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PRELIMINARY CHECKLIST OF AGARICALES FROM CROATIA III: FAMILIES BOLETACEAE, GOMPHIDIACEAE AND PAXILLACEAE

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ABSTRACT

The third part of the preliminary checklist of Agaricales from Croatia is given. It comprises the families Boletaceae, Gomphidiaceae and Paxillaceae. 85 species belonging to 19 genera are presented. Six species are reported for the first time from Croatia. For each species, the published and unpublished sources of data are given, as well as the collections in which the material is deposited. The new combination *Paxillus panuoides* var. *ionipus* is proposed.

Key words: Basidiomycota, biodiversity, mycoflora, bibliography

INTRODUCTION

This is the third part of the preliminary checklist of Agaricales from Croatia. The first two parts have been published in *Mycotaxon* (Tkalčec & Mešić 2002, Mešić & Tkalčec 2002). This part comprises the families Boletaceae, Gomphidiaceae and Paxillaceae. The checklist includes data published or collected before 1 January 2000. Information about the geographical and biogeographical position of Croatia, material, methods and presentation are given in Tkalčec & Mešić (2002).

In this paper we present 85 species belonging to 19 genera found on the territory of Croatia, of which we have revised 64 species. Out of the

overall number 74 species belong to the family Boletaceae, five species to the family Gomphidiaceae, and six species to the family Paxillaceae. Six species are reported for the first time from Croatia.

Marks and abbreviations:

- * - taxon reported for the first time from Croatia in this paper;
- - at least part of records of taxon revised;
- (1) - number in brackets indicates synonym or misapplied name under which the author of the record has quoted the taxon;
- () - empty brackets indicate that the author of the record has also quoted the taxon under the name we use;
- ? - (a) question mark instead of an author of combination means that we could not find the author in the literature available to us; (b) question mark following the source of a published record or abbreviation of a collection means that the author himself doubted his original identification;
- = ? - taxon not found in modern taxonomic literature;
- Exs. - collections in which the dried material (exsiccatum) is deposited;
- HR? - taxon most probably found in the territory of Croatia (locality not precisely quoted);
- Incl. - including;
- Lit. - literature;
- Misappl. - misapplied name;
- Ref. - references (sources of records of taxon);
- rev. - revised (when we have revised records of other authors or species for synonymy);
- unp. - unpublished data.

SURVEY OF TAXA

Family **Boletaceae** Cheval.

Aureoboletus Pouzar

(Lit.: Alessio 1985, Arnolds & al. 1995, Both 1993, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Pilát & Dermek 1974, Singer 1966, Singer 1986)

- ***Aureoboletus gentilis*** (Quél.) Pouzar
 - = *Pulveroboletus gentilis* (Quél.) Singer
 - = *Pulveroboletus cramesinus* (Secr. ex J.-E. Gilbert) Moser
 - = *Xerocomus cramesinus* Secr. ex J.-E. Gilbert (1)
 - Misappl.: *Xerocomus auriporus* (Peck) Singer sensu Kallenb. non Peck (2)
 - Ref.: Focht 1972 (1), Tortić 1968 b (1), unp. Tkalčec & Mešić, unp. Tortić (2)

Exs.: CNF

(Lit.: Alessio 1985, Lannoy & Estades 2001, Pilát & Dermek 1974)

***Boletinus* Kalchbr.**

(Lit.: Alessio 1985, Arnolds & al. 1995, Engel & al. 1996, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Redeuilh & Simonini 1998, Singer 1964, Singer 1986)

• ***Boletinus cavipes* (Klotzsch ex Fr.) Kalchbr.**

Ref.: Focht 1987, unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Alessio 1985, Engel & al. 1996, Pilát & Dermek 1974)

***Boletus* Dill. ex L. : Fr.**

(Lit.: Alessio 1985, Alessio 1991, Arnolds & al. 1995, Bollmann & al. 1996, Engel & al. 1983, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Martin 1903, Merlo & al. 1983, Moser 1983, Pilát & Dermek 1974, Rauschert 1987, Singer 1966, Singer 1977, Singer 1986, Singer & Kuthan 1976 a, Watling 1970)

• ***Boletus aereus* Bull. : Fr.**

- as *Boletus edulis* Bull. : Fr. var. *fuscoruber* (Forq.) Bataille sensu Moser (1)

Ref.: Božac 1984 (rev.) (1), Božac 1986 (rev.) (1), Božac 1989 (rev.) (1), Božac 1993 (rev.) (1), Focht 1979, Focht 1981 a, Focht 1986, Focht 1987, Kranjčev 1995, Mužic & Božac 1997 (rev.) (1), Tortić 1968 b, unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF

(Lit.: Alessio 1985, Engel & al. 1983, Pilát & Dermek 1974)

• ***Boletus aestivalis* (Paulet) ex Fr.**

Misappl.: *Boletus reticulatus* Schaeff. sensu auct. non Schaeff. (1)

Misappl.: *Boletus edulis* Bull. : Fr. subsp. *reticulatus* (Schaeff.) Konrad et Maubl. sensu auct. non Schaeff. (2)

Ref.: Focht 1979 (1), Focht 1981 a (2), Focht 1987, Kranjčev 1995 (1), unpubl. Matočec (1), unpubl. Tkalčec & Mešić, Schulzer 1857 HR? (1)

Exs.: CNF

(Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

• ***Boletus appendiculatus* Schaeff.**

Ref.: Focht 1979, Focht 1987, Kallenbach 1926-1942, Kranjčev 1995, Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić & Lisiewska 1978, unpubl. Lisiewska, unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić, Schulzer 1857 HR?

Exs.: CNF, POZM
(Lit.: Engel & al. 1983, Galli 1998, Lannoy & Estades 2001)

Boletus betulicola (Vassilkov) Pilát et Dermek

Ref.: Focht 1987, Kranjčev 1995
Exs.: CNF

• ***Boletus calopus*** Pers. : Fr.

= *Boletus pachypus* Fr. : Fr. (1)

Ref.: Focht 1986 (1), Focht 1987, Lorinser - Janda 1877 () (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić & Lisiewska 1978, Vouk & Pevalek 1916 () (1), unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić () (1)

Exs.: CNF

(Lit.: Galli 1998, Pilát & Dermek 1974, Singer 1966)

Boletus caucasicus Singer ex Alessio

Ref.: Focht 1987, Focht 1984 HR?, Focht 1986 HR?

*• ***Boletus depilatus*** Redeuilh

- as *Boletus impolitus* Fr. (1)

Ref.: unpubl. Tkalčec & Mešić, unpubl. Tortić (rev.) (1)

Exs.: CNF

(Lit.: Galli 1998, Redeuilh 1985)

• ***Boletus dupainii*** Boud.

Ref.: Focht 1974, Focht 1979, Focht 1987, Vrščaj 1990, unpubl. Tkalčec & Mešić, Focht 1984 HR?, Focht 1986 HR?

Exs.: CNF

(Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

• ***Boletus edulis*** Bull. : Fr.

= *Boletus bulbosus* Schaeff. (1)

Ref.: Blagaić 1921, Blagaić 1931 a, Focht 1979, Forenbacher 1915 (1), Frković 1998, Gjurašin 1898, Kranjčev 1979, Kranjčev 1995, Lorinser - Janda 1877, Moesz 1938 (1), Schulzer & al. 1866, Škorić 1928 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić 1968 a, Tortić & Lisiewska 1978, Vouk & Pevalek 1916 (1), unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić, Schulzer 1857 HR?

Exs.: CNF

(Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

Boletus edulis Bull. : Fr. **sensu lato**

Ref.: Tortić 1993, Tortić 1994

• ***Boletus fechtneri*** Velen.

Misappl.: *Boletus aestivalis* (Paulet) ex Fr. sensu Kallenb. non Fr. (1)

Ref.: Focht 1979, Kallenbach 1926-1942 (1), Tortić 1966 a, Tortić 1966 b, Vrščaj 1990, unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF

(Lit.: Alessio 1985, Engel & al. 1983, Pilát & Dermek 1974)

