

NOTES ON EUROPEAN POLYPORES—III¹

Notes on species with stalked fruitbody

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For the most part the species or specific names discussed belong to the genus *Polyporus* sensu stricto; a few of them belong to *Albatrellus* S. F. Gray and *Coltricia* S. F. Gray. It appears not only that the taxonomy of many species is far from settled but also that quite a number of protologues have never been scrutinized with care. Here an attempt is made to emend the names of a number of species. Further studies are needed before some of these species can be definitively delimited and their nomenclature determined. *Polyporus agariceus* (König) ex Berk. sensu Bourd. & G. is called *P. anisoporus* Mont.; *P. picipes* Fr., *P. badius* (Pers.) ex S. F. Gray; *P. lentus* Berk. and allied forms are referred to *P. floccipes* Rostk., &c. A recapitulation at the end of the paper briefly reviews many of the conclusions.

Except in a few cases it has been impossible to associate the specific names discussed here with type specimens that are still preserved. This has necessitated thorough going study of the protologues. Many of the original descriptions involved are brief and often very incomplete, making determination of the species difficult, especially if no accompanying figures were published. Even where this is not the case there are discrepancies between text and figures or else the text is too brief and the figure not readily recognizable. In one of two instances, where the author (Bulliard) dealt with a mixture of species, it looks as though occasionally characters of the two species were entered in a single figure; this would explain the different interpretations.

Moreover some of the species are themselves rather poorly known so far, even species that appear the most often in local lists. To give only one instance, I find it a most puzzling problem to make up my mind about *Polyporus arcularius*. Italian mycologists owe mycologists working in Northern Europe a thorough study of this species.

As a whole the species of *Polyporus* emend. (including *Polyporus* sensu stricto, *Leucoporus*, *Hexagona* sensu stricto, and *Melanopus*) produce very variable fruitbodies, many of which may be difficult to identify. Dwarf specimens with a cap of only a few millimetre diameter are occasionally found in species in other fruitbodies of which the cap may often be as much as four to ten centimetres in diameter.

ACKNOWLEDGEMENT.—I am particularly grateful to Mrs. E. van Maanen-Helmer, Amsterdam, for her painstaking advice in an attempt to improve the English text.

¹ Part I appeared in *Persoonia* 4: 337-343. 1966, Part II in *Persoonia* 5: 47-130. 1967.

agariceus. — *Boletus agariceus* König, in herb.; *Polyporus agariceus* (König) ex Berk. 1843: 371.

The following discussion is based on the assumption that the species that Bourdot & Galzin (1928: 531) called *Leucoporus agariceus* is a 'good' one, even though it varies as to the size of both the fruitbodies and the pores. The pores are big enough to justify the qualification of ample-pored.

The epithet 'agariceus' used by the French authors must be reconsidered. At one time Bresadola (1915: 291) called the European fungus *Polyporus agariceus* (König) ex Berk., a species originally described from Ceylon. Petch (1916: 89) was not convinced that Bresadola had interpreted the species correctly. As conceived by Bresadola the species would be not only widely distributed in the tropics of the Old World, but it would also occur in Europe as far north as the Baltic Sea. Judging from Bresadola's determinations of certain collections from the Philippine Islands I think that as far as the Indomalaysian region is concerned there is an earlier published name for the species he had in mind, viz. *Polyporus umbilicatus* Jungh. However, I regard it as premature to take up this name for the European fungus; careful taxonomic study on a world-wide scale is needed before nomenclative decisions can be made in this respect. I should not be surprised if certain elements now referred by North American authors to *P. arcularius* turned out to be close to the *P. agariceus* of European authors and *P. arculariformis* Murrill (1904: 151 fs. 1-4). These thinner-capped forms have a tendency to contract upon drying, which causes concentric rugosity of the cap and makes the pores look less elongate than in the fresh fruitbody.

In a report on Ceylon fungi Berkeley himself retracted his species in the following passage:

"I formerly considered [*Polyporus agariceus*] as distinct from *P. arcularius* because it did not accord with the characters given by Fries, but as these appear to have been taken from Micheli's figure, and Dr. Montagne's plant from the south of France, (of which I have a specimen) is referred to *P. arcularius* by Fries himself, I have been induced to alter the opinion I had previously formed."—Berkeley (1854: 497-498).

This argument is far from convincing. I would suggest that Montagne's fungus was really *P. agariceus* sensu Bourd. & G. I can see no particular reason why Fries should have known *P. arcularius* in its original sense any better than other authors. As is pointed out below he had not seen it himself when he compiled Micheli's species and validly published its name; moreover, it appears from his later work that he never had particularly keen insight in the taxonomy of the species of *Polyporus* of the *Leucoporus* group.

Previous to his use of the name *P. agariceus* for certain European collections Bresadola had taken up the name *P. floccipes* Rostk. (*q.v.*); this was published later (1848) than *P. agariceus*. In my opinion this interpretation is incorrect. Soon after having fixed upon *P. agariceus*, Bresadola concluded that the correct name for the European fungus was *Polyporus boucheanus*. This, too, I find difficult to accept (see under 'boucheanus').

Not until more is known about the complex as a whole would I consider the introduction of a name based on extra-European material for the European taxon. This leads to acceptance of the name *Polyporous anisoporus* Delastre & Mont. apud Mont. (1845) for the European fungus; it was included by Bresadola in his conception of *P. agariceus*.

a n i s o p o r u s. — *Polyporus anisoporus* Delastre & Mont. apud Mont. 1845: 357.

Bresadola (1915: 291) first referred this taxon to *Polyporus agariceus* (q.v.) and later (Bresadola, 1916: 223) to *P. boucheanus* (q.v.). The original description strongly suggests that *P. anisoporus* is the earliest name available for the European specimens of the species he had in mind. In the preceding note I mention why for the time being I prefer to adopt this name as the correct one.

a r c u l a r i u s. — *Polyporus exiguus, pileo hemisphaerico* ... Mich. 1729: 130 pl. 70 f. 5; *Boletus arcularius* Batsch 1783: 97 (devaliated name); *Polyporus arcularius* (Batsch) per Fr. 1821: 342.

The correct interpretation of *Polyporus arcularius* is, in my opinion, still an open question. Micheli described it in the pre-Linnaean era: his description is brief and is accompanied by a crude figure with the pores drawn in a much simplified manner. Batsch provided a binomial name for it, *Boletus arcularius*. It should be pointed out that Batsch based his phrase exclusively on Micheli's account. He had not seen the species himself, as he made clear by not marking the name with an asterisk, a sign he reserved for species that he knew from personal experience (see Batsch, 1783: 3, 4). There is no supplementary description. As will be shown below this conclusion is of importance; it is diametrically opposed to what Kreisel (1963: 136) wrote: "*P. arcularius* wurde zuerst von Batsch (1783) aus der Umgebung von Jena in Mitteldeutschland beschrieben." The mere fact that Batsch provided it with a binomial name is in itself no proof that Kreisel was right; this is implied by the title of Batsch's "Elenchus fungorum". The book was meant to cover a wider scope than merely the publication of personal descriptions of fungi found around Jena. He introduced many new binomials, on a large scale for species depicted by Schaeffer, for instance, apparently without knowing that Schaeffer himself had done the same thing many years earlier.

Fries accepted Batsch's name in the starting-point book in the recombination *Polyporus arcularius*. His treatment consists of a blending of Micheli's account and the devaliated protologue of *Boletus exasperatus* Schrader (1794: 155); Schrader had cited *B. arcularius* as synonym of his *B. exasperatus*, which he described from Germany. The information taken from Schrader's description dominates in that of Fries. Fries himself had not seen any collection, as is testified by his indication "*v. ic.*", which refers to Micheli's figure.

Boletus exasperatus Schrad. is now a forgotten name and the description is scarcely sufficient for deciding to which of the smaller ample-pored species of *Polyporus* it

was given. The habitat ("in arborum truncis") differs from that of the type of *B. arcularius*, which is fallen branches, as can be seen from Micheli's figure. It would seem that the following four taxa should be kept in mind when trying to identify *B. exasperatus*: viz. *Polyporus floccipes* (q.v.) with long spores, and *P. agariceus* sensu Bourd. & G. (= *P. anisoporus*), *P. arcularius* sensu Bres. and perhaps even amplepored forms of *P. brumalis*, all of which have smaller spores.

Before deciding on the status or the identity of *P. arcularius* the type of this name must be agreed upon. So far no one has deliberately excluded Micheli's figure from the conception covered by the name *P. arcularius* and its basionym, which was especially introduced in order to incorporate Micheli's species in the Linnaean system. Furthermore Schrader's listing of *B. arcularius* as synonym of his own *B. exasperatus*, in conjunction with Fries's preference for the name that was provided for Micheli's species, together form an impressive set of arguments for leaving the currently implied typification unimpaired: viz. the fruitbody depicted by Micheli's figure. Accordingly it is selected here, making Italy the type locality.

It must now be decided which species should go with the name *Polyporus arcularius*. Some years ago Kreisel (1963) published a paper devoted to the distinction between three closely related species of *Polyporus* subgen. *Leucoporus*. He called them *Polyporus brumalis*, *P. ciliatus* (including *P. lepideus*), and *P. arcularius*. The last species was separated from the two others because of its ample pores and the dissepiments which in dried specimens are irregularly lacerate along their edges. This second feature is not without significance, but it must not be overrated; I have seen specimens of *P. brumalis* which also show this feature to a pronounced degree.

