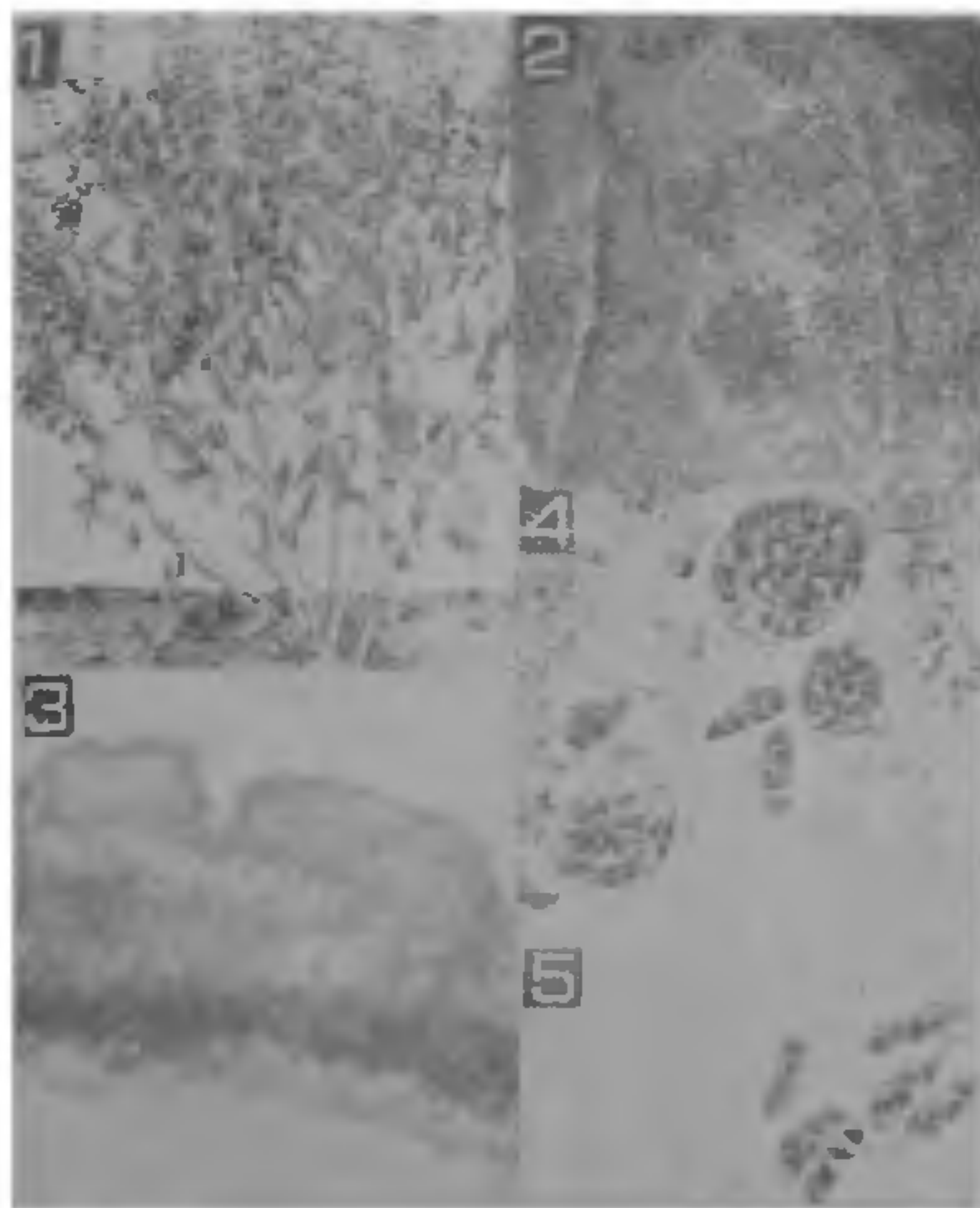


conducted under field conditions following standard inoculation techniques. Typical symptoms of infection appeared 6-8 days after inoculation and the optimum temperature and humidity for successful infection ranged from 22-26°C and 80-90% respectively.

*Elsinoe arxii*: Ullasa and Sridhar sp. nov. (Figs. 3-5).

Infection spots both epi and hypophyllous are sometimes coalesce to form bigger spots. On tender twigs numerous spots were also observed. Infection spots on leaves were irregular, 1-5 mm in diam, brown, erumpent and causes distortion in tender twigs which measure 1-5 × 1-2 mm in diam. Ascstromata subcuticular in origin, erumpent, measure 100-200 × 60-120 μm in diameter, locules numerous, globose to ovoid, bitunicate, octosporous, biseriata and measure 25-30 × 20-27.5 μm in diam. Ascospores ellipsoidal, thin walled, initially 2-3 septate, later forming longitudinal septa thus become muriform and measure 13.5-16.5 × 5-6.5 μm in diameter. Incites infection spots on living leaves and tender twigs of *Ocimum basilicum*. Type with Dr. J. A. Von Arx, Baarn, Netherlands, collected by T. S. Sridhar on 15th December, 1978.



FIGS. 1-5. Fig. 1. *Ocimum basilicum* plant showing scab symptoms due to *Elsinoe arxii*. Fig. 2. Habit of the fungus (Enlarged). Fig. 3. Section through ascostroma × 100 Approx. Figs. 4 and 5. Asci and ascospores × 350 Approx.

*Elsinoe arxii*: Ullasa and Sridhar sp. nov. (Figs. 3-5)

Infectionis maculae epi vel hypophyllae in foliis, dispersae, saepe, coalescentes et ramis numerosae, maculae in foliis irregulares, 1-5 mm diam, brunnae, elevatae, sed in ramis tumide et verrucis 1-5 mm latis,

1-2 mm crassas formantes; ascostromata subcuticularia, erumpentia 100-270 μm lata 40-120 μm crossa; Loculi numerosi globosi vel ovodei, bitunicati, octospori, distichi 25-30 × 20-27.5 μm; ascosporae ellipsoideae, tenuiter tunicatae primum 2-3 septatae, postea septis longitudinalibus praeditae at tunc muriformes 13.5-16.5 × 5-6.6 μm. Incitat maculas in foliis et ramis viventibus *Ocimum basilicum* L. Typus ad J. A. Von Arx Netherland. Leg. T. S. Sridhar, 15th December 1978, Hessaraghatta, Bangalore.

Conidiophore bearing minute conidia representing *Speciloma* stage of *Elsinoe* was found closely associated with this fungus.

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#### SURVIVAL OF *ALTERNARIA TRITICINA*, INCITANT OF LEAF BLIGHT OF WHEAT

THE leaf blight of wheat caused by *Alternaria triticina* Prasada and Prabhu is known from different states in India<sup>1,2,4</sup>. A study of the mode of survival of the pathogen was carried out during the summer months of 1975 and the results are reported here.

The blighted leaves were cut into small pieces and kept in unsterilized soil in earthenware pots on the surface and at depths of 5 cm and 10 cm. Some pots were incubated outdoors and others indoors. Entire infected earheads were stored in paper bags in the laboratory. The infected material was periodically removed, surface sterilized and plated out. The survival of spores in soil was studied by adding a thick suspension of spores to soil surface and covering it with a 2-5 cm layer of soil. The soil with spore suspension was collected periodically by removing the top layer, suspending a sample in sterilized water, centrifuging and plating out. The pathogenicity of the isolated colonies was verified by spraying the spore suspensions on five week old plants of a susceptible wheat variety (Kalyan Sona).

*Alternaria triticina* could survive for only two months in the plant debris placed on the surface of the soil and for four months in the debris buried in soil. It was present after three months in the leaf material while it could be obtained from the infected seeds even after ten months. The spore suspension in soil lost viability

within one month. These results indicate that the fungus cannot survive during summer (March–July) in the diseased leaves but remains viable in the seeds.

Prabhu and Prasada<sup>3</sup> assumed that the fungus may be present in the seed and may sporulate with the onset of rains causing infection of lower leaves of wheat plants. The present study confirms that the principal method of survival of the fungus is through infected seeds.

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#### THE SOMATIC CHROMOSOMES IN *AJUGA GENEVENSIS* L. (LABIATAE)

THE taxon *Ajuga genevensis* L. belongs to the tribe Ajugoideae of the family Labiatae according to Engler and Prantl's system of classification<sup>1</sup>. During the investigation of somatic chromosomes of this taxon it has been found that this taxon is characterized by the diploid autosomes, B-chromosomes and polytene chromosomes in the very root tip. In the present note all these chromosomes are dealt with.

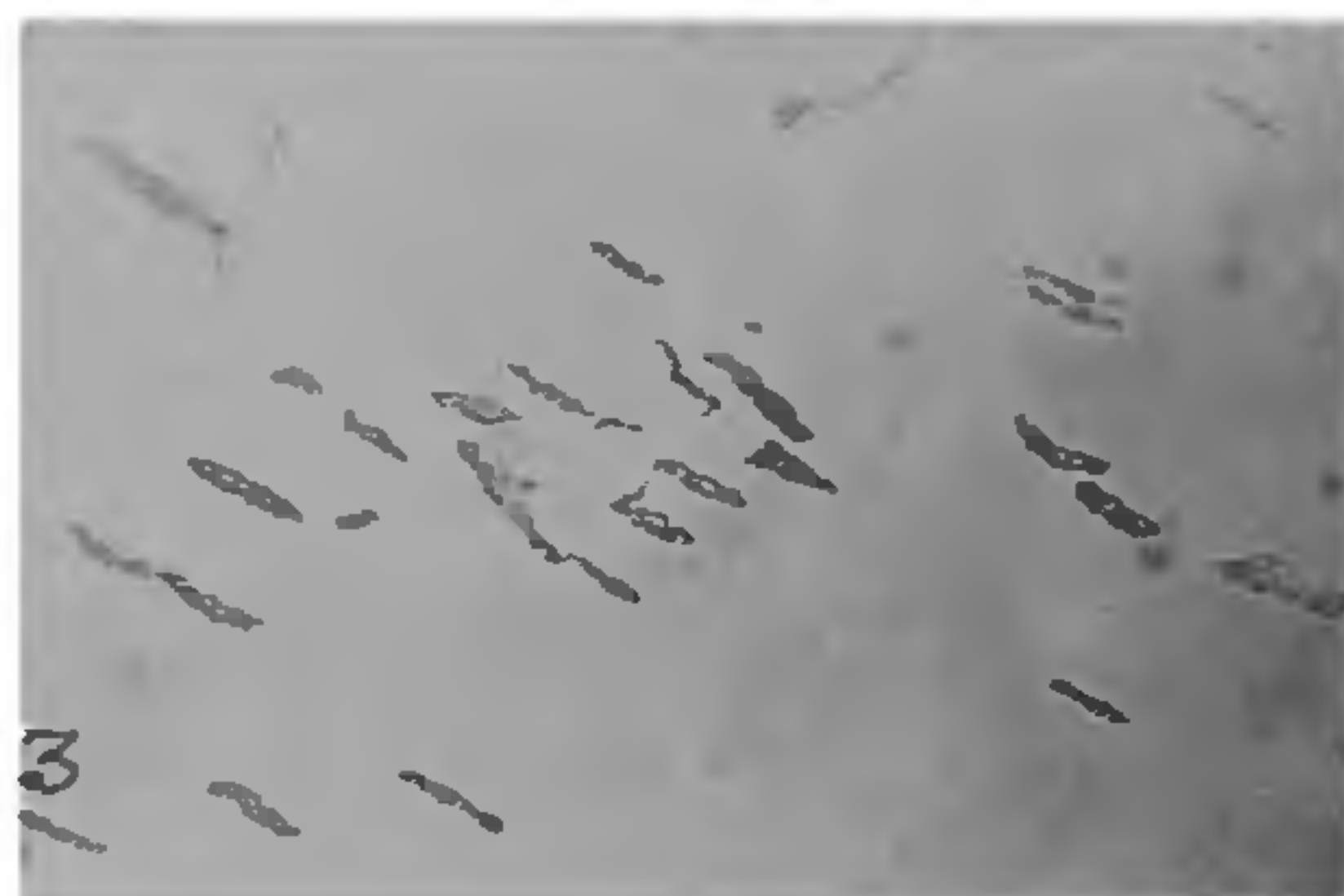
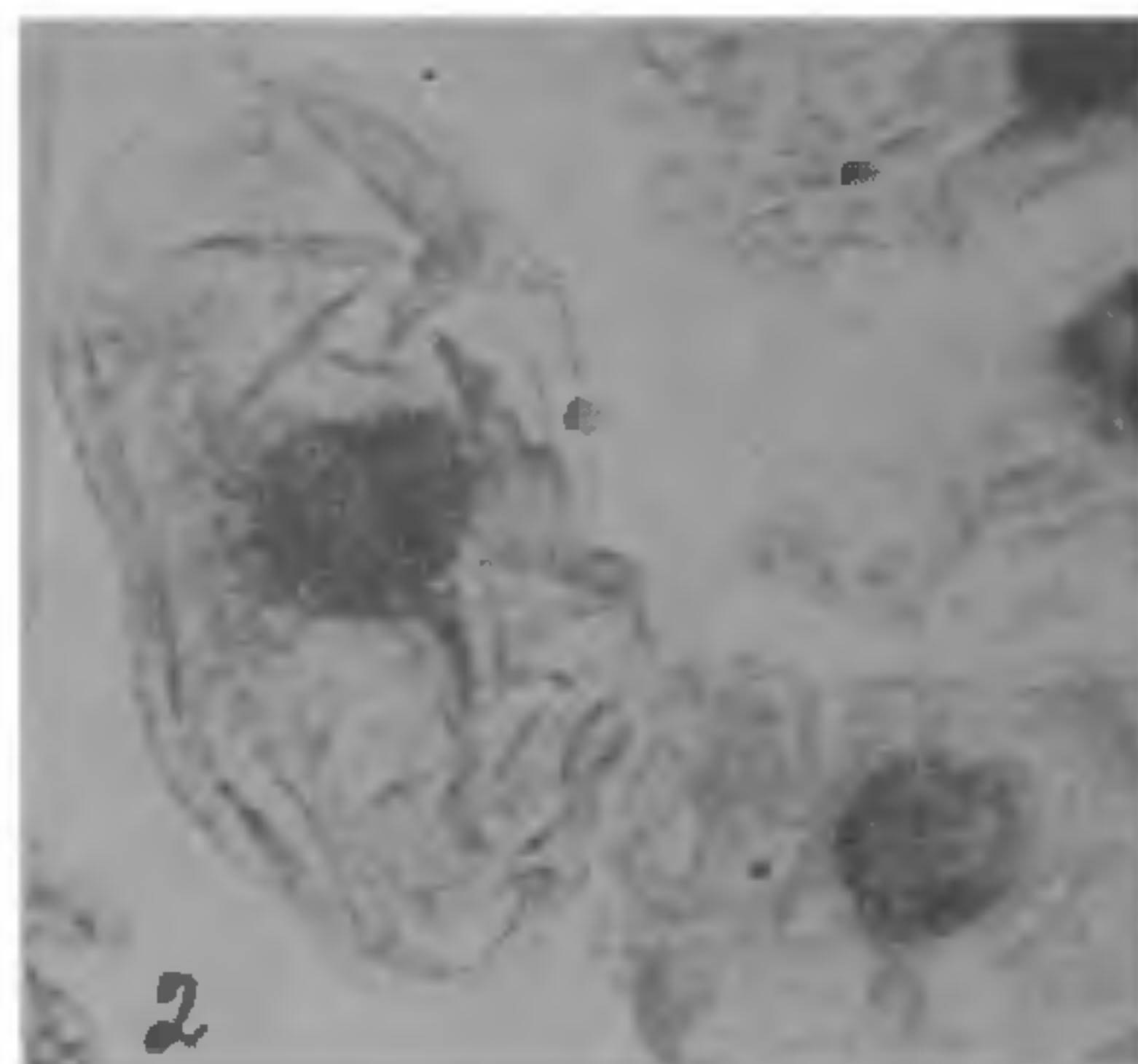
The material was collected from the natural populations of the hills of Georgia, USSR. The healthy roots were pretreated in  $\alpha$ -bromonaphthalene for 3 h at 6°C. Fixation, softening and staining were done following the method of Bhattacharya<sup>5</sup>.

The diploid chromosome number varies between  $2n = 28$  and  $2n = 32$  while the length varies between  $1 \mu\text{m}$  and  $2.9 \mu\text{m}$ . The most frequently occurring number is  $2n = 32$ . This is in conformity with the previous report<sup>2</sup>. The B-chromosomes are found to

vary between 0 and 5. However, the frequency occurs between 2 and 3 in most of the cases. B-chromosomes are allocyclic in nature. They could be detected in early metaphases. The length varies between  $0.3-0.7 \mu\text{m}$ . The variation of somatic chromosome number may be due to the presence of B's as found its parallels in major B-containing taxa<sup>4</sup>. B-chromosomes have been reported already in 4 species of *Salvia* belonging to the family Labiatae<sup>3</sup>. But in this taxon this is the first report (Fig. 1).



FIG. 1



FIGS. 2-3