

paraphyses short, septate, hyaline; ascospores arranged obliquely, uniseriate, compressed on two sides, narrowly ellipsoid in one view, broadly ellipsoid in other view, 8.3×4.9 ($7.2-9.5 \times 3.4-5.4$) μ , hyaline at first becoming olivaceous-brown and finally dark-brown, 1-celled, slightly pointed at one end; germ slit extending narrowly the entire length of the spore.

Isolated from the leaves of *Buddelia asiatica*, culture deposited in C.M.I., Kew (C. No. 120810).

Latin Translation

Coloniæ initio albæ demum eburneæ; hyphæ hyalinæ, septatæ, ramosæ, $1.0-2.3 \mu$ latæ; conidia non visa; perithecia superficialia, but arcte in aliquibus locis aggregata aut dispersa, luteo-eburnea, collo nigro haud clare determinato, ostiolo bene formato, peridio tenui, membraneo et diaphano, 283.9×263.3 ($195.5-310.1 \times 186.1-296.7$) μ ; asci 8-spori, cylindrici, ad efformandam stipitem brevem angustati; paraphyses filiformes, breves, septatæ, hyalinæ, unitunicatæ; ascospores oblique uniseriatæ, utrinque compressæ uno aspectu anguste ellipsoideæ altero aspectu late ellipsoideæ 8.3×4.9 ($7.2-9.5 \times 3.4-5.4$) μ , initio hyalinæ, deinde olivaceo-brunneæ, germinali anguste longitudineum sporæ omnino decurrente.

Cultura in foliis *Buddeliæ asiaticæ* Linn., India, S. M. Reddy et K. S. Bilgrami, IMI 120810 typus.

