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SIZE FREQUENCY DISTRIBUTION OF SAGITTA ELEGANS ON GEORGES BANK BETWEEN DECEMBER 1974 AND OCTOBER 1975*

DATA REPORT

by

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As part of a Northeast Fisheries Center investigation into processes controlling zooplankton abundance on Georges Bank (Davis, 1982)[1], the size frequency distribution of the chaetognath Sagitta elegans was found from 14 fine-mesh (0.165 mm) samples collected on 5 ICNAF cruises between December 1974 and October 1975.

Cruises and stations are given in Table 1. Station locations are shown in Figure 1. Samples were collected using standard ICNAF methods (Lough and Bolz, 1980)[2]. A Folsom splitter was used for subsampling (McEwen et al., 1955)[3]. All chaetognaths in a subsample were measured for total length to nearest 1.0 mm using a Wild dissecting scope camera lucida, and a Zeiss MOP image analyzer.

The number of chaetognaths measured together with the computed number per m^3 is shown in Table 1, as well as the percentage frequency of chaetognaths in each 1.0 mm length class.

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[1]Davis, C. S.: Processes controlling zooplankton abundance on Georges Bank. Ph.D. Thesis, Boston University Marine Program. NEFC, Woods Hole, MA. 198 pp. (1982)

[2]Lough, G. and G. Bolz: A description of sampling methods and larval herring (Clupea harengus L.) data report for survey conditions from 1968-1978 in the Georges Bank-Gulf of Maine areas. NOAA, NMFS, NEFC, Woods Hole Laboratory Reference Report No. 79-60. 320 p. (1980)

[3]McEwen, G.F., M.W. Johnson and T.R. Folsom: A statistical analysis of the performance of the Folsom plankton sample splitter, based upon test observations. Archiv. Meteorol., Geophys. and Biolkimatol. (Ser. A) 6, 502-527 (1955)

TABLE 1

CRUISE Station	Chaetognath Size Frequency Distributions (0.165 mm mesh) Size class (mm) 1	2	3	4	5	6	7	8	9	10	11	12
ALBATROSS IV 74-13												
60	0.0	7.9	3.0	9.9	10.9	12.9	6.9	4.0	5.9	2.0	5.0	5.0
61	0.0	0	1.3	7.8	3.9	1.3	2.6	3.9	7.8	5.2	10.4	9.1
73	0.0	7.0	20.9	8.5	2.3	4.7	1.6	3.9	0.8	3.1	0.8	7.0
81	0.0	8.3	8.3	21.7	15.0	6.7	6.7	5.0	5.0	3.3	6.7	6.7
82	0.0	3.3	22.0	28.6	13.7	6.0	2.8	3.3	3.9	3.9	3.3	2.8
ALBATROSS IV 75-02												
60	0.0	50.9	13.2	7.6	0.0	7.6	1.9	0.0	0.0	1.9	0.0	0.0
61	0.0	44.4	9.5	4.8	4.8	3.2	0.0	0.0	0.0	0.0	0.0	1.6
82	0.0	40.1	11.1	2.2	0.0	2.2	0.0	0.0	2.2	0.0	0.0	0.0
ALBATROSS IV 75-05												
60	0.0	4.1	15.3	25.5	17.4	17.4	4.1	6.1	3.1	3.1	3.1	0.0
82	1.3	30.3	48.7	10.5	5.3	1.3	2.6	0.0	0.0	0.0	0.0	0.0
ALBATROSS IV 75-07												
10	0.8	0.0	8.3	14.9	24.8	16.5	11.6	8.3	9.9	0.8	2.5	0.8
20	0.0	7.7	20.2	19.2	17.3	13.5	6.7	4.8	4.8	0.0	3.9	1.0
BELEGORSK 75-03												
74	0.0	8.0	52.0	14.0	8.0	4.0	2.0	8.0	0.0	0.0	2.0	0.0
82	0.0	0.0	3.3	10.0	0.0	6.7	0.0	0.0	0.0	0.0	3.3	3.3

TABLE 1 (Continued)

CRUISE Station	Chaetognath Size Frequency Distributions (0.165 mm mesh)										
	13	14	15	16	17	18	19	20	21	n	no./m^3
ALBATROSS IV 74-13											
60	6.9	5.9	6.9	1.0	1.0	0.0	0.0	0.0	0.0	101	30
61	18.2	6.5	10.4	6.5	1.3	3.9	0.0	0.0	0.0	77	36
73	9.3	13.2	14.0	0.8	0.0	0.0	0.0	0.0	0.0	129	50
81	3.3	1.7	0.0	1.7	0.0	0.0	0.0	0.0	0.0	60	13
82	1.7	4.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	182	35
ALBATROSS IV 75-02											
60	0.0	0.0	1.9	7.6	1.9	1.9	0.0	0.0	3.8	53	45
61	0.0	0.0	1.6	6.4	14.3	6.4	3.2	0.0	0.0	63	69
82	0.0	0.0	2.2	6.7	24.4	8.9	0.0	0.0	0.0	45	22
ALBATROSS IV 75-05											
60	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	98	197
82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76	159
ALBATROSS IV 75-07											
10	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	121	54
20	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	104	238
BELEGORSK 75-03											
74	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50	40
82	16.7	20.0	20.0	13.3	3.3	0.0	0.0	0.0	0.0	30	76

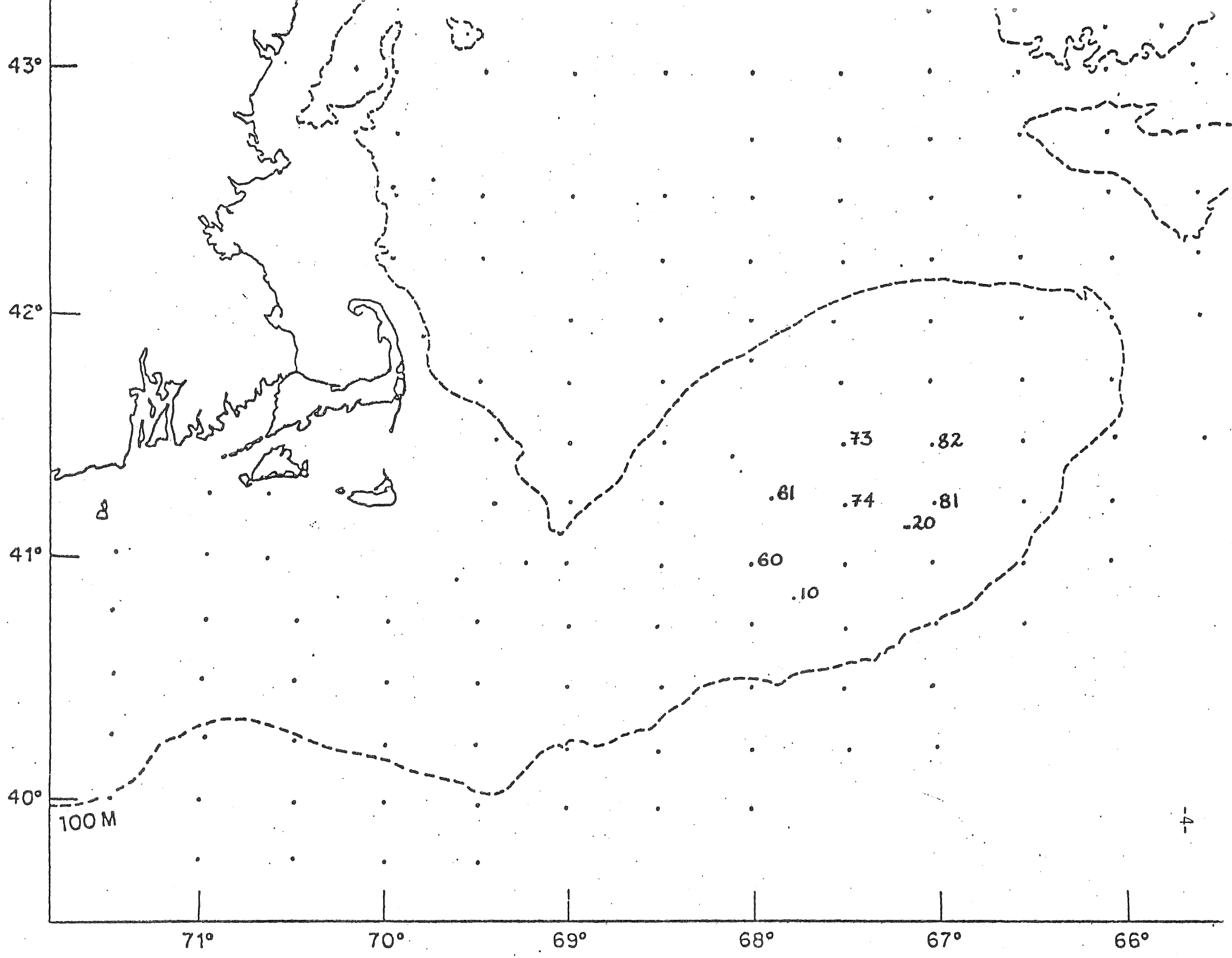

FIGURE 1