

TABLE I  
Ascorbic acid content of some freshwater fishes

Name of fish (Number of samples)	Weight range Kg.	Ascorbic acid mg./100 g. (Mean and ranges)			Mg./ gland pituitary
		Muscle	Gonad	Liver	
<i>Macrones aor</i> (8)	.. 1.0-3.75	1.545 (0.525-3.642)	4.173 (1.164- 9.568)	4.173 (0.622-7.92)	0.272* (0.04 -0.446)
<i>Barbus dubius</i> (6)	.. 1.5-3.50	1.434 (0.564-2.553)	1.726 (1.007- 2.975)	2.272 (0.870-4.433)	0.126 (0.022-0.249)
<i>Labeo fimbriatus</i> (4)	.. 2.0-5.0	3.369 (0.79 -6.255)	4.833 (3.498- 6.95)	2.396 (1.900-2.580)	0.103 (0.02 -0.238)
<i>Wallago attu</i> (2)	.. 2.0-3.75	2.225 (1.880-2.571)	9.290 (4.879-13.700)	3.493 (2.115-4.170)	0.028 (0.023-0.033)
<i>Labeo calbasu</i> (1)	.. 3.0	0.930	2.130	3.210	0.020
<i>Catla catla</i> (1)	.. 2.0	1.440	2.750	4.540	0.030
Crocodile (1)	.. 200.0	2.836	0.696	3.134	..

\* In terms of percentage, the AA content of one of the glands was 2.35 mg./100 mg. gland.

and Ambuja Bai and Kalyani.<sup>2</sup> Pituitary glands of *Macrones aor* and *Barbus dubius* had higher ascorbic acid than that of other three fishes studied. A decrease occurs in the ascorbic acid content of the pituitary of *M. aor* from February through March to June, i.e., post-spawning period. Fontaine<sup>3</sup> noted that in salmon, the ascorbic acid in pituitary gland decreases with the maturity of the fish.

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1. Ambuja Bai, P. and Kalyani, M., *Jour. Animal Morph. and Physiol.*, 1960 a, 7(2), 162.
2. — and —, *J. Zool. Soc. India*, 1960 b, 12 (2), 216.
3. Fontaine, M. and Leloup-Hatey, J., *Bull. de L. Inst. Oceanographique*, 1959, No. 1135, p. 1.
4. Foreman, Dahl, *Endocrinology*, 1963, 72 (5), 693.
5. Love, R. M., *The Physiology of Fishes*, Edited by M. F. Brawn Academic Press, 1957, 1, 407.
6. —, Lovern, J. A. and Jones, N. R., "The Chemical composition of fish tissues," *Food Invest. Spt. Rept. No. 69*, H.M.S.O., London, 1959, p. 1.
7. Roe, K. H. in Glick, D., *Biochemical Methods*, Interscience, 1954, 1, 115.

# RECORD OF APOLLODOTUS PRAEFECTUS DISTANT (HETEROPTERA: MIRIDAE), PREDACIOUS ON STEPHANITIS TYPICUS DISTANT (HETEROPTERA: TINGIDAE), A PEST OF COCONUT PALM

MATHEN<sup>3</sup> described the life-history and pest habits of *Stephanitis typicus* D. on coconut foliage. Shanta et al.<sup>4</sup> reported on its additional role as a carrier of the pathogenic principle, perhaps a virus, involved in the root (wilt)

disease of coconut, a challenging threat to its cultivation in Kerala. Since then, investigations on the various aspects of the pest like seasonal abundance, vector-virus relationship and control engaged greater attention of research workers at this research station. An interesting observation was the occurrence in the field of nymphs and adults of a Mirid bug in association with populations of *Stephanitis typicus* D. This has been identified<sup>1</sup> as *Apollodotus praefectus* Distant. In its record from Pusa (Lefroy) and Ceylon (Green), no description is available on its habitat. Hoffmann made mention about a Mirid bug observed attacking these lace bugs on banana in Nanning.<sup>2</sup> Probably it is the same or nearly related. Preliminary observations on coconut seedlings at this research station by the authors showed that the swift-moving, milk-white predatory nymphs were available in large numbers between the post-north-east and pre-south-west monsoon months of December to May. In the laboratory, under caged conditions, the nymphs were feeding well on nymphs of all stages of the pest at the rate of one to seventeen host nymphs per predator nymph per day. The nymphs were also observed to suck adult lace bugs. The authors are grateful to Dr. M. G. Ramdas Menon, Indian Agricultural Research Institute, New Delhi, for identification of the insect.

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1. *F.B.I.*, 1909, 5, 247.
2. Hoffmann, W. E., *Lignan Sci. J. Canton*, 1935, 14 (4), 639.
3. Mathen, K., *Indian Coe. J.*, 1960, 14 (1), 8.
4. Shanta, P. et al., *Ibid.*, 1960, 13 (2), 56.