

Figures 1-3. *Garcinia darwiniana* Keshav. et Yog. sp. nov. 1. flowering twig. 2. ovary; 3. t. s. ovary.

of the Regional Research Centre, Bangalore (RRCBI).

This species is named after the famous biologist Charles Darwin.

The authors are thankful to Dr V. J. Nair for latin diagnosis; to Drs. B. V. Shetty and A. N. Henry of BSI, Coimbatore for facilities, comments and suggestions; to the Karnataka Forest Department staff for help during field work; to Mr. Gurudev for assistance.

NOTES ON *CYTOSPHAERA MANGIFERAE* DIED

J. MUTHUMARY (ALIAS) KALAIVANI

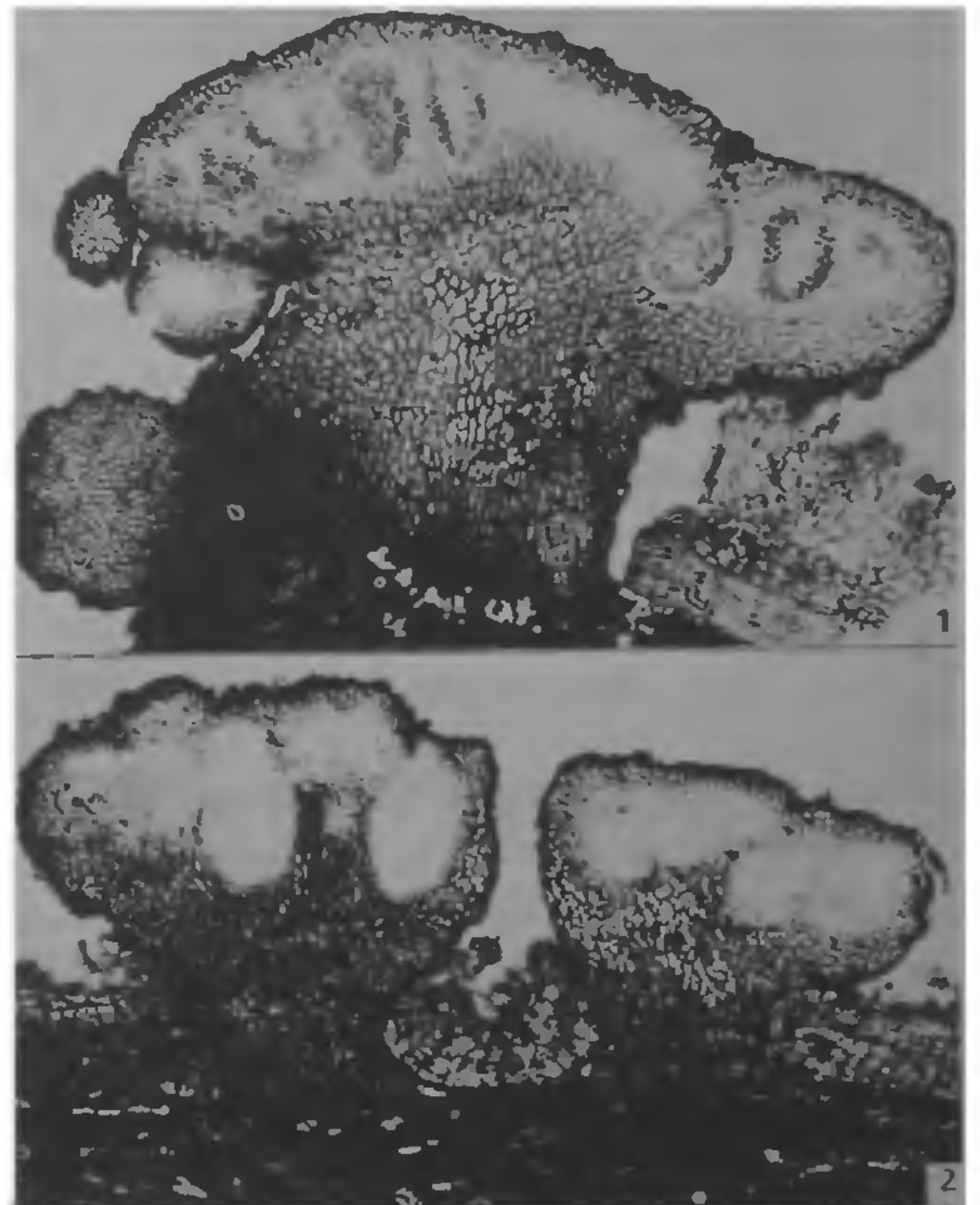
CAS in Botany, University of Madras,
Madras 600 025, India.

DURING our studies on the South Indian Coelomycetes an interesting stromatic conidiomatal fungus was collected on twigs of *Acrocarpus fraxinifolius* Wight (Leguminosae). The fungus was identified as *Cytosphaera mangiferae* Died. The genus is characterized by multilocular stromatic conidiomata in

which two types of conidia are produced within the same conidioma, a rare feature found among Coelomycetes¹. The fungus was found to agree with the diagnosis given by Sutton in all essential details and was therefore disposed under *C. mangiferae*. Although, the present collection was assigned to this species, it was found to differ from the type in having separate conidiomata for microconidia and macroconidia. Therefore a short narration of the Indian collection is given here.

