Centre of Advanced Study K. BALASUBRAHMANYAN.
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(Annamalai University),
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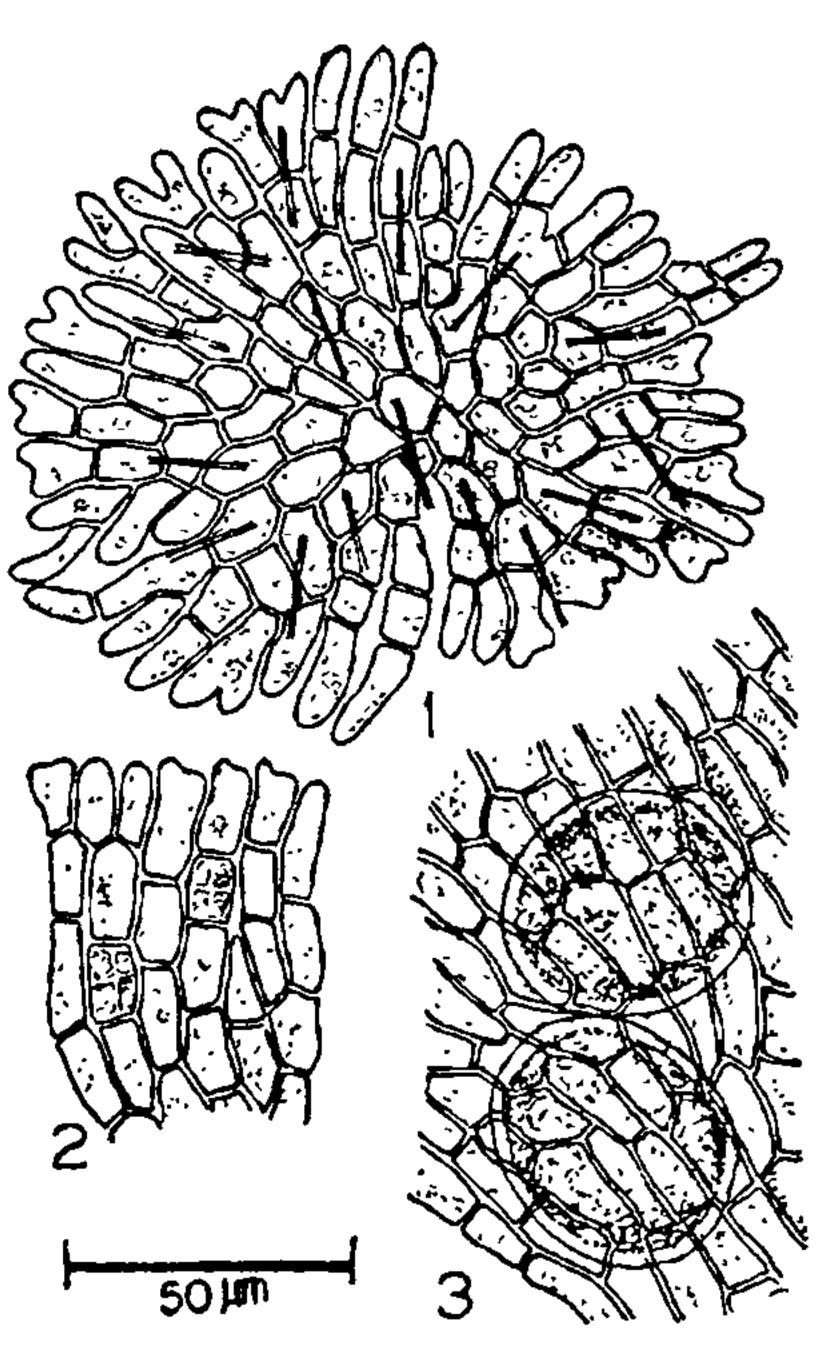
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## COLEOCHAETE PSEUDOSOLUTA, A NEW ADDITION TO THE INDIAN FLORA

GENUS Coleochaete is represented in India by six species only<sup>2-7</sup>. During the course of the investigations on fresh-water Chaetophoralean algae<sup>8</sup>, the authors came across plants belonging to Coleochaete pseudosoluta Gauthier-Lievre<sup>1</sup>, which has not yet been recorded in the Indian flora. It is, therefore, proposed to record the species in our flora, in the present communication.



Figs. 1-3.

Many thalli of Coleochaete pseudosolute (Fig. 1) were collected from a small fresh-water pond near Amausi aerodrome about 12 kms. from Lucknow in September 1975, as bright green, irregular discs, epiphytic on leaves and stems of Ceratophyllum demer. sum L. Mature discs are 0.5-0.8 mm in diameter. Vegetative cells measure 8-10  $\mu$ m in width and are 1-4 times longer than broad. Antheridia (Fig. 2) are small cubical structures 2-3  $\mu$ m in width. Spermocarps (Fig. 3) are 45-55  $\mu$ m in diameter. Cortications develop only on the upper side of the fertilized oogonia.

Dept. of Botany, BRAJ NANDAN PRASAD.
Lucknow University, DEEP KUMAR ASTHANA.
Lucknow,
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## ACARTIA DWEEPI, A NEW SPECIES OF COPEPOD (ACARTIIDAE, GALANOIDA) FROM LAKSHADWEEP

WHILE examining the zooplankton collected from the sea surrounding the Agatti atoll of the Lakshadweep (Laccadives), a species of Acartia, hitherto undescribed, was encountered. It is being described as a new species.

Acartia- dweepi n. sp.

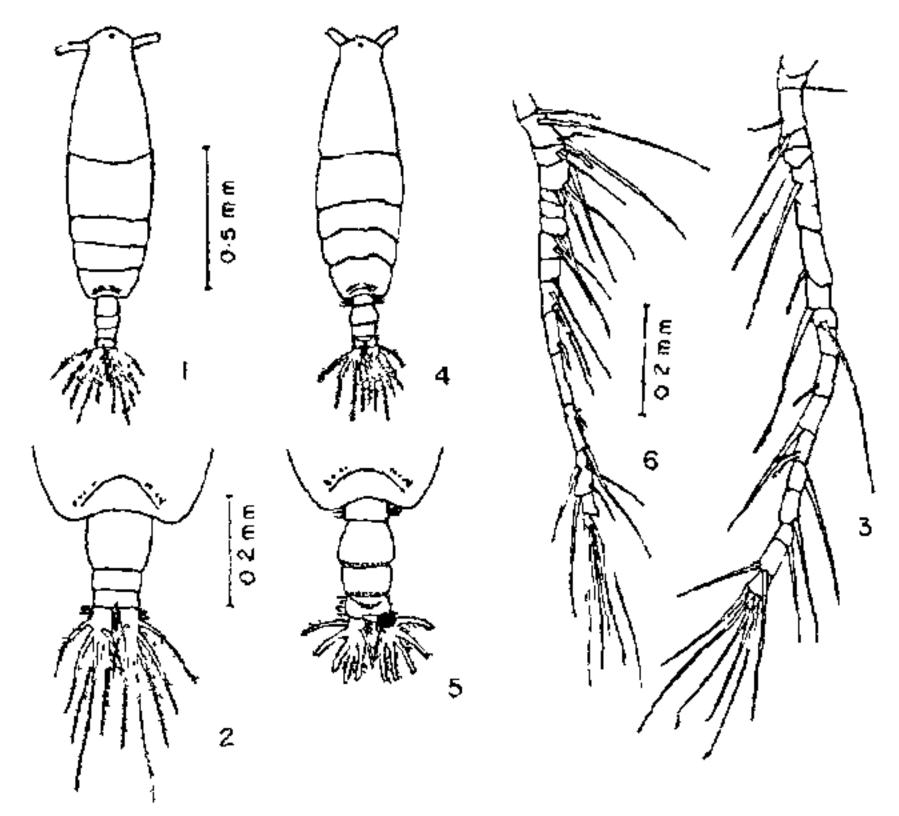
Material: All specimens were collected in horizontal surface tows made with a square net (area  $(0.0625 \text{ m}^2, \text{mesh } 300 \,\mu)$  at Agatti atoll (10° 40' N, 72° 10' E) on 28th December 1976.

Types: All types are deposited in the reference collection of the Indian Ocean Biological Centre with the following catalogue numbers. Holotype 2, IOBC-0375-0846-1977, Allotype 3, IOBC-0376-08-46-1977, Paratypes 5 2, 5 3, IOBC-0377-08-46-1977.

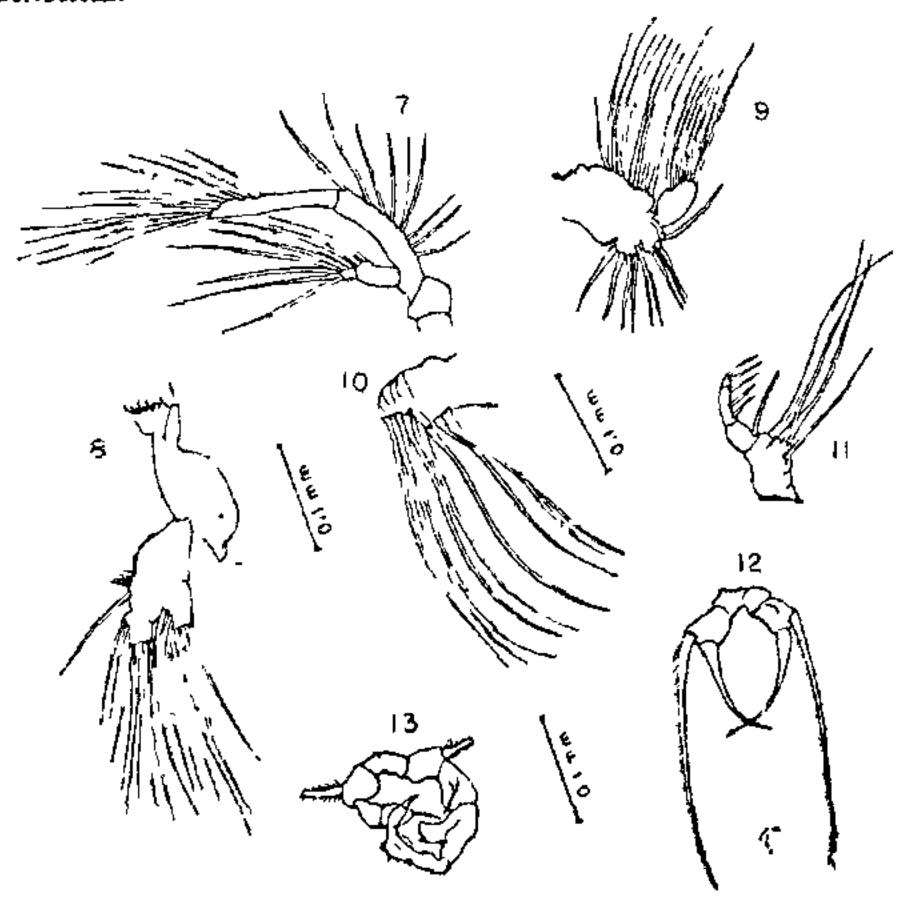
## Description

Female: Total length 1.10 to 1.16 mm (Fig. 1). Head broadly triangular anteriorly. Rostal filaments

Present. Relative lengths of prosome and urosome 81:19%. Posterior margin of the prosome rounded without any spines. A row of 4 to 5 small spinules present on the dorso lateral side of the fifth pedigerous segment (Fig. 2). Relative lengths of urosome segments and caudal rami 2:0.9:0.5:0.7. Genital segment as long as wide. Caudal rami longer than wide with hairs on lateral margin.



FIGS. 1-6. Acartia dweepi sp. nov. 1. Female, dorsal view; 2. Urosome, dorsal views; 3. 1st antenna; 4. Male, dorsal view; 5. urosome, dorsal view; 6. 1st antenna.



Figs. 7-13. Acartia dweepi sp. nov. 7. Female, 2nd antenna. 8. mandible; 9. 1st maxilla. 10. 2nd maxilla; 11. maxilliped; 12. fifth leg; 13. Male fifth leg.

A<sub>1</sub> (Fig. 3) extends to the posterior margin of prosome with 18 to 19 segments. 4th and 13th segments bear a single and a pair of aesthetasks respec-

tively. A<sub>2</sub> (Fig. 7) and mandible normal for the genus. Gnathal lobe of the mandible with 8 primary and 3 accessory teeth. First and second maxillae and maxilliped with setal armature as shown in Figs. 9-11.

Legs 1 to 4 typical for the genus with 2 segmented endopods and 3 segmented exopods. The first segment of the fifth leg fused medially. Second segment with long plumose setae twice as long as and extending beyond the third segment. Third segment broad basally and narrowing towards the distal ends curved inwards (Fig. 12).

Male: Total length 1.08 to 1.15 mm (Fig. 4). Relative lengths of prosome and urosome 80:20%. Posterior corners of the prosome rounded and bearing 4 to 5 small spinules on the dorso-lateral sides of the last prosome segment as in female. Relative lengths of the urosome segments and caudal rami 1:3.5:1.5: 1:1:1.5. Ur 1 bilobed on the lateral sides with small hairs. Posterior margins of the Ur 2, Ur 3 and Ur 4 bear small spinules.

A 1, 16 segmented (Fig. 6). Geniculation on the right A 1 between segments 12 and 13. Segment 13 with serrated anterior margin. Mouth parts and legs 1 to 4 as in female.

Right fifth leg (Fig. 13) bears a spine at about the middle in the second segment. Inner lobe of the third segment with a small spine. Fourth segment narrow and long with a strong spine at the distal end and 5 to 6 small spines on the lateral side. The second segment of the left P5 hus a small spine on the lateral side at the distal end. A strong spine present at the tip of the third segment.

Relationship: The new species Acartia du eeps can be assigned to Steur's subgenus Acanthacartia. Four species of this subgenus, viz., A. fossae Gurney, A. pietschmanni Pesta, A. spinata Esterly and A. steuri Smirnox have the external seta of female P5 much longer than the terminal spine as in A. dweepi. Of these, last 3 species differ from A. dweepi in having spines on the posterior margins of the female Ur 1 and Ur 2 while A. Jossan agrees with it in having no armature there. We have examined A. fossue specimens from collections taken from south-western Australia which showed that tne two are closely related but different forms with A. fossae having the following characters. 2-Total length 1.2 to 1.4 mm. Relative lengths of prosome and urosome 79:21%. Relative lengths of urosome segments and caudal rami 4:1-2:1:1.8. 3-Total length 1-15 to 1-35 mm. Relative lengths of prosome and prosome 78.5:21.5%. Relative lengths of urosome segments and caudal rami 2:4:3:1: 1.5:1.5. Apart from these measural variations the semale A. dweepi resembles semale A. fossar and

A. hamata Mori<sup>2</sup> which Grice<sup>3</sup> considers as probably same as A. forsae. But the males of the two species differ significantly. Ur 2, Ur 3 and Ur 4 of A. dweepi each beat a row of small spinules at their posterior margins while in A. forsae these spinules are few and discontinuous in Ur 2 and Ur 4 and totally absent in Ur 3. The second segment of the left P5 of A. dweepi has a small spine on the lateral side at the distal end which is lacking in A. forsae. The last segment bears a single strong spine at the tip in A. dweepi as different from A. forsae which has two spines one starting about the middle and the other at the tip.

The species is named after Lakshadweep archipelago We are indebted to Dr. T. E. Bowman, Smithsonian Institution, Washington D.C., for his opinion in the identification and kind suggestions. We are

gratefol to Dr. S. Z. Qasim, Director, NIO, Goa and Dr. T. S. S. Rao, Scientist-in-Charge, Regional Centre of NIO, Cochin, for their encouragement and interest in the study. We thank Dr. P. Sivadas, Regional Centre of NIO, Cochin, for kindly providing the material and leaving the description to us. Regional Centre,

P. HARIDAS.

National Institute of

M. MADHUPRATAP.

Oceanography, Cochin 682 018, India, November 2, 1977.

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## AWARD OF RESEARCH DEGREES

Kakatiya University, Watangal, has awarded the Ph.D. degree in Botany to Shri M. Radhakrishnaiah.

Karnatak University, Dharwar, has awarded the Ph.D. degree in Zoology to Smt. Bhagyashri Venkat Bhujle.

Utkal University, Bhubaneswar, has awarded the Ph.D. degree in Chemistry to Shri Shashi Bhusan

Mohanty; Ph.D. degree in Zoology to Shri Hari Sadhan Maity.

Sri Venkateswara University, Tirupati, has awarded the Ph.D. degree in Botany to Shri S. Balanarasimha Reddy; Ph.D. degree in Physics to Shri N. Prabhakar Rao; Ph.D. degree in Zoology to Shri V. Chandrasekharam, (Miss) S. Vijayalakshmi and Shri K. Satyanarayana.

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I, Prof. M. R. A. Rao, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Bangalore-6, March 5, 1978.

(Sd.) Prof. M. R. A. Rao Publisher, Current Science