

Sagitta bedoti Béranek in Madras
Plankton

VERY recently I examined the *Sagitta* in the Plankton collection in the laboratory and was surprised to find that one of the commonest forms, *S. bedoti*, has not been recorded from Madras up till now. In 1933 John¹ recorded five species, viz., *S. enflata*, *S. gardineri*, *S. neglecta*, *S. tenuis* and *S. robusta* and mentioned in a later paper² the occurrence of two more species, *S. hispida* and *S. planktonis*. From an examination I find only the three species *S. enflata*, *S. bedoti* and *S. tenuis* occurring commonly in the Plankton. Out of the seven species described by John, *S. gardineri* at least seems to be a synonym of *S. enflata* (Fowler,³ Michael,⁴ Tokioka⁵).

Sagitta bedoti Béranek occurs throughout the year, the number varying with the seasons. Following Michael⁶ I give below a table giving the measurements of the various diagnostic characters, from 20 specimens.

It appears from a comparison of the above with the description and measurements of *S. robusta* given by John¹ that what he identified as *S. robusta* is *S. bedoti*. Michael⁴ considers *S. robusta* Doncaster as identical with *S. hispida* Conant and gives for comparison a table of measurements of the two species. A perusal of the table shows that in *S. robusta* the posterior fins are longer than the anterior. Fowler³ who redescribed *S. robusta* states that the posterior fins are longer and uses this character to distinguish *S. robusta* from *S. ferox*. On the other hand in John's¹ description it is stated (p. 5) that the anterior fins are longer, and the measurements given are 27-29 per cent. for the anterior fin and 18-20 per cent. for the posterior fin. Apparently what John had before him was not *S. robusta* but *S. bedoti*.

The occurrence of *S. bedoti* in Madras Plankton is not surprising since it seems to be characteristic of the upper epi-plankton of the Indo-Pacific region. It has been recorded from the Natal Coast by the Gauss Expedition, from the Bombay Harbour by Lele and Gae,⁷ from the

TABLE

Number	Length in Milli- metres	Width	Length of Tail	Tail to Ventral ganglion	Anterior Fin				Posterior Fin			No. of Anterior Teeth	No. of Posterior Teeth	No. of Prehensile Spines
					To ventral Ganglion	To poster- ior fin	Length	Width	Length	Width	% in front of tail septum			
1	4.31	5	26.	66	Nil	6	22	3	21	4	40	6 6	10 10	7 7
2	5.17	5	26.6	66.6	1.6	6.6	21.6	3.3	20	3.3	41.7	7 8	12 12	8 8
3	7.07	6.1	27.7	?	?	4.8	26.8	3.6	24.4	4.8	40	7 7	14 14	7 7
4	7.15	7.2	27.7	69.7	Nil	6	22.9	2.9	19.2	5.4	37.5	8 9	12 14	7 8
5	7.24	5.9	26.2	?	?	4.8	25	3.6	22.6	4.8	42.1	8 8	12 12	7 8
6	7.58	5.6	26.1	70.4	Nil	5.7	27.3	3.4	21.6	4.5	42.1	6 7	12 12	8 8
7	8.01	5.4	26.8	69.8	2.1	6.4	24.7	3.7	21.5	4.3	42	6 7	12 14	7 7
8	8.01	5.3	25.8	69.9	2.1	6.4	26.8	3.2	22.6	4.3	47.6	6 7	14 14	7 8
9	8.01	6.4	25.8	?	?	7.5	26.9	3.2	20.4	4.3	42.1	8 8	12 12	7 7
10	8.19	6.3	28.4	70.5	Nil	6.3	27.1	3.2	23.2	4.2	40.9	6 6	12 12	7 8
11	8.62	5.2	27.	70.	2.5	11	23	2.5	17	3.3	35.3	6 6	13 12	7 7
12	8.88	5.6	25.2	70.8	Nil	5.8	23.3	2.8	21.3	3.3	45.4	6 8	15 16	7 7
13	8.96	5.2	24.7	70.4	Nil	5.7	26.6	2.8	20.9	3.8	45.4	9 9	17 17	7 7
14	8.96	5.8	25.	69.2	Nil	8.6	26.9	2.9	18.2	3.8	42.1	6 7	13 13	6 6
15	9.05	6.7	23.1	66.5	Nil	6.2	27.9	3.8	21.1	3.8	45.5	7 8	15 16	7 7
16	9.22	4.7	26.1	70.0	2.8	8.4	24.3	2.8	20.5	4.2	40.9	8 8	13 14	8 9
17	9.48	5.5	27.3	70.9	2.3	8.2	26.4	3.2	19.1	3.6	42.8	9 10	15 16	7 7
18	9.73	5.3	25.7	69.0	Nil	6.2	26.5	2.7	23	2.9	45.1	9 10	14 16	7 7
19	11.03	4.7	25.	69.6	Nil	6.2	26.6	2.3	21.1	3.1	44.4	10 10	14 14	7 7
20	11.10	5.4	27.7	73.1	Nil	7.7	27.7	3.1	20.7	3.8	40.9	10 10	16 16	7 7

Maldive and Laccadive Archipelago (as *S. polyodon*) by Doncaster,⁸ from the Malay Archipelago by Béraneck,⁹ from the Siboga region by Fowler,³ from the Philippine waters by Michael,⁶ from Misaki Harbour (as *S. bipunctata*) by Aida,¹⁰ from Sagami and Suruga bays of Japan by Tokioka,⁵ and from Australia by Ritter-Zahony.¹¹

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July 30, 1940.

* All measurements made in per cent. of total length of animal.

¹ John, C. C., *Bull. Madras Mus. (N.S.) Nat. Hist.*, 1933, 3 (4), 1.

² —, *Rec. Ind. Mus.*, 1937, 39, 83.

³ Fowler, G. H., *Siboga Expeditie*, 1906, 21, 6.

⁴ Michael, E. L., *Univ. California Publs. Zool.*, 1911, 8, 21.

⁵ Tokioka, T., *Rec. Oceanogr. Works in Japan*, 1939, 10, 123.

⁶ Michael, E. L., *Smithson. Instit. U. S. Nat. Mus. Bull.*, 1919, 100, 1, 235.

⁷ Lele, S. H., and Gae, P. B., *Journ. Bombay Univ.*, 1936, 4, 1,

⁸ Doncaster, I., *Fauna and Geogr. Maldive Laccadive Archipel.*, 1902, 1, 209.

⁹ Béraneck, E., *Rev. Suisse Zool.*, 1895, 3, 137.

¹⁰ Aida, T., *Annot. Zool. Japon*, 1897, 1, 79.

¹¹ Von Ritter-Zahony, *Ergebn. Hamburg. Südo-Austral. Forsch.* 1910, 3, 125.