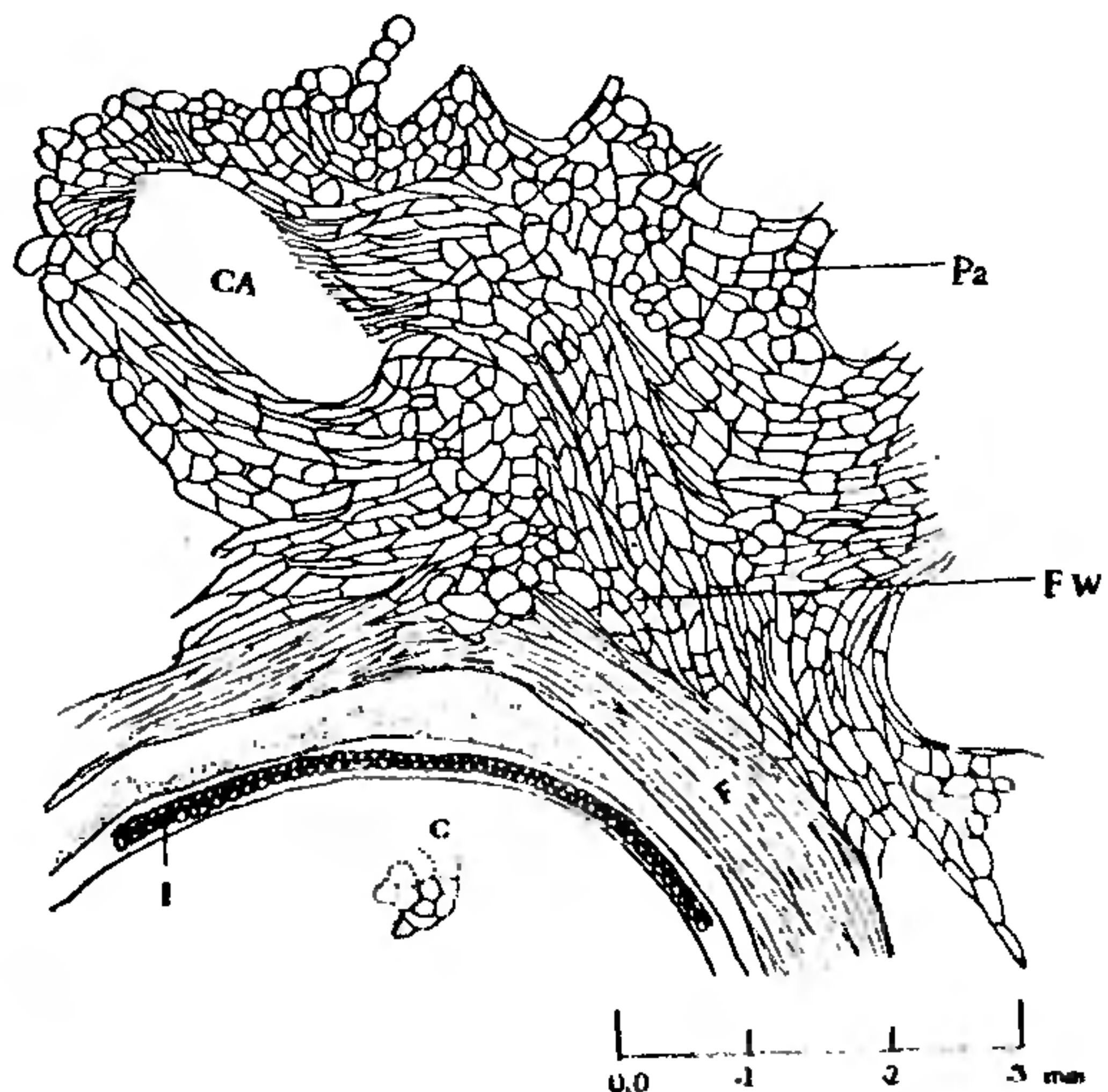
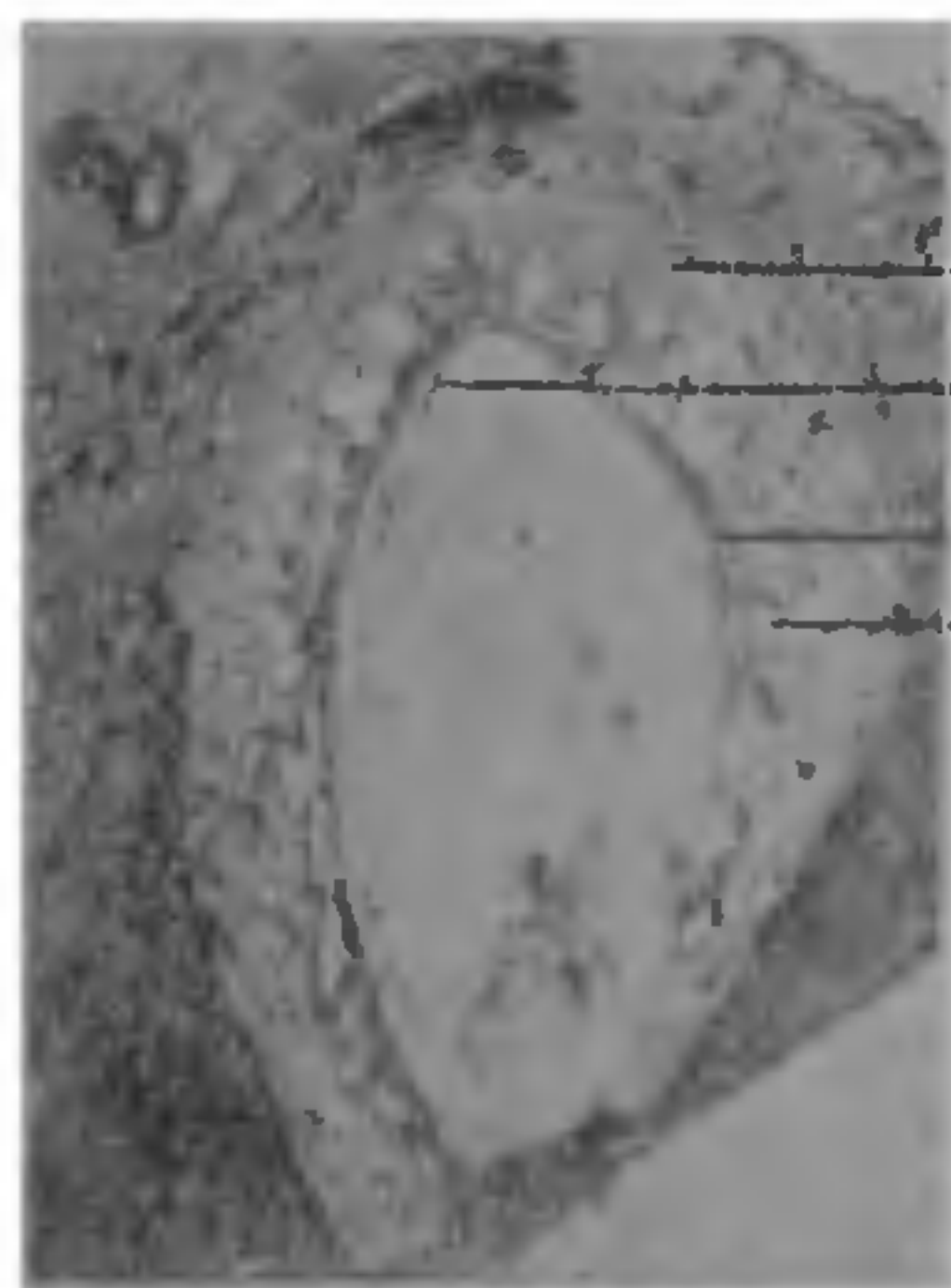
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Department of Botany, S. M. REDDY,
University of Jodhpur, K. S. BILGRAMI,
India, September 16, 1968.

