

TWO NEW FUNGI FROM MUKURTHI NATIONAL PARK, NILGIRIS, TAMIL NADU

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ABSTRACT

This paper gives an account of two new species. Of these, *Prillieuxina aquifoliacearum* differs from *P. ilicicola* in having smaller ascospores and *Questieriella rhamnii* differs from *Schiffnerula rhamnii* in having only anamorphic state. Both these fungi are described and illustrated in detail.

KEYWORDS

National Park, new species, *Prillieuxina*, *Questieriella*.

ABBREVIATIONS

HCIO- Herbarium Cryptogamae Indiae Orientalis, New Delhi
TBGT- Tropical Botanic Garden, Thiruvananthapuram, Kerala

PRILLIEUXINA AQUIFOLIACEARUM SP. NOV.

(Fig. 1)

Material examined

Type: 19.ix.2006, on the leaves of *Ilex denticulata* Wall. ex Wight (Aquifoliaceae), Parson Valley, Mukurthi National Park, Ooty, Nilgiri District, Tamil Nadu, about 2100m. coll. K. Ravikumar, HCIO 47494 (Type), TBGT 2532 (Isotype).

Diagnosis

Coloniae hypophyllae, subdensae, ad 2mm diam., confluentes. Hyphae subrectae vel anfractuae, oppositae, alternatae vel irregulariter acuteque ramosae, arte reticulatae, cellulae 12-27 x 3-5µm. Thyriothechia dispersa vel aggregata, orbicularis, ad 192µm diam., margine fringiorae, hyphae fringiorae brevis, thyriothechia stellatim dehiscentes ad centre; asci non visa; ascosporae conglobatae, uniseptatae, constrictae ad septatae, paries glabrus, 16-19 x 6-10µm. Pycnothyria pauca, thyriothechiis similis, breviter; pycnothyriosporae globosae, pyriformes, 8-10 x 6-10µm.

Colonies hypophyllous, subdense, up to 2mm in diameter, confluent. Hyphae substraight to crooked, branching opposite, alternate to irregular at acute angles, closely reticulate, cells 12-27 x 3-5µm. Thyriothechia scattered to grouped, orbicular, up to 192µm in dia., margin fringed with hyphae, fringed hyphae very short, thyriothechia stellately dehiscence at the centre; asci not seen; ascospores conglobate, 1-septate, constricted at the septum, smooth walled, 16-19 x 6-10µm. Pycnothyria few, similar to thyriothechia, smaller; pycnothyriosporae globose, pyriform, 8-10 x 6-10µm.

Remarks

Prillieuxina ilicicola (Hansf.) Arx is known on *Ilex odorata* from Java (Hansford, 1954; Mueller & Arx, 1962).

However, *Prillieuxina aquifoliacearum* differs from it in having distinctly smaller ascospores (16-19 x 6-10µm) than *P. ilicicola* (28-33 x 16-19µm).

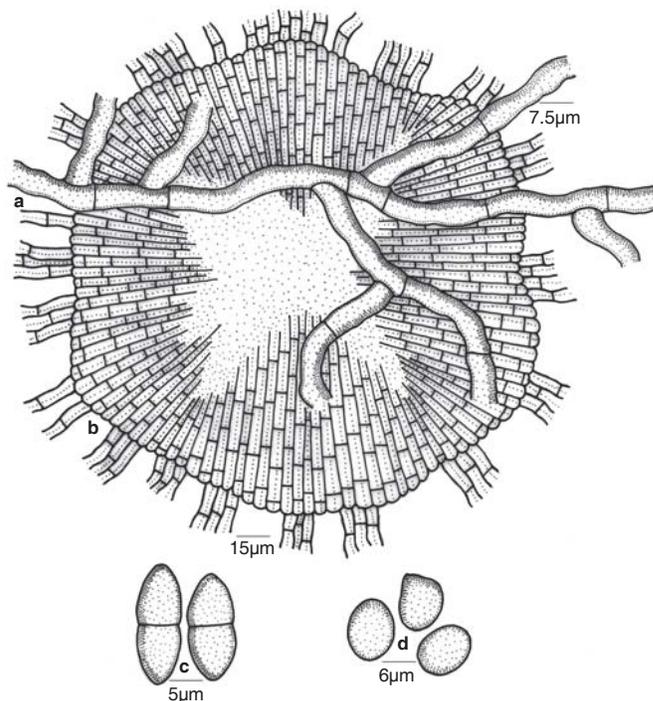


Figure 1. *Prillieuxina aquifoliacearum* sp. nov. a - Appressoriate mycelium; b - Thyriothecium; c - Ascospores; d - Pycnothyriosporae

QUESTIERIELLA RHAMNII SP. NOV.

(Fig. 2)

Material examined

Type: 20.ix.2006, on the leaves of *Rhamnus wightii* Wight & Arn. (Rhamnaceae), Mukurthi National Park, Ooty, Nilgiri District, Tamil Nadu, about 2100m. coll. K. Ravikumar HCIO 47495 (Type), TBGT 2533 (Isotype).

Diagnosis

Coloniae epiphyllae, tenues, ad 2mm diam., confluentes. Hyphae rectae vel subrectae, oppositae, alternatae vel irregulariter acuteque vel laxae ramosae, laxae vel arte reticulatae, cellulae 11-27 x 4-8µm. Appressoria alternata, oppositae, unilateralis, sessilis, globosa, integra vel leniter angularis, 6-10 x 8-11µm. Conidiophora plerumque simplices, raro ramosa, 0-2 septata, leniter constrictus ad septata, 14-40 x 5-7µm; cellulae conidiogena hyalinae, rotundae; conidia fusiformes, curvula, obtusa ad apicem, 3-septata, leniter constrictus ad septata, 32-48 x 9-13µm.

Colonies epiphyllous, thin, up to 2mm in diameter, confluent.

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Comparative account with allied species

Name of the species	Thyriothecia	Ascospores	Pycnothyriospores
<i>Prillieuxina illicicola</i> (Hansf.) Arx	Thyriothecia scattered to grouped, up to 200µm in diam.	28-33 x 16-19µm	Not known
<i>Prillieuxina aquifoliacearum</i> sp. nov.	Thyriothecia scattered to grouped, orbicular, up to 192µm in diam.	16-19 x 6-10µm	Globose, pyriform, 8-10 x 6-10µm

Name of the species	Conidiophores	Conidia
<i>Clypeolella rhamnocola</i> Doidge	Born at the tip of hyphal branches	Fusoid to sublunate, 3-septate, 40-45 x 12-15µm
<i>Questieriella rhamni</i> sp. nov.	Conidiophores mostly simple, rarely branched, 0-2-septate, slightly constricted at the septa, 14-40 x 5-7µm	Conidia fusiform, curved, obtuse at the tip, 3-septate, slightly constricted at the septa, 32-48 x 9-13µm

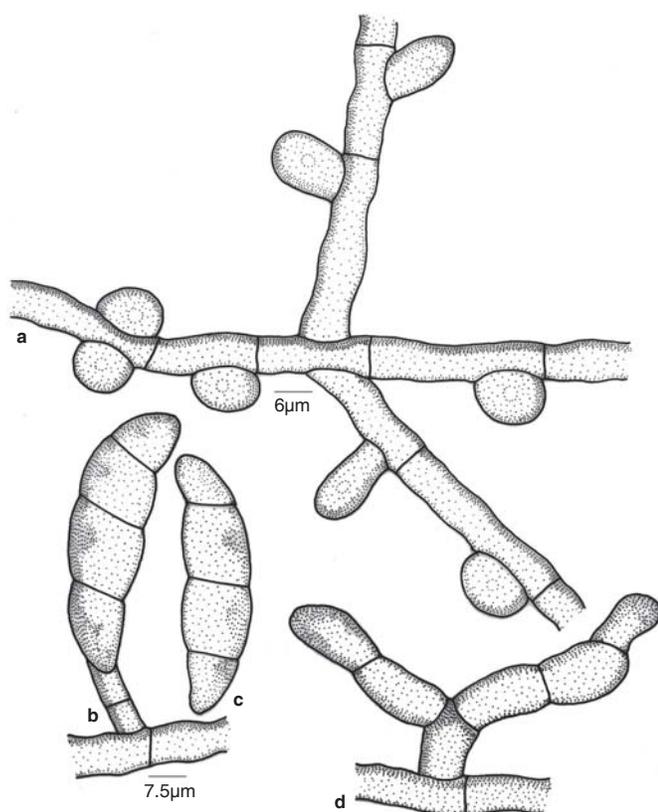


Figure 2. *Questieriella rhamni* sp. nov.

a - Appressoriate mycelium; b - Conidiophore with conidia; c - Conidia, d - Developing conidiophore

Hyphae straight to substraight, branching opposite, alternate to irregular at acute to wide angles, loosely to closely reticulate, cells 11-27 x 4-8µm. Appressoria alternate, opposite, unilateral, sessile, globose, entire to slightly angular, 6-10 x 8-11µm. Conidiophores mostly simple, rarely branched, 0-2-septate, slightly constricted at the septa, 14-40 x 5-7µm; conidiogenous cells hyaline, round; conidia fusiform, curved, obtuse at the tip, 3-septate, slightly constricted at the septa, 32-48 x 9-13µm.

Remarks

Clypeolella rhamnocola Doidge (*Asterina rhamnocola* Doidge) is known on *Rhamnus prinoides* from South Africa (Doidge, 1942). The genus *Clypeolella* is synonymous to *Schiffnerula* (Hughes, 1987). Since, the present collection lacks ascigerous state, it

has been accommodated in a form genus.

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