- ***Boletus fragrans*** Vittad.
 Ref.: Vouk & Pevalek 1916, unpub. Tkalčec & Mešić
 Exs.: CNF
 (Lit.: Galli 1998, Merlo & al. 1983)
- ***Boletus impolitus*** Fr.
 = *Boletus validus* C. Martin (rev.) (1)
 Ref.: Božac 1984, Božac 1986, Božac 1989, Božac 1993, Focht 1987,
 Tortić 1968 b (rev.), Vouk & Pevalek 1916 () (1), unpub. Tkalčec & Mešić,
 unpub. Tortić (rev.)
 Exs.: CNF
 (Lit.: Galli 1998, Redeuilh 1985)
- Boletus junquilleus*** (Quél.) Costantin et L.M. Dufour
 = *Boletus luridiformis* Rostk. var. *junquilleus* (Quél.) Knudsen
 Ref.: Focht 1974
- ***Boletus legaliae*** (Pilát) Pilát et Ušák
 = *Boletus rubrosanguineus* (Walty) ex Cheype (1)
 = *Boletus splendidus* C. Martin subsp. *moseri* Singer et Kuthan (2)
 Misappl.: *Boletus satanoides* Smotl. sensu auct. non Smotl. (3)
 Misappl.: *Boletus splendidus* C. Martin sensu auct. non C. Martin (4)
 Misappl.: *Boletus splendidus* C. Martin subsp. *splendidus* sensu auct.
 non C. Martin (5)
 Ref.: Božac 1982 (3), Božac 1984 (3), Focht 1984 (2), Focht 1986 (2),
 Focht 1987 (2), unpub. Lisiewska (5), unpub. Passauer (according to
 Voglmayr) (1), unpub. Tkalčec & Mešić, Blagaić 1923 ? (4)
 Exs.: CNF, POZM (5), WU (1)
 (Lit.: Galli 1998, Lannoy & Estades 2001)
- Boletus lupinus*** Fr. (sensu Romagn.)
 Ref.: Focht 1974, Focht 1979, Focht 1984, Focht 1986, Focht 1987,
 Vrščaj 1990
 Exs.: CNF
- ***Boletus luridiformis*** Rostk.
 = *Boletus erythropus* Pers. var. *vetustus* (Killerm) ? (1)
 = *Boletus erythropus* Pers. f. *vetustus* Killerm. (2)
 = *Boletus miniatoporus* Secr. (nom. inval.) (3)
 Misappl.: *Boletus erythropus* Pers. sensu auct. non Pers. (4)
 (sensu Pers. = *B. queletii* Schulzer)
 Ref.: Blagaić 1931 a (3), Focht 1974 (1)(4), Focht 1979 (2)(4), Focht
 1986 (4), Focht 1987 (4), Kallenbach 1926-1942 (3), Kranjčev 1995 (4),
 Tortić 1964 (4), Tortić 1966 a (4), Tortić 1966 b (4), Tortić 1994 (4),
 unpub. Matočec (4), unpub. Tkalčec & Mešić, unpub. Tortić (4), Focht 1987
 HR? (2)
 Exs.: CNF
 (Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

• ***Boletus luridus*** Schaeff. : Fr.

Ref.: Barčić 1982, Barčić 1996, Blagaić 1931 a, Božac 1982, Božac 1984, Božac 1986, Božac 1989, Božac 1993, Focht 1974, Forenbacher 1915, Gjurašin 1898, Kallenbach 1926-1942, Kranjčev 1995, Lisiewska & Tortić 1990, Lorinser - Janda 1877, Mužic & Božac 1984, Mužic & Božac 1997, Schulzer 1882, Schulzer & al. 1866, Škorić 1928, Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić 1993, Tortić 1994, Vouk & Pevalek 1916, unpubl. Matočec, unpubl. Tortić, Focht 1979 HR?, Schulzer 1857 HR?

Exs.: CNF

• var. ***luridus***

Ref.: unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Engel & al. 1983, Pilát & Dermek 1974)

var. ***erythroteron*** (Bezděk) Pilát et Dermek

Ref.: Focht 1984, Focht 1986, Focht 1987, unpubl. Passauer (according to Voglmayr)

Exs.: WU

• ***Boletus pinophilus*** Pilát et Dermek

= *Boletus pinicola* (Vittad.) A. Venturi (comb. illeg.) non *B. pinicola* Sw. : Fr. (1)

= *Boletus edulis* Bull. : Fr. subsp. *pinicola* (Vittad.) Konrad et Maubl. (2)

Ref.: Božac 1982 (2), Božac 1984 (1), Božac 1986 (1), Božac 1989 (1), Božac 1993 (1), Focht 1979 (1), Focht 1987, Kranjčev 1995 (1), unpubl. Matočec, unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Alessio 1985, Engel & al. 1983, Pilát & Dermek 1974)

• ***Boletus pulverulentus*** Opat.

Ref.: Focht 1974, unpubl. Lisiewska, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF, POZM

(Lit.: Alessio 1985, Engel & al. 1983, Pilát & Dermek 1974)

• ***Boletus queletii*** Schulzer

= *Boletus queletii* Schulzer f. *rubicundus* (Maire) ? (1)

= *Boletus queletii* Schulzer var. *squarrosipes* Schulzer (2)

= *Boletus bresadolae* Schulzer (3)

= *Boletus erythropus* Pers. (sensu Pers. non sensu auct.) (4)

= *Boletus lateritius* Bres. et Schulzer (5)

= *Boletus rutilus* Fr. var. *queletii* Schulzer (rev.) (6)

= *Boletus rutilus* Fr. var. *schulzeri* Quél. (rev.) (7)

= *Boletus slavonicus* Sacc. et Cub. (8)

Ref.: Barčić 1982, Barčić 1996, Blagaić 1931 a (4), Focht 1974, Focht 1979, Focht 1984, Focht 1986 () (1), Focht 1987 () (1), Kallenbach 1926-1942 (4), Mužic & Božac 1984, Mužic & Božac 1997, Saccardo 1888 a () (2)(5)(6)(7)(8), Schulzer 1885 () (2)(3)(5)(6)(7), Singer 1966, Tortić 1964, Tortić & Lisiewska 1978, Vrščaj 1990, unpubl. Lisiewska, unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF, POZM

(Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

Annotation: Persoon described this species in 1796 under the name *Boletus erythropus*. Since Fries (1821), most authors have misapplied this name to *B. luridiformis* Rostk. Fries (1821) sanctioned this epithet at the rank of variety. Although the legitimate name for this species is *B. erythropus* Pers., we do not use it because the application of this name in the original sense would cause a disadvantageous nomenclatural change. We consider that name *B. erythropus* should be proposed for rejection (ICBN 2000, article 56.).

• ***Boletus radicans*** Pers. : Fr.

= *Boletus amarus* Pers. (1)

= *Boletus conglobatus* Blagaić (2)

Misappl.: *Boletus albidus* Roques sensu auct. non Roques (3)

Ref.: Blagaić 1919 (2), Božac 1982 (3), Božac 1984 (3), Božac 1986 (3), Božac 1989 (3), Božac 1993 (3), Focht 1979 (3), Focht 1984 (3), Focht 1986 (3), Focht 1987 (3), Kallenbach 1926-1942, Tortić 1964, Tortić 1966 a, Vouk & Pevalek 1916, unpubl. Tkalčec & Mešić, unpubl. Tortić (1)

Exs.: CNF

(Lit.: Alessio 1985, Galli 1998, Pilát & Dermek 1974)

• ***Boletus regius*** Krombh.

Ref.: Barčić 1982, Barčić 1984, Barčić 1996, Blagaić 1923, Blagaić 1931 a, Focht 1979, Focht 1984, Focht 1986, Focht 1987, Kallenbach 1926-1942, Kranjčev 1995, Tortić 1968 b, Tortić & Lisiewska 1978, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF

(Lit.: Engel & al. 1983, Pilát & Dermek 1974)

Boletus rhodopurpureus Smotl.

Ref.: Focht 1987, Focht 1984 HR?, Focht 1986 HR?

• ***Boletus rhodoxanthus*** (Krombh.) Kallenb.

= *Boletus purpureus* Pers. var. *rhodoxanthus* (Krombh.) Moser (comb. inval.) (1)

Ref.: Blagaić 1931 a, Focht 1974, Focht 1984, Focht 1986, Tortić 1964 (1), Tortić 1993, Tortić & Lisiewska 1978, unpubl. Lindtner, unpubl. Tkalčec & Mešić, unpubl. Tortić () (1)

Exs.: BEO, CNF

(Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

• ***Boletus satanas*** Lenz

Ref.: Barčić 1984, Barčić 1989, Barčić 1996, Blagaić 1931 a, Božac 1982, Božac 1984, Božac 1986, Božac 1989, Božac 1993, Focht 1974, Focht 1979, Focht 1984, Focht 1986, Focht 1987, Forenbacher 1915, Gjurašin 1898, Kallenbach 1926-1942, Lorinser - Janda 1877, Mužić & Božac 1997, Škorić 1928, Tortić 1964, Vouk & Pevalek 1915, unpub. Tkalčec & Mešić, unpub. Tortić, Schulzer 1857 HR?

Exs.: CNF

(Lit.: Alessio 1985, Galli 1998, Engel & al. 1983)

Boletus separans Peck

Ref.: Focht 1984, Focht 1986, Focht 1987

• ***Boletus speciosus*** Frost

= *Boletus pseudoregius* (H. Huber) ex Estades

= *Boletus appendiculatus* Schaeff. var. *pseudoregius* H. Huber (nom. inval.) (1)

Ref.: Focht 1974, Focht 1979 (1), Focht 1984, Focht 1986, Focht 1987, Vrščaj 1990, unpub. Tkalčec & Mešić

Exs.: CNF

(Lit.: Engel & al. 1983, Galli 1998, Pilát & Dermek 1974)

Annotation: Some modern authors consider that North American records of this species are different from European, and that European records represent different species, *Boletus pseudoregius*.

Boletus torosus Fr.

Ref.: Focht 1974, Focht 1984, Focht 1986, Focht 1987

Exs.: CNF

Chalciporus Bataille

(Lit.: Alessio 1985, Arnolds & al. 1995, Galli 1998, Hansen & Knudsen 1992, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1964, Singer 1986, Watling 1970)

• ***Chalciporus piperatus*** (Bull. : Fr.) Bataille

= *Boletus piperatus* Bull. : Fr. (1)

= *Suillus piperatus* (Bull. : Fr.) Kuntze (2)

= *Boletus acris* Schulzer (rev.) (3)

Ref.: Focht 1987, Kranjčev 1995, Schulzer 1880 a (3), Tortić 1964 (2), Tortić 1966 a (2), Tortić 1966 b (2), Tortić & Lisiewska 1978 (2), unpub. Tkalčec & Mešić, unpub. Tortić (1)(2)

Exs.: CNF

(Lit.: Galli 1998, Moser 1983)

*• ***Chalciporus rubinus*** (W.G. Sm.) Singer

Ref.: unpub. Tkalčec & Mešić

Exs.: CNF

(Lit.: Galli 1998, Moser 1983)

Gyrodon Opat.

