

NOTES AND BRIEF ARTICLES

THE PERFECT STATE OF *TILACHLIDIUM BRACHIATUM*

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The morphology and nomenclature of the characteristic, probably monotypic, stilbellaceous hyphomycete genus *Tilachlidium* Preuss has been dealt with by Petch (1937) and Gams (1971: 141). A perfect state was then unknown. Colonies of the fungus in vitro are rather similar to those of *Nectria viridescens* Booth. The conidial state has now been found in nature connected with a hypocreaceous (nectriaceous) perfect state.

***Pseudonectria tilachlidii* W. Gams, spec. nov.**

Perithecia in agarico putrido superficialia inter synnemata conidialia sparsa, subglobosa, ochracea, 175-185 × 160-175 μm, hyphis albidis, ad 40 μm longis, plus minusve ramosis fimbriata; paries 12-15 μm crassus, extus ochraceus, intus hyalinus; asci anguste clavati, tenuitunicati, sursum modice truncati, circa 50 μm longi, 5 μm diam. Ascosporae plus minusve biseriatae, continuae, anguste clavatae, basi truncatae, modice curvatae, tenuitunicatae, leves, hyalinae, 6-8 × 1.5-1.8 μm. Status conidialis *Tilachlidium brachiatum* (Batsch per Fr.) Petch.

Typus: *H. A. van der Aa*, prope Baarn, 10 Oct. 1974 (Herb. CBS 178).

Perithecia superficial on decaying agaric, scattered, partly aggregated, amidst conidial synnemata, subglobose, generally 175-185 μm high, 160-175 μm diam., ochraceous, covered with whitish, sometimes basitonously branched, warted, fringe-like hyphae, up to 40 μm long. Perithecial wall 12-15 μm thick, consisting of 5-6 layers of flattened cells, the outer ones slightly pigmented. Asci lining the base and sides of the perithecial cavity, slender clavate, thin-walled, with slightly truncate apex and minute apical structure, approximately 50 μm long, pars sporifera 25 μm long and up to 5 μm diam. Paraphyses scarce, filiform. Ascospores more or less biseriatae, one-celled, narrowly claviform, with truncate base, mostly slightly curved, very thin and smooth-walled, hyaline, 6-8.5 × 1.5-1.8 μm.

Conidial state *Tilachlidium brachiatum* (Batsch per Fr.) Petch. The conidia are elongate, never curved and shorter than the ascospores, 3.2-4.5 μm long, in vitro up to 7.5 μm.

MATERIAL EXAMINED. — *H. A. van der Aa*, on decaying agaric near swimming pool 'De Vuursche', Baarn, 10 Oct. 1974 (Herb. CBS 178). Isolations from thoroughly washed and squashed mature perithecia yielded numerous homogeneous cultures identical with those isolated from the conidial state (CBS 697.74).

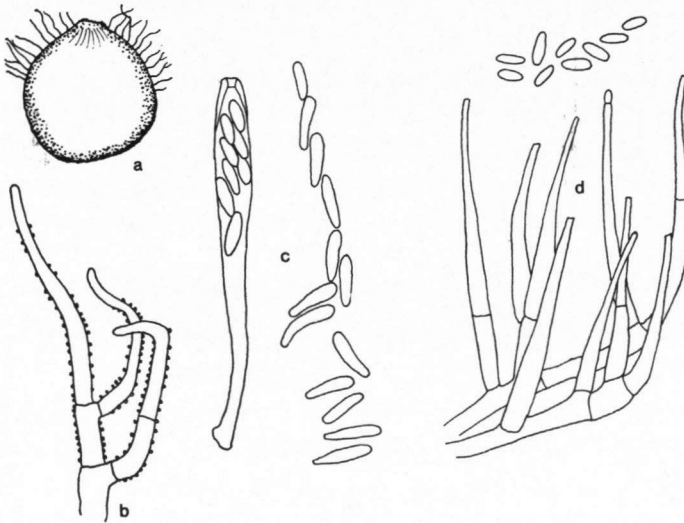


Fig. 1. *Pseudonectria tilachlidii*. — a. Perithecium $\times 100$. — b. Perithecial hairs. — c. Ascus and ascospores. — d. Part of synnema with conidia (b-d $\times 1000$).

DISCUSSION

According to Rogerson (1970), von Arx & Müller (1973) and von Arx (1974), the fungus keys out as a *Pseudonectria* Seaver. Seventy-eight species have been described in this genus with its synonyms *Nectriella* Sacc. (non Nitschke) and *Notarisiella* (Sacc.) Clem. & Shear, amongst which *N. mycetophila* (Peck) Sacc. grows on decaying fungi but has spores of $12-13 \times 4 \mu\text{m}$. Because of the association with the *Tilachlidium* conidial state, a specific confusion with a described species can be ruled out. The type species, *P. rousseliana* (Mont.) Seaver apud Clem. & Shear, redescribed i.a. by Bezerra (1963), has light green perithecia covered with stiff hyaline setae which exude red droplets at their tips. *P. rousseliana* has larger perithecia, asci and spores than the present species; the ascospores are fusiform with rounded ends, usually $13-15.5 \times 3.0-4.0 \mu\text{m}$; the conidial state is *Volutella buxi* (Corda) Berk. The conidial state of *Nectriella coronata* Juel is *Sesquicillium buxi* (Schmidt apud Link) W. Gams (Juel, 1925). In other species the connection with conidial states has not been studied. *Tilachlidium* is the third genus of phialidic conidial states observed in the genus *Pseudonectria*. Another close genus is *Allantonectria* Earle apud Tracy & Earle (1901), the type species of which, *A. yuccae* Earle, has perithecia partly immersed in a basal stroma on leaves and allantoid ascospores.

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