Kreisel paid attention to only a few gross differential characters; no full descriptions were included in his paper and microscopical data were left out completely. What was also omitted was any mention of the species that under the name *P. agariceus* (q.v.) both Bresadola and Bourdot & Galzin had kept distinct from *P. arcularius*. This makes it difficult to decide from Kreisel's paper alone to which taxon he was actually applying the name *P. arcularius*; I assume that he had *P. anisoporus* in mind.

I follow Bresadola and Bourdot & Galzin in distinguishing between *P. arcularius* sensu Bres. and the fungus they called *P. agariceus* (= *P. anisoporus*). Bourdot & Galzin called the former *P. arcularius* var. *strigosus* Bourd. & G. The other variety they admitted within their conception of *P. arcularius* is *P. arcularius* var. *scabellus* Bourd. & G., which is now identified with *P. brumalis* sensu stricto. They considered that the two varieties were connected by intermediate forms; this thesis deserves special attention from mycologists who live in regions where they regularly come across both taxa. In this connection it may be recalled that there is also a *Polyporus brumalis* var. *megaloporus* Kreisel (1963: 133) that perhaps represents one of these intermediates.

Overholts's conception (1953: 271) is apparently far from homogeneous. This is testified to not only by his synonymy but also by his figures. Modern North American authors have completely forgotten the existence of *Boletus alveolarius* Bosc

(1811: 84 pl. 4 f. 1) ≡ *Polyporus alveolarius* (Bosc) per Fr. (1821: 343); this may turn out to be the correct name for one of the elements they include in *P. arcularius* (cf. *P. arcularius* sensu Overholts, 1953: pl. 36 fs. 215-216).

badius. — *Boletus badius* Pers. 1801: 523 (devalidated name); *Grifola badia* (Pers.) per S. F. Gray 1821; *Polyporus badius* (Pers. per S. F. Gray) Schw. 1832, not *P. badius* Berk. 1841, not *P. badius* (Berk.) Lév. 1846, not *P. badius* Jungh. ex Bres. 1912.

Boletus badius Pers. was well described when first published. It was placed in a generic subdivision characterized, "Pileo dimidiato stipitato: stipite laterali." I do not hesitate to recognize in it the species that Fries was later on to call *Polyporus picipes*. In the specific description compare:

"subcespitosus, pileo glabro tenace badio (castaneo), margine pallidiore, . . . stipite laterali brevi crasso nigrescente-cinereo. . . / Hab. praesentim ad *Salices* cavas, autumnno. / Color pilei primo lutescens, et substantia mollis, ille in adultis praesentim in disco depresso spadiceus et fere nigrescit. Pori in uno latero stipites decurrunt, minuti. / Obs. Variat pileo integro."—Persoon (1801: 523).

Persoon listed as synonyms *Boletus perennis* Batsch (*q.v.*; ≡ *B. durus* Timm), while *B. calceolus* Bull. (*q.v.*) was appended as a variety.

At first Fries (1821: 352) did not differentiate between *Polyporus varius* and *Boletus badius*. He considered the latter to be a mere form of the first (form a). In a note to this broadly conceived *Polyporus varius* he then proceeded to describe his future *Polyporus picipes*, without actually giving it a name. When he definitely introduced *P. picipes* he simultaneously misinterpreted *P. varius* (*q.v.*) by reserving the latter name for certain big forms of the latter species and he continued to refer *Boletus badius* as a synonym of this conception. It is astonishing to note not only that Fries himself did not identify *Polyporus picipes* with *Boletus badius*, but also that other mycologists failed to realize that Fries's restricted interpretation of *P. varius* was incorrect.

The correct species name for the present fungus will be considered in the discussion on *P. picipes*.

batschii, see *perennis* Batsch.

boucheanus. — *Favolus boucheanus* Kl. 1833: 316 pl. 5; *Polyporus boucheanus* (Kl.) Fr. 1838.

A most troublesome name given to a European species of *Polyporus* is *Favolus boucheanus* Kl. There are two rival interpretations for this ample-pored taxon. The first, which is ascribed here to Lloyd for the sake of convenience, associates the name with the long-spored species that Lloyd identified with *P. forquignonii* (= *P. floccipes* *q.v.*). He published a photographic picture of what he regarded as the type specimen (Lloyd, 1911: 86 f. 506, "the long stemmed one").

Bresadola (1915: 291) disagreed and revived the name *P. boucheanus* for what he had previously called *P. agariceus* Berk. (*q.v.*) and *P. floccipes* Rostk. (*q.v.*), a species with medium-sized spores: "*Pol. Boucheanus* Kl. typicus, sporas habet 7-9 = 3-4 μ nec ut in Lloyd: Synopsis of the Section Ovinus p. 86, 12 = 7 μ . *Polyporus* ibi descriptus est *P. lentus* Berk. (idem *Pol. Forquignonii* Quél.!) qui, in Herbario Berolynensi cum *Pol. Boucheano* Kl. confusus fuit. *Polypori Boucheani* typici, ad truncos *Betulae*, unicum extat specimen, ex parte destructus, quod sporas habet 7-9 = 3-4 μ ."

If the problem were merely that of choosing between the two interpretations I, for my part, would of course select that of Bresadola. But is not as simple as that. The protologue of *P. boucheanus* depicts a few fruitbodies which are all rather short- and thick-stalked; the description states, "Stipes 2-5 lin. crassus, $\frac{1}{2}$ -unciam longus". This rules out the specimen depicted by Lloyd as the type, which has a stalk of about 2.5×0.7 cm; but in my opinion it also rules out the species that Bresadola had in mind, which is typically slender-stalked and in the examples with short stalks these are relatively much thinner than those depicted by Klotzsch. This leaves us with Klotzsch's protologue as the only guide.

His description and figures are not sufficiently detailed. No coarse, hyaline hairs are mentioned (but compare, "stipite . . . tomentoso") and the substratum is not the usual dead branches but is given as "in truncis emortuis *Betulae*"; in other respects the protologue (and especially the figures) would suggest *P. lentus*. The figures perhaps also suggest *P. coronatus* (poorly developed fruitbodies of *P. squamosus*), but the stalk has no far-decurrent pores and is not blackish (only 'fuscescent'). For still another suggestion as to its identity, see under 'tiliae'. As the name *P. boucheanus* is no longer in current use, mainly it would appear, because the taxon is interpreted in divers ways, and because I am not prepared to make up my mind about its correct identity, I am forced to consider it not only a nomen ambiguum but also a nomen dubium.

brumalis. — *Boletus brumalis* Pers. 1794: 107 | 1797: 27 (devalidated name); *Polyporus brumalis* (Pers.) per Fr. 1821: 348.

Since no type material was left, the correct interpretation of *Boletus brumalis* should be based primarily on the original description, which is very brief. It runs: "*B. brumalis*, pileo convexo tenui cinereo-pallido margine ciliato; poris oblongis candidis. — *Bol. lacteus* Batsch var. α . Elench. fung. tab. 42. / Prov. ad trunc. Novemb. Decemb. mense. (Stipes centralis fibrillosus pileo concolore.)" Persoon's next description (1801: 517) is somewhat more detailed. The pores remained 'oblong'. Fries's earliest description (1818: 255) of *P. brumalis* suggests what has since been called *P. subarcularius q.v.*

When validly publishing *Polyporus brumalis*, Fries (1821: 348, 518) ascribed the name to Persoon and cited "*B. brumal.* Pers. syn. p. 517!" in the synonymy. Hence in my opinion this re-publication of the name should not change the type. His description and the accompanying synonymy indicate that in 1821 he conceived the species broadly, apparently including *Polyporus lepideus* Fr., which he had

previously described but which was not mentioned on this occasion. The shape of the pores was given a wide range, "poris subangulatis . . . Pori angulati l. juniores oblongi, . . . denticulati." This description is sufficiently broad for us to assume that the original fungus was also included. Although not every word of Persoon's original description will be found paired, there are no serious discrepancies, except perhaps as to the ciliate margin, which Fries did not mention.

Thus true *Polyporus brumalis* should have oblong pores. Nothing is stated explicitly about their size but it may be concluded that in view of those depicted on Batsch's figure cited in the original description these would be rather small. This tends to exclude the species with 'big' pores, like *Polyporus arcularius* and *P. anisoporus*, leaving only *P. subarcularius*. Batsch's figure suggests this species too, although the pores were drawn as thick-walled; apparently they were either not yet fully developed or else somewhat abnormal. I have seen specimens agreeing exactly with Batsch's figure. The other features of the original description (1794) perhaps do not agree too well, but in my opinion they do not really contradict an identification of *P. brumalis* with *P. subarcularius*. The ciliate margin mentioned in Persoon's original description might point to the *P. arcularius* of certain European authors, but the pores of this species, which are much bigger, would not match those of *Boletus lacteus*.

When Fries (1838: 430) re-introduced *P. lepideus* the pores of *P. brumalis* were emphasized as being 'oblong and angular with thin, sharp dissepiments', rather than 'minute, round' in *P. lepideus*. I feel little hesitation in concluding that Fries's emendation fully covers at least *P. subarcularius*, which occurs in Sweden, where I collected it.

The above conclusion agrees with that of Kreisel (1963: 130), who in addition pointed out that as far as Germany is concerned the meaning of the specific epithet 'brumalis' supports the present interpretation. The forms that have been confused with the true *P. brumalis* start forming fruitbodies in the spring.

It is not surprising that for a long time there was confusion with similar species; the result was often a very broadly interpreted species that became a dumping ground for all the other species closely or more remotely resembling *P. brumalis* sensu stricto.

