Acrodontiella gen. nov. (Hyphomycetes)

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Acrodontiella gen. nov. and its type species *A. fallopiae* sp. nov. are described.

Keywords: *Acrodontiella fallopiae*, hyphomycetes, taxonomy.

An undescribed mucedinaceous phytopathogenic hyphomycete on *Fallopia aubertii* (L. Henry) Holub has recently been collected in the botanical garden of the Karl-Franzens-University in Graz, Austria. The features of this hyphomycete resemble those of the genus *Acrodontium* de Hoog (1972), but the latter genus comprises dematiaceous saprobic taxa. Therefore, the new genus *Acrodontiella* is introduced.

Acrodontiella U. Braun et Ch. Scheuer, gen. nov.

Fungi imperfecti. Hyphomycetes. Foliicola, laesionibus necroticis associatus. Coloniae hypophyllae, effusae, farinaceae. Hyphae immersae vel erumpentes, saepe subcuticulares, hyalinae, septatae, ramosae, leviae. Stroma nullum. Conidiophora macronemata, mononemata, ex hyphis mycelialibus inter cellulas epidermales penetrantibus singulatim oriunda, erecta, simplicia, raro ramosa, hyalina, levia, continua vel modice septata, apicem versus attenuata. Cellulae conidiogenae integratae, terminales vel separatae, hyalinae, polyblasticae, indeterminatae, sympodiales, minute denticulatae. Cicatrices conidiales non incrassatae, non fuscae. Conidia solitaria, ellipsoidea-ovoidea, fusiformia, hyalina, 0(–1) septata, levia vel verruculosa; secessio schizolytica.

Type species. – *Acrodontiella fallopiae*.

Fungi imperfecti. – Hyphomycetes. – Foliicolous, associated with necrotic lesions (leaf spots). – Colonies hypophyllous, effuse, farinaceous. – Hyphae internal to erumpent, mainly subcuticular, hyaline, septate, branched, smooth. – Stroma

lacking. – Conidiophores macronematous, mononematous, solitary, arising from internal hyphae, erumpent through the cuticle, rarely emerging from erumpent-exposed hyphae, erect, simple, rarely branched, hyaline, smooth, continuous or sparsely septate, attenuated towards the apex. – Conidiogenous cells integrated or separate (conidiophore reduced to a single conidiogenous cell), hyaline, polyblastic, indeterminate, proliferation sympodial, denticulate, denticles minute; conidial scars neither thickened nor darkened. – Conidia solitary, ellipsoid–ovoid, fusiform, hyaline, 0(–1)-septate, smooth to verruculose. – Conidial secession schizolytic.

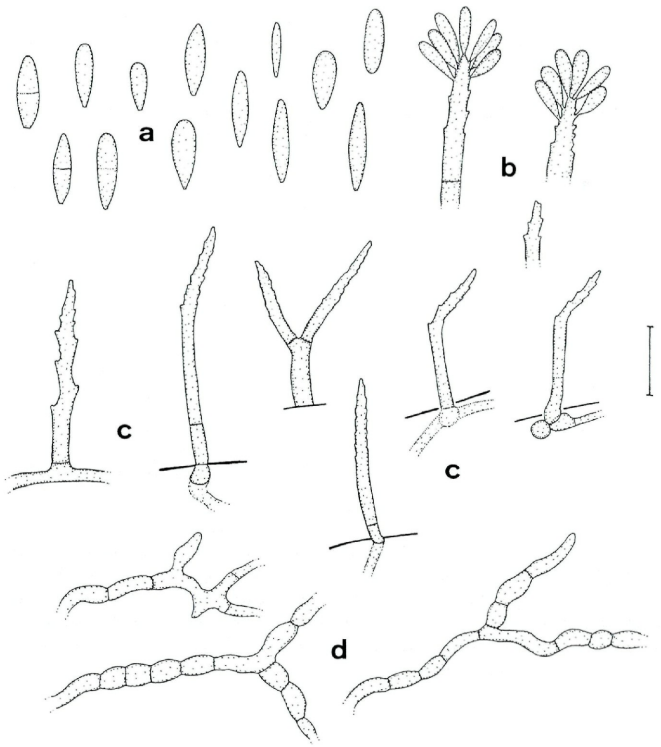

Fig. 1. – *Acrodontiella fallopiae* sp. nov. – a. conidia. – b. conidiogenous cells with young conidia. – c. conidiophores. – d. hyphae. – Bar = 10 μm. U. Braun del.

