

A new species of *Cristinia* (Aphyllphorales, Corticiaceae) from North Italy

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Abstract. — *Cristinia artheniensis*, sp. n., is described from Friuli, North Italy. The distinctive features are the hyphae without clamp connections, basidia with cyanophilous granulation and thickwalled spores. A key and comments are presented to the known species of *Cristinia*.

Description

Cristinia artheniensis BAICI & HJORTSTAM, sp. n. — Fig. 1.

Basidioma resupinatum, laxe adhaerens, flavo-ochraceum vel roseo-ochroleucum, nonnusquam helvolum. Hymenium farinoso-floccosum, vel hypochnoideo-grandinoideum, margine indistincto. Systema hyphale monomitium, totis hyphis efibulatis. Hyphae subhymeniales tenuitunicatae, dense intertextae, copiose ramosae, 3–4 μ m latae, cellulis brevibus cum septis 10 ad 30 μ m intervallatis. Hyphae subiculi paulae, rectae, distinctae, laxe intertextae, tenuitunicatae, 4–5 μ m latae, cum septis latius intervallatis (50–90 μ m). Basidia subclavata vel subcylindracea, nonnumquam in media parte leviter constricta, 15–25 $\times$ 5–6 μ m, cum sterigmatibus 4 subconicis, leviter arcuatis, usque ad 5 μ m longis. Protoplasma basidiorum cum guttulis oleosis, admodum cyanophilis. Cystidia desunt. Basidiosporae subglobosae, obovatae vel late ellipsoideae, nonnumquam leviter angulatae, laeves, incrassate tunicatae, non amyloideae neque dextrinoideae, cyanophilae, 3–5 $\times$ 3–4 μ m. Habitatio ad corticem ramusculi arboris frondosae, ligno putrido; Arthenea, Regio Forum Julii, Italia, 28. VII. 1980, legit A. BAICI. Holotypus in herbario Universitatis Oslo (O), isotypus in herbario Polytechnicae Universitatis Turicensis (ZT).

Etymology: from the type locality, Artegna (which original latin name was Arthenea), Province of Udine, North Italy.

Fr u i t b o d y resupinate, effused, farinose-floccose in the young parts, hypochnoid-grandinoid in the older parts, loosely attached to the substratum and of soft consistency, pale ochraceous or yellowish-ochraceous at the periphery (no. 200 of the color code of SÉCUI, 1936, corresponding to SACCARDO's no. 29 = flavo-ochraceous), more deeply ochraceous to reddish-ochraceous in older parts (no. 250 of SÉCUI's

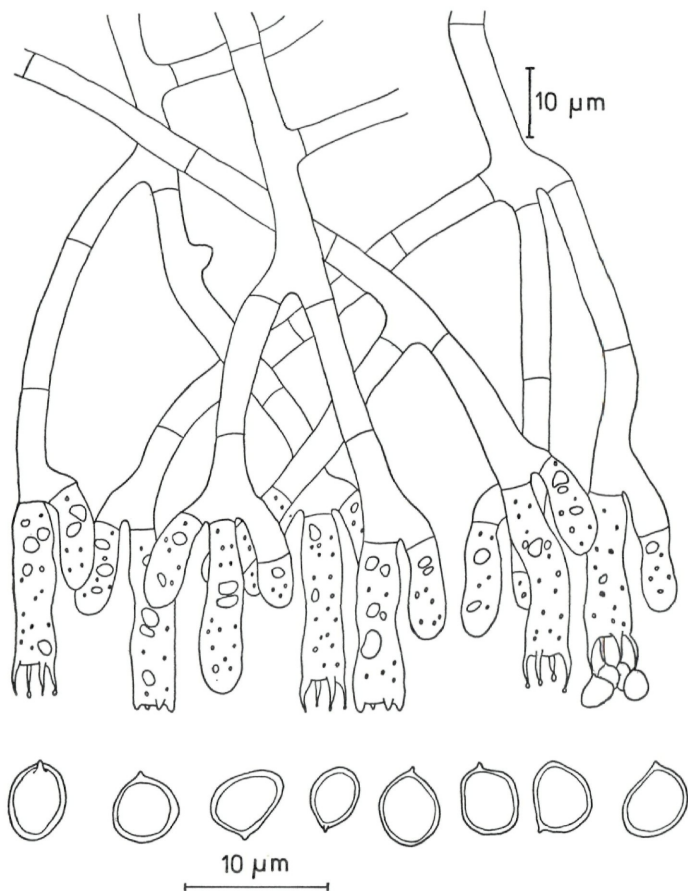


Fig. 1. *Cristinia artheniensis* BAICI & HJORTST. (type). Hymenium and spores.

scale corresponding to SACCARDO's no. 28 = roseo-ochroleucus, helvolus) — Hymenium floccose, granular; margin indeterminate.

Hyphal system monomitic, all hyphae with simple septa, organized in a very soft and lax tissue. Subhymenial hyphae thin-walled, 3—4 µm wide, richly branched and interwoven, mostly short-celled

with septa occurring at 10—30 μm intervals. — Subiculum scarcely developed with basal hyphae 4—5 μm in diameter, thin-walled, rather straight, loosely interwoven and with sparse ramifications, more long-celled than the subhymenial ones (septa at 50—90 μm intervals).

Cystidia absent. — Basidia subclavate to subcylindrical, sometimes with a central constriction, 15—25 $\times$ 5—6 μm , bearing normally 4 sterigmata, which are about 5 μm long and slightly curved. Oildrops present in the basidial protoplasm, which are stained deeply blue in Cotton blue. — Spores subglobose, obovate or broadly ellipsoid, mostly of irregular shape and to some extent angular, thick-walled, smooth, cyanophilous, not amyloid nor dextrinoid, 3—5 $\times$ 3—4 μm .

Habitat. — On the bark of an angiosperm's twig with much decomposed wood. — Distribution. — Hitherto known only from the type locality.

Keys and comments to the species of *Cristinia* and two other taxa

Both *Corticium filium* BRES. and *Cristella subhelvetica* PARM. differ from all species in *Cristinia*: the former by its dextrinoid spores and the latter by its thin-walled, acyanophilous spores. However, these species are included here because of their superficial similarities. — It should also be mentioned that the holotype of *Cristinia sasae* PARM. has been studied (U.R.S.S., Kunashir, 5. X. 1960, leg. PARMASO, 13020, Tartu, isotypus GB). This specimen represents a young, relatively smooth *Cristinia helvetica* (PERS.) PARM.

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|---|----------------------------------|
| 1. Hyphae without clamps | 2 |
| 1*. Hyphae with clamps | 3 |
| 2. Spores thick-walled, cyanophilous | 1. <i>C. artheniensis</i> |
| 2*. Spores thin-walled, acyanophilous | 6. <i>Cristella subhelvetica</i> |
| 3. Spores dextrinoid | 2. <i>Corticium filium</i> |
| 3*. Spores indextrinoid | 4 |
| 4. Cystidia present | 5. <i>C. sonorae</i> |
| 4*. Cystidia absent | 5 |
| 5. Hymenium raduloid to irpicoid | 3. <i>C. gallica</i> |
| 5*. Hymenium granulose | 4. <i>C. helvetica</i> |

1. *Cristinia artheniensis* BAICI & HJORTSTAM

This species has all the typical characteristics of the other members of *Cristinia*, viz. the grandinoid to colliculose hymenium, the thick-walled, cyanophilous spores, short-celled hyphae and basidia with cyanophilous granulation. It is similar to *C. helvetica* (PERS.) PARM., from which it differs particularly in the clampless hyphae. The presence or absence of clamp connections is not taken as a discriminating criterion at the generic level. Thus, in spite of the introduction of the

simple-septate element into *Cristinia* with *C. artheniensis*, it remains a very homogeneous genus.

2. *Corticium filium* (BRES.) LIBERTA, Taxon 15: 318. 1966.

≡ *Trechispora filia* (BRES., Ann. Mycol. 6: 43. 1908.

≡ *Cristinia filia* (BRES.) LIBERTA, Can. J. Bot. 51: 1891. 1973.

This species differs from members of *Cristinia* mainly by its dextrinoid spores.

3. *Cristinia gallica* (PILÁT) JÜLICH, Persoonia 8: 298. 1975.

≡ *Radulum gallicum* PILÁT, Mykologia 2: 54. 1925.

Illustrations and descriptions of this species can be found in ERIKSSON & RYVARDEN (1975) p. 311 under the name *Cristinia mucida*, and remarks to this epithet in JÜLICH (1975: l. c.).

4. *Cristinia helvetica* (PERS.) PARM., Consp. Syst. Cort., p. 48. 1968.

≡ *Hydnum helveticum* PERS., Mycol. Eur. 2: 184. 1825.

Illustrations and descriptions can be found in ERIKSSON & RYVARDEN (1975: 307). This is the type species of *Cristinia* PARM.

5. *Cristinia sonorae* NAKASONE & GILBERTSON, Mycologia 70: 271. 1978.

These authors report a good description, illustrations and cultural characters. With its thick-walled, cyanophilous spores and short-celled hyphae, this North American species fits well into the concept of *Cristinia*.

6. *Cristella subhelvetica* PARM., Eesti NSV Tead. Akad. Toim. Biol. Seer. 14: 223. 1965.

≡ *Trechispora subhelvetica* (PARM.) LIBERTA, Taxon 15: 319. 1966.

In his revision of the genus LIBERTA (1973) excluded this species. Due to its thin-walled, acyanophilous spores and short-celled hyphae, however, it is included here. Illustrations and descriptions are given in PARMASO (1965: l. c.).

Literature

- ERIKSSON, J. & RYVARDEN, L. (1975). The Corticiaceae of North Europe. — Vol. 3. — Fungiflora, Oslo, pp. 287—546.
- LIBERTA, A. E. (1973). The genus *Trechispora* (Basidiomycetes, Corticiaceae). — Can. J. Bot. 51: 1871—1892.
- SÉGUY, E. (1936). Code universel des couleurs. — Encyclopédie Pratique du Naturaliste, XXX. — P. Lechevalier, Paris, 48 pl.

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