It is evident that at an early stage Bresadola started to restrict his conception of *P. brumalis* to what Fries called *P. lepideus* (q.v.). He was followed by Bourdot & Galzin, who referred the true *P. brumalis* (as emended by Fries) to a broadened interpretation of *P. arcularius*, to which species it seems in fact to be more closely related than to *P. lepideus*. In more northern countries the name *P. arcularius* has quite often been used to designate typical *P. brumalis*, e.g. by Lundell (1937: 14 No. 438; &c.).

calceolus. — *Boletus calceolus* Bull. 1787: pl. 360 (devalidated name); *Boletus calceolus* (Bull.) per St-Am. 1821; *Polyporus calceolus* (Bull. per St-Am.) Balbis 1828.

Boletus calceolus Bull. is an extremely troublesome name because the taxon to

which it was given was not satisfactorily described. It is important to discover the correct identity of the species with which the name will have to be kept associated. Its name was revalidated at an early date and should be seriously considered in connection with the species that is here called *Polyporus badius* (*P. picipes*).

It was introduced on Bulliard's plate 360. The tuft of fruitbodies depicted on it is here considered to be its type. Bulliard's original conception of his species presumably included at least two distinct species. Persoon (1801: 523) made of *Boletus calceolus* a variety of *Boletus badius* (*Polyporus picipes*).

According to the data furnished by the figure on Plate 360 the type collection is remarkable through a combination of several features: its big size, the strongly streaked surface of the cap, and the lack of black on the stalk. It makes on me the impression of representing exceptionally big fruitbodies of *Polyporus varius*, except that its surface is too dark. The complete lack of a black skin on the stalk is easier to reconcile with *P. varius* than with *P. badius*. In the former species it is not unusual that only the base of the stalk is black, while I have seen slender-stalked and smaller forms with no sign of black on the stalk at all. The information contained in the letterpress on the plate also suggests *P. badius*. It is likely that Bulliard mixed up the two species from the start, which makes the choice of a type specimen (in this case the depicted tuft of fruitbodies selected above) desirable. (It is not altogether unlikely that Bulliard blended characters of the two species on the plate.)

The size of the largest fruitbody on Plate 360 is 14 cm across the cap; according to the accompanying text its size is only average: "Ce champignon est représenté ici dans sa grandeur moyenne, il y en a qui ont jusqu'à quinze pouces de diamètre." These bigger dimensions would be almost absurd for *P. varius*, but not for *P. badius*; they were presumably taken from collections of the latter species; this is also suggested by the mention of the substratum as being usual (hollow willows). However the strongly streaked (virgate) surface of the cap, the general shape, and the lack of any indication of a wavy margin (appearing upon drying) of the tuft depicted on Plate 360 in my opinion point rather to *P. varius*.

According to the text on a later plate (Bulliard, 1789: pl. 455 f. 2) and to the final account in the "Histoire", Bulliard (1791: 338) eventually found this species on very diverse substrata; it also ranged widely in colour, size, and shape. He finally decided that *Boletus elegans* Bull. (q.v.) and *B. calceolus* of the earlier plate were merely different expressions of the same species. This second account also contains sufficient evidence to justify the conclusion that he confused at least two species, *P. badius* and *P. varius*.

Summarizing, I think that the original *Boletus calceolus* is a mixtum compositum of two species, one of which is *P. varius*, and that this is presumably represented by the type, the other element being *P. badius*.

It looks as though in the main Quélet's description of *Polyporus calceolus* (1888: 404, under *Leucoporus*) is in agreement with this identification of Bulliard's species with *P. varius*: "Peridium . . . crème puis chamois ou canelle et rayé de brun . . ."

ciliatus. — *Polyporus ciliatus* Fr. 1815: 123 (devaluated name), not *P. ciliatus* Hornem. 1806 (devaluated name); *Polyporus ciliatus* Fr. per Fr. 1821: 349.

Polyporus lepideus Fr. 1818: 253 (devaluated name), 1821: 352 (incidental mention); *Polyporus lepideus* Fr. per Steud. 1824: 347, Fr. 1832: 146, 1838: 430.

Kreisel (1963) combined all the minute-pored forms of *Polyporus* subgen. *Leucoporus* occurring in Europe into a single species and several other authors now follow him. He calls the broadly conceived species *Polyporus ciliatus* and divides it into two taxa, viz. forma *ciliaris* and forma *lepideus*. The former corresponds to *P. ciliatus* Fr., the latter to *P. lepideus* Fr. A third form belonging to this complex is *P. vernalis* q.v.

It should be pointed out that Bourdot & Galzin (1928: 530) had come to nearly the same conclusion, but they called the species *P. brumalis*. With this name they accepted Bresadola's interpretation of it, but while Bresadola clearly restricted it only to *P. lepideus*, Bourdot & Galzin gave it a much wider scope, without, however, mentioning the name *P. lepideus*, and without describing a form exactly agreeing with *P. ciliatus*, another name they did not mention. Yet I think that Kreisel would have included a good portion of their *P. brumalis* in his forma *ciliatus*; this *P. ciliatus* further includes *P. vernalis*; and finally I would suggest that what they called *P. brumalis* f. *crassior* and f. *rubripes*² is referable to *P. lepideus*. *Polyporus brumalis* as redefined by Kreisel was treated by Bourdot & Galzin as a variety of *P. arcularius*; it corresponds to *P. brumalis* f. *subarcularius* Donk ≡ *P. subarcularius* (Donk) Bond. Further observations on this matter are still urgently needed.

For a correct interpretation of *P. ciliatus* (sensu stricto) it may be useful to point out that Fries, when he first published the species (1815), did not definitely include *Boletus ciliatus* Hornem., although he borrowed its epithet. His phrase is followed by "Disp. Bol. msc." (apparently referring to a manuscript by Fries that was never published under this title); and he added the remark, "An distinctus ab *B. ciliato* Fl. Dan., qui ad hunc l. *P. circularium* [= *arcularium*] pertinet." In the "Systema" (1821) he listed *Boletus ciliatus* Hornem. ("Fl. Dan.") as synonym under *P. brumalis*.

coriaceus Huds., see *lobatus*.

coronatus. — *Polyporus coronatus* Rostk. 1848: 33 pl. 17.

It is evident that *Polyporus coronatus* belongs to the same section as *Polyporus squamosus*, which is characterized by rather long spores. The original plate shows the stalk to be short and thick, with the tube-layer decurrent right down to the very base, so that it is impossible to decide whether or not the stalk may develop a black base (*P. squamosus* group sensu stricto) or produce spiny, hyaline hairs (*P. floccipes*). However the text states that the stalk is black at its base and, moreover, that the fruitbody develops "an in Fäulniss übergehenden Buchenstämmen"; these

² Identified with *Polyporus rubripes* Rostk., which certainly is something different because of its big pores.

features, combined with the plump fruitbody (as drawn), as well as with the rather distinctly scaly cap, for which no strigose hispidity is mentioned, rule out *P. floccipes* (= *P. lentus*) and refer *P. coronatus* to *P. squamosus*.

It is likely that in the main the species was correctly interpreted by Bourdot & Galzin (1928: 525; as a subspecies of *Melanopus squamosus*): no hispidity on cap or stalk, distinct scales, short stalk "réticulé par les pores jusqu'à la base ordinairement noirâtre"; the habitat however, is different from that of Rostkovius's fungus: "sur branches mortes, tenant à l'arbre, hêtre . . ." Bourdot & Galzin regarded their subspecies as "évidemment une forme de *M. squamosus* réduite dans ses dimensions par son habitat sur branches mortes d'un petit diamètre . . ." If this is true *P. coronatus* does not deserve even the rank of a subspecies or variety.

Malençon (1952: 41) came to a different conclusion. He thought that *P. coronatus* formed part of the *P. lentus* [= *P. floccipes*] complex which he, therefore, started to call *Melanopus coronatus*. This is in partial agreement with Bourdot & Galzin, who remarked: "[*M. coronatus*] passe aux formes suivantes [*M. forquignonii*, *M. lentus*] par des spécimens qui ont même aspect et même taille, mais à écailles plus étroites, à 1-3 pointes hyalines redressées, avec bords du chapeau subciliés et décurrence des pores ciliée-plumeuse sur le stipe." If these forms are really intermediate between *P. coronatus* and *P. floccipes*, then Malençon's point of view would prevail. It is still possible, however, that they are only seemingly intermediate and in reality ought to be referred to *P. floccipes*. In any case they do not agree with the original plate of *P. coronatus*.

cristatus. — *Boletus cristatus* Schaeff. 1774: 93 [pls. 316, 317] (devalidated name), not *B. cristatus* Gouan 1765 (devalidated name), not *B. cristatus* Gmel. 1792 (devalidated name); *Polyporus cristatus* (Schaeff.) per Fr. 1821, not *P. cristatus* Fr. 1838; *Albatrellus cristatus* (Schaeff. per Fr.) Kotl. & P. 1957.

[*Boletus cristatus* Schaeff. sensu Pers. 1801: 522]; *Polyporus cristatus* Fr. 1838: 447, not *P. cristatus* (Schaeff.) per Fr. 1821.

There are two taxa of the name *Polyporus cristatus*. The first is *P. cristatus* (Schaeff.) per Fr. 1821. When Fries published this name he had compiled his conception of the taxon from literature, not having seen any collections himself. He indicated that he had seen figures ("v. ic."): these were "Schaeff. t. 316, 317", reproduced in part by "Nees syst. f. 217" (as *Boletus cristatus*), and "Schaeff. t. 113, mala" (as *Boletus flabelliformis*). The type, therefore, is the same as that of the devalidated basionym, *Boletus cristatus* Schaeff., the protologue of which includes the two plates 316 and 317. The specimens depicted on plate 316 are herewith selected as type. This is done in view of the exclusion of plate 317 ["17"] by Secretan (1833: 74).