Conidiomata producing macroconidia are larger when compared to those producing microconidia, measuring 1500-1800 μm in diameter with 8-9 locules in the peripheral region of the upper part of stromata (figure 1). Conidiogenous cells are holoblastic, 8-10 \times 3-5 μm . Macroconidia are spherical to subspherical, aseptate, thick-walled hyaline, smooth, guttulate, base truncate, 18-28 \times 10-13 μm .

Conidiomata producing microconidia 500-600 μm in diameter with 3-5 locules (figure 2). Conidiogenous cells phialidic, 6-14 \times 2-2.5 μm . Microconidia ellipsoid to oblong, aseptate, hyaline smooth, thin-walled, 3-4 \times 1.0-1.5 μm .



Figures 1 and 2. ($\times 100$). Vertical section of Conidioma producing 1. macroconidia, and 2. microconidia.

Specimen examined: On dead twigs of *Acrocarpus fraxinifolius*. 5-11-1979, FFSI No. 2788, Magod Falls, Karnataka State.

The author expresses her gratitude to Prof. C. V. Subramanian, former Director, CAS in Botany, University of Madras for his encouragement.

22 September 1986; Revised 10 November 1986

1. Sutton, B. C., *The Coelomycetes*, Commonwealth Mycological Institute, Kew, England, 1980, p. 686.

ALLELOPATHIC EFFECT OF ARGEMONE MEXICANA L. ON SPECIES OF TRITICUM, BRASSICA, RAPHANUS AND PENNISETUM

VIVEK SHARMA and G. S. NATHAWAT

Department of Botany, University of Rajasthan, Jaipur 302 004, India.

ALLELOPATHIC effect of *Argemone mexicana* Linn. was observed in four different plants growing in semi-arid area of Jaipur (Rajasthan). It was found that although there was very little effect on the seedling emergence of all the four plants, the later growth was badly affected by the allelochemicals present in the *A. mexicana*.

The allelopathic effect of the weeds growing in the agroecosystem is a well-known phenomenon. Many authors have given a good account of our present knowledge of allelopathy¹⁻³. Allelopathic studies have been undertaken for the weeds found in the agricultural fields of semi-arid area, Jaipur.

The aim of the present paper is to present the results of the study of the allelopathic effect of the weed *A. mexicana* L. on *Triticum* spp. (Wheat) *Brassica campestris* L. var. Sarson, *Rhaphanus sativus* L. and *Pennisetum typhoides* (Burm. f.) S & H (Bajra).

A. mexicana L. plants were dried and powdered. Sterilized cotton pads and filter papers were placed in petridishes and moistened with distilled water. *A. mexicana* (50, 100, 200 mg) was added to different petridishes. Five replicates of each of these treatments including control (seeds grown in distilled water) were placed. Ten seeds were placed in each petriplate for each crop and seed germination was observed for a week. On the seventh day percentage germination was recorded. Five healthiest plants were chosen from each petriplate and their shoot

and root lengths were measured. Percentage retardation (or enhancement in the case of *R. sativus*) and percentage germination in each replicate were calculated.

The percentage germination of the four crops with different amounts of *A. mexicana* powder are given in table 1.

The data (table 1) revealed that there was an irregularity in the percentage germination of *Triticum* spp. and *B. campestris* var. Sarson, but in the case of *R. sativus* and *P. typhoides* there was a clear decrease in percentage germination with increasing amount of *A. mexicana* powder, percentage ger-

Table 1 Percentage germination of *Triticum* spp., *B. campestris* L. var. Sarson, *R. sativus* L. and *P. typhoides*

	<i>A. mexicana</i> powder (mg)		
	50	100	200
<i>Triticum</i>	84	92	90
<i>Brassica</i>	98	74	80
<i>Raphanus</i>	60	54	48
<i>pennisetum</i>	90	85	80

Table 2 Percentage retardation in shoot length

	<i>A. mexicana</i> powder (mg)		
	50	100	200
<i>Triticum</i>	-8.1	-51.6	-68.77
<i>Brassica</i>	-6.1	-33.4	-51.5
<i>Raphanus</i>	-16.7	-33.4	-38.9
<i>Pennisetum</i>	-8.9	-41.0	-37.5

(-) shows retardation.

Table 3 Percentage retardation or entrancement in root length

	<i>A. mexicana</i> powder (mg)		
	50	100	200
<i>Triticum</i>	-25.9	-51.9	-75.9
<i>Brassica</i>	-6.1	-60.6	-93.9
<i>Raphanus</i>	+73.3	Normal	-13.3
<i>Pennisetum</i>	-68.8	-94.2	-94.2

(-) shows retardation; (+) shows enhancement