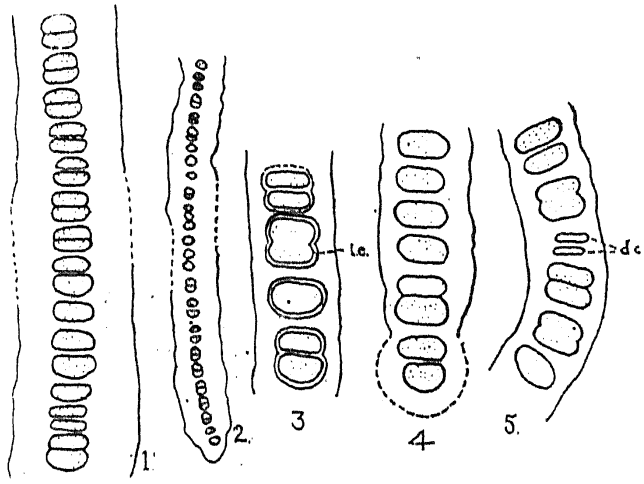
OCCURRENCE OF *JOHANNESBAPTISTIA* IN THE ADAYAR RIVER, MADRAS

THE writer read with interest the paper[3] on *Johannesbaptistia pellucida* (Dickie) Taylor and Drouet[2] collected from a brackish water pool at Ennore, Madras. It is considered to have not been recorded from elsewhere in India. The present alga, however, was found in a huge collection of algæ made by the writer from the Adayar river, Madras. The Adayar alga agrees with the Ennore one in all details regarding structure and development (Text-Fig. 1-5) except in dimensions.



TEXT-FIGS. 1-5. *Johannesbaptistia pellucida* (Dickie) Taylor and Drouet.

Figs. 1 and 2. Portions of filaments with the diffluent margins of the sheath shown in dotted lines. Fig. 3. Portion of a filament showing the individual envelopes of the cells in a common mucilage. Fig. 4. End portion of a filament with a two-celled fragment (shown in dotted line) in the stage of dislodgement from the end. Fig. 5. Portion of a filament with two dead cells (*l.c.*, individual envelope; *d.c*, dead cells). Fig. 1, × 1,200; Fig 2, × 550; Figs. 3-5, × 1,650.

The dimensions of the filaments and cells of the Ennore alga were compared[3] with those given by Drouet[1] for *Johannesbaptistia pellucida* (Dickie) Taylor and Drouet (filament 8-23 μ broad and cells 4-17·5 μ broad and 2-6 μ long) and they come within the range of these dimensions. The dimensions of the present alga also accord with those given by Drouet.

	Ennore alga	Adayar alga
Long. fil. ..	400-2,500 μ	Up to 1,000 μ
Lat. fil. ..	7·9-9·2 (10·8) μ	11·4-15·2 (22·8) μ
Lat. cell. ..	3·9-5·2 μ.	5·8-8·3 (9·5) μ
Long. cell. ..	2·6-3·9 μ	2·4-4·0 (4·8) μ
Cross wag. ..	—	2·6-6·4 μ

This alga is, therefore, referred to *Johannesbaptistia pellucida* (Dickie) Taylor and Drouet, though possessing broader cells and thicker sheath than those of the Ennore one.

The writer is grateful to Dr. F. W. Jane, PH.D., D.SC. (Lond.), and Professor V. Bharadwaja, M.SC., PH.D. (Lond.), F.L.S., for their very kind interest in the preparation of this note.

Teachers' College,
Saidapet, C. BHASHYAKARLA RAO.
Madras,
University College,
London,
November 25, 1946.

1. Drouet, F., "Myxophyceæ of the G. Allan Hancock Expedition, 1934, collected by Wm. R. Taylor", *The Hancock Pacific Expedition*, 1936, **3**, (2), 15-30. 2. —, "Notes on Myxophyceæ, i-iv," *Bull. Torrey Bot. Club.*, 1938, **65**, 285-92. 3. Ivengar, M. O. P., and Desikachary, T. V., 'On *Johannesbaptistia pellucida* (Dickie) Taylor and Drouet from Madras," *Journ. Ind. Bot. Soc.*, 1946, **25**, No. 3, 117-21.

POLYELECTRONS

In an interesting article which appeared in the *Annals of the New York Academy of Sciences* (1946, 48, 219-38), Dr. Wheeler presents theoretical evidence for the existence of entities composed entirely of electrons and positrons together with a discussion of their properties. The simplest of these entities consists of one electron and one positron, bound together in a structure similar to that of the hydrogen atom. It has a life time of $1{\cdot}24 \times 10^{-10}$ sec., when the spins of the two particles are parallel, and a life several orders of magnitude greater, when the spins are anti-parallel. The next higher entity is composed of two positrons and one electron or of two electrons and one positron. It has a mean life of the order of 10^{-10} sec. The probability of production of a bi-electron by the interaction of an energetic gamma-ray with the field of force of an atomic nucleus is shown to be less than 10^{-6} of that for production of an electron-positron pair. The article contains a discussion of the similarities and distinct differences between polyelectrons and cosmic rays mesons.