Then Fries changed his mind. Under his new conception of *Polyporus cristatus* he stated: "Postquam tam in Scania austr. quam in duc. Mecklenburg copiose legerim mox perspexi differentiam *B. cristati* Sch." Although he referred back to the "Systema" (1821) he excluded (1838: 447) Schaeffer's taxon, only to fuse it with his erroneous conception of *Boletus lobatus* Gmel. (q.v.) under the name *Polyporus*

lobatus. In this way the second taxon with the name *Polyporus cristatus* came into being. Fries indicated that it agreed with "*B. cristatus* Pers. syn. non Schaeff." and also stated "Hic verus *Fung. cristatus* Bocc. et Vet." Persoon (1801: 522) in his turn referred back to a previous publication (Persoon, 1800: 125 & cf. his *Corrigenda*) in which he gave a revised phrase. The theoretical type of Fries's second *P. cristatus*, herewith selected, is a collection studied by Persoon before 1800 (presumably collected in Germany). It must be understood, however, that the type of *Boletus cristatus* "Pers., Syn. Fung. 522. 1801" itself was not changed; Persoon merely applied *B. cristatus* Schaeff. The citation of 'Pers.' without the simultaneous exclusion of 'Schaeff.' must be taken as an indirect reference to 'Schaeff.'

Several later mycologists started replacing the author's citation 'Schaeff.' by 'Pers.'; others continued to ascribe the epithet to 'Schaeff.' Inevitably still others got things mixed up. When the recombination *Albatrellus cristatus* was introduced its authors wrote "*Albatrellus cristatus* (Pers. ex Fr.) n.c. = *Polyporus cristatus* (Pers.) ex Fr., Syst. myc. 1: 356. 1821." In this case 'Pers.' should be renounced in favour of the more complete reference to Fries, 1821. This makes the basionym the name pertaining to the 'first' *P. cristatus*.

The question to be answered is, what is *Boletus cristatus* Schaeff. as represented by Plate 316? The plate suggests a 'fasciculate' fruitbody with deformed pilei of what is currently called *Polyporus* [*Albatrellus*] *cristatus*; the colours of the plate support this conclusion. It should be pointed out that the accompanying text (Schaeffer, 1774: opposite pl. 316) describes the species as "& solitarius & fasciculosus", and mentions neither the consistency nor the substratum. In the "Index primus" (pages numbered) the binomial *Boletus cristatus* was published with a different description ("... solitarius, lignosus ... ad truncos arborum ...") which does not really suggest *P. cristatus*; however there is a reference to the one previous description by Schaeffer himself; this accompanies the Plates 316 and 317. After some hesitation I think that after all the plate (316) selected as type does represent the modern conception of *P. cristatus*.

It was Secretan (1833: 55) who noted that the second description published by Schaeffer did not match the fungus that he (Secretan) called *Polyporus flabellatus* and which is now regarded as belonging to *P. cristatus*. He excluded Plate 317 from his conception of *P. cristatus* and applied this name to what might well be a form of *Laetiporus sulphureus*, which species is indeed suggested by Schaeffer's second (and erroneous) description. As already pointed out by Secretan, the piece of wood added to the fruitbody in the figure that Nees von Esenbeck copied from Schaeffer's work was a concession to the substratum mentioned by Schaeffer in his second description. There can be little doubt that Secretan's remarks induced Fries to exclude Schaeffer's plates (hence also including the type) from his new conception of *P. cristatus*. It may be mentioned that Secretan described *P. cristatus* under two names: *P. flabelliformis* and *P. subsquamosus*; the second was misapplied. His description of *P. subsquamosus* strongly suggests a fasciculate group of fruitbodies of *P. cristatus* (modern sense) as depicted on Schaeffer's plate 316;

compare also Fries's description of his second *P. cristatus*, "ramosus . . . imbricatis . . . Valde versiformis."

cyathoides. — *Boletus melanopus* var. *cyathoides* Sw. 1810: 10 (devalidated name); *Polyporus melanopus* var. *cyathoides* (Sw.) per Fr. 1821; *Polyporus cyathoides* (Sw. per Fr.) Quél. 1872, misapplied.

The original description of *Boletus melanopus* var. *cyathoides* is as follows: ". . . pileo infundibuliformi striato-radiato, fasciis obsolete; stipite excentrico, . . . minor. / Stipes excentricus, uncialis, niger. Pileus centro depressus striis radiatis fasciis obscurioribus versus marginem. . . Afarten är mindre med excentrisk fot och hatten prydd med circulära ringar, rostfärgad eller grå." This rather strongly resembles a description of *Boletus melanopus* Pers. and Fries (1821: 348; and onwards) identified the two without restrictions.

Quélet (1872: 270) raised this variety to specific rank as *Polyporus cyathoides*, but misapplied the name to a form of the *P. ciliatus* group, an error corrected by Quélet himself and by Fries; they called Quélet's fungus *P. vernalis* (*q.v.*).

durus, see *perennis* Batsch.

elegans. — *Boletus elegans* Bull. 1780: *pl.* 46 (devalidated name), not *B. elegans* Bolt. 1788 (devalidated name), not *B. elegans* Schum. 1803 (devalidated name) per Fr. 1838; *Polyporus elegans* (Bull.) per Trog. 1832, misapplied; *Melanopus elegans* (Bull. per Trog) Pat. 1887 (nomen nudum), apud Rolland 1890.

[*Boletus elegans* Bull. sensu Fr. 1838: 440 (as *Polyporus*)]; *Polyporus varius* subsp. *elegans* Donk 1933: 139 ["Fr. . . (non Bull.)"]; *Melanopus elegans* Konr. & M. 1935: *pl.* 426 *f.* 2 ["(Fries) . . . non Bulliard"], not *M. elegans* (Bull. per Trog) Pat. apud Rolland 1890.

The identity of *Boletus elegans* Bull. is not easily assessed. It is possible that the fruitbodies depicted on the original plate were old and had undergone some chemical treatment which had changed their colour; compare, "comme [ce Bolet] . . . est un Mets friand pour les insects il faut l'exposer à différentes fois à la vapeur du soufre". Donk (1933: 139) refused to recognize in it the form of *Polyporus varius* which Fries described under this Bulliardian name; in this Fries assimilated Bulliard's fungus as "var. saturator".

In later work Bulliard considered his *B. elegans* to be a mere form of *B. calceolus* (*q.v.*) and the name disappeared for some time before being restored by Trog (1832: 553), perhaps for *Polyporus badius* (*P. picipes*): "Der Hut ist glatt, kastanienbraun . . ." Fries (1838: 440) followed, but this time the name was applied to typical *P. varius* (*q.v.*): "pileo . . . pallido"; this application became widely used.

I find it difficult to make up my mind about the fungus Bulliard depicted, but after all I cannot see in it either *P. badius* (as presumably Trog did) or *P. elegans* sensu Fr. Hence I am again (cf. Donk, *l.c.*) forced to decide in favour of *P. varius*,

particularly the big, dark coloured form, rather than the form with pale cap and more slender stalk for which Fries took it. Figure B of Bulliard's plate 46 is chosen here as representing the lectotype.

Authors who have been aware of the discrepancy between Bulliard's fungus and the one to which Fries applied the name, retaining Fries's conception with the explicit exclusion of Bulliard's fungus, introduced a new taxon according to the present "Code": *Polyporus varius* subsp. *elegans* Donk, *Melanopus elegans* Konr. & M. Authors who wish to continue to distinguish between Fries's fungus and what is currently called *Polyporus varius* should, in my opinion, adopt the denomination *P. varius* (Pers.) per Fr. sensu stricto for it.

floccipes. — *Polyporus floccipes* Rostk. 1848: 25 ("flocopes") pl. 13 ("flocopus").

So far the correct interpretation of *Polyporus floccipes* Rostk. does not seem to have been settled satisfactorily. Bresadola (1903: 72) ascribed medium-sized spores to it (cylindrical, $7-9 \times 3-3.5 \mu$). Afterwards he included this conception in what he first called *P. agariceus* (q.v.) and then *P. boucheanus* (q.v.). A look at Rostkovius's plate suggests not only the species Bresadola had in mind but also some forms that North American authors have included in their conception of *P. arcularius*: compare for instance Overholts 1953: pl. 36 fs. 215, 216.

However, meticulous inspection of Rostkovius's plate with a handlens and careful perusal of the text raise doubts; compare: "Der Hut ist . . . mit Haaren besetzt, die ihm ein schuppenartiges Ansehen geben. Der Rand . . . ist . . . gefranzt. . . Der Stiel ist . . . schuppig wie der Hut. Unten an der Wurzel ist er mit weissen, abstehenden, 3''' langen Haaren besetzt." This last character even suggested the specific epithet. On the plate the hairs on the cap and base of the stalk are shown to be coarse and white. The general habit and robust appearance of the depicted fruitbodies come very close to the original figure of *P. lentus*. This in combination with the above-quoted passage from Rostkovius's description has convinced me that *P. floccipes* belongs to the *P. lentus* complex.

globularis. — *Polyporus globularis* Pers. 1825: 44 \equiv *Polyporus exiguus, coriaceus, albus, lignis adnascens* Mich. 1729: 130 pl. 70 f. 7.

Polyporus globularis Pers. is a name given to a fungus described and depicted by Micheli. The description is too short for certainty: besides the phrase cited above, Micheli also wrote "Fungus porosus, minor, candidus, siccioris substantiae, . . . D. Breynii, ex libro depicto a Clarissimo Sherardo communicato." The type locality is presumably northern Germany or Poland; J. Breynne (1637-1697) lived in Danzig, now Gdansk. The figure shows a single slender-stalked fruitbody with central, half-globular cap, growing from a thin branch.

