

effected by conditioned BBM was not, therefore, the result of a depletion of the medium rather, it is reasonable to conclude that the filaments produced some toxic substances which were released into the medium which were responsible for decreased percentage sporulation of newly inoculated filaments.

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A NEW SPECIES OF SCENEDESMUS— *S. SERRATO-PERFORATUS* SP. NOV.

R. J. PATEL AND ISABELLA GEORGE
Department of Biosciences, Sardar Patel University
Vallabh Vidyanagar 388 120, India

DURING the study of Chlorococcales of Gujarat, the authors collected a new species of *Scenedesmus*, *S. serrato-perforatus* sp. nov. from a pond at Harni, near Baroda in 1970¹⁻². It has been described below.

Scenedesmus serrato-perforatus Patel et Isabella sp. nov. (Figs. 1-2)

Colonia 8-cellularis. Cellulae subquadratae, extremitatibus capitatis. Cellulae in serie signulati, raro, autem, irregulari ordinate. Latus exterius cellularum terminalium aliquantulum convexum rectumve, latus interius concavum. Cellulae interiores perforationes lineares lenticulares inter cellulas contiguas praebentes. Omnis cellula 1-3 series medias longitudinales denticulationum habens. Policellularum 1-4 dentibus parvis praediti. Cellulae 3.2-5.9 μ m lat., 10.6-

14.7 μ m long. Perforationes 0.3-1.2 μ m lat. Dentibus 0.3-1.3 μ m long. Colonia 8-cellularis 30 μ m long.

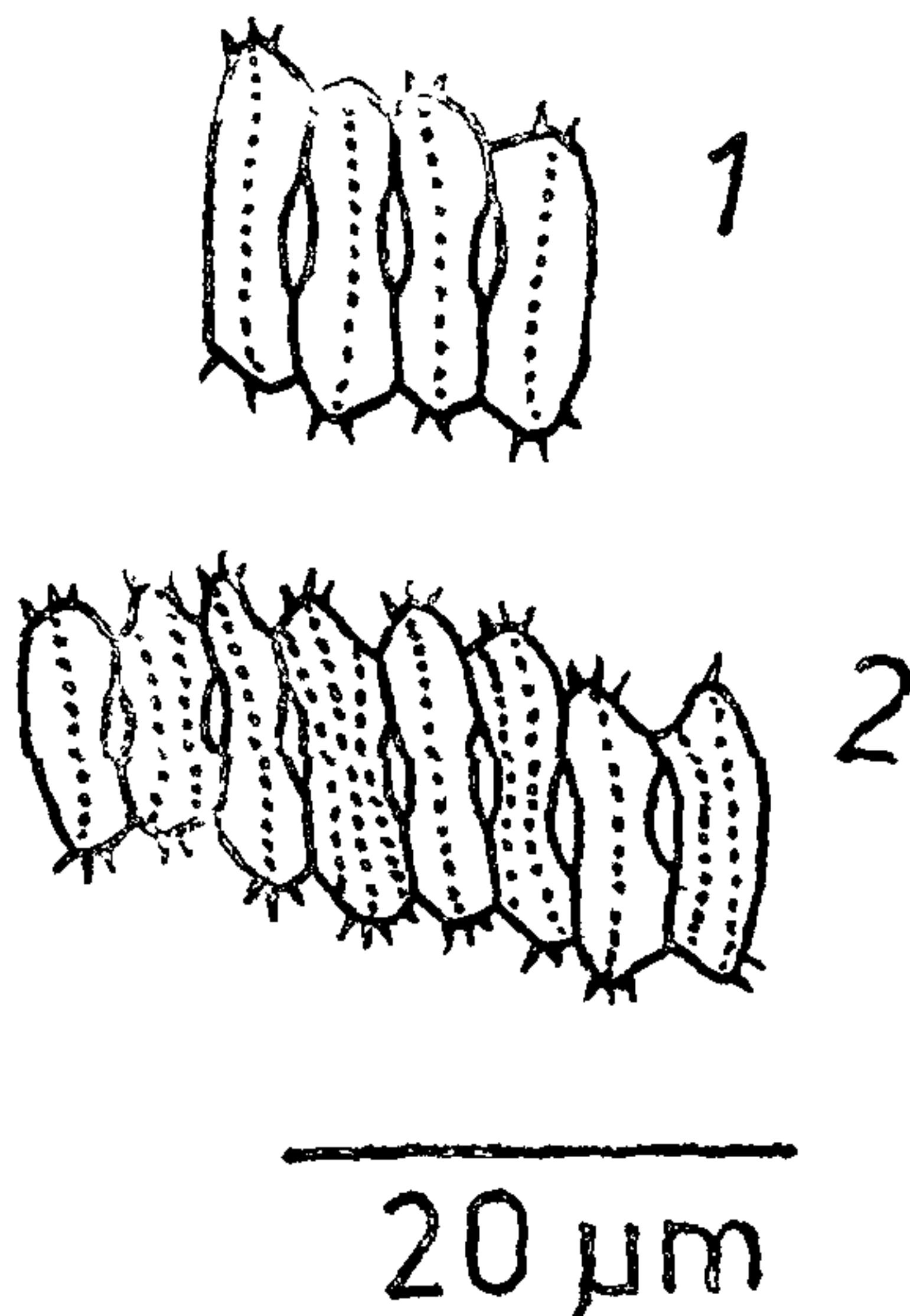
Habitatio: Stagnum Harni dictum in leco Harni near Baroda dicto, m. Aug. d. 5, 1970 (Nr. 1845).

Scenedesmus serrato-perforatus Patel et Isabella sp. nov. (Figs. 1-2)

Colony 8-celled. Cells subquadratae with capitate ends. Cells arranged in single series or rarely in an irregular series. Outer side of the terminal cells slightly convex or straight, inner side concave. Internal cells with linear lenticular perforations between the adjacent cells. All the cells with 1-3 median longitudinal row of denticulations. Poles of the cells with 1-4 small teeth. Cells 3.2-5.9 μ m broad, 10.6-14.7 μ m long. Perforations 0.3-1.2 μ m broad. Teeth 0.3-1.3 μ m long. 8-celled colony 30 μ m long.

Habitat: Harni pond, Harni near Baroda, 5-8-1970 (No. 1845).

As far as the authors are aware, no perforate form of *S. serratus* is known to which the present form is agreeable in general characters. This new alga bears the same relation to *S. serratus* as *S. perforatus* bears to *S. quadricauda* and *S. balatonicus* Hortobagyi to *S. bijugatus*¹.



FIGS. 1-2. *Scenedesmus serrato-perforatus* Patel et Isabella sp. nov.

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OCCURRENCE OF CLEISTOTHECIAL STAGE OF *ERYSIPHE CICHORACEARUM* DC. ON *COCCINIA INDICA* W. & A.

H. S. SOHI, HARINDER KAUR AND GURMAIL SINGH

Botany Department, Panjab University Chandigarh 160 014, India

DURING the course of surveys for fungal diseases of cultivated plants at Chandigarh, severe infection of powdery mildew was noticed on *Coccinia indica*. This cucurbitaceous plant grows wild as a creeper in this area. The immature green fruits are used as a vegetable in South India. Whitish powdery growth

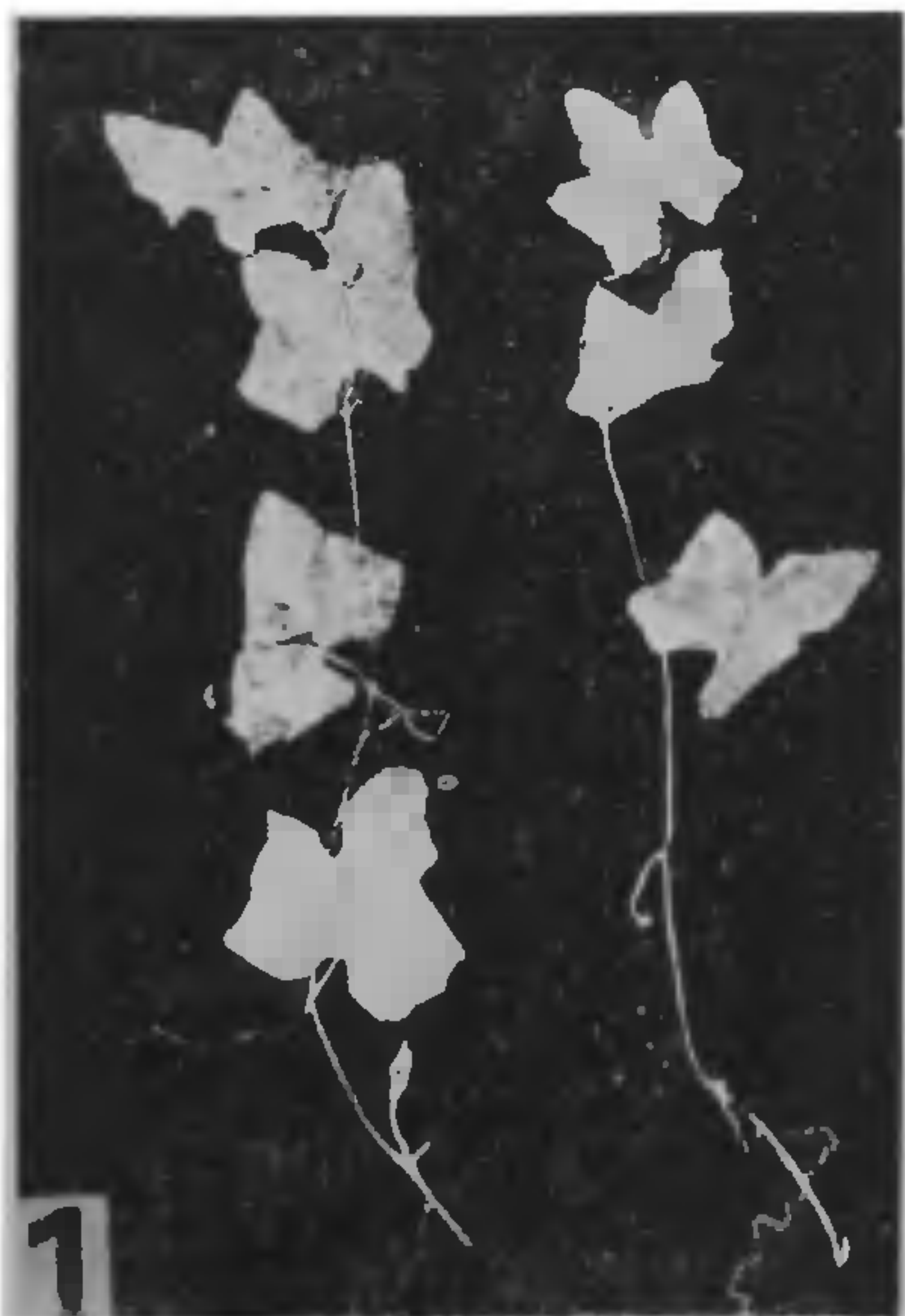


FIG. 1. Host plant showing infection on leaves, stem and fruit.



FIG. 2. Numerous asci arising in a fascicle and coming out of the cleistothecium showing 2 ascospores per ascus.

of the conidial stage of the fungus was observed on all the aerial parts of the host including the young fruits during most part of the year except during rainy and winter seasons (Fig. 1). Cleistothecial stage was encountered during the months of November and December, 1980 when the weather was very chilly and the plants were withering. The cleistothecia were mostly noticed on the stem and less frequently on the leaf lamina as minute, reddish brown to dark, superficial, globose bodies, gregarious or scattered forming irregular patches in the floury mycelial growth. The cleistothecial wall consisted of irregular dark brown cells of various shapes and sizes. The outer cells possessed a few simple, septate and dark brown mycelial appendages. Cleistothecia were 172-192 μm in diameter containing numerous broadly elliptical to subglobose, hyaline to sub-hyaline asci arising in fascicles, 52-64 \times 24-32 μm . Ascospores mostly two per ascus, hyaline to sub-hyaline, one-celled, oval to oblong, minutely verrucose measuring 16-28 \times 12 μm (Fig. 2).

The above description confirms the identity of the fungus as *E. cichoracearum* DC.

Six species of powdery mildew fungi have been reported on various cucurbits from different regions of the world¹. In India, *E. cichoracearum* has been previously reported on *Momordica balsamina*, *Trichosanthes dioica*², *Lagenaria vulgaris*³ and *Coccinia cordifolia*⁴. This powdery mildew is reported to attack pumpkin in Malaysia and Singapore¹⁰; squash in England and Sweden^{3,9}; muskmelon in France¹¹; cucumber in Germany and Canada⁸; cucumber, squash and pumpkin in U.S.A.^{6,7} and muskmelon in Russia. These records indicate the wide host range of *E. cichoracearum* and its potential to infect different cucurbits which are extensively cultivated in this country. *C. indica* puts forth new growth from older