(Lit.: Alessio 1985, Arnolds & al. 1995, Bollmann & al. 1996, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1964, Singer 1986)

• **Gyrodon lividus** (Bull. : Fr.) P. Karst.

= *Boletus lividus* Bull. : Fr. (1)

Ref.: Focht 1987, Kranjčev 1995, Mužic & Božac 1997, Škorić 1928 (1), Tortić 1964, unpub. Tkalčec & Mešić, unpub. Tortić

Exs.: CNF

(Lit.: Alessio 1985, Moser 1983, Pilát & Dermek 1974)

Gyroporus Quéf.

(Lit.: Alessio 1985, Arnolds & al. 1995, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1964, Singer 1986)

• **Gyroporus castaneus** (Bull. : Fr.) Quéf.

= *Boletus castaneus* Bull. : Fr. (1)

Ref.: Barčić 1982, Barčić 1996, Focht 1974, Focht 1984, Focht 1986, Focht 1987, Kranjčev 1995, Lange 1974, Schulzer & al. 1866 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić 1968 b, unpub. Matočec, unpub. Tkalčec & Mešić, unpub. Tortić, Schulzer 1857 HR? (1)

Exs.: BEO, CNF

(Lit.: Galli 1998, Lannoy & Estades 2001, Pilát & Dermek 1974)

• **Gyroporus cyanescens** (Bull. : Fr.) Quéf.

= *Gyroporus cyanescens* (Bull. : Fr.) Quéf. var. *lacteus* (Lév.) Quéf. (1)

Ref.: Focht 1979, Focht 1986, Focht 1987 () (1), Tortić 1966 a, Tortić 1966 b, Tortić 1968 b, unpub. Tkalčec & Mešić, unpub. Tortić

Exs.: CNF

(Lit.: Galli 1998, Lannoy & Estades 2001, Pilát & Dermek 1974)

Leccinum Gray

= *Krombholzia* P. Karst. (nom. illeg.)

= *Krombholziella* Maire

(Lit.: Alessio 1985, Arnolds & al. 1995, Bollmann & al. 1996, Breitenbach & Kränzlin 1991, Engel 1983, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 1995, Lannoy & Estades 2001, Pilát & Dermek 1974, Rauschert 1987, Singer 1966, Singer 1986, Watling 1970)

• **Leccinum carpini** (R. Schulz) Moser ex D.A. Reid

= *Krombholziella carpini* (R. Schulz) Alessio

= *Leccinum griseum* (Quéf.) Singer (nom. illeg.) (1)

= *Leccinum pseudoscabrum* (Kallenb.) Šutara

Ref.: Barčić 1982 (1), Barčić 1996 (1), Focht 1972, Focht 1984 (1), Focht 1986 (1), Focht 1987 () (1), Kranjčev 1985 (1), Kranjčev 1995, Mužic & Božac 1997 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić & Lisiewska 1978 (1), unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF

(Lit.: Engel 1983, Lannoy & Estades 1995, Pilát & Dermek 1974)

• ***Leccinum corsicum*** (Rolland) Singer

= *Boletus sardous* Belli et Sacc.

Ref.: unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Galli 1998, Lannoy & Estades 1995)

Leccinum corsicum (Rolland) Singer **sensu lato**

Incl.: *Leccinum corsicum* (Rolland) Singer (1)

= *Krombholziella corsica* (Rolland) Alessio

Leccinum lepidum (P. Bouchet) Quadr.

= *Krombholziella lepida* (P. Bouchet) Alessio

Ref.: Focht 1984 (1), Focht 1986 (1), Focht 1987 (1), Božac 1986 HR? (1)

Annotation: Authors of the records for Croatia do not make distinction between these two species, so without revision it is not possible to know which species the authors have found.

• ***Leccinum duriusculum*** (Schulzer) Singer

= *Boletus duriusculus* Schulzer (1)

= *Krombholziella duriuscula* (Schulzer) Imler

= *Leccinum decipiens* (Singer) Pilát et Dermek (2)

Ref.: Focht 1984, Focht 1986 () (2), Focht 1987 (2), Kalchbrenner & Schulzer 1873-1877 (1), Kallenbach 1926-1942 (1), Kranjčev 1986, Kranjčev 1995 () (2), Lorinser - Janda 1877 (1), Schulzer & al. 1866 (nom. nud.) (1), unpubl. Tkalčec & Mešić, unpubl. Tortić (2), Fries 1874 HR? (1), Saccardo 1888 HR? (1)

Exs.: CNF

(Lit.: Galli 1998, Lannoy & Estades 1995)

*• ***Leccinum lepidum*** (P. Bouchet) Quadr.

= *Krombholziella lepida* (P. Bouchet) Alessio

Ref.: unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Galli 1998, Lannoy & Estades 1995)

Leccinum piceinum Pilát et Dermek

Ref.: Focht 1984, Focht 1986, Focht 1987

• ***Leccinum quercinum*** Pilát

= *Krombholziella quercina* (Pilát) Šutara

Ref.: Focht 1986, Focht 1987, Kranjčev 1995, unpub. Matočec, unpub.
 Tkalčec & Mešić, unpub. Tortić
 Exs.: CNF
 (Lit.: Engel 1983, Lannoy & Estades 1995)

• ***Leccinum rufum*** (Schaeff.) Kreisel

= *Boletopsis rufa* (Schaeff.) Henn. (1)
 = *Boletus rufus* Schaeff. (2)
 = *Krombholziella rufa* (Schaeff.) Alessio
 = *Boletus aurantiacus* Bull. (3)
 = *Leccinum aurantiacum* (Bull.) Gray (4)

Ref.: Blagaić 1921 b (2), Blagaić 1931 a (2), Focht 1979 (4), Frković
 1998 (2), Kranjčev 1986 b (4), Schulzer & al. 1866 (2)(3), Škorić 1928
 (1), Tortić 1964 (4), Tortić 1966 b (4), Tortić 1968 a (4), Vouk &
 Pevalek 1916 (1), unpub. Matočec (4), unpub. Tkalčec & Mešić, unpub. Tortić
 (2)(4), Tortić 1966 a ? (4)

Exs.: CNF

(Lit.: Engel 1983, Lannoy & Estades 1995)

Leccinum scabrum (Bull. : Fr.) Gray

= *Boletus scaber* Bull. : Fr. (1)
 = *Krombholziella scabra* (Bull. : Fr.) Maire

Ref.: Barčić 1982, Barčić 1996, Blagaić 1921 (1), Blagaić 1931 a (1),
 Kranjčev 1986, Kranjčev 1995, Lorinser - Janda 1877 (1), Schulzer 1882
 (1), Schulzer & al. 1866 (1), Škorić 1928 (1), Tortić 1964, Tortić 1966 a,
 Tortić 1966 b, Tortić 1968 a, Vouk & Pevalek 1916 (1), unpub. Tortić
 () (1), Schulzer 1857 HR? (1)

Exs.: CNF

var. ***scabrum***

Ref.: Focht 1987 (as *L. scabrum*), Focht 1979 HR? (as *L.*
scabrum)

var. ***cinnamomeum*** (Vassilkov) Krieglst.

= *Leccinum subcinnamomeum* Pilát et Dermek (2)

Ref.: Focht 1984 (2), Focht 1986 (2), Focht 1987 (2)

Exs.: CNF

var. ***melaneum*** (Smotl.) Dermek

= *Leccinum melaneum* (Smotl.) Pilát et Dermek (3)

Ref.: Focht 1984 (3), Focht 1986 (3), Focht 1987 (3), Kranjčev
 1995 (3)

• ***Leccinum tessellatum*** (Gillet → Kuntze) Rauschert

= *Leccinum crocipodium* (Letell. ex J.-E. Gilbert) Watling (1)

= *Krombholziella luteopora* (Bouchinot) Alessio

= *Leccinum luteoporum* (Bouchinot) Šutara

= *Boletus nigrescens* Richon et Roze (nom. illeg.) (2)

= *Krombholziella nigrescens* (Richon et Roze → Singer) Šutara

= *Leccinum nigrescens* (Richon et Roze →) Singer (3)
 Misappl.: *Boletus rimosus* A. Venturi sensu Kallenb. non A. Venturi (4)
 (sensu A. Venturi = nom. dub. - Singer 1966)
 Ref.: Focht 1984 (3), Focht 1986 (3), Focht 1987 (3), Kišpatić 1950 (2),
 Kranjčev 1995 (1), Lannoy & Estades 1995 (1), Tortić 1964 (3), Tortić
 & Lisiewska 1978 (1), unsp. Lisiewska (1), unsp. Matočec (1), unsp.
 Tkalčec & Mešić, unsp. Tortić (3)(4)
 Exs.: CNF, POZM (1)
 (Lit.: Engel 1983, Lannoy & Estades 1995)

• ***Leccinum versipelle*** (Fr.) Snell

= *Boletus versipellis* Fr. (1)
 = *Krombholziella versipellis* (Fr.) Alessio
 = *Leccinum rufescens* (Konrad) Šutara (2)
 = *Leccinum testaceoscabrum* (Secr.) Singer (nom. inval.) (3)
 Ref.: Focht 1979 (2), Focht 1984 (3), Focht 1986 (3), Focht 1987 (3),
 Gjurašin 1898 (1), Kranjčev 1986 (3), unsp. Tkalčec & Mešić, Tortić
 1966 a ? (3)
 Exs.: CNF
 (Lit.: Engel 1983, Galli 1998, Lannoy & Estades 1995)

Leccinum vulpinum Watling

= *Krombholziella vulpina* (Watling) Šutara
 Ref.: Focht 1984, Focht 1986, Focht 1987

Phylloporus Quél.