Acrodontiella fallopiae U. Braun et Ch. Scheuer, sp. nov. – Fig. 1.

Maculae amphigenae, suborbiculares vel irregulares, 0.5–5 mm diam., pallide griseo-albidae vel griseo-brunneae, margine indistincto vel margine tenui purpureo-violacei cinctae, interdum confluentes. Caespituli hypophylli, effusi, farinacei, griseo-albidi. Mycelium immersum; hyphae saepe subcuticulares, interdum erumpentes, ramosae, septatae, hyalinae, 1–4.5 µm latae, leviae. Conidiophora solitaria, saepe erumpentes, simplicia, raro ramosa, recta, saepe apicem versus attenuata et leniter geniculata, 10–40 x (1–)1.5–3(–4) µm, continua vel modice septata, apicem versus dense, minute denticulata. Conidia solitaria, ellipsoidea-ovoidea, fusiformia, 6–15 x 2–5 µm, continua, raro 1-septata, hyalina, levia vel verruculosa, ad apicem rotundata vel subacuta, basi attenuata, subacuta, obtusa vel subtruncata.

Holotypus. – AUSTRIA: Steiermark, Graz, Geidorf, botanical garden, on *Fallopia aubertii* (L. Henry) Holub (Polygonaceae), 7.11.1994, Ch. Scheuer (GZU). Isotypus: CBS, HAL.

Leaf spots amphigenous, subcircular to irregular, 0.5–5 mm diam., pale greyish white or greyish brown, margin indefinite or with a narrow purplish violet border, spots sometimes confluent. – Caespituli hypophyllous, effuse, delicately farinaceous, greyish white. – Mycelium internal; hyphae mostly subcuticular, later sometimes erumpent, branched, septate, hyaline, 1–4.5 µm wide, smooth. – Conidiophores solitary, arising from internal hyphae, erumpent through the cuticle, rarely from erumpent-exposed hyphae as lateral branches, erect, simple, rarely branched, straight, usually somewhat attenuated towards the apex, often somewhat geniculate by sympodial proliferation, 10–40 x (1–)1.5–3(–4) µm, continuous or sparsely septate, hyaline, smooth, fertile portion densely denticulate, denticles minute, shape variable, tips pointed, rounded to truncate. – Conidia solitary, ellipsoid-ovoid, fusiform, 6–15 x 2–5 µm, continuous, rarely with a single septum, hyaline, smooth to verruculose, apex rounded to subacute, base attenuated, subacute, obtuse to truncate.

Acrodontiella is morphologically close to *Acrodontium* sect. *Acrodontium* de Hoog (1972). The structure of the denticulate conidiogenous cells, the conidiogenesis and the conidia agree well with the type species of the latter genus. The species of *Acrodontium* are, however, dematiaceous and saprobic. Cole and Samson (1979) discussed the conidiogenesis of this genus. *Acrodontium* is rather heterogeneous. The species of sect. *Grisea* de Hoog (l.c.) differ from *Acrodontium* sect. *Acrodontium* by having complex branched conidiophores, often with conidiogenous cells in verticillate arrangement. These species should possibly be excluded from the genus *Acrodontium*. *A. crateriforme* (van Beyma) de Hoog, the type

species of *Acrodontium*, and most of the other species of this genus are dematiaceous. *A. salmoneum* de Hoog (l.c.), isolated from human sputum, soil and other substrates, is an exceptional species with subhyaline conidiophores. All structures in *Acrodontiella* are colourless and *A. fallopiae*, the type species, is phytopathogenic. The phytopathogenic genus *Denticularia* Deighton (cf. Ellis, 1976) possesses similar denticulate conidiogenous cells, but all structures are pigmented, the conidiophores are fasciculate and arise from immersed stromata. The conspicuous denticles are more or less subcylindric.

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