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A FOSSIL FRUIT FROM THE DECCAN INTERTRAPPEAN SERIES

IN December 1967, one of us (B. S. T.) visited Mohgaon-Kalan, Chhindwara District, M.P., and collected fossiliferous rocks which lie scattered there. These obviously belong to Deccan Intertrappean Series. On sectioning, a chert from the above locality revealed a well-preserved fruit which is reported here (Fig. 1).



FIGS. 1-2. Fig. 1. Longitudinal section of the fruit, $\times ca. 11.5$. Fig. 2. A part of the fruit in longitudinal section. CA, air cavities; C, seed cavity; I, integument of the seed; F, fibrous layer of the fruit wall; FW, fruit wall; Pa, parenchymatous cells.

Fruit one-seeded, somewhat oval in shape, 5 mm. long and 4 mm. broad. Fruit wall externally smooth. Some epidermal cells can be seen but they are not well preserved. The wall is about 1.5 to 2 mm. thick with well-preserved, thin-walled compact parenchyma. It has large air cavities of variable dimensions, sometimes two or more of these fuse together. Beneath the parenchymatous zone is present a distinct zone consisting of thick-walled fibrous cells which are placed longitudinally. The fibrous zone is about 89.1μ thick and is nearly uniform throughout (Figs. 1, 2).

The seed has a single coat and a large cavity. The seedcoat consists of two layers of thick-walled cells. These cells are somewhat oval, sometimes they are flattened. Below the integument is a large cavity, about half the size of the fruit, within this cavity are present parenchymatous cells in patches. The embryo of the seed is not seen (Figs. 1, 2).

Although the exact affinities of the fruit are not ascertainable, yet the large air-spaces in the parenchymatous tissue, and the thick inner fibrous layer of the fruit wall suggest that the fruit probably belonged to an angiosperm that grew in aquatic or marsh situations.

As far as the authors are aware, this fruit is not comparable to any fossil angiospermous fruit previously reported.¹⁻³

Dept. of Botany,
Lucknow University,
Lucknow, August 10, 1968.

B. S. TRIVEDI.
C. L. VERMA.

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ALGAE AS FOOD OF *BARBUS CONCHONIUS* HAM. ET BUCH.

B. conchoniensis—the Rosy Barb—is a common fish found in the streams of Nagpur and it is used as food. A study of the intestinal contents showed species of *Spirogyra*, *Cosmarium*, *Closterium* and *Phacus*. As it was found that in the case of snails the intestinal contents do

not give a correct idea of the food, it was thought worthwhile to find out the algæ actually used as food by the fish. For this purpose, triplicate sets, each of two fishes (about 4-6 cm. in length) were maintained in aquaria and studied as in the case of the snails.¹

It was found that the spp. of *Spirogyra* (veg.), *Mougeotia* (veg.), *Oscillatoria*, *Spirulina*, *Nostoc* (veg.), *Anabæna* (veg.), *Anabænopis* (veg.), and *Vaucheria* (veg.), are digested by the fish. Excreta revealed that spp. of *Pithophora* (veg.), *Dichotomosiphon* (veg.), *Merismopedia* and diatoms were partially digested, while a number of algæ, e.g., spp. of *Eudorina*, *Ulothrix*, *Stigeoclonium*, *Cœlastrum*, *Scenedesmus*, *Oedogonium*, *Rhizoclonium*, *Cladophora*, *Cosmarium* (veg. and zygospores), *Microcystis*, *Dichothrix*, *Euglena*, *Phacus*, *Trachelomonas* and akinetes and spores or zygospores of these algæ were unaffected. It may be mentioned here that the filaments of *Oedogonium* spp. when freed from the excreta occasionally formed zoospores. The fish did not eat some algæ such as *Chara corallina*, *C. zeylanica*, *Nitella hyalina*; probably, because they were too big to be gulped.

When a mixture of *Spirogyra* (veg.) and *Pithophora* (veg.) is given as food, the fish first feeds on *Spirogyra* and starts feeding on *Pithophora* only when there is no more *Spirogyra*, thus showing preference in the case of filamentous algæ. When fed with different wholly or partially digestible algæ for a month, the fish showed a maximum increase in weight in cases when the food was a mixture of *Spirogyra* (veg.) and *Oscillatoria*.

In conclusion it may be pointed out that a simple analysis of the intestinal gut contents of this fish does not give a correct idea of its food habits.

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Department of Botany,
College of Science,
Nagpur, July 18, 1968.

N. D. KAMAT.

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