(Lit.: Arnolds & al. 1995, Both 1993, Engel & al. 1996, Galli
 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy &
 Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1964,
 Singer 1986)

• ***Phylloporus pelletieri*** (Lév.) Quél.

= *Paxillus pelletieri* (Lév.) Velen. (1)
 = *Phylloporus rhodoxanthus* (Schwein. : Fr.) Bres. subsp. *europaeus*
 Singer
 - as *Phylloporus rhodoxanthus* (Schwein. : Fr.) Bres. (2)
 Ref.: Focht 1984 (2), Focht 1986 (2), Focht 1987 (2), Lange 1974 (2),
 Tortić 1968 b (2), Tortić & Lisiewska 1978 (2), Vouk & Pevalek 1916
 (1), unsp. Lisiewska (2), unsp. Matočec (2), unsp. Tkalčec & Mešić, unsp.
 Tortić (2)
 Exs.: CNF, POZM (2)
 (Lit.: Engel & al. 1996, Pilát & Dermek 1974)

Annotation: Most modern authors consider that European records of
Phylloporus rhodoxanthus (subsp. *europaeus*) belong to an autonomous
 species *P. pelletieri*, and that *P. rhodoxanthus* (subsp. *rhodoxanthus*) is
 not recorded in Europe.

***Porphyrellus* J.-E. Gilbert**

(Lit.: Alessio 1985, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1966, Singer 1986)

***Porphyrellus porphyrosporus* (Fr.) J.-E. Gilbert**

= *Tylophilus porphyrosporus* (Fr.) A.H. Sm. et Thiers

= *Porphyrellus pseudoscaber* (Secr.) Singer (nom. inval.) (1)

Ref.: Focht 1974, Lange 1974 (1), Tortić 1966 b (1), unpubl. Matočec (1), unpubl. Tortić (1)

***Pulveroboletus* Murrill**

= *Buchwaldoboletus* Pilát

(Lit.: Alessio 1985, Alessio 1991, Arnolds & al. 1995, Fries 1836-1838, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1966, Singer 1986)

• *Pulveroboletus hemichrysus* (Berk. et M.A. Curtis) Singer

= *Buchwaldoboletus hemichrysus* (Berk. et M.A. Curtis) Pilát

= *Phlebopus sulfureus* (Fr. → Quél.) Singer (1)

Ref.: Focht 1974 (1), Focht 1984, Focht 1986, Focht 1987, unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Lannoy & Estades 2001, Pilát & Dermek 1974, Singer 1966)

***• *Pulveroboletus lignicola* (Kallenb.) Pilát**

= *Buchwaldoboletus lignicola* (Kallenb.) Pilát

Ref.: unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Pilát & Dermek 1974, Singer 1966)

***Strobilomyces* Berk.**

(Lit.: Alessio 1985, Arnolds & al. 1995, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1966, Singer 1986)

• *Strobilomyces strobilaceus* (Scop. : Fr.) Berk.

= *Boletus strobilaceus* Scop. : Fr. (1)

= *Strobilomyces floccopus* (Vahl : Fr.) P. Karst. (2)

Ref.: Blagaić 1921 (1), Gjurasić 1898 (1), Kranjčev 1986 (2), Kranjčev 1995 (2), Lange 1974 (2), Škorić 1928, Tortić 1964 (2), Tortić 1966 b (2), Tortić 1993, Vouk & Pevalek 1916, unpubl. Lindtner (2), unpubl. Matočec (2), unpubl. Tkalčec & Mešić, unpubl. Tortić () (2)

Exs.: BEO (2), CNF

(Lit.: Galli 1998, Pilát & Dermek 1974)

***Suillus* P. Micheli ex Adans.**

(Lit.: Alessio 1985, Arnolds & al. 1995, Engel & al. 1996, Galli 1998, Hansen & Knudsen 1992, Kallenbach 1926-1942, Kreisel 1987, Lannoy & Estades 2001, Merlo & al. 1983, Moser 1983, Pilát & Dermek 1974, Rauschert 1987, Redeuilh & Simonini 1998, Singer 1964, Singer 1986)

***Suillus alboflocculosus* Watling et Pantidou**

Ref.: Focht 1984, Focht 1986, Focht 1987

Exs.: CNF

• ***Suillus bellinii* (Inzenga) Kuntze**

= *Boletus boudieri* Quél. (1)

= *Suillus boudieri* (Quél.) Watling (2)

Ref.: Engel & al. 1996, Focht 1974 (2), Focht 1984 () (2), Focht 1986 () (2), Focht 1987 () (2), Vouk & Pevalek 1916 (1), Vrščaj 1990, unpubl. Köppl (according to Voglmayr), unpubl. Tkalčec & Mešić, Božac 1984 HR?, Božac 1986 HR?, Božac 1989 HR?, Božac 1993 HR?

Exs.: CNF, WU

(Lit.: Engel & al. 1996, Galli 1998)

• ***Suillus bovinus* (L. : Fr.) Roussel**

= *Boletus bovinus* L. : Fr. (1)

Ref.: Blagaić 1931 a (1), Focht 1981 b, Focht 1987, Lange 1974, Tortić 1966 a, Vouk & Pevalek 1915 (1), Vouk & Pevalek 1916 (1), unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić

Exs.: CNF

(Lit.: Engel & al. 1996, Galli 1998, Pilát & Dermek 1974)

• ***Suillus collinitus* (Fr.) Kuntze**

= *Suillus fluryi* Huijsman (1)

Ref.: Focht 1972, Focht 1974, Focht 1984, Focht 1986, Focht 1987, unpubl. Pouzar (according to unpubl. Tortić) (1), unpubl. Tkalčec & Mešić

Exs.: CNF, PRM (1)

(Lit.: Alessio 1985, Moser 1983)

• ***Suillus granulatus* (L. : Fr.) Roussel**

= *Boletus granulatus* L. : Fr. (1)

Ref.: Blagaić 1921 (1), Blagaić 1931 a (1), Focht 1972, Focht 1984, Focht 1987, Gjurašin 1898 (1), Kranjčev 1995, Lisiewska & Tortić 1990, Mužic & Božac 1984, Tortić 1964, Tortić 1966 a, Tortić 1966 b, Vouk & Pevalek 1915 (1), unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić () (1)

Exs.: CNF

(Lit.: Alessio 1985, Moser 1983, Pilát & Dermek 1974)

• ***Suillus grevillei* (Klotzsch : Fr.) Singer**

= *Boletus elegans* Schumach. (nom. illeg.) non *B. elegans* Bull. (1)

= *Suillus elegans* (Schumach. →) Snell (2)

= *Boletopsis flava* (With.) Henn. (3)
 = *Boletus flavus* With. (4)
 Ref.: Blagaić 1931 a (1), Focht 1979 (2), Kallenbach 1926-1942 (4),
 Kranjčev 1995, Lorinser - Janda 1877 (1)(4), Tortić 1968 b, Vouk &
 Pevalek 1915 (1)(4), Vouk & Pevalek 1916 (3), unpub. Matočec, unpub.
 Tkalčec & Mešić, unpub. Tortić
 Exs.: CNF
 (Lit.: Engel & al. 1996, Galli 1998, Pilát & Dermek 1974)

• ***Suillus laricinus*** (Berk.) Kuntze

= *Suillus aeruginascens* (Secr. ex Opat.) Snell (1)
 Misappl.: *Boletus viscidus* L. sensu auct. non L. (2)
 Misappl.: *Suillus viscidus* (L.) Roussel sensu auct. non L. (3)
 - as *Suillus bresadolae* (Quél.) Gerhold (4)
 Ref.: Engel & al. 1996 (rev.) (4), Kallenbach 1926-1942 (2), Tortić 1968
 b (1), unpub. Tkalčec & Mešić, unpub. Tortić (1)(3)
 Exs.: CNF
 (Lit.: Engel & al. 1996, Galli 1998)
 Annotation: Engel & al. (1996) quote this species for Croatia according
 to personal communication by Z. Tkalčec and M. Tortić. Subsequent
 revision of this material showed that this is a dark brown form of *Suillus*
laricinus.

• ***Suillus luteus*** (L. : Fr.) Roussel

= *Boletopsis lutea* (L. : Fr.) Henn. (1)
 = *Boletus luteus* L. : Fr. (2)
 = *Boletus annularius* Bolton (3)
 Ref.: Barčić 1982, Barčić 1996, Blagaić 1931 a (2), Focht 1981 a, Focht
 1987, Gjurašin 1898 (2), Kallenbach 1926-1942 (2), Kranjčev 1995,
 Lisiewska & Tortić 1990, Lorinser - Janda 1877 (2), Schulzer 1867 (3),
 Škorić 1928 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Vouk &
 Pevalek 1915 (2), unpub. Matočec, unpub. Tkalčec & Mešić, unpub. Tortić ()
 (2)
 Exs.: CNF
 (Lit.: Engel & al. 1996, Galli 1998, Pilát & Dermek 1974)

• ***Suillus placidus*** (Bonord.) Singer

= *Gyrodon placidus* (Bonord.) Sacc. (1)
 Ref.: Blagaić 1923 (1), Focht 1984, Focht 1986, Focht 1987, unpub.
 Tkalčec & Mešić, unpub. Tortić
 Exs.: CNF
 (Lit.: Engel & al. 1996, Galli 1998, Pilát & Dermek 1974)

Suillus tridentinus (Bres.) Singer

Ref.: Engel & al. 1996, unpub. Tortić
 Exs.: CNF

• ***Suillus variegatus*** (Sw. : Fr.) Richon et Roze

= *Boletus variegatus* Sw. : Fr. (1)

Ref.: Blagaić 1931 a (1), Focht 1987, unpub. Tkalčec & Mešić
 Exs.: CNF
 (Lit.: Engel & al. 1996, Galli 1998, Pilát & Dermek 1974)

***Tylopilus* P. Karst.**

(Lit.: Alessio 1985, Arnolds & al. 1995, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Singer 1966, Singer 1986)

• ***Tylopilus felleus* (Bull. : Fr.) P. Karst.**

= *Boletus felleus* Bull. : Fr. (1)

Ref.: Blagaić 1921 (1), Blagaić 1931 b (1), Focht 1987, Kallenbach 1926-1942 (1), Tortić 1964, Tortić 1973, Tortić & Lisiewska 1978, unpub. Tortić () (1)

Exs.: CNF

• var. ***felleus***

Ref.: unpub. Tkalčec & Mešić

(Lit.: Pilát & Dermek 1974, Singer 1966)

var. ***alutarius* (Fr.) P. Karst.**

= *Tylopilus alutarius* (Fr.) Henn. (2)

Ref.: Vouk & Pevalek 1916 (2)

• var. ***fuscescens* P. Karst.**

Ref.: Focht 1984, Focht 1987, unpub. Tkalčec & Mešić

Exs.: CNF

(Lit.: Pilát & Dermek 1974, Singer 1966)

***Xerocomus* Qué.**

(Lit.: Alessio 1985, Alessio 1991, Arnolds & al. 1995, Bollmann & al. 1996, Engel & al. 1996, Galli 1998, Hansen & Knudsen 1992, Kreisel 1987, Lannoy & Estades 2001, Moser 1983, Pilát & Dermek 1974, Redeuilh & Simonini 1995, Singer 1964, Singer 1986, Watling 1970)

***Xerocomus armeniacus* (Qué.) Qué.**

= *Boletus armeniacus* Qué. (1)

Ref.: Focht 1974 (1), Focht 1984, Focht 1986, Focht 1987

• ***Xerocomus badius* (Fr. : Fr.) Kühner ex J.-E. Gilbert**

= *Boletus badius* (Fr. : Fr.) Fr. (1)

Ref.: Focht 1979 (1), Focht 1987, Kallenbach 1926-1942 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Vouk & Pevalek 1916 (1), unpub. Matočec, unpub. Tkalčec & Mešić, unpub. Tortić () (1)

Exs.: CNF

(Lit.: Engel & al. 1996, Pilát & Dermek 1974)

Xerocomus chrysenteron (Bull.) Quél.= *Boletus chrysenteron* Bull. (1)

Ref.: Barčić 1982, Barčić 1984, Barčić 1996, Blagaić 1931 a (1), Focht 1986, Focht 1987, Gjurašin 1898 (1), Kranjčev 1995, Škorić 1928 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić 1993, Tortić & Lisiewska 1978, Vouk & Pevalek 1916 (1), unpub. Kotlaba (according to unpub. Tortić), unpub. Matočec, unpub. Tortić () (1)

Exs.: CNF, PRM

Xerocomus ferrugineus (Schaeff.) Bon= *Boletus ferrugineus* Schaeff.= *Xerocomus subtomentosus* (L. : Fr.) Quél. var. *ferrugineus* (Schaeff.) Krieglst.= *Boletus fuscus* Rostk. (1)= *Xerocomus spadiceus* (Fr.) Quél. (nom. illeg.) (2)= *Boletus subtomentosus* L. : Fr. var. *leguei* (Boud.) Bataille= *Xerocomus subtomentosus* (L. : Fr.) Quél. var. *leguei* (Boud.) Maire

Ref.: Focht 1984 (2), Focht 1986 (2), Focht 1987 (2), Vouk & Pevalek 1916 (1), unpub. Matočec (2)

• ***Xerocomus moravicus*** (Vacek) Herink= *Boletus moravicus* Vacek= *Xerocomus leonis* D.A. ReidMisappl.: *Xerocomus tumidus* (Fr.) J.-E. Gilbert sensu auct. non Fr.(sensu Fr. = *Xerocomus badius* (Fr. : Fr.) Kühner ex J.-E. Gilbert -

Pilát & Dermek 1974; = nom. dub. - Redeuilh & Simonini 1995)

Ref.: Focht 1984, Focht 1986, unpub. Tkalčec & Mešić

Exs.: CNF

(Lit.: Engel & al. 1996, Pilát & Dermek 1974)

• ***Xerocomus parasiticus*** (Bull. : Fr.) Quél.= *Boletus parasiticus* Bull. : Fr.

Ref.: Focht 1984, Focht 1986, Focht 1987, unpub. Tkalčec & Mešić

Exs.: CNF

(Lit.: Engel & al. 1996, Pilát & Dermek 1974)

Xerocomus pascuus (Pers.) J.-E. Gilbert= *Boletellus pruinatus* (Fr.) Kľofac et Krisai var. *pascuus* (Pers.) Kľofac et Krisai= *Boletus subtomentosus* L. : Fr. var. *pascuus* Pers. (1)

Ref.: Schulzer & al. 1866 (1)

• ***Xerocomus porosporus*** Imler= *Boletus porosporus* (Imler) WatlingMisappl.: *Xerocomus truncatus* Singer, Snell et E.A. Dick sensu auct. europ. non Singer, Snell et E.A. Dick (1)

Ref.: Focht 1984 (1), Focht 1987 (1), unpub. Tkalčec & Mešić, unpub. Tortić (1)

Exs.: CNF
(Lit.: Moser 1983, Pilát & Dermek 1974)

Xerocomus pruina (Fr.) Quél.
= *Boletellus pruina* (Fr.) Kľofac et Krisai
= *Boletus pruina* Fr. (1)
= *Xerocomus fragilipes* (C. Martin) Pouzar
Ref.: Gjurašin 1898 (1)

Xerocomus rubellus (Krombh.) Quél.
= *Boletus rubellus* Krombh. (1)
= *Boletus sanguineus* With. (nom. illeg.) non *B. sanguineus* L. : Fr. (2)
= *Boletus versicolor* Rostk. (nom. illeg.) non *B. versicolor* L. : Fr. (3)
= *Xerocomus versicolor* (Rostk. → Kuntze) J.-E. Gilbert (4)
Ref.: Blagaić 1931 a (3), Focht 1974 (1), Focht 1979 (1), Jelić & Tortić 1973, Kallenbach 1926-1942 (2), Kranjčev 1995 (1), Tortić 1964, unpubl. Matočec, unpubl. Tortić () (3) (4)
Exs.: CNF

Xerocomus subtomentosus (L. : Fr.) Quél.
= *Boletus subtomentosus* L. : Fr. (1)
Ref.: Barčić 1982, Barčić 1996, Blagaić 1931 a (1), Božac 1989, Božac 1993, Focht 1987, Kranjčev 1995, Lorinser - Janda 1877 (1), Schulzer 1882 (1), Schulzer & al. 1866 (1), Tortić 1964, Tortić 1966 a, Tortić & Lisiewska 1978, Vouk & Pevalek 1916 (1), unpubl. Matočec, unpubl. Tkalčec & Mešić, unpubl. Tortić () (1), Focht 1986 HR?, Schulzer 1857 HR? (1)
Exs.: CNF

Family **Gomphidiaceae** Maire ex Jülich

Chroogomphus (Singer) O.K. Mill.

(Lit.: Arnolds & al. 1995, Fries 1874, Hansen & Knudsen 1992, Kreisel 1987, Moser 1983, Pilát & Dermek 1974, Singer 1986, Singer & Kuthan 1976 b)

• ***Chroogomphus helveticus*** (Singer) Moser

*• subsp. ***helveticus***

Ref.: unpubl. Tkalčec & Mešić

Exs.: CNF

(Lit.: Singer & Kuthan 1976 b)

subsp. ***tatrensis*** (Pilát) Kuthan et Singer

Ref.: Focht 1986

• ***Chroogomphus rutilus*** (Schaeff. : Fr.) O.K. Mill.

= *Gomphidius rutilus* (Schaeff. : Fr.) S. Lundell et Nannf. (1)

= *Gomphidius testaceus* (Fr.) Britzelm. (2)

= *Gomphidius viscidus* (L.) Fr. (3)

Ref.: Blagaić 1921 (3), Focht 1974 (3), Focht 1979 (3), Focht 1981 b (3), Gjurašin 1898 (3), Mužić & Božac 1984, Schulzer 1882 (2), Tortić 1964 (1), Tortić 1966 a (1), Tortić 1966 b (1), unsp. Matočec, unsp. Tkalčec & Mešić, unsp. Tortić (1)(3), Focht 1983 a HR? (3)
 Exs.: CNF
 (Lit.: Moser 1983, Pilát & Dermek 1974)

***Gomphidius* Fr.**

(Lit.: Arnolds & al. 1995, Fries 1874, Hansen & Knudsen 1992, Kreisel 1987, Moser 1983, Pilát & Dermek 1974, Singer 1986)

• ***Gomphidius glutinosus* (Schaeff. : Fr.) Fr.**

Ref.: Focht 1974, Škorić 1928, Vouk & Pevalek 1916, unsp. Matočec, unsp. Tkalčec & Mešić, unsp. Tortić
 Exs.: CNF
 (Lit.: Hansen & Knudsen 1992, Moser 1983, Pilát & Dermek 1974)

***Gomphidius maculatus* (Scop.) Fr.**

Ref.: Vouk & Pevalek 1916

*• ***Gomphidius roseus* (Fr.) P. Karst.**

Ref.: unsp. Matočec, unsp. Tkalčec & Mešić, unsp. Tortić
 Exs.: CNF
 (Lit.: Hansen & Knudsen 1992, Moser 1983, Pilát & Dermek 1974)

Family **Paxillaceae** Lotsy

***Hygrophoropsis* (J. Schröt.) Maire**

(Lit.: Arnolds & al. 1995, Bas & al. 1995, Hansen & Knudsen 1992, Kreisel 1987, Moser 1983, Singer 1986)

• ***Hygrophoropsis aurantiaca* (Wulfen : Fr.) Maire**

= *Cantharellus aurantiacus* (Wulfen : Fr.) Fr. (1)
 = *Clitocybe aurantiaca* (Wulfen : Fr.) Studer (2)
 Ref.: Barčić 1982, Barčić 1996, Focht 1974, Lorinser - Janda 1877 (1), Tortić 1964, Tortić 1966 a, Tortić 1966 b, Tortić 1989, Vouk & Pevalek 1916 (1), unsp. Matočec, unsp. Tkalčec & Mešić, unsp. Tortić () (2)
 Exs.: CNF
 (Lit.: Bas & al. 1995, Moser 1983)

***Omphalotus* Fayod**

(Lit.: Bas & al. 1995, Hansen & Knudsen 1992, Kirchmair & al. 2002, Kreisel 1987, Moser 1983, Pilát 1935, Pilát 1951, Schulzer 1875, Singer 1986)

• ***Omphalotus olearius* (DC. : Fr.) Singer**

= *Agaricus olearius* DC. : Fr. (1)

= *Clitocybe olearia* (DC. : Fr.) Maire (2)
 = *Pleurotus olearius* (DC. : Fr.) Gillet (3)
 = *Agaricus superbiens* Schulzer (5)
 = *Agaricus zizyphinus* Viv. (6)
 = *Clitocybe zizyphina* (Viv.) ? (7)
 = *Pleurotus olearius* (DC. : Fr.) Gillet f. *zizyphinus* (Viv.) Nüesch (8)
 Ref.: Barčić 1982, Barčić 1996, Blagaić 1923 (3), Focht 1972, Focht 1974, Focht 1979 (3), Lange 1974, Mužic & Božac 1997, Schulzer 1875 (1), Schulzer & al. 1866 (1), Tortić 1964, Tortić 1978, Tortić & Lisiewska 1978, Vrščaj 1990, unpub. Lisiewska, unpub. Matočec, unpub. Tkalčec & Mešić, unpub. Tortić 1970, unpub. Tortić () (2)(3), Focht 1983 b HR?, Focht 1986 HR?, Fries 1874 HR? (6), Kalchbrenner & Schulzer 1873-1877 HR? (5), Pilát 1935 HR? (8), Saccardo 1887 HR? (7), Schulzer 1857 HR? (1), Schulzer 1862 HR? (1)
 Exs.: BEO, CNF, POZM
 (Lit.: Bas & al. 1995, Kirchmair & al. 2002)

***Paxillus* Fr.**

= *Tapinella* J.-E. Gilbert

(Lit.: Arnolds & al. 1995, Bollmann & al. 1996, Hansen & Knudsen 1992, Kreisel 1987, Krieglsteiner 2000, Moser 1983, Singer 1986, Szczepka 1987, Watling 1970)

• ***Paxillus atrotomentosus* (Batsch : Fr.) Fr.**

= *Tapinella atrotomentosa* (Batsch : Fr.) Šutara
 Ref.: Barčić 1989, Barčić 1996, Focht 1972, Focht 1974, Lisiewska & Tortić 1990, Tortić 1964, Tortić 1989, unpub. Tkalčec & Mešić, unpub. Tortić
 Exs.: CNF
 (Lit.: Hansen & Knudsen 1992, Krieglsteiner 2000, Szczepka 1987)

*• ***Paxillus filamentosus* (Scop.) Fr.**

= *Paxillus rubicundulus* P.D. Orton
 Ref.: unpub. Matočec, unpub. Tkalčec & Mešić
 Exs.: CNF
 (Lit.: Hansen & Knudsen 1992, Krieglsteiner 2000, Szczepka 1987)

• ***Paxillus involutus* (Batsch : Fr.) Fr.**

Ref.: Lorinser - Janda 1877, Schulzer & al. 1866, Tortić 1964, Tortić 1966 a, Tortić & Lisiewska 1978, Vouk & Pevalek 1915, Vouk & Pevalek 1916, unpub. Matočec, unpub. Tkalčec & Mešić, unpub. Tortić
 Exs.: CNF
 (Lit.: Hansen & Knudsen 1992, Krieglsteiner 2000, Szczepka 1987)

• ***Paxillus panuoides* (Fr. : Fr.) Fr.**

= *Tapinella panuoides* (Fr. : Fr.) J.-E. Gilbert
 = *Paxillus acheruntius* (Humb.) J. Schröt. (1)

Ref.: Barčić 1989, Barčić 1996, Focht 1974, Šarić-Sabadoš 1957, Škorić 1928 (1), Tortić 1989, unpub. Tortić
 Exs.: CNF

•var. *panuoides*

Ref.: unpub. Tkalčec & Mešić
 Exs.: CNF
 (Lit.: Hansen & Knudsen 1992, Szczepka 1987)

*•var. *ionipus* (Quél.) Tkalčec et Mešić, **comb. nov.**

= *Paxillus ionipus* Quél. - Compt. Rend. Assoc. Franç. Avancem. Sci. 16(2): 588, 1888. (basionym)
 Ref.: unpub. Tkalčec & Mešić
 Exs.: CNF
 Annotation: This combination is already in use. However, to our knowledge, it has never been validly published.

EXCLUDED RECORDS

Family **Boletaceae** Cheval.

Boletus aureus Bull. = ?

Ref.: Vouk & Pevalek 1916

Boletus fraternus Peck

Ref.: Focht 1987

Exs.: CNF

Annotation: A photograph of fruitbody which has been published by Focht (1987) clearly indicates that this is not *Boletus fraternus*. This record needs a detailed revision.

Boletus globularis Schulzer = ?

Ref.: Schulzer 1879

Boletus jandae Schulzer

Ref.: Schulzer 1887

Annotation: Singer (1966) quotes this name as a synonym of *Boletus luridus* Schaeff. : Fr. However, colored drawing and description of this species in Schulzer's manuscript (in National and University Library in Zagreb) show that this is a synonym of *B. legaliae* (Pilát) Pilát et Ušák or *B. rhodoxanthus* (Krombh.) Kallenb. This species needs a detailed revision.

Boletus propinquus Schulzer = ?

Ref.: Schulzer 1880 b

Boletus purpurascens Rostk.

Ref.: Vouk & Pevalek 1916

Annotation: According to Engel & al. (1996), Pilát & Dermek (1974) and Singer (1966) it could be a synonym of *Xerocomus rubellus* (Krombh.) Quél.

Boletus purpureus Pers. - nom. ambig.

Ref.: Focht 1974, Focht 1979, Tortić 1966 b, unpub. Tortić, Tortić 1966 a ?

Exs.: CNF

Annotation: Without revision it is not possible to know which species the authors of the records for Croatia have found.

Boletus quercicola (Vassilkov) Singer

Ref.: Focht 1984, Focht 1986, Focht 1987, Kranjčev 1995

Annotation: This is a doubtful species. Most modern authors do not mention it, Singer (1977) considers it an autonomous species, while Engel & al. (1983) consider it a variety of *Boletus edulis* Bull. : Fr.

Boletus satanas Lenz sensu Hongo et Imazeki non Lenz

Ref.: Focht 1987

Annotation: Singer (1977) considers that it could be a new species. This record for Croatia surely needs revision.

Boletus schulzeri Quél.

Ref.: Saccardo 1888, Schulzer 1885

Annotation: According to Engel & al. (1983), Pilát & Dermek (1974) and Singer (1966) it could be a synonym of *Boletus luridus* Schaeff. : Fr. According to Merlo & al. (1983) it is a synonym of *B. queletii* Schulzer.

Boletus sericeus P. Micheli ex Pers.

Ref.: Schulzer 1857 HR?

Annotation: According to Engel & al. (1983), Pilát & Dermek (1974) and Singer (1966) it could be a synonym of *Boletus impolitus* Fr. (today we should take it in a broad sense, including *B. depilatus* Redeuilh).

Suillus leptopus (Pers.) A. Marchand (comb. inval.)

= *Boletus leptopus* (Pers.) ? (1)

Ref.: Focht 1972, Focht 1974, Focht 1984, Focht 1986, Focht 1987, unpub. Lisiewska, Božac 1982 HR? (1), Mužic & Božac 1984 HR?, Mužic & Božac 1997 HR?

Exs.: CNF, POZM

Annotation: The epithet *leptopus* has been interpreted in different ways (see Alessio 1985, Engel & al. 1996, Redeuilh & Simonini 1998), so without revision it is not possible to know which species the authors of the quotes for Croatia have found.

Suillus littoralis (P. Bouchet) ?

= *Suillus leptopus* (Pers.) A. Marchand f. *littoralis* (P. Bouchet) ? (1)

Ref.: Focht 1972, Focht 1974, Focht 1984 (1), Focht 1986 (1), Focht 1987, Božac 1986 HR?, Focht 1983 a HR?

Annotation: Modern authors disagree about the interpretation of this taxon. Merlo & al. (1983) consider it an independent species, Engel & al. (1996) consider it a synonym of *Suillus mediterraneensis* (Jacquet. et J. Blum) Redeuilh, Redeuilh & Simonini (1998) consider it a synonym of *S. bellinii* (Inzenga) Kuntze, while Galli (1998) considers it a nomen ambiguum.

Family **Paxillaceae** Lotsy*Paxillus chrysophyllus* Trog = ?

Ref.: Vouk & Pevalek 1915

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LITERATURE CITED**SOURCES OF RECORDED TAXA****Published:**

- Barčić, B. (1982). Prilog flori gljiva otočica Košljuna. – Acta Bot. Croat. 41: 121-127.
- (1984). Košljun - otočić gljiva. – Priroda (Zagreb) 72(5): 151.
- (1989). Novi prilog flori gljiva otočica Košljuna. – Acta Bot. Croat. 48: 107-110.
- (1996). Flora i vegetacija otočica Košljuna. – Franjevački samostan na Košljunu - Puna, Košljun.
- Blagaić, K. (1919). *Boletus conglobatus*, eine neue Species. – Hedwigia 60: 10-11.
- (1921). Prilozi flori viših gljiva okolice Plitvičkih Jezera. – Glasn. Hrvatsk. Prir. Društva 33(1): 10-44.
- (1923). Neke naše napomene vrijedne gljive. – Glasn. Hrvatsk. Prir. Društva 35(1-2): 1-15.
- (1931 a). Gljive naših krajeva. – Vlastita naklada, Zagreb.
- (1931 b). Mißbildung eines Gallen-Röhrlings (*Boletus felleus*). – Z. Pilzk. 10(2), pl. 6.
- Božac, R. (1982). Gljive naših krajeva. – Grafički zavod Hrvatske, Zagreb.
- (1984). 600 gljiva naših krajeva. – Mladost, Zagreb.
- (1986). Gljive - poznavanje i sakupljanje. – Mladost, Zagreb.
- (1989). Gljive naših krajeva. – Grafički zavod Hrvatske, Zagreb.
- (1993). Gljive: morfologija, sistematika, toksikologija. – Školska knjiga - Grafički zavod Hrvatske, Zagreb.

- Engel, H., A. Dermek, W. Klofac, E. Ludwig & T. Brückner (1996). Schmier- und Filzröhrlinge s. l. in Europa. – Heinz Engel, Weidhausen b. Coburg.
- Focht, I. (1972). Korčulanske gljive sabrane u prosincu. – Zbornik otoka Korčule (Zagreb) 2: 229-240.
- (1974). Gljive dubrovačkog kraja. – Dubrovnik (Dubrovnik) 6: 89--102.
- (1979). Gljive Jugoslavije. – Nolit, Beograd.
- (1981 a). Gljivarski vikend. – Vjesnik, Zagreb.
- (1981 b). Jesenski gljivarski vikend. – Vjesnik, Zagreb.
- (1983 a). Kulinarski gljivarski vikend. – Vjesnik, Zagreb.
- (1983 b). Sigurnosni gljivarski vikend. – Vjesnik, Zagreb.
- (1984). Kako ovladati vrganjevka. – Gljivarstvo (Zagreb) 1: 3-23.
- (1986). Ključ za gljive. – Naprijed, Zagreb.
- (1987). Naši vrganji. – Znanje, Zagreb.
- Forenbacher, A. (1915). Beitrag zur Kenntnis der Pilzflora des Gorski kotar. – Magyar Bot. Lapok 14: 270-275.
- Fries, E. (1874). Hymenomycetes Europaei sive epicriseos systematis mycologici editio altera. – Upsaliae. (Reprint: 1937, Dr. Werner Klinkhardt, Leipzig).
- Frković, A. (1998). Jestive gljive na poštanskim markama. – Priroda (Zagreb) 88(12): 28-29.
- Gjurašin, S. (1898). Gljive iz okolice gospičke. – Nastavni vjesnik (Zagreb) 6: 50-57.
- Jelić, M. & M. Tortić (1973). Neke osobitosti flore makroskopskih gljiva u šumi lužnjaka u rezervatu Prašnik. – Acta Bot. Croat. 32: 227-235.
- Kalchbrenner, K. & S. Schulzer (1873-1877). Icones selectae Hymenomycetum Hungariae. – Pest.
- Kallenbach, F. (1926-1942). Die Röhrlinge (Boletaceae). – Die Pilze Mitteleuropas I. Dr. Werner Klinkhardt, Leipzig.
- Kišpatic, J. (1950). Prilog poznavanju parasitske mikoflore Hrvatske. – Glasn. Biol. Sekc. II/B, T. 2/3: 44-50.
- Kranjčev, R. (1979). Iz svijeta gljiva bilogorsko-podravske regije. – Planinar (Koprivnica) 8: 2-6.
- (1985). Grabov djed. – Priroda (Zagreb) 73(9-10): 290.
- (1986). U drugovanju s brezama. – Priroda (Zagreb) 74(7-8): 217-221.
- (1995). Priroda Podravine. – Mali Princ, Koprivnica.
- Lange, L. (1974). The Distribution of Macromycetes in Europe. – Dansk Bot. Ark. 30(1): 1-105.
- Lannoy, G. & A. Estades (1995). Monographie des *Leccinum* d'Europe. – Fédération Mycologique Dauphiné-Savoie, La Roche-sur-Foron.
- Lisiewska, M. & M. Tortić (1990). Macrofungi in forest associations of the Plitvička jezera National Park (Croatia, Yugoslavia). – Acta Bot. Croat. 49: 81-91.
- Lorinser, M. V. - J. Janda (1877). Najvažnije jestive, sumnjive i otrovne gljive. – Sveučilišna knjižara Albrecht i Fiedler, Zagreb.

- Moesz, G. (1938). Fungi. Aufzählung der im Velebit-Gebirge bisher beobachteten Pilzen. pp. 281-298. – *In*: Degen, Á., Flora Velebitica. III. – Ungar. Akademie der Wissenschaften, Budapest.
- Mužić, S. & R. Božac (1984). Kuharica sakupljača gljiva. – Mladost, Zagreb.
- & —— (1997). Kuhanje i ljekovitost gljiva. – Školska knjiga, Zagreb.
- Pilát, A. (1935). *Pleurotus* Fries. – Atlas des Champignons de l' Europe II. Praha.
- Saccardo, P. A. (1887). Sylloge fungorum omnium hucusque cognitorum. V. – Patavii.
- (1888). Sylloge fungorum omnium hucusque cognitorum. VI. – Patavii.
- Schulzer, S. (1857). Systematische Aufzählung der Schwämme Ungarns, Slavoniens, und des Banates, welche diese Länder mit anderen gemein haben. – Verh. K.K. Zool.-Bot. Ges. Wien 7 (Abh.): 127-152.
- (1862). Mycologische Beobachtungen. – Verh. K.K. Zool.-Bot. Ges. Wien 12 (Abh.): 795-800.
- (1867). Mycologische Miscellen. – Verh. K.K. Zool.-Bot. Ges. Wien 17 (Abh.): 709-730.
- (1875). Mykologisches. I. – Oesterr. Bot. Z. 25: 169-172.
- (1879). Mycologisches. – Flora (Regensburg) 62: 133-137.
- (1880 a). Mykologisches. Der kleinste *Boletus*. – Oesterr. Bot. Z. 30: 286-287.
- (1880 b). Mykologisches. Ein paar *Hypomyces*-Arten und ihre Begleiter. – Oesterr. Bot. Z. 30: 48-53.
- (1882). Deset dana u Djakovu. – Rad Jugoslav. Akad. Znan. 64: 173-183.
- (1885). Einige neue Pilz-Species und Varietäten aus Slavonien. – Hedwigia 24: 129-151.
- (1887). Vier neue Arten aus den Fungi Slavonici adhuc ined. – Hedwigia 26: 191-193.
- Schulzer, S., A. Kanitz & J. A. Knapp (1866). Die bisher bekannten Pflanzen Slavoniens. Ein Versuch. – Verh. K.K. Zool.-Bot. Ges. Wien 16 (Abh.): 3-172.
- Singer, R. (1966) "1967". Die Röhrlinge. II. – Die Pilze Mitteleuropas VI. Julius Klinkhardt, Bad Heilbrunn Obb.
- Šarić-Sabadoš, A. (1957). Prilog poznavanju nekih jugoslavenskih rudnika ugljena. – Acta Bot. Croat. 16: 113-128.
- Škorić, V. (1928). Mikološki prilog flori Hrvatske i Slavonije sa osobitim obzirom na parazitske gljive. – Glasn. Hrvatsk. Prir. Društva 39-40: 97-108.
- Tortić, M. (1964). Prilog poznavanju viših gljiva okolice Zagreba. – Acta Bot. Croat. 23: 73-100.
- (1966 a). Makromiceti Gorskog kotara I. – Acta Bot. Croat. 25: 35-50.
- (1966 b). O rasprostranjenju gljiva u Gorskom kotaru. – Acta Bot. Croat. 25: 21-33.
- (1968 a). The Mycoflora of Gorski Kotar in Yugoslavia. – Acta Mycol. 4(2): 351-354.

- Tortić, M. (1968 b). Više gljive okolice Zagreba II. – Acta. Bot. Croat. 26-27: 101-116.
- (1973). Makromiceti Gorskog kotara II. – Acta Bot. Croat. 32: 217-225.
- (1978). Prilog poznavanju gljiva na drveću u obalnom području Jugoslavije. – Šumarski List 102(8-10): 302-310.
- (1989). Wood-inhabiting agarics and larger ascomycetes in the Plitvice Lakes National park. – Plitvički bilten (Plitvička jezera) 2: 31-38.
- (1993). Macromycetes in mountain Velebit (Croatia). – Acta Bot. Croat. 52: 81-96.
- (1994). Gljive u Nacionalnom parku "Risnjak". – In: Frković, A. (Ed.), Zbornik radova: 40 godina Nacionalnog parka "Risnjak" (1953.-1993.). – Javno poduzeće Uprava Nacionalnog parka "Risnjak", Crni Lug. pp. 78-79.
- Tortić, M. & M. Lisiewska (1978). Macromycetes in some chestnut forests in the vicinity of Zagreb. – Acta Bot. Croat. 37: 189-201.
- Vouk, V. & I. Pevalek (1915). Prilog poznavanju gljiva zagrebačke okoline. – Prir. Istraž. Hrvatske Slavonije 6: 17-25.
- & —— (1916). Prilog poznavanju bazidiomiceta sjeverne Hrvatske. – Prir. Istraž. Hrvatske Slavonije 8: 18-24.
- Vrščaj, D. (1990). Glive: od Triglava do Jadrana. – ČZP Kmečki glas, Ljubljana.

Unpublished:

- Köppl, W. Notes (according to personal communication of H. Voglmayr).
- Kotlaba, F. Notes (according to notes of M. Tortić).
- Lindtner, V. Notes (according to notes of M. Tortić).
- Lisiewska, M. (1969-1989). Notes; in possession of the author.
- Matočec, N. (1986-1992). Notes; in possession of the author.
- Passauer, U. Notes (according to personal communication of H. Voglmayr).
- Pouzar, Z. Notes (according to notes of M. Tortić).
- Tkalčec, Z. & A. Mešić (1983-1999). Notes; in possession of the authors.
- Tortić, M. (1956-1989). Notes; in possession of the author.
- Tortić, M. (1970). Rasprostranjenost nekih lignikolnih viših gljiva u Jugoslaviji s posebnim obzirom na vrste *Armillariella mellea* i *A. tabescens* (Agaricales). Zagreb. PhD thesis.

OTHER CITED LITERATURE

- Alessio, C. L. (1985). *Boletus* Dill. ex L. (sensu lato). – Fungi Europaei 2. Libreria editrice Biella Giovanna, Saronno.
- (1991). Supplemento a *Boletus* Dill. ex L. (sensu lato). – Fungi Europaei 2a. Libreria editrice Biella Giovanna, Saronno.
- Arnolds, E., T. W. Kuyper & M. E. Noordeloos, Eds. (1995). Overzicht van de paddestoelen in Nederland. – Nederlandse Mycologische Vereniging, Wijster.

- Bas, C., T. W. Kuyper, M. E. Noordeloos & E. C. Vellinga, Eds. (1995). *Flora agaricina neerlandica*. 3. – A. A. Balkema, Rotterdam, Brookfield.
- Bollmann, A., A. Gminder & P. Reil (1996). *Abbildungsverzeichnis mitteleuropäischer Grosspilze. – Schwarzwälder Pilzlehrschau*, Hornberg.
- Both, E. E. (1993). *The Boletes of North America. A Compendium*. – Buffalo Museum of Science, Buffalo.
- Breitenbach, J. & F. Kränzlin (1991). *Pilze der Schweiz*. 3. – Mykologia Luzern, Luzern.
- Engel, H. (1983). *Rauhstielröhrlinge. Die Gattung *Leccinum* in Europa*. – Heinz Engel, Weidhausen b. Coburg.
- Engel, H., G. J. Krieglsteiner, A. Dermek & R. Watling (1983). *Dickröhrlinge. Die Gattung *Boletus* in Europa*. – Heinz Engel, Weidhausen b. Coburg.
- Fries, E. (1821). *Systema mycologicum*. I. – Gryphiswaldiae. (Reprint: 1994, Confederatio Europaea Mycologiae Mediterraneensis A.E., Saronno).
- (1836-1838). *Epicrisis systematis mycologici, seu synopsis hymenomycetum*. – Typographia Academica, Upsaliae. (Reprint: 1965, Johnson Reprint Corporation, New York - London).
- (1874). *Hymenomycetes Europaei sive epicriseos systematis mycologici editio altera*. – Upsaliae. (Reprint: 1937, Dr. Werner Klinkhardt, Leipzig).
- Galli, R. (1998). *I Boleti*. – Edinatura, Milano.
- Hansen, L. & H. Knudsen, Eds. (1992). *Nordic Macromycetes*. 2. Polyporales, Boletales, Agaricales, Russulales. – Nordsvamp, Copenhagen.
- ICBN (2000). *International Code of Botanical Nomenclature (St Louis Code)*. – Greuter, W. & al. (Eds.). Koeltz Scientific Books, Königstein.
- Kallenbach, F. (1926-1942). *Die Röhrlinge (Boletaceae)*. – *Die Pilze Mitteleuropas I*. Dr. Werner Klinkhardt, Leipzig.
- Kirchmair, M., R. Pöder, C. G. Huber, O. K. Miller Jr. (2002). *Chemotaxonomical and morphological observations in the genus *Omphalotus* (Omphalotaceae)*. – *Persoonia* 17(4): 583-600.
- Kreisel, H., Ed. (1987). *Pilzflora der Deutschen Demokratischen Republik. Basidiomycetes (Gallert-, Hut- und Bauchpilze)*. – VEB Gustav Fischer, Jena.
- Krieglsteiner, G. J., Ed. (2000). *Die Großpilze Baden-Württembergs*. 2. – Verlag Eugen Ulmer, Stuttgart.
- Kühner, R. & H. Romagnesi (1953). *Flore analytique des champignons supérieurs*. – Masson et C^{ie}, Paris.
- Lannoy, G. & A. Estades (2001). *Les Bolets*. – *Flore mycologique d'Europe*. 6. Doc. Mycol. Mémoire hors série 6. Amiens.
- Martin, C.-E. (1903). *Le "*Boletus subtomentosus*" de la Région Genevoise*. – *Beitr. Kryptogamenfl. Schweiz* II(1). K. J. Wyss, Bern.
- Merlo, E. G., M. Rosso & M. Traverso (1983). *I nostri funghi. I Boleti*. – Sagep Editrice, Genova.

- Mešić, A. & Z. Tkalčec (2002). Preliminary checklist of Agaricales from Croatia. II. Families Agaricaceae, Amanitaceae, Cortinariaceae and Hygrophoraceae. – *Mycotaxon* 83: 453-502.
- Moser, M. (1983). Die Röhrlinge und Blätterpilze (Polyporales, Boletales, Agaricales, Russulales). – *Kleine Kryptogamenflora* IIb/2. Gustav Fischer, Stuttgart - New York.
- Pilát, A., (1951). Klíč k určování našich hub hřibovitých a bedlovitých. – Brázda, Praha.
- Pilát, A. & A. Dermek (1974). Hřibovité huby. – Slovenská akadémia vied, Bratislava.
- Quélet, L. (1888) "1887". Quelques espèces critiques ou nouvelles de la Flore Mycologique de France. – *Compt. Rend. Assoc. Franç. Avancem. Sci.* 16(2): 587-592, pl. XXI.
- Rauschert, S. (1987). Nomenklatorische Studien bei Höheren Pilzen. III. Röhrlinge (Boletales). – *Nova Hedwigia* 45(3-4): 501-508.
- Redeuilh, G. (1985). Contribution à l'étude des Bolets. I. – *Bull. Trimestriel Soc. Mycol. France* 101(4): 373- 412, pl. 241-242.
- Redeuilh, G. & G. Simonini (1995). Comité pour l'unification des noms de Bolets européens. – *Bull. Trimestriel Soc. Mycol. France* 111(2): 105-130.
- & ——— (1998). Comité pour l'unification des noms de bolets européens. – *Bull. Trimestriel Soc. Mycol. France* 114(2): 53-82.
- Singer, R. (1964) "1965". Die Röhrlinge. I. – *Die Pilze Mitteleuropas* V. Julius Klinkhardt, Bad Heilbrunn Obb.
- (1977). Keys for the identification of the species of Agaricales I. – *Sydowia* 30: 192-279.
- (1986). *The Agaricales in Modern Taxonomy*. – Koeltz Scientific Books, Koenigstein.
- Singer, R. & J. Kuthan (1976 a). Notes on Boletes. – *Česká Mykol.* 30(3-4): 143-155.
- & ——— (1976 b). Notes on *Chroogomphus* (Gomphidiaceae). – *Česká Mykol.* 30(2): 81-89.
- Szczepka, M. Z. (1987). Bestimmungsschlüssel für europäische Arten der Gattung *Paxillus* Fr. – *Beiträge zur Kenntnis der Pilze Mitteleuropas* 3: 79-94.
- Tkalčec, Z. & A. Mešić (2002). Preliminary checklist of Agaricales from Croatia. I. Families Pleurotaceae and Tricholomataceae. – *Mycotaxon* 81: 113-176.
- Watling, R. (1970). Boletaceae: Gomphidiaceae: Paxillaceae. – *British Fungus Flora: Agarics and Boleti* 1. Royal Botanic Garden, Edinburgh.