Conidiophores straight or flexuous, dark golden brown to dark brown emerging mostly singly and sometimes in groups measuring 85·14–200·92 μm × 2–4 μm. Conidia pale brown to golden brown, straight or slightly curved, cylindrical to oblong or elliptical measuring 28·38–82·56 × 10·32–15·48 μm (mean 55·12 × 14·03 μm) with 4 to 11 pseudo septa. In culture, the conidia measured 19·06–28·38 × 7·74–10·32 μm (mean 21·88 × 9·50 μm) with 3 to 5 pseudo septa.

These morphological characters agreed with the description of *Drechslera australiensis* (Bugn.) Subram. and Jain Ex. Ellis. (Subramanium and Jain[2]; Ellis[1]) and the identification was confirmed by Baarn, The Netherlands. The type specimen is deposited in MYSP Herbarium, Department of Plant Pathology, University of Agricultural Sciences, Hebbal, Bangalore 560 024, with accession No. MYSP 2001.

Thanks are due to Dr. K. G. H. Setty, Head, Department of Plant Pathology, Agricultural College, Bangalore, for encouragement, and to the Director, Central Voorschimmel Cultures, Baarn, The Netherlands, for identification of the fungus.

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LOPHODERMIUM PICEAE (FUCK.) HÖHN. (PHACIDIACEAE)—A NEW RECORD FROM INDIA

M. P. Sharma and R. Sharma
Botany Department, Panjab University
Chandigarh 160 014, India

Lophodermium piceae (Fuck.) von Höhn. (Ascomycetes—Phacidiales) is recorded from Kashmir Himalayas (India) for the first time. The fungus causes needle blight in silver fir *Abies pindrow* Spach. at high altitudes. The incidence increases with the increase in temperature and humidity.

The genus *Lophodermium* Chev. with about 100 species is widely distributed throughout the world. Only 10 species are represented in India (Bilgrami *et al.*[1]; Sharma and Sharma[2]), mainly confined to the Himalayan region. Fungal foray through the valley of Kashmir enabled the senior author to collect this interesting fungus. After critical scrutiny, it was identified as *L. piceae*, a taxon well represented in Europe (Saccardo[3]; Terrier[4,5]; Nannfeldt[6]) but not recorded hitherto from India. Our findings were confirmed at Laurentian Forest Research Centre, Ste. Foy, Quebéc, Canada.

The material has been deposited at PAN (Herbarium, Botany Department, Panjab University, Chandigarh, India). Duplicate material has also been deposited at CMI (Commonwealth Mycological Institute, Kew, Surrey, England).

Observations from Indian Sample

Ascocarps 1·5–2 × 0·4–0·8 mm, subepidermal, shining black, elliptical, labial structures neat. Asci 90–130 × 9–12 (–13) μm, clavate, *J* ±. Paraphyses up to 1·5 μm; filiform. Ascospores 54–98 (–100) × 1·5–2·5 μm, 2–3·2 μm with sheath (Fig. 1, A–E). Collection examined: PAN 11602, on needles of *Abies pindrow*, near Golf View Hotel, Gulmarg

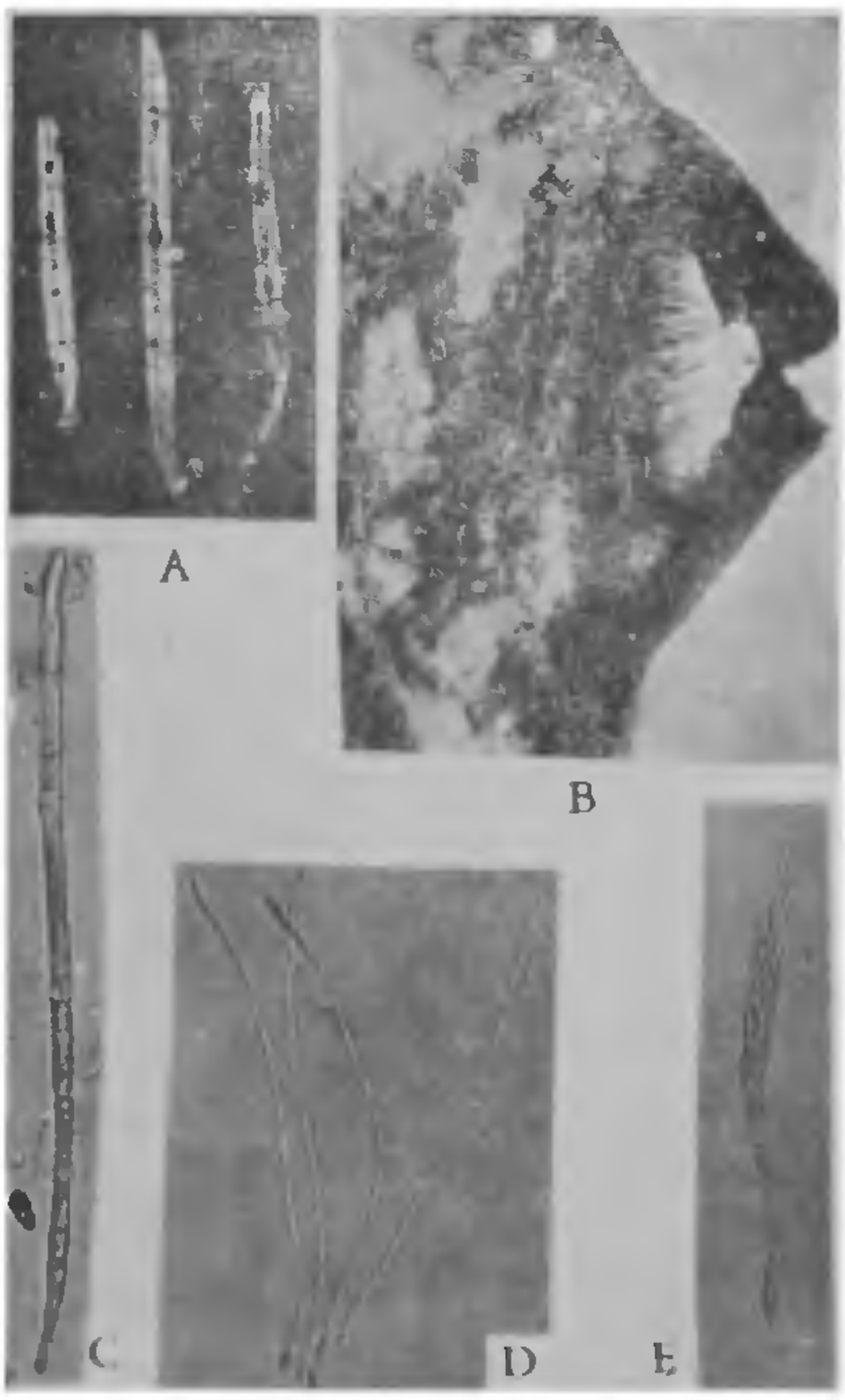

FIG. 1, A–E. *Lophodermium piceae*. A. *Abies pindrow* needles with hysterothecia, × 1·5. B. T.S. subepidermal ascocarp, KOH Phloxine mount showing hymenium and labial structure. × 280. C. Ascospore showing gelatinous sheath, KOH Phloxine mount, × 1,120. D. Filiform paraphyses, × 560. E. Ascus with mature ascospores. × 560.

(alt. 2,700 m), Jammu and Kashmir, Himalayas, August 21, 1975. Leg. M. P. Sharma.

We wish to thank Dr. G. B. Ouellette, Forest Pathologist and Dr. René Cauchon, Curator, Laurentian Forest Research Centre, Ste. Foy, Canada (P.Q), for their help in confirming the identification.

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A NEW HOST RECORD FOR THE FUNGAL GENUS *ACHLYA*

S. C. Sati and R. D. Khulbe

Department of Botany
D.S.B. Constituent College
Kumaun University, Naini Tal 263 003, India

During the course of investigations on aquatic fungal parasites of Kumaun, the opaque coloured infected eggs of the fish *Tor tor* Ham. were collected from Bhim Tal lake (Naini Tal), along with the transparent and yellow coloured healthy eggs. Inorder to investigate the possible fungal parasites, causing this pathological condition, the opaque coloured eggs were baited on boiled hempseed halves, and the fungi growing thereupon, were isolated to obtain the pure cultures, using the techniques described by Johnson[1]. The fungal isolates were identified as *Achlya flagellata* Coker and *A. prolifera* Nees (Sensu Johnson[1]).

The pathogenicity tests of these parasites on healthy eggs were conducted in the laboratory at room temperature (20°–25° C) and it was noted that both the isolates were pathogenic and caused the same symptoms as were noticed in the original collections, thus proving the Koch's postulates. It was further noted that amongst the two species, *A. flagellata* was found to be less virulent, which in first 24 hr of inoculation infected 85% of the eggs and totally inhibited them from hatching as against the 90% infection of eggs caused by *A. prolifera*. Out of the total hatching, *i.e.*, 15% of the test eggs, the infection progressed subsequently during the next 24 hr, causing their death in 33% of the hatchlings in the case of infection by *A. flagellata*, while in case of infection caused by *A. prolifera*, this mortality rate was almost 100% of hatchlings during the next 24 hr.

This pathogenic relation of *Achlya flagellata* and *A. prolifera* with the eggs of *Tor tor*, which is an important edible fish of Kumaun region, is of a great economic value, but was hitherto unreported.

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EXISTENCE AND EXPLOITATION OF LATENT GENETIC VARIATION FOR SALT TOLERANCE IN THREE CROSSES OF BARLEY

S. Chandra

Central Soil Salinity Reseasch Institute
Karnal 132 001, India

Barley (*Hordeum vulgare*) is rated as one of the most salt tolerant crops in the world (Maas and Hoffman[4]). However, selection work to identify or diversify its tolerance to salts has been practically nil. Even a natural unselected population at least must vary for adaptively neutral, evolutionarily significant allozyme loci (Lewontin[3]). However, available evidence in this regard is ambiguous and indecisive (Nevo[5]). The barley crop possesses genetic variation for tolerance to salty environment as shown by Epstein[1] in a genetically diverse composite cross population. The results reported here reveal, perhaps for the first time, the existence and exploitation of tolerance to salty environments in fixed derivatives of barley.

Three intervarietal crosses of barley, *viz.*, DL 85 × DL 144, DW 472 × BG 105 and P 107 × RD 135 were selected at random to test this hypothesis. None of the parents involved was previously exposed to salt-affected environments. In good soils, however, their performance was stable and yieldwise, comparable to the standard released varieties of barley like 'Ratna' and 'Jyoti'. About 5000–6000 plants from each cross were raised by random bulk sampling method from F_3 to F_5 in a sandy loam sodic soil