GROWTH IN SOME STOMATOPODS

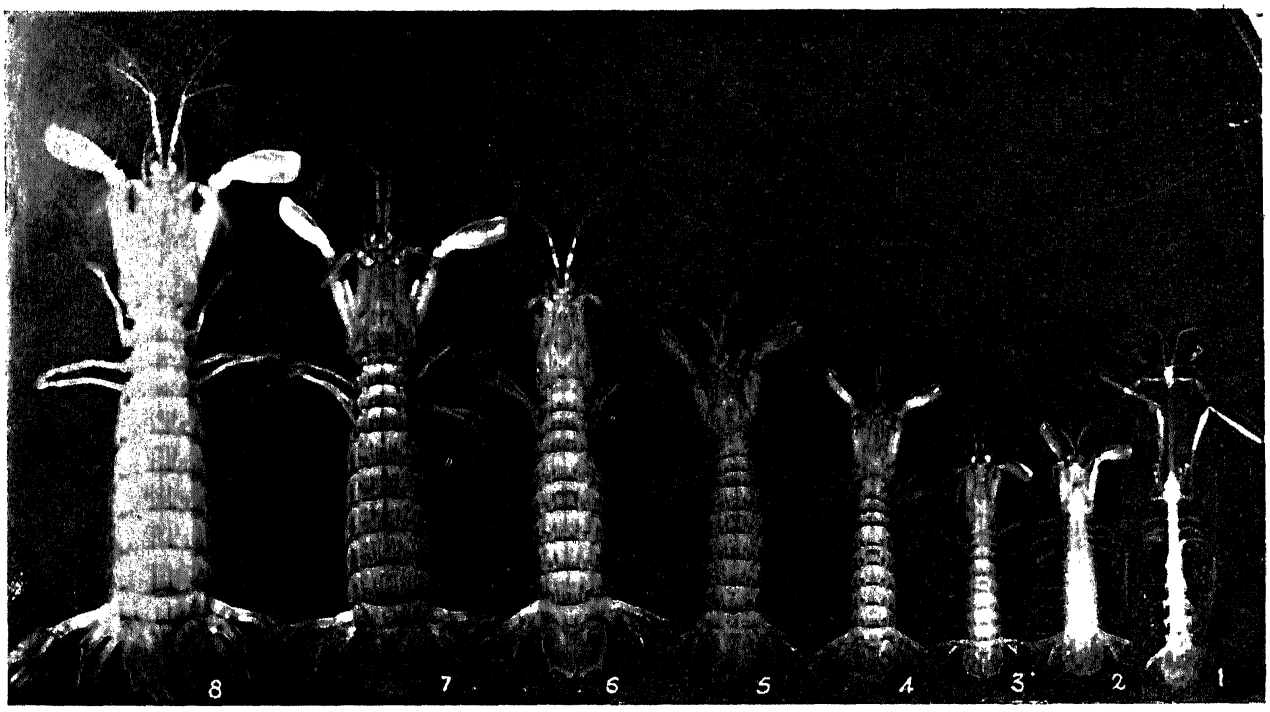
IN a previous note[1] we recorded the metamorphosis of the larvæ of five species of *Squilla* and assigned them to their respective species. Since then work on similar lines has been continued and five more species of pelagic larvæ have been successfully reared through their metamorphosis, post-larval and pre-adolescent stages, and have been identified as

Squilla quinquedentata, *S. interrupta*, *S. fasciata* (?), *Lysiosquilla maculata* and *L. multifasciata*. *S. fasciata* and *L. multifasciata* have not hitherto been recorded from this coast of the Bay of Bengal. The occurrence of their larvæ in the plankton on the Madras Coast shows that the adults also are probably inhabitants of this coast.

No precise data are available regarding the rate of growth and age at sexual maturity of any species of Stomatopoda—a group that forms an important item of fisheries in certain parts of the world.[2,3] Attempts were, therefore, made to grow the post-larval forms in the Laboratory, and it was found that they flourished quite well in aquarium tanks, provided the water was changed daily and the animals fed regularly. Minced meat of the common anomuran, *Emerita asiatica* was given as routine food. Growth was found to be remarkably rapid. The post-larvæ undergo the first moult in four to eight days after metamorphosis, each moult being accompanied by a distinct increase in size. Further moults for the same species take place at definite intervals, subject however, to slight variations. While the interval between successive moults is different for different species, it becomes longer with age in every species. Measurements were taken after each moult and we now have data as to the rate of growth and the interval between moultings in a number of species. The time at which the gonads become mature is also being ascertained. Specimens over six months old are at present living in the aquarium tanks and observations are being continued. The following table which gives the information at present available, records the age and size after each moult for six species:—

		Final pelagic larva	Post-larva	1st moult	2nd moult	3rd moult	4th moult	5th moult	6th moult	7th moult	8th moult	9th moult	10th moult
S. nepa ..	Age*	..	..	5	10	15	20	26	34	44	77	114	146
	Size*	24	17	20	23	29	35	41	52	63	72	83	96
S. wood-masoni ..	Age	..	..	5	10	15	21	28	38	47	64	98	..
	Size	36	22	24	30	34	42	52	62	73	83	92	..
S. raphidea ..	Age	..	..	4	9	14	19	26	36	45	57	71	..
	Size	19	15	19	24	29	34	42	52	62	73	83	..
S. holoschista ..	Age	..	..	6	14	24	35	45	56	68	82	..	..
	Size	35	22	24	28	35	42	49	58	67	70	..	..
L. multifasciata ..	Age	..	..	5	13	21	29	43	56	73	90	106	..
	Size	14	9	11	13	17	20	23	27	30·5	33·5	37	..
L. maculata	Age	..	..	8	19	31	42	51	64	..	..	..	..
	Size	23·5	23·5	29	35	41	48	56	66	..	..	..	..

* Age, in days, after metamorphosis; and size, the maximum length in mm.



Growth stages of *Squilla holoschista* Wood-Mason.
(Almost natural size)
1. Final pelagic larva. 2. Post-larva, 12 hrs. old. 3. Post-larva, 4 days old. 4—8. Later stages after successive moults from 1st to 5th.

The accompanying photograph represents growth stages of *S. holoschista* from the final pelagic larva upto the fifth moult after metamorphosis.

The phenomenon of moulting itself is extremely rapid and is completed in a surprisingly short time. A detailed account of the work will be given shortly.

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1. Alikunhi and Aiyar, *Curr. Sci.*, 1942, **11**, No. 2, 56-58. 2. Komai, T., and Tung, Y. M., *Annot. Zool. Jap.*, 1929, **12**, No. 1. 3. Bigelow, R. P., *Bull. Mus. Comp. Zool. Harvard*, 1931, **72.**