A new species of *Cristinia* (Aphyllophorales, 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-grandinioideum, margine indistincto. Systema hyphale monomiticum, totis hyphis efibulatis. Hyphae subhymeniales tenuitunicatae, dense intertextae, copiose ramosae, 3—4 µm latae, cellulis brevibus cum septis 10 ad 30 µm intervallatis. Hyphae subiculi paulae, rectae, distinctae, laxe intertextae, tenuitunicatae, 4—5 µm latae, cum septis latius intervallatis (50—90 µm). Basidia subclavata vel subcylindracea, nonnumquam in media parte leviter constricta, 15—25 × 5—6 µm, cum sterigmatibus 4 subconicis, leviter arcuatis, usque ad 5 µm 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 × 3—4 µm. 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 Polytecnicae Universitatis Turicensis (ZT).

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

Fruitbody resupinate, effused, farinose-floccose in the young parts, hypochnoid-grandinioid 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 Séguy, 1936, corresponding to Saccardo's no. 29 = flavo-ochraceus), more deeply ochraceous to reddish-ochraceous in older parts (no. 250 of Séguy's

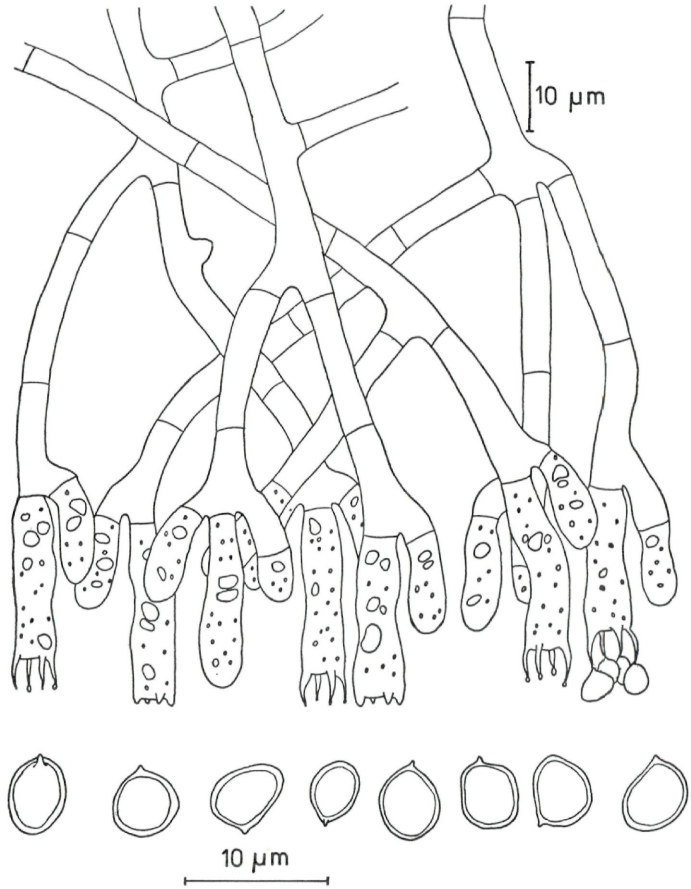

Fig. 1. *Cristinia artheniensis* Baici & Hjortst. (type). Hymenium and spores.

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 × 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 × 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. Parmasto, 13020, Tartu, isotypus GB). This specimen represents a young, relatively smooth *Cristinia helvetica* (Pers.) Parm.

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

1. *Cristinia artheniensis* Baici & Hjortstam

This species has all the typical characteristics of the other members of *Cristinia,* viz. the grandinioid 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 Parmasto (1965: l. c.).

Literature

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