiczny szprota poławianego na południowym Bałtyku w latach 1949-1953. - Prace MIR Gdynia 8: 323-333.
Pl (Chemical composition of strats caught in the southern Baltic from 1949-1953)
282. MOREAU, E., 1881: Histoire naturelle des poissons de la France, Paris 3, 697 pp
283. MORTENSEN, F.V. & STRUBBERG, A.C., 1931: Die Dänische Seefischerei. - Handb. Seefisch. Nordeuropas 8 (2): 40
284. MORTENSEN, TH., 1896: Fortsatte undersøgelser over rødspætteyngelens forekomst i Østersøen 1894 og 1895. - Fiskeri-Beretning for Finansaaret 1894-95, Copenhagen.
Da (Continued investigations on the occurrence of plaice larvae in the Baltic during 1894 and 1895)
285. - " - 1897: Smaa faunistiske og biologiske meddelelser. - Videnskabelige Medd. fra den naturhist. Forening 49, Copenhagen.
Da (Small faunistical and biological informations)
286. VON ZUR MÜHLEN, M., 1903: Die Fischereiverhältnisse an der kurländischen Ostseeküste. - Baltische Wochenschrift 1903, Riga (?)
287. MULICKI, ZYGMUNT, 1948: The distribution of the sprat in the Middle Baltic during the summer of 1939, - J. du Cons. 15 (2): 207-217
In Polish: Rozmieszczenie szprota w środkowym Bałtyku w ciągu lata 1939 r. - Bull. Lab. Mar. Gdynia 4: 51-65
288. - " - 1948: Rozmieszczenie szprota na środkowym Bałtyku latem 1938. - Biul. Morsk. Lab. Ryb. (Gdynia) 4:
Pl (Distribution of sprat in the Central Baltic during the summer 1938)
289. - " - 1949: Rozmieszczenie szprota na środkowym Bałtyku w ciągu lata 1939. - ibidem:
Pl (Distribution of sprat in the Central Baltic during the summer 1939)
290. MURIE, J., 1903: Thames Estuary Sea Fisheries-Part I (Methuen 1903) p 80-88 The Sprat; 9 88-102 Whitebait.

291. NALL, J.C., 1866: Great Yarmouth and Lowestoft—Chapters on the Topography, Fisheries and Dialect of the East Coast. p 275, 305-06. The Sprat
292. MÖBIUS, K. & F. HEINCKE, 1883: Die Fische der Ostsee. — (sprat: 265-266). — IV. Ber. Wiss. Meeresunters, Kiel:
293. MOLANDER, ARVID, R., 1931: Några iakttagelser över skarpsill vid västkusten. — Ny Svensk Fiskeritidskrift (2): 12-18. Sv (Some observations regarding the sprat on the west coast)
294. — " — 1932: Förekommer olika skarpsillraser i Bohusläns skärgård och utanför dess kust? — Ny Svensk Fiskeritidskrift (6): 61-64
Sv (Are there different races of sprat in the archipelago of Bohuslän and off the coast?)
295. — " — 1934: Skarpsillfiske och årsklasser. — Ny Svensk Fiskeritidskrift (17): 197-200
Sv (Sprat fishery and year classes)
296. — " — 1939: Ueber die Sprottenfischerei vor der schwedischen Westküste und ihre Abhängigkeit von meteorologischen und hydrographischen Verhältnissen. — Rapp. et Proc. Verb. 109, 3ème partie: 70-74
297. — " — 1940: A research upon the sprat at the west coast of Sweden I. — Svenska Hydr.-Biol. Komm. Skr. N.S., Biologi 2 (4), 63 pp.
298. — " — 1942: A research upon the sprat of the west coast of Sweden II. — Svenska Hydr.-Biol. Komm. Skr., N.S., Biologi 2 (5), 7 pp.
299. — " — 1943: Sprat and milieu conditions. — Ann. Biol. 1 (1939-1941): 165-174
300. — " — 1946: The winter rings in the scale of the sprat. — Svenska Hydr.-Biol. Komm. Skr., N.S., Biologi 2 (7): 8 pp
301. — " — 1947: The growth of the sprat at the west coast of Sweden during the cold winters 1940-42 and some notes on the great coastal fishery for sprat during February-March 1943. — Ann. Biol. 2 (1942-1945): 113-129
302. — " — 1952: The sprat fishery and the sprat of the west coast of Sweden. — Inst. Mar. Res. Lysekil, Ser. Biol., Rep. No. 2, 67 pp.
303. — " — 1964: Skarpsillen. — In: Fiskar och Fiske i Norden, 3rd ed., Stockholm, 196-201
304. MORAWA, F.W. FRITHJOF, 1953: Beiträge zur Biologie des Sprottes (*Clupea sprattus* L.) in der Ostsee. — Dissertation, Kiel University, 1953
305. — " — 1954: Das Wachstum der Sprotten in der Ostsee. — Fischwirtschaft 6 (3): 59-60
306. — " — 1954: Lebensdauer und Tod. Stoffwechseluntersuchungen an einem ^{Kurz}lebigen Fisch. — Fischwirtschaft 6 (3):
307. — " — 1954: Laichen, Laichbedingungen und Laichplätze des Sprottes (*Clupea sprattus* L.) dargestellt auf Grund von Untersuchungen in der Kieler Bucht. — Z.f. Fischerei 3(4/5): 343-373

308. MORAWA, F.W. FRITHJOF, 1955: Wachstum, Wachstumsbedingungen und Aufwuchsplätze des Sprottes (*Clupea sprattus* L.) in der Ostsee. - Z.f. Fischerei 4(1/2): 101-136
309. NAVARRO, FRANCISCO de P., 1948: Los clupeidos y la anchoa de las costas españolas en el invierno 1947-48. Observaciones biométricas y biológicas de los laboratorios oceanográficos. - Bol. Inst. Esp. Oceanogr. 10, 36 pp
310. NEUBAR, R., 1931: Die Erträge der Fischerei an der Schleswig-Holsteinischen Ostseeküste von 1924-25 bis 1929-30. - Zeitschr. Fisch. u.d. Hilfswiss. 29 (1): 116 o. 123
311. NIEMIŁERKO, W. & CH. LOSZYCER, 1938: Ueber den Fettstoffwechsel bei Sprotten. - Acta Biol. Experiment. 12 (35), Warszawa
312. NIKOLAEV, I.I., 1956:
- Trudy BALTIRO 2: 34-45, Kaliningrad
Ru (Feeding conditions and growth of the sprat)
313. - " - 1958:
On the long-term fluctuations in the abundance of the Baltic Sprat as related to the Fluctuations in the Productivity of Plankton. - Trudy VNIRO 34: 133-153
Bureau for Translations: Foreign Lang. Div., Secretary of State for Canada. Transl. No. 241 (1959)
314. - " - 1961: Vliyanie planktona na raspredelenie salaki i baltiiskoi kilki. - Trudy Nauch-Issled. Inst. Ryb. Khoz. 3: 201-224
Ru (The Influence of the Plankton on the Distribution of Salaka and Baltic Sprat)
315. - " - 1961: Plankton as a factor in the distribution and productivity of plankton-eating fishes in the Baltic Sea. - Trudy Sov. Akad. Nauk. SSSR, Ikhtiol. Kom. No. 13: 364-373
M.A.F.F. Transl. N.S. No. 69 (1965) (Lowestoft)
316. NIKOLSKY, G.W., 1923:
Byulleten Gosudarstvennoi Tchernomorsko-Azovskoi Nauchno-Promyslovoi Opytnoi Stantsii 6-7: 2
317. NIKONOROV, I.V., 1959: The use of blocks of lights in fishing for Kilka with a fish-pump. - Rybn. Khoz. 35 No. 12: 42-47
Fish. Res. Bd. Canada Transl. Ser. No. 446 (1963)
318. - " - 1962: Underwater Observations on the Behaviour of Sprats. - Rybn. Khoz. No. 1: 32-36 Moscow 1962 Ru
319. - " - & A.Kh. PATEEV, 1959: Lov kilki rybanosom pri podvodnom osveshchenii s primenenem impulsnovo toka. - Rybnoe Khoziaistvo 35 (7): 53-58
Ru (Sprat fishing with suction pumps, underwater light and pulsating current)
320. NINNI, E., 1912: Catalogo dei pesci del mare adriatico. Venezia, 271 pp
321. NOEL de la MORINIÈRE, SIMON BARTHELEMY JOSEPH, 1798: Histoire naturelle de l'eperlan de la Seine Inférieure. - Rouen, An VI (=1798), 8°
322. NORDQVIST, OSCAR, 1901: Några hafsfiskars lek och förekomsten af deras ägg och yngel i Finska viken. - Acta Soc. Fauna Flora Fenn. 20.7., Helsingfors.
Sv (Spawning of some marine fishes and occurrence of their eggs and larvae in the Gulft of Finland)
323. NYBELIN, ORVAR, 1923: Undersökning rörande fiskägg och fisklarver i Östersjön I. Mellersta Östersjön. - Medd. K. Lantbruksstyrelsen 243: 125-142 (Stockholm)
Sv (Investigation on pelagic fish eggs and fish larvae in The Baltic I. Central Baltic)

324. NYBELIN, ORVAR, 1928: Till frågan om skarpsillens förekomst i Skagerack. - Ny Svensk Fiskeri Tidskrift (12): 132-133.
Sv (On the question of the occurrence of sprat in the Skagerak)
325. OCHAKOV, 1923:
Byulleten Gosudarstvennoi Tchernomorsko-~~szovskoi~~^A Nauchno-Promyslovoi Opytnoi Stantsii 8-9:6
326. OLIVER, M., 1950: Estudios sobre el Espadin (*Clupea sprattus* L.) de la costa Noroeste de Espana. - Bol. Inst. Espanol de Oceanogr. 26, 15 pp
327. OTTERLIND, GUNNAR, 1959: Aktuellt om fiskbestånden i Östersjön. - Sydkustfiskaren nr 1
Sv (News on the fish stocks in the Baltic)
328. - " - 1960: Om fiskbestånden i Östersjön under 1959-1960. - Sydkustfiskaren nr 3
Sv (On the fish stocks in the Baltic 1959-1960)
329. PALLAS, 1811:
Zoogr. rosso-asiat. 3: 214
330. PALOMBI, A. and M. SANTARELLI, 1953: Gli animali commestibili dei mari d'Italia, Milano, U. Hoepli, 349 pp
331. PAVLOVSKAYA, P.M., 1952: O razmnozhenii tchernomorskovo shprota *Sprattus sprattus phalericus* (Risso). - Dokl. A.N. SSSR 82 (1): 165
Ru (On the reproduction of the Black Sea sprat)
332. - " - 1954: Razmnozhenie shprota, stavrida i barabuli v Tchernom more. - Trudy VNIRO 28: 126-135
Ru (Spawning of the sprat - and 2 other fishes, stavrid and barabul - in the Black Sea)
333. PCHELINA, Z.M., 1936: Nekotorie dannye o lichinkakh i malkakh ryb Novorossiiskoi bukhty. - Trudy Novorossiiskoi biol. stantsii 2 (1): 27
Ru (Some remarks on the larvae and small fish of the Gulf of Novorossisk)
334. - " - 1940: Lichinki i malki ryb rayone Novorossiiskoi bukhty. - ibidem 2 (3): 32
Ru (Larvae and small fish in the region of the Gulf of Novorossisk)
335. PETERSEN, C.G. JOH., 1892-93: The pelagic life in the Fanø Sound. - Fiskeri-Beretning for Finantsaaret 1892-93, Copenhagen
336. PETRENKO, I.N. & A.A. KARASIKOVA, 1960:
- Trudy VNIRO 42: 189-194
Ru (The use of the characteristics of the amino acid complex of the sprat in making short-term forecasts of its catch)
337. PETROV, K., 1949: Tchernomorskii shprot i perspektivy ievro tekhnologii. - Rybnoe Khoziaistvo (4)
Ru (The sprat of the Black Sea and viewpoints regarding its technology)
338. PETROVA, E.G., 1960: O plodovitosti i sosrevanii baltiskovo shprota. - Trudy VNIRO 42: 99-108
Ru (On the fecundity and maturation of the Baltic sprat)
M.A.F.F. transl. N.S. No. 20 (Lowestoft)

339. PETRUSHEVSKII, G.K., 1957: Parasites of Clupeid Fishes in the Black Sea. - Vses Nauch-Issled. Inst. Ozerogo i Rechnogo Ryb. Khoz. 42: 304-314
340. PIECHOCKI, FR., 1931: O w/oku szprotowyn. - Ryba 10
Pl
341. PILIYAVSKAYA, A., 1937: Neizpolzuenye shprota v severozapadnoi chasti Tchernovo moria. - Rybnoe khozlaistvo (8): 18
Ru (Unexhausted resources of sprat in the northwestern parts of the Black Sea)
342. PIRCĂLABOIU, S., 1959: Consideratii asupra pescuitului cu talianele la litoralul Romînesc al Mării Negre in anul 1958. - Bul. Inst. Cerc. piscic., 18 (1): 75-81
Ro (Consideration of the Fishery with "talianele" - large fixed nets - off the Romania Black Sea coast in 1958)
343. PLAYFAIR, L. & DUNDAS, H., 1861: Report to the Commissioners for the British White Herring Fisheries on the Sprat-fishing of the Firth of Forth
344. POPOV, 1930:
Doklady Akademii Nauk SSSR 9: 211
345. PORUMB, I.I. and F.I. PORUMB, 1958: Contributii la studiul biologicii pestilor pelagici in dreptul litoralului romineso al Mării Negre. - Anal. stînt. Univ. Al. I. Cusa, 4(1): 77-101
346. POULSEN, E.M., 1948: Vodfiskeri efter Silding og Brisling i Limfjorden. - Beretn. Biol. Stat. 49.
Da (Fishery with seines for small herring and sprat in the Limfjord)
347. - " - 1950: La pêche, la ponte et les races de sprats dans les eaux Danoises. - Rapp. et Proc. Verb. 126: 92-95
348. - " - 1950: Brislingfiskeriet og Brislingbestanden i de danske farvande. - Rep. Danish Biol. Stat. 52: 3-26.
Da (The sprat fishery and the sprat populations in the Danish waters)
349. PRIKHODKO, B.I., 1951:
Ru (Sprat fishing in winter by electric lights). -
Ryb. Khoz. 27 (8) 43
350. RAMALHO, A., 1922: Note sur le sprat des côtes portugaises. - Bull. Soc. Port. des Scienc. Natur. 9: 31-34
351. RANINSKAIA, Iu. I., 1957: Normativy v shprotnom proizvodstve. -
Ryb. Khoz. 12: 36-39
Ru (Norms for sprat production)
352. REDEKE, H.C., 1900: Sprat in de Haven van Nieuwediep en de Heinkesche Méthode. - Med. ov. Visscherij 83
Ne (Sprat in the harbour of Nieuwediep and the method by Heinke)
353. - " - 1910: Ueber den Sprott und die Sprottenfischerei in Holland.-
Mitt. des deutsch. Seefischerei-Vereins 26:
354. REGAN, C.T., 1917: A revision of the clupeid genera of the genera Sardinella harengula etc. - Ann. Mag. Nat. Hist. 19 (8): 377-395 (London)
355. RICHARDSON, IAN D., 1950: The use of the echo-sounder to chart sprat concentrations. - Ann. Biol. 6 (1949): 136-139

356. RICHARDSON, IAN D., 1951: Echo-sounder surveys for sprats in 1950-51 season. - Ann. Biol. 7 (1950): 97-98
357. RICHIARDI, S., 1880: Sulla Clupea sprattus e sul Lernaeenicus sprattae.- Proc. Ver. Soc. Tosc. Sci. Nat. 101
358. RISSO, 1826: Hist. Nat. Europ. mérid. 3: 452
359. R/ÖBERTSON/, J.A./ RMITAGE/, 1930: (Review of a paper by JOHANSEN 1930) - J. du Cons. 7: 309-310
360. ROBERTSON, J. ARMITAGE, 1933: Notes on the optical appearance of winter rings in some clupeoid scales. - J. du Conseil 8 (3): 357-370
361. - " - 1936: A preliminary account of the sprat and sprat fishery in England. - J. du Cons. 11 (1): 60-71
362. - " - 1936: The occurrence of Lee's phenomenon in the sprat, and the size-relation between fish and scale. - J. du Cons. 11 (2): 219-228
363. - " - 1938: The sprat and the sprat fishery of England .- Fish. Investig., Ser. II., Vol. 16 (2), 103 pp
364. - " - 1939: Observations on the nature and characteristics of sprat shoals. - Int. Rev. der ges. Hydrobiol. u. Hydrogr. 34 (1/2):
365. ROLLEFSEN, G., 1932: Forsøk med f l u i n g efter brisling. - Årsberet. vedk. Norges fiskerier 1930, 1: 98-100
No (Experiments with "fluing" after sprat)
366. ROSÉN, NILS, 1930: Om skarpsillen. - Ny Svensk Fiskeritidskrift (9):86-89
Sv (On the Sprat)
367. RUSSELL, F.S., 1926: The vertical distribution of marine macroplankton II. The pelagic young of teleostean fishes in the daytime in the Plymouth area, with a note on the eggs of certain species. - J. Mar. Biol. Ass. Plymouth 14: 101-159
368. SARS, G.O., 1893: Om Brislingen og Brislingfisket. - Indber. til Departementet for det Indre
No (On the sprat & the sprat fishery; Report to the Ministry of Internal Affairs)
369. SANDMAN, J.A., 1906: Die Ostseefischerei in ihrer jetzigen Lage. IV Uebersicht über die Seefischerei Finnlands. - ICES Publ. de Circonst. No. 13 C: 157
370. SCHACHT, C., 1914: Ein Beitrag zur Erklärung des Wiedererscheinens von Sprott und Hering in der Elbemündung. - Mitt. des Deutsch. Seefisch. 30
371. SCHNAKENBECK, W., 1928: Die Nordseefischerei. - Handb. Seefisch. Nordeuropas 5 (1): 56.
372. - " - : Clupea sprattus. - Faune ichthyol. Atlant. N. (9)
373. SCHNEIDER, GUIDO, 1895: Ueber den Killo und seine Existenzbedingungen an der Estländischen Küste. - Reval 1895, 10 pp, map, 8°
374. - " - 1895: Ueber den Killo (Clupea sprattus). - Revaler Beobachter, Reval, Nr. 57, 58, 60
375. - " - 1901: Ueber die Fortpflanzung von Clupea sprattus L. in Finnischen Meerbusen. - Zool. Anz. 25 (659): 9-11
376. - " - 1902: Ichthyologische Beiträge II. Fortsetzung der Notizen über die an der Südküste Finnlands vorkommenden Fische. - Acta Soc. Fauna Flora Fenn. 22.4

377. SCHNEIDER, GUIDO, 1904: Zur Fischkunde in den Ostseeprovinzen. - Korrespondenzblatt d. Naturf.-Vereins in Riga 47: 41-45
378. - " - 1908: Die Clupeiden der Ostsee.- Rapp. et Proc. Verb. 9, Ber. über die Tätigkeit der Komm. C₁, 5: 66-120
379. - " - 1910: Ueber den Sprottenfang in der Umgegend von Domesnäs 1908. - Jahrbuch für Fischzucht und Fischfang in Est-, Liv- und Kurland III, Dorpat 1910
380. - " - , 1928: Die Seefischerei von Lettland und Estland. - Handb. Seefisch. Nordeuropas 8 (6): 10
381. - " - & K.M. LEVANDER, 1900: Ichthyologische Beiträge I. Notizen über die an der Südküste Finnlands in den Skären des Kirchspiels Esbo vorkommenden Fische. - Acta Soc. Fauna Flora Fenn. 20.1
382. SCHÖNBERG, N., 1959: Räime ja Kilu söödabaasi dünaamikast Riia lahes. - Abiks kalurile 16: 13-15.
Eesti (The dynamics of food of herring and sprat in the Gulf Riga)
383. SCOTT, A., 1916: Report on the Whitebait Fisheries. - Lanc. Sea Fisheries Lab. Rept. 1915
384. SHULMAN, G.E., 1960: A reversal of the usual relationship between age and fat content of fishes as exemplified by the Azov Khamsa. - Dokl. Akad. Nauk. SSSR (Engl. transl.) 128 (1-6): 920-923
385. SELETSKAYA, A.V., 1956:
.- Trudy BALTNIRO 2: 46-57, Kaliningrad
Ru (On the cause of fluctuation of catches of the sprat in Vislinsk Bay)
386. - " - 1962:
Ru (State of the Abundance of salaka and sprat. in the southern part of the Baltic Sea) ibidem. 8: 111-117
387. SELIGO, A., 1931: Die Seefischerei von Danzig. - Handb. Seefisch. Nordeuropas 8 (7)
388. SIDOROV, A.B. & V.E. FEDOROV, 1963:
Ru (A new Trawl for Catching Salska and Sprat)
Rybn. Khoz. 39 (8): 48-50
389. SIMPSON, A.C., 1949: Southern North Sea. Notes on the Occurrence of Fish eggs and larvae in the Southern Bight of the North Sea during the winter of 1946-47. ICES Ann. Biol. 4: 90-97
390. SLASTENENKO, E., 1938: Katalog ryb Tchernovo i Asovskovo morei, - Trudy Novor. biol. stantsii 2 (2)
Ru (Catalogue of fishes in the Black Sea and the Azov Sea)
391. - " - 1939: Les Poissons de la Mer Noire et de la Mer d'Azov. - Ann. sci. Univ. Jassy, 25 (1): 197
392. - " - 1956: The fishes of the Black Sea basin. Istanbul, 711 pp
393. SMIRNOV, A.I., 1950: Portsionnostj ikrometaniya pelagofilnykh ryb Tchernovo Moriya. - Doklady AN SSSR 70 (1): 129.
Ru (Spawning of pelagophil fish in the Black Sea)
394. - " - 1951: Nerestilishcha nekotorykh promyslovykh ryb Tchernovo Moriya. - Biyull. MOIP, Otd. biologii 56 (5):
Ru

395. SMITH, W.C., 1949: An abnormal migration of young sprats into Manx Bays. - Ann. Rep. Mar. Biol. Stat. Port Erin 1948: 25-26, Liverpool
396. SMITT, F.A., ed., 1895: Skandinaviens fiskar. (Senare delen) Skarpsillen eller Hvassbuken: 974-977. Stockholm
397. SOLJAN, T., 1948: Fauna et Flora Adriatica. Vol. I Pisces 249-250 *C. sprattus*. - Inst. za Oceanograf. I Ribarstvo ~~Fnr~~ *FNC* Jugoslav. Split. Us. Dept. Commerce OTS transl. 60-21661 (Washington 1963)
398. SOVETOV, V.N., 1951:
Ru (Trawl fishing of Sprats in the Riga Gulf).-
Ryb. Khoz. 27 (7): 5
399. - " - 1963:
Ru (Fishing for Baltic Herring (Salaka) and Sprat with the mid - water Trawl). - Ryb. Khoz. 39 (10): 33-38
400. STERNER, E., 1919: Die Niederelbische Küstenfischerei II Die Herings- und Sprottfischerei. - Der Fischerbote 11: 17
401. STOJANOV, St. A., 1950: Tchernomorski shprot, - Sp. Priroda i znanie, Kn. 1, Year 4
Bu (The sprat of the Black Sea)
402. - " - 1953: Tchernomorski shprot *Sprattus sprattus sulinus* (Antipa). - Bulg. akad. nauk, Trud. inst. zool. 3, 91 pp, Sofia.
Bu (The sprat of the Black Sea)
403. - " - 1953: Black sea sprat, *Sprattus sprattus sulinus* (Antipa). Publications of the Zoological Institute of Bulgarian Academy no. 5: 1-60
404. - " - 1960: Sosoyanie zpassa na tchernomorkata tritsona, lovena po bulgarskoto kraibrezhie prez periodite 1945-1950 i 1955-1959 g. - Trud. zentr. nauchn. issl. inst. ryb. i ryb. Varna 3, 39 pp.
Bu (Dynamik des Bestandes der Sprotte (*Sprattus sprattus sulinus* Antipa) nach den Fängen an der bulgarischen Küste während der Perioden von 1945-1950 und von 1955-1959)
405. STRODTMANN, S., 1906: Laichen und Wandern der Ostseefische. II. Bericht. - Wiss. Meeresunters. Abt. Helgoland, N.F., 7 (2)
406. - " - 1906: Zur Biologie der Ostseesprotten. - Mitt. des deutsche Seefischerei-Vereins 22 (12)
407. - " - 1918: Weitere Untersuchungen über Ostseefische. III. Bericht. - Wiss. Meeresunters. Abt. Helgoland N.F. 14:57
408. SUND, OSCAR, 1909: Brislingen (The sprat), - Rep. Norw. Fish. Mar. Investig. 2 (1): 154-163
409. - " - 1911: Undersøkelser over brislingen i norske farvand vaesentlig paa grundlag av "Michael Sars" togt 1908 - Med tabeller over forekomst af egg og yngel fra "Michael Sars" togt 1908 av EINAR KOEFOED. - Aarsberetn. vedk. Norges fiskerier for 1910 (3): 357-474 (also separate, 122 pp)
No (Investigations on the sprat in Norwegian waters mainly after the cruise with "Michael Sars" in 1908 - with tables regarding the occurrence of eggs and larvae during the cruise of "Michael Sars" in 1908 by EINAR KOEFOED)

410. SUNDEVALL, C.J., 1885: Berättelse om fiskeriet i Stockholms läns skärgård. - Sthlms läns Kongl. Hushållningssällskaps handlingar, Stockholm.
Sv (Report on the fisheries in the archipelago of the country of Stockholm)
411. SUVOROV, 1910, 1913:
Trudy Baltiiskoi Ekspedicii 1, 2
412. SYROVATSKII, 1930:
Zapiski gosudarstvennoi Ikhtiologicheskoi Opytnoi Stantsii IX (21-22): 49
413. - " - 1934:
Dokl. A.N. SSSR 2 (3): 199
414. SZELA, T., 1930: O wybierającym działaniu włoku i sieci stawnych przy połowach szprotów. - Ryba, Bydgoszcz.
Pl
415. TELEGIN, K.F., 1949: Baltiskaya kilka ili shprot *Sprattus sprattus balticus* (Schneider). - Promyslovye ryby SSSR, ed. Pischepromizdat, 137
Ru (The sprat of the Baltic Sea)
416. TESCH, J.J., 1909: Eier und Larven im Frühjahr laichender Fische der südlichen Nordsee. - Verh. Onderzoek der Zee 2: 1-44
417. - " - 1913: Weitere Untersuchungen über das Laichen einiger Nutzfische besonders der südlichen Nordsee. - Rapp. en Verh. uitg. Rijksinst. voor Vischerijonderzoek, Deel I, Afd. I, 58-123
418. THOMPSON, D'ARCY WENTWORTH, 1947: A Glossary of Greek Fishes. - (Sprat rep. pp 8, 32, 77, 91, 153 & 269)
419. TIEWS, KLAUS, 1960: Biologische Bemerkungen zur ostfriesischen Winterfischerei 1959/60. - Fischerblatt 8 (10): 213-215
420. - " - 1961: Winter fishery on sprat in coastal waters of Niedersachsen 1958/9. - Ann. Biol. 16 (1959): 227
421. - " - 1961: Untersuchungen über die Winterfischerei auf Herfing (Spitzen) und Sprott im Mündungsgebiet von Weser und Ems in den Jahren 1958/59 und 1959/60. - Arch. Fischereiwiss. 12 (1/2):
422. - " - 1962: The winter fishery for sprat in the coastal waters of Niedersachsen in 1959/60. - Ann. Biol. 17 (1960): 227-228
423. TOKAREV, A.K., 1951:
Ru (Professional Survey of Sprats in the Riga Gulf). - Ryb. Khoz. 27 (7): 7
424. TSALKIN, 1938:
Trudy Azovsko-Tchermorskovo Naudno-Issledovatelskovo Instituta Morskovo Rybnovo Khozyaistva i Okeanografii 11: 218.
Ru
425. TÅNING, Å. VEDEL, 1936: Young herring and sprat in Faroese waters. - Medd. Komm. Danm. Fisk.- og Havunders., Ser. Fiskeri 10 (3)
426. - " - 1956: Årsberetning fra Danmarks Fiskeri- og Havundersøgelse for 1955
427. VALENCIENNES, M.A., 1847: Histoire naturelle des Poissons par Cuvier et Valenciennes, Vol. 20: "Clupeidae", Paris

428. VELDRE, I & A. HELL, 1961: Läänemere kirdeosa kilu morfoloogilistest tunnustest. - Hüdrobioloogilised uurimused 2: 343-361, Tartu.
Eesti (Ueber die morphologischen Merkmale der Sprotte der nordöstlichen Ostsee)
429. VELDRE, I., 1962: Soviet investigations in the Baltic. - Ann. Biol. 17 (1960): 228
430. - " - 1962: O morfoloogii kilki severo-vostochnoi chasti Baltiskovo morja. - Gidrobiol. issl. 3: 201-203 Akad. Nauk. Estonskoi SSR, Inst. Zool. Bot., Tartu.
Ru (Ueber die Morphologie der Sprotte der nordöstlichen Ostsee)
431. VELEY, V.F.C., 1951: Brood Strength Fluctuations in the sprat. - ICES, Contr. to Special Meetings & Rapp. et Proc. Verb. 131: 71-73
432. VERBRUGGHE, L., 1905: Die Versuchsfischerei auf Hering und Sprott in der Deutschen Bucht der Nordsee, Winter 1904-5. - Mitt. Dt. Seef. Ver. 21 (10)
433. 1906: d:o d:o 1905-6. - ibidem. 22 (11)
434. - " - 1932: Die Belgische Seefischerei. - Handb. Seefisch. Nordeuropas 7 (3)
435. VINCENT, A. et (G.)KURC, 1962: - Sardine et sprat de la Manche. Observations préliminaires. - ICES, Cté de la sardine, comm. n° 16, 4
436. (Not occupied)
- K.A.
437. VINOGRADOV, 1948: O srokakh ikrometaniya, o lichinkakh i o malkakh ryb v Tchernom more y Karadaga. - Doklady AN Ukr. SSR 1, Kiev.
Ru (On the time of spawning, the occurrence of larvae and small fish in the Black Sea and Karadaga)
438. - " - & I.I. NIKOLALEV, 1958: O promysle kilki v otkrytynykh rayonakh Baltiski. - Rybnoe khoziaistvo (2)
Ru (On the sprat fishery in the open parts of the Baltic)
439. VIVES, F. & P. SUAU, 1955: Consideraciones biometricas sobre el espadin (*Clupea sprattus*) y la cinta (*Cepola rubescens*). - Reunion sobre prod. pesq. 2: 83-86, VIGO
440. - " - 1956: El espadin del Mediterraneo occidental (*Clupea sprattus* var. *phalerica* RISSO). - Invest. Pesq., n° 4: 3-24
441. VODYANITSKII V.A., 1930: Pelagicheskie yaitsa i lichinki ryb v rayone Novorossiiskoi bukhty. - Raboty Novorossiiskoi biol. stantsii 4:
Ru (Pelagic eggs and larvae of fish from the bay of Novorossisk)
442. - " - 1930: K voprosy o proiskhozhdenii fauny ryb Tchernovo Moriya. - ibidem. 4:
Ru (On the question of the origin of the fishfauna of the Black Sea)
443. - " - 1936: Nabludeniya nad pelagichiskimi yaitsami ryb Tchernovo moriya. - Trudy Sevastopolskoi biol. stantsii 5: 3-43.
Ru (Observations on pelagic eggs of fish of the Black Sea)

444. VODYANITSKII, V.A., 1939: K izucheniyu biologii pelagicheskoi oblasti Tchernovo moriya. - Priroda 4
Ru (On the biology of the pelagic region of the Black Sea)
445. - " - 1941: K voprosy o biologicheskoi produktivnostji Tchernovo moriya. - Trudy Zool. Inst. AN SSSR 7 (2)
Ru (On the question of the biological productivity of the Black Sea)
446. - " - & I.I. KAZANOVA, 1954: Opredelitel pelagicheskikh ikrinok i lichinok ryb Tchernovo moriya. - Trudy VNIRO 28: 242-323
Ru (The determinations of pelagic fish eggs of the Black Sea)
447. VOZNYAK, S.P., 1956:
 Unpubl. essay, Moscow, Techn. Inst. Rybn. Prom. i Khoz.
Ru (Sprat in the Southern Baltic)
448. YARRELL, W., 1836: A History of British Fishes
 Vol. II: 121 The Sprat
449. ZAITSEV, YU. P., 1954:
 Rep. Acad. Sci USSR 94 (3)
Ru (Determination of buoyancy of pelagic eggs of some species in the Black Sea)
450. - " - 1959: Mekhanicheskaya prochnostj ikry khamsy i svyazannye s nei osobennosti razmnozheniya. -Voprosy ikhtiologii 12: 89-91
Ru (Mechanical resistance of the eggs of *Engraulis* in relation to their special reproduction)

Supplement

451. ANON., 1897: Om skarpsillens (*Clupea sprattus*) fortplantning. - Svensk Fiskeri Tidskrift 6 (1) 46-47.
Sy (On the propagation of the sprat)
452. - " - , 1905: Die Versuchsfischerei auf Hering und Sprott in der Deutschen Bucht, der Nordsee, Winter 1904-05. - Mitt. Deutsch. Seefisch.-Ver. 21 (10)
453. - " - , 1906: Die Versuchsfischerei auf Hering und Sprott in der Deutschen Bucht, der Nordsee, Winter 1905-06. - Mitt. Deutsch. Seefisch.-Ver. 22 (11)
454. - " - , 1929: Om skarpsillen. - Ny Svensk Fiskeri Tidskrift (16): 158-159
Sy (On the sprat)
455. - " - , 1930: Försök att locka upp skarpsillen med rom. - Ny Svensk Fiskeri Tidskrift (19): 190.
Sy (Trials to attract sprat by means of roe)
456. - " - , 1931: Rikligt skarpsillfiske i Strömstads skärgård. - Ny Svensk Fiskeri Tidskrift (14): 137
Sy (Rich fishery for sprat in the archipelago of Strömstad)
457. - " - , 1934: Echo-sounding for Brisling in the Norwegian Fjords. - Fishing News, June 30, 1934: 23
458. ANTIPA, 1906:
Denkschr. Akad. Wiss., Wien, math.-naturw. Kl. 78 (1905):38
459. ARTE, P. 1956: Observaciones biológicas sobre el espadin (*Clupea sprattus*) del N.W. de España (Rio de Vigo). - Invest. Pesq. 3: 21-44
460. BEAUDOIN, M., 1904: Le *Lernaeenicus sprattae*, parasite de la Sardine en Vendée. - Compt. Rend. Acad. Sci. Paris, 139: 998
461. - " - 1907: Mode d'attaque du sprat par *Lernaeenicus sprattae* copépode parasite de l'oeil du poisson. - Compt. Rend. Assoc. Franc. Av. Sci. Paris, 36: Pt 1, p. 259, Pt 2, p. 727
462. - " - 1908: Un nouveau parasite du Sprat; *Clupea sprattus*. Constatacion d'un *Lernaeenicus sardine*, sur un Sprat present en autre fois trois *Lernaeenicus sprattae*. - Bull. du Mus. d'Hist. Nat. 14
463. BENECKE, 1881:
Fischer. u. Fischz. Ostpreuss., p. 172
464. BERG, L.S., 1940:
Izvestiya VNIORKH 23:6
465. BERNER, M., 1958: Die Fanggründe der Sassnitzer Kutterflotte in der Ostsee und deren wirtschaftliche Bedeutung für den Dorsch-, Herings-, Plattfisch- und Sprattfang. - Deutsche Fisch. Zeit. 6: 161-169, 7: 193-200
466. BJERKAN, PAUL, 1931: Skarpsillyngel av årgång 1930. - Ny Svensk Fiskeri Tidskrift 15: 152-155.
Sy (Sprat larvae of the year class 1930)
467. BOKELBERG, M., 1914: Über des Auftreten von Sprotten und Heringen in der Wesermündung im Winter 1913-14. - Mitt. d. Deut. Seef.-Ver. 30: 46

468. BONAPARTE, 1846: Cat. nat. pesci Europ. p. 34
469. BORISOV, 1948:
Rybn. khoz. (8):31
470. BORAWIK, J., 1926:
Arch. d'hydrobiol. et d'ichthyol. 1 (4)
Pl (The Herring and Sprat Fishery near the Polish coast and
its relation to the Quantity of Water carried by the Vistula)
471. BRAUNER, 1912:
Trudy Bessarabskovo Obshchestva Estestvoispytatelei
2 (2): 127
472. CASPERS, H., 1951: Die Bulgarische Fischerei im Schwarzen Meer. -
Abh. Fisch. u. Hilfsw., Lief. 4, 719-786
473. MENTEVA, 1947:
Rybn. khoz. (8): 27
Ru
474. DRENSKI, 1924:
Trudy Bulgarskii prirodizpit. družh. 11: 57
Bu
475. - " - 1931:
Sved. zemled. 12 (7-8): 8
Bu
476. DRYAGIN, 1950:
Vestnik Leningradskovo Universiteta 8 (p. 27)
Ru
477. GOLENCHENKO, A., 1948:
Rybn. khoz. 4: 5
Ru
478. IVERSEN, THOR, 1912: Snurpenøtsaken. Med beskrivelse av vaarsildfisket
og brislingfisket. - Aarsberetn. vedk. Norges Fiskerier
1912 (2): 207-262.
No (Purse seine fishery. With a description on the spring
fishery for herring and the sprat fishery)
479. MAYOROVA,
Ru
480. ^{ER}MINDEB,
Ru
481. NIKOLAEV, I.I., 1958: O mnogoletnykh kolebaniakh chislenosti baltiiskoi
kilki v sviasi s kolebaniami uslovii produktivnosti planktona.
- Trudy VNIRO 34:
Ru (On the variation of the quantity of the Baltic sprat
during several years in connection with variations in the
plankton productivity)
482. NIKOLSKY, G.W., 1957: Spezielle Fisch-Kunde. - Berlin, 632 pp.

483. SVETOVIDOV, A.N., 1952: Seldevye (Clupeidae). - Fauna SSSR, Ryby 2(1), 331 pp + 53 pls.
Ru (An English translation is published for the National Science Foundation, Washington, D.C., by the Israel Program for Scientific Translations, Jerusalem 1963, 428 pp.)
484. LINDQUIST, ARMIN, 1966: Gillrackers, Head, Body Length and Year Classes of the Sprat. - Meddelande fr. Havsfiskelab., Lysekil, 10, 14 pp.

Errata

17. (ASLANOVA) Also available as M.A.F.F. Transl. N.S. No. 10 (1963), Lowestoft
164. (Published in:) Fiskeritidskrift för Finland 55 (3): 35-39, (4): 55-59.