This may be some form of the *Polyporus brumalis* complex or, rather, a 'numularius' form of *P. varius* in weathered, bleached condition (such as is depicted by Konrad & Maublanc, 1935: pl. 428 f. 1), but no black base of the stalk was mentioned or drawn. Somewhat of a nomen dubium.

lateralis. — *Boletus lateralis* Bolt. 1788: 83 pl. 83 (devalidated name) per Hook. 1821, not *Boletus lateralis* Bundy 1883 (n.v.); *Polyporus varius* var. *lateralis* (Bolt. per Hook.) Pers. 1825.

Shape and colour as appearing on the plate and the remark that "the root . . . is black" (a colour not indicated on the plate) assign this fungus to the synonymy of *Boletus varius* Pers.; Persoon himself listed it accordingly. Bolton said "I have seen old specimens elsewhere, of a dark dusky brown colour, and of a substance as hard and firm almost as oaken wood". Might these specimens perhaps have been *Polyporus badius*?

lentus. — *Polyporus lentus* Berk. 1860: 237 pl. 16 f. 1.

Polyporus lentus Berk. was originally described from branches of *Ulex*. For some time mycologists did not know precisely what to do with it, whether to associate it with the group of *P. squamosus* (long spores) or with the ample-pored forms of the *P. brumalis* complex (medium-sized spores). Bourdot & Galzin made it a subspecies of *P. squamosus* and a study of Berkeley's material by Bresadola and Malençon has shown that it had indeed the long spores of this species. Separation of *P. lentus* from *P. forquignonii* has proved to be untenable. However I cannot agree with Malençon that *P. coronatus* (q.v.) must also be included in a broadened conception of *P. lentus*.

Bourdot & Galzin (1928: 525-527) included the *P. lentus* complex in *P. squamosus* as two subspecies. The link between them would be certain forms of *P. coronatus*. According to Bourdot & Galzin the latter "passe aux formes suivantes [*P. forquignonii*, *P. lentus*] par des spécimens qui ont même aspect et même taille, mais à écailles plus étroites, à 1-3 points hyalines redressées, avec bords du chapeau subciliés et décurrence des pores ciliée-plumeuses sur le stipe." Malençon (1929: pl. 34, as *Leucoporus forquignonii*) depicted a form apparently closely approaching such specimens; they may be referred provisionally to the *P. lentus* complex. Later on he (Malençon, 1952: 42) also defended the specific autonomy of the *P. lentus* complex from *P. squamosus* and I have followed him, without, however, calling it *P. coronatus*. This assignment of specific rank to the *P. lentus* complex and, perhaps, also to *P. coronatus* is strongly recommended for future research.

So far the correct name for *P. lentus* has not been convincingly settled. I am inclined to refer the earlier published *P. floccipes* (q.v.) to this complex. The possibility that *P. boucheanus* (q.v.) is a still earlier name should not as yet be completely excluded. Compare also the discussion on *P. tiliae*.

lepidus, see *ciliatus*.

leptocephalus. — *Boletus leptocephalus* Jacq. 1778: 142 pl. 12 (devalidated name); *Polyporus leptocephalus* (Jacq.) per Fr. 1821; *Melanopus varius* f. *leptocephalus* (Jacq. per Fr.) Bourd. & G. 1925.

Boletus leptocephalus Jacq. was well described and depicted. The picture shows comparatively short-stalked fruitbodies growing on rather thick branches. The colour of the cap ('cervinus') indicates that it had a rather distinct and only slightly torn pellicle. Persoon and Fries (who knew the species from the original account alone) upheld it because the stalk lacked black. Even so I have little reason to hesitate to refer *B. leptocephalus* to *Polyporus varius* and to compare it especially with the form that has been called *P. numularius*. Bourdot & Galzin (1928: 528) reported that, "D'après les déterminations de Quélet, ce serait une forme de *M[elanopus] elegans* ou *numularius*, selon la taille, à stipe unicolore, assez allongé, qui se rencontre quelquefois."

lobatus. — *Boletus lobatus* Gmel. 1792: 1435 (devalidated name); *Polyporus lobatus* (Gmel.) per Fr. 1838: 448, misapplied; ≡ *Boletus coriaceus* Huds. 1778: 625 (basionym), not *B. coriaceus* Scop. 1772 (devalidated name), not *B. coriaceus* Batsch 1783 (devalidated name), not *B. coriaceus* Batsch 1786 (devalidated name).

Fries (1838: 448) ascribed the name *Polyporus lobatus* to "Gmel. — Schrad. sp. p. 162 excl. syn. (inclusove *P. imbricato*)" and re-introduced it to replace *Polyporus cristatus* (Schaeff.) per Fr. 1821 ("Schaeff. t. 315, 316"). In so doing he apparently committed two errors. First, *P. cristatus* (Schaeff.) per Fr. 1821 (*q.v.*) and *P. cristatus* Fr. 1838 are the same species. Secondly, the basionym (*Boletus lobatus* Gmel.) taken up by Fries is a synonym of *Laetiporus sulphureus* (Bull. per Fr.) Murrill.

The history of *Boletus lobatus* Gmel. is briefly as follows. The taxon to which the name was given was originally called *Boletus coriaceus* Huds.: "acaulis coriaceus convexus lobatus flavus laevis, poris tenuissimis." The phrase in itself is not quite adequate for determining the fungus, but this is remedied by the two synonyms and the other references cited and by the habitat ("in truncis arborum"). The name was accepted by Willdenow (1787: 392). Gmelin changed it into *Boletus lobatus*, with retention of the original phrase; his only (indirect) reference is to Willdenow. Hence *Boletus lobatus* Gmel. = *Laetiporus sulphureus*.

It is evident that Fries did not apply *Polyporus lobatus* in this sense. Apparently he had something abnormal before him so that Bresadola (1897: 69) dismissed Fries's fungus as *Polyporus cristatus* "status vetustus, induratus". I am not sure whether he was correct but can offer no alternative opinion.

montagnei. — *Polyporus montagnei* Fr. ("in litt.") ex Mont. 1836: 341; Fr. 1838: 434, not *P. montagnei* Bres. 1916; *Coltricia montagnei* (Fr. ex Mont.) Murrill 1820.

[*Polyporus montagnei* Fr. ex Mont. sensu Quél. 1872: 269 pl. 17 f. 4, exclusive of type]; *Polyporus montagnei* Bres. 1916: 240, not *P. montagnei* Fr. ex Mont. 1836.

The correct identity of *Polyporus montagnei* has become a puzzle that needs special attention because of the conflicting views published about it. The following is a brief review of them. *Polyporus montagnei* Fr. was published by Montagne at an

early date (1836) and ascribed to Fries, "in litt.;" type locality, "dans la Garenne de Sedan" in northern France. At a later date Montagne determined a collection from Algeria in the same way; no description was given but a coloured figure of a fruitbody was published (Durieu & Montagne, 1846-9: *pl.* 33 *f.* 2). In my opinion it represents *Coltricia cinnamomea*. The next important step was taken by Quélet (1872), who published a new description of his own. It must be stipulated from the outset that he did not describe a new species under a homonymous name; he gave the author as "F." without more and remarked that the fungus was "d'abord trouvé dans une forêt des Ardennes par Montagne."

Lloyd (1908a: 7) concluded that there were two species involved. In connection with *Polystictus cinnamomeus* he remarked that the author of this name, Jacquin,

"... gave such a correctly drawn colored picture that I do not see how his work can be ignored, and this is the only plant known in Europe that agrees with it in any respect. Fries never referred any plant to Jacquin's picture, and carried it as a doubtful species through all his works. He balked at the one word 'fragilis' in Jacquin's description, as Persoon had done before, and he called the plant when he received it from France *Polyporus Montagnei*. The co-types in Montagne's herbarium are the same as our American plant [that Lloyd called *Polystictus cinnamomeus*]. Bresadola has given a very good figure of it in *Fung. Trident.* not as bright however as our American plant. The coloring of Quélet's figure (T. 17) is too yellow and the plant too obese. I think it must be some other species but know no plant that agrees with it in any degree."—Lloyd (1908a: 7).

From accompanying descriptions and figures I conclude that Lloyd interpreted *Coltricia cinnamomea* correctly and in the same sense as Bresadola; that he was the first to assume that two species were involved, of which one was referred to *C. cinnamomea*; and that he did not examine the specimen from Montagne that Fries has studied.

Very soon afterwards Lloyd issued a special Letter (1908b: 1) in which in some respects he altered his conclusions as quoted above:

"There are in Fries' herbarium the original types, sent by Montagne, and also collections by Quélet which are the same plant, and as soon as we saw them we recognized that they can not possibly be our American plant, referred to above [*C. cinnamomea*]. Whether or not the co-types in Montagne's herbarium are the same as found in Fries' herbarium, we prefer not to say until we re-examine them, but from our recollection, they are not."—Lloyd (1908b: 1).

Bresadola (1916: 240) came to conclusions similar to those expressed in Lloyd's first note: "Typus ex Montagne in Herbario parisiensi idem est ac *Polyporus perennis* (L.) Fr.; typus vero Queletii, a Queletio in 'Champignons de Jura et des Vosges' depictus, species est diversa . . ." He proceeded to distinguish between two homonymous species, of which the one he ascribed to Quélet he accepted identifying it with *Polystictus obesus* Ell. & Ev. and *Polyporus lignatilis* Britz.

As pointed out at the beginning of the present note it is not correct to accept a species *Polyporus montagnei* 'Quélet.' that differs from *P. montagnei* 'Fr. ex Mont.' simply because Quélet did not introduce a new species but merely applied the latter name. By his exclusion of the type of *P. montagnei* Fr. ex Mont. it was Bresadola

himself who in fact published a later homonym (*P. montagnei* Bres.) based on *P. montagnei* sensu Quél.

Montagne's material in his herbarium (PC) was also inspected by Gilbertson (1954: 231 f. 2), who concluded that it "agrees with the current American concept [of *P. montagnei*] and differs markedly from *Polyporus perennis*, particularly in the spores and context hyphae."

From the above discussion it follows that Montagne's collection in Paris was determined as belonging to three different species: as *Polystictus cinnamomeus* by Lloyd, as *Polyporus perennis* by Bresadola, and as *Polyporus montagnei* sensu auctt. by Gilbertson. What is needed is a careful analysis of the protologue to see whether it is possible to decide who was correct. Such an analysis brings to light three conclusions: (i) that the name came from Fries, but that the validating description was Montagne's; (ii) that Montagne's material was already scanty when he drew up the description; and (iii) that his description clearly points to *P. montagnei* as currently understood.

Ad (i). What Fries wrote to Montagne the latter rendered thus: "Proximus *P. tomentosus* (Rostk. . . sub. nom. *Polypori rufescentis*) et *P. perenni* Fr., sed abundè diversus Fr. in litt." There is no description.

Ad (ii). Montagne also wrote, "Ayant adressé au professeur Fries mes échantillons les plus complets, on en trouvera sans doute une bonne description (meilleure surtout que je ne pourrais le faire avec ceux qui me restent), dans l'Építome regni mycologici [= *Epicrisis* 1838]."

Ad (iii). Montagne's description runs: "pileo suberoso molli azono, tomento leproso secedente tecto stipitique deformi ferrugineis, poris rotundis ampli integris obtusis." This clearly excludes *Coltricia cinnamomea* and *C. perennis* but it agrees well with *Polyporus montagnei*, current sense.

The improved description that Montagne expected from Fries (1838: 434) did not materialize; Fries's phrase is a copy of that of Montagne, with a few brief observations appended. Thus, *Polyporus montagnei* "Fr. 1838" is technically based on the same material as *P. montagnei* Fr. ex Mont. 1836, viz. the material that remained in Montagne's herbarium. The material in Upsala must be rated as an isotype.

numularius. — *Boletus "numularius"* Bull. 1782: pl. 124 (devalidated name); *Polyporus varius* var. *numularius* (Bull.) per Fr. 1821; *Boletus numularius* (Bull. per Fr.) Mérat 1821; *Polyporus numularius* (Bull. per Fr.) Pers. 1825; ≡ *Boletus ramulorum* Gmel. 1792 (devalidated name).

The original plate and description of *Boletus numularius* Bull. are excellent and leave no shadow of doubt about the fungus the author had in mind. It is the small, slender form of *Polyporus varius*, with rather dark coloured cap (but very often soon weathered to white) and growing on small branches: "il ne vient jamais que sur le bois mort, et seulement sur de menus branchages que l'on trouve par terre."

It has long been in doubt whether this taxon deserves independent specific

status; at present it is usually referred to as a form, variety, or subspecies of *Polyporus varius* sensu Fries (that is, the big form with similarly coloured and streaked cap). I have collected it many times and studied quite a number of herbarium specimens and no longer doubt that it is merely an extreme growth form of *P. varius*, as other mycologists had conclude earlier.

perennis. — *Boletus perennis* Batsch 1783: 103 & 1876: 182, 184 pl. 25 f. 129 (devalidated name), not *B. perennis* L. 1753 (devalidated name); ≡ *Boletus durus* Timm 1788 (devalidated name); ≡ *Boletus batschii* Gmel. 1792 (devalidated name).

As stated under 'badius', Persoon referred *Boletus perennis* Batsch to *P. badius* (*P. picipes*) and I do not hesitate to follow him in this. Batsch's second and amplified description (1786: 182, 184) contains, *inter alia*: "Der Hut ist glatt, rostfarben, und mit zarten unscheinbaren dunkeln Linien überzogen . . . [Der Rand] ist von einer mehr rothbraunen Farbe. . . . [Der Stiel] ist von einer grauen ins nussbraune schielende Farbe, am Unterende aber Schwarz berust. . . . Ich fand dieser Art . . . in hohlen Weiden, allemahl schon trocken und hart."

Polyporus varius (big form) is fleetingly called to mind, for instance in connection with the "zarten unscheinbaren dunkeln Linien" on the cap, but there is too much other evidence (in particular Batsch's coloured figure) to counterbalance this supposition.

The name *Boletus perennis* being preoccupied, it was replaced by *B. durus* Timm and *B. batschii* Gmel.

picipes. — [*Polyporus* sp., unnamed, Fr. 1821: 353]; *Polyporus picipes* Fr. 1838: 440; ≡ *Polyporus picipes* Rostk. 1848.

As explained in the discussion on *Boletus badius* Pers., Fries overlooked the identity of his *Polyporus picipes* with the Persoonian species. The latter he originally included under *Polyporus varius*. When he excluded both *P. picipes* and his conception of *P. elegans* from this broadly conceived taxon, he left *Boletus badius* attached to the residue as a synonym and it has since remained there. In this way Fries committed two errors, (i) the name *Boletus badius* should have remained associated with the segregate *P. picipes*, and (ii) the name *P. varius* retained for the residue should have been applied as the correct name of the segregate Fries called *P. elegans*.

These errors have caused many European authors to fail to distinguish between *P. badius* and *P. varius* sensu Fries 1838 (discussed under 'varius') until Pilát restored *P. badius* to the status of an independent species, which it fully deserves. He first called it (erroneously) *P. varius* but soon adopted the name *P. picipes* for it.

In later work Fries cited the "Systema" as the place of publication of the name *Polyporus picipes* and his reference has been consistently copied by later authors. What actually happened, however, was that Fries described the species in a note in the "Systema" (1821: 353) without giving it a name. This he did only in 1838,

thus a considerable time after *Boletus badius* Pers. was re-validated and had become available as *Grifola badia* (Pers.) per S. F. Gray in 1821, which I accept as basionym for the correct name. In view of another name validly published earlier, in the year 1821, viz. *Boletus calceolus* Bull. per St-Am. (*q.v.*) it is only with some hesitation that I do this. This name I now consider to be a synonym of *P. varius* sensu lato.

Polyporus picipes Rostk. (1848: 39 pl. 20) was published as a new species, "Rostkovius" being given as the author's citation. Fries (1874: 535) wrote of this "singulare errore s.n. *P. picipedes* ut nova species descriptus, sed mea diagnosis [Fries, 1838: 440] veri verbatim transcripta". This being the case, *P. picipes* 'Rostk.' must stand as a typonym of *P. picipes* Fr. The accompanying plate is a rather good picture of Fries's species.

s u b a r c u l a r i u s. — *Polyporus brumalis* f. *subarcularius* Donk 1933: 133, 134; *Polyporus subarcularius* (Donk) Bond. 1953: 470 f. 121.

This taxon was introduced while *Polyporus brumalis* was still a poorly defined and variously interpreted species from which *P. ciliatus* Fr. emend. Kreisell (including *P. lepideus* Fr.) had not yet been removed. Forma *subarcularius* was designed to receive the element that is here called *P. brumalis* (sensu stricto).

s u b s q u a m o s u s. — *Boletus subsquamosus* L. 1753: 1178 (devalidated name); *Polyporus subsquamosus* (L.) per Fr. 1821.

[*Boletus subsquamosus* L. sensu Wulf. 1789: 342]; *Boletus carinthiacus* Pers. 1801: 514 (devalidated name); *Polyporus carinthiacus* (Pers.) per Roques 1832.

In my opinion it is rather evident what species Linnaeus (1755: 453) had in mind when he published *Boletus subsquamosus*: *Albatrellus ovinus* (Schaeff. per Fr.) Kotl. & P., a common species in many parts of Sweden.³ Compare: "Pileus magnus convexus carnosus albido-flavescens margine acutus, nec glaber nec viscidus, sed saepe subsquamosus. Pori difformi nivei. Stipes brevis glaber aut venoso-reticulatus." It would be quite a coincidence if, among the few species of pore-fungi described by Linnaeus *Boletopsis griseus* (Peck) Bond. & S. had been hidden away in a misleading description. *Boletopsis griseus* seems to be very rare in Sweden—if it actually occurs in that country at all.

When Fries (1815: 122) accepted Linnaeus's species⁴ he added an extensive description. The phrase runs: "pileo carnoso albido subsquamoso, poris oblongis

³ *Albatrellus similis* Pouz. (1966: 274 pls. 5, 6) differs in having amyloid spores. When, quite recently, I was collecting fungi in Carinthia (from where *Polyporus carinthiacus*, mentioned below, was described) I could not distinguish satisfactorily between the two species [?] in the field. The fungus recently described may also occur in Sweden.

⁴ Which he undoubtedly considered to be an integral part of his conception. Fries (1838: 428) even added a note of exclamation to the reference "Linn. Succ. 1250 !" [= 1755: 453].

flexuosis niveis, stipite brevi centrali", which reads almost like an extract from Linnaeus's description; in any case it does not readily suggest a different species. In the main the description supports the conclusion that Fries was also describing *A. ovinus* ("pileus . . . forma varia . . . pallidus sordide albus l. subflavescens") from big fruitbodies ("2-5 unc. latus"), soon with a rather strongly broken-up surface of the cap ["pileus . . . glaber sed in squamulas discedens (*Hydno imbricato* subsimilis)"]. Compare also his remark, "*Bolet. carinthiacus* Pers. . . (Wulf. . .) si non idem, saltim varietas." To me the fungus that was fully described by von Wulfen as *Boletus subsquamosus* and subsequently renamed *Boletus carinthiacus* Pers. is quite certainly *Albatrellus ovinus* (or the very closely related species *A. similis* Pouz.). In any case I cannot detect the slightest indication that a species of *Boletopsis* was admixed in Fries's conception of 1815. The flesh ("caro dura alba crassiuscula immutabilis") certainly does not agree with that genus. (In *A. ovinus* the flesh is firm but fragile and may become yellowish when old.)

It was this conception that was entered in the "Systema" (Fries, 1821: 346), hence I can see no reason why the epithet 'subsquamosus' could possibly be taken up for a species of *Boletopsis* Fayod. On the other hand it is true that on this occasion Fries started to associate *Polyporus subsquamosus* with *Boletopsis* by appending two varieties which belong to that genus. The description ("pileo cinereo fibrilloso . . . Stipes saepe squamosus. Pileus . . . margine villosus") and the reference to "Mich. t. 70. f. 2", figuring a form of *Boletopsis leucomelaena* show that variety "β. *P. repandus*" very probably belongs to *Boletopsis*. Variety "γ. *P. leucomelas*", of which Fries had not seen any specimens, is *Boletopsis leucomelaena* itself.

Still later Fries (1863-4: 33 pl. 53) published under the name *Polyporus subsquamosus* a plate which is most probably why European authors started to call *Boletopsis grisea* by the name *P. subsquamosus*. I am almost convinced that the plate represents giant fruitbodies of *B. leucomelaena* that are paler than usual rather than old ones of *B. grisea*. It is still not certain that *B. grisea* really occurs in Sweden; I have searched recent Swedish literature in vain for clearly recognizable records of it.

Lundell (1946: 5 No. 1309) noted:

"*P. subsquamosus* L. ex Fr. is probably only a large and pale form of *P. leucomelas*. Fries reports in Stirp. agri femsjon. (p. 58) *P. subsquamosus* (but neither its β *repandus* nor its γ *leucomelas*) as growing ('passim') in Femsjö. I sought for it there in the years 1937, 1939, 1940 and 1943, but in vain, finding *P. leucomelas* in some localities. I also found *P. leucomelas* in that wood near Uppsala from which O. Rob. Fries (Ark. f. Bot. 6: 15 p. 28) reports *P. subsquamosus*. It should be admitted, however, that I have never seen so pale and giant specimens as those described and illustrated by Fries in Sv. ätl. svamp. (p. 33, pl. 53) under the name of *P. subsquamosus*. Another interpretation of this species should perhaps also be taken into consideration, viz. that it may represent an unusually large and thick form of *P. melanopus* Sw. ex Fr."—Lundell (*l.c.*).

I am inclined to think that Lundell meant "a large and pale form of *P. leucomelas*" literally and that *Boletopsis griseus* did not occur to him.

tilia e. — *Polyporus tiliae* S. Schulz. 1866: 42 (nomen nudum) apud Fr. 1874: 528, 747.

Polyporus tiliae S. Schulz. presents another problem. The following is a description compounded from those published by Fries and Kalchbrenner, both of which were apparently based on portions of the type collection:

Fruitbody vividly ochraceous, solitary. Cap orbicular, $1\frac{1}{2}$ –2", flat, slightly depressed above stem, glabrous, not scaly, thin-fleshy, gradually thinner toward margin; margin acute, often lobed. Hymenophore concolorous, somewhat decurrent; pores large, irregular; walls becoming lacerate. Stalk somewhat excentric, narrowed at the base, firm, not black, short, $\frac{1}{2}$ – $\frac{3}{4}$ " \times 3–5", solid. Flesh soft, coriaceous-tough, a little less coloured. Spores big, oblong-ovoid, smooth, with an oil-drop, white. — On rotting branches of *Tilia*.⁵

The well-developed stalk lacking a black rind even at its base together with the lack of scales on the cap would exclude *P. squamosus* and *P. coronatus*; the complete lack of coarse, hyaline hairs (if these had not disappeared or been overlooked) would exclude *P. floccipes*; finally it is difficult to reconcile the ample-pored forms with the medium-sized spores of the *P. brumalis* group with the description. Until some other acceptable suggestion has been made the only alternative is to admit *P. tiliae* as an autonomous species. A possibility might be: old specimens of *P. floccipes* in which the disappearance of the scales on the cap and the hyaline, soft, bristle-like hairs were caused by a combination of adverse weather conditions, handling, and poor drying. It is not entirely out of the question that *P. intermedius* Rostk. represents a similar condition of the same species.

Another reason for maintaining *P. tiliae* tentatively is that a species answering to its description seems to exist in North America. Relying on published descriptions I would suggest the identity of *P. tiliae* with *P. pennsylvanicus* Sumstine (1907: 137, *n.v.*), the original description of which fully agrees: rather small cap (2–6 cm in diam.) without scales, similar colour, short, non-blackening stalk, and habitat (fallen branches). Overholts (1914: 108) and Lowe (1934: 29) supplied redescrptions with microscopical details which agree with those of *P. floccipes* (*P. lentus*) and *P. squamosus* (long spores). Sumstine gave "fallen branches" as the substratum in the original description; Overholts stated, "growing on old logs", and Lowe, "on the wood of deciduous trees". *Polyporus pennsylvanicus* was reduced to the synonymy of *P. squamosus* var. *glaber* Graff [\equiv *Agaricus squamosus glaber* Batt.] by Graff (1936: 165); in this he was followed by Lowe (1942: 28). For various reasons I prefer to leave Battara's species out of consideration.

Another North American equivalent may be *P. fagicola* Murrill (1906: 35), redcribed by Lowe (1934: 30) as a species distinct from *P. pennsylvanicus*. More recently Overholts (1953: 258) made *P. pennsylvanicus* a synonym of *P. fagicola*.

⁵ Omitted, "pileus... una alteraque zona, parum conspicua notatus", a character emphasized by Fries, and "... pileo subzonato a tribu [*Polyporus* I. *Mesopus*] recedens". I regard this zonation as accidental and of no diagnostic significance.

The revised descriptions of *P. fagicola* reminds me of *P. floccipes* (= *P. lentus*) (*q.v.*): compare, "stem . . . conspicuously hispid, especially near the base" (Lowe, *l.c.*). On the other hand the lack of coarse, hyaline hairs on the cap might be a significant difference with the latter species.

It is interesting to note that an American author thought that he (almost) recognized the American fungus in a European collection: "*Polyporus melanopus* **P. hisingeri* [P. Karst.], Hedwigia 35: 173. 1896. The type [from Finland] is a fine specimen of the same or a very similar plant which has been called *Polyporus fagicola* Murr. in America, differing in being a much larger specimen."—Lowe (1956: 117).

Overholts (1953: 259), in discussing *P. fagicola*, also mentioned some collections that might point to a closer relationship of this species to *P. squamosus*. He also wrote that *P. boucheanus* (*q.v.*) "seems to be a similar species—in fact, it would appear to be identical, but I have seen no specimens." This suggestion would seem to be not too far-fetched, but Klotzsch stated "pileo . . . nonnunquam squamoso" and gave the habitat as "in truncis emortuis *Betulae*" for his *Favolus boucheanus*; his species disagrees in both characters from *P. tiliae*.

u m b i l i c a t u s. — *Boletus umbilicatus* Scop. 1772: 466 (devalidated name); Fr. 1832 Ind.: 64 ("umbilicus"; as synonym), not *B. umbilicatus* Schrank 1789 (devalidated name); *Boletus umbilicatus* Scop. per Spreng. 1827; *Polyporellus umbilicatus* (Scop. per Spreng.) P. Karst. 1889.

Fries (1821:348) referred this species to *Polyporus melanopus* var. *cyathoides* = *P. melanopus* (Pers.) ex Fr. sensu stricto. If this had been correct, it would have been logical if before the introduction of later starting points for fungi were introduced the name had been taken up as an earlier published name for *P. melanopus*. This was actually done, for instance by Sprengel (*Boletus*), P. A. Karsten (*Polyporellus*) and Romell (*Polyporus*), apparently solely on the strength of Fries's identification.

Scopoli's protologue does not support the identification of his species with *Polyporus melanopus*. His diagnosis and description run:

"DIAGN. Pileus absque fasciis et glaber, vertice umbilicato, fusco; porulis albis. / Habitat in ramulis aridis. / Solitarius, persistens; pileo diametro lin. (7); tubulis tenuissimis, albis; stipite longo, tereti, pileo concolore, basi crassiore."—Scopoli (1772: 466).

Because the description states that the stalk is of the same colour as the cap ("fuscus") identification with *Polyporus melanopus* is practically out of the question. In view of the incomplete description it is difficult to advance another suggestion. Stressing the words "tubulis tenuissimis" as well as the habitat the following species come to mind: *Polyporus varius* (the form with not blackening stalk, see *P. leptcephalus*), *P. ciliatus* (specimens without bristles, viz. small forms referable to *P. lepideus q.v.*), and perhaps *P. tubarius*.

Being unable to make a choice, I suggest that *Boletus umbilicatus* be treated as a nomen dubium.

varius. — *Boletus varius* Pers. 1796: 85 (devalidated name); *Polyporus varius* (Pers.) per Fr. 1821.

I firmly believe that the original conception of *Boletus varius* Pers. completely overlaps that of Fries's interpretation of *Polyporus elegans* (q.v.). Persoon's original description clearly points in this direction: "pileo . . . ochraceo . . . ; colore primo dilute ochraceus subnitidus, demum obscurior margine subrufescens." The colour and the features of the stalk ("stipite sublaterali elongato ad dimidio deorsim nigro") separate it from *Polyporus badius* (*P. picipes*). "Ad truncos ut plurimum fagineos."

In order to form an accurate opinion about the fungus Persoon had in mind the following points may be mentioned. Taken in combination they will easily remove all doubt. The cap is pale ochraceous and somewhat shining (while no streaking is mentioned). The stalk is rather long ('elongate'). The cap is rather small, ("1½–3 unc. latus"⁶) and thin ("4 lin. in medio crassus"). Moreover, *Boletus lateralis* Bolt. (q.v.) is listed as a synonym.

The modern conception of *P. varius* is not in accordance with the above conclusion; it pictures the typical species as having a bigger fruitbody with often (though not invariably) a darker coloured cap, "usually with radiate narrow streakings or fleckings of a lighter color" (Overholts, 1953: 265). In my opinion these differences are only gradual and the two forms ('varius' and 'elegans' of modern authors) merely extremes of variation within a single plastic species; these are not really separable even as varieties. A third extreme variation, or, rather, modification, received the name *P. numularius* (q.v.).

Many authors have badly confused *Polyporus varius* with *P. badius*. Fries (1821: 332) at first combined the two under the former name, as Bulliard had previously done under the name *Boletus calceolus* (q.v.). Later on Fries (1838: 440) excluded most of the typical *P. varius* element as *P. elegans*, retaining the name for an ill-defined group which in the main would seem to coincide with the modern conception of the big, darker form with streaked cap. Bourdot & Galzin (1928: 527) did not distinguish between *P. badius* and *P. varius*; it was left to Pilát to separate *P. badius* (*P. picipes*) again, but not before he had miscalled it *Polyporellus varius* (reserving the name *P. elegans* for the 'varius' complex in a broad sense, inclusive of the big form) (Pilát, 1936: 66).⁷ Soon afterwards he took up the name *Polyporellus picipes* (Pilát, 1937: 99).

vernalis. — [*Polyporus cyathoides* (Sw. per Fr.) Quél. sensu Quél. 1872: 270]; *Polyporus vernalis* Fr. 1874: 527;

≡ [*Polyporus vernalis* Fr. sensu Quél. 1880: 195 pl. 3f. 13]; *Polyporus queletianus* Sacc. & Trav. 1911: 490, apud Sacc. & Trav. 1912: 258.

⁶ This measurement reads "1½–2 unc." in Persoon's next description (1801: 524), thus still smaller. The thickness is not mentioned on this occasion.

⁷ This explains *inter alia* his use of the name *Polyporellus varius* instead of *P. picipes* in his discussion of 1937 on page 101.

When Fries introduced the name *Polyporus vernalis* for *P. cyathoides* sensu Quélet, he indicated that he had seen a picture of it. I assume that this was a copy of the one Quélet published in 1880 in connection with "[*Polyporus*] *vernalis*. Q. . . . In litt. ad E. Fries, 1873. *P. cyathoides*, Jura et Vosges, I. p. 243. *P. vernalis* Fr., Hym. p. 527. var. de *brumalis* P." From the quotation it may be concluded not only that Quélet claimed the authorship of the name (hence, *P. vernalis* Quélet, apud Fr. 1874), but also that *Polyporus vernalis* as published by Fries and by Quélet are one and the same taxon. Although the descriptions by these authors show some discrepancies, there seems to be insufficient reason to base a new species (*P. queletianus* Sacc. & Trav.) on the figure that Quélet published in 1880. The discrepancies can easily be explained if it is assumed that Fries made some errors in translation, viz. "stipite . . . squamoso-fibrilloso" for "stipe . . . hérissé de fibrilles ou d'écaillés", and "pileo . . . sericeo-striato" for "chapeau . . . hérissé de soies raides".

It also appears from the published figure that *Polyporus cyathoides* sensu Quélet. ≡ *P. queletianus* does not belong to *Polyporus* trib. *Pleuropus* where Quélet placed his species while he was still identifying it with the *Polyporus melanopus* subsp. *cyathoides* (Sw. per Fr.) Fr. that Fries had placed in that tribe. Compare Quélet's remark of 1872, "Ressemble au *Brumalis*" (which from Quélet's description is identifiable with the *P. brumalis* of the present paper).

Although there is a strong resemblance between Quélet's first description (as *Polyporus cyathoides*; 1872) and his more elaborate later one (as *Leucoporus brumalis* var. *vernalis*; Quélet, 1888: 403) it may be significant that there are also a few noteworthy differences: "Eté. Souches" became "Printemps. — Sur les ramilles . . ." The figure cited above shows the fruitbody arising from a twig. Fries's description (the one by which the name *P. vernalis* was validly published) is in any case merely a translation of Quélet's first description (with some errors, as indicated above, and with the addition of "[pileo] e carnosio coriaceo").

Polyporus vernalis has often been reduced to *P. brumalis* (*q.v.*) as either a variety or a form; it must not be confused with *P. brumalis* "b. vernalis" Fries (1821: 348), which is a nomenclatively different taxon.

As to the identity of *Polyporus vernalis* I have no other suggestion than that it is based on a small form of *P. ciliatus* with an indumentum on both cap ("hérissé de soies raides") and stalk ("hérissé de fibrilles ou d'écaillés"). The pores are small (Quélet: "petits"; Fries: "minutis") in contradistinction to those of *P. brumalis*, which Quélet (1872: 268) called "oblongs, anguleux"

Kreisel (1963: 134) concluded: "*P. vernalis* Fr. 1874 ist jedoch ein kahler Pilz, anscheinend eine Form von *P. varius* Fr. (vergl. Bresadola 1931, Tafel 952)." From what is said above this conclusion can in my opinion not be correct. As to Bresadola's plate (1931) cited by Kreisel, it looks different from the fungus depicted by Quélet, but I would not refer it to *P. varius*.

RECAPITULATION

The following recapitulation embodies most of the names discussed in this paper. Where no generic names are mentioned the epithets actually form combinations with '*Polyporus*'. Where in the right-hand column no author's citations are given, it will be possible to find these by looking up the name (epithet) in the left hand column.

<i>agariceus</i> (König) ex Berk.	An <i>Polyporus umbilicatus</i> Jungh.
— sensu Bres. p.p.	= <i>Polyporus anisoporus</i>
<i>anisoporus</i> Del. & Mont. apud Mont.	
<i>arcularius</i> (Batsch) per Fr.	
— sensu auctt. nonn.	= <i>Polyporus anisoporus</i>
<i>badius</i> (Pers. per S. F. Gray) Schw.	
<i>batschii</i> Gmel., <i>Boletus</i>	= <i>Polyporus badius</i>
<i>boucheanus</i> (Kl.) Fr. (nomen dubium)	
— sensu Lloyd	= <i>Polyporus floccipes</i>
— sensu Bres.	= <i>Polyporus anisoporus</i>
<i>brumalis</i> (Pers.) per Fr.	
— sensu Bres.	= <i>Polyporus ciliatus</i>
<i>calceolus</i> (Bull. per St-Am.) Balbis	= <i>Polyporus varius</i>
<i>carinthiacus</i> (Pers.) per Roques	= <i>Albatrellus ovinus</i> (Schaeff. per Fr.) Kotl. & P. (or <i>A. similis</i> Pouz.)
<i>ciliatus</i> Fr. per Fr.	
<i>coriaceus</i> Huds., <i>Boletus</i>	= <i>Laetiporus sulphureus</i> (Bull. per Fr.) Murrill
<i>coronatus</i> Rostk.	= <i>Polyporus squamosus</i>
— sensu Malenç.	= <i>Polyporus floccipes</i>
<i>cristatus</i> (Schaeff.) per Fr. 1821	= <i>Albatrellus cristatus</i> (Schaeff. per Fr.) Kotl. & P.
<i>cristatus</i> Fr. 1838	= <i>Albatrellus cristatus</i> (Schaeff. per Fr.) Kotl. & P.
<i>cyathoides</i> (Sw. per Fr.) Quél.	= <i>Polyporus melanopus</i> (Pers.) ex Fr.
— sensu Quél.	= <i>Polyporus ciliatus</i>
<i>durus</i> Timm, <i>Boletus</i>	= <i>Polyporus badius</i>
<i>elegans</i> (Bull.) per Trog	= <i>Polyporus varius</i>
— sensu Trog.	An <i>Polyporus badius</i>
— sensu Fr.	= <i>Polyporus varius</i> , forma or var.
<i>floccipes</i> Rostk.	
— sensu Bres. 1903	= <i>Polyporus anisoporus</i>
<i>globularis</i> Pers.	An <i>Polyporus varius</i>
<i>lateralis</i> Bolt. per Hook.	= <i>Polyporus varius</i>
<i>lentus</i> Berk.	= <i>Polyporus floccipes</i>
<i>lepideus</i> Fr. per Steud.: Fr.	= <i>Polyporus ciliatus</i> , forma
<i>leptocephalus</i> (Jacq.) per Fr.	= <i>Polyporus varius</i>
<i>lobatus</i> (Gmel.) per Fr.	= <i>Laetiporus sulphureus</i> (Bull. per Fr.) Murrill
— sensu Fr.	= ?
<i>melanopus</i> (Pers.) per Fr.	
<i>montagnei</i> Fr. ex Mont.	= <i>Coltricia montagnei</i> (Fr. ex Mont.) Murrill
— sensu Dur. & Mont.	= <i>Coltricia cinnamomea</i> (Jacq. per S. F. Gray) Murrill
<i>montagnei</i> Bres.	= <i>Coltricia montagnei</i> (Fr. ex Mont.) Murrill
<i>numularius</i> (Bull. per Fr.) Pers.	= <i>Polyporus varius</i>
<i>perennis</i> Batsch, <i>Boletus</i>	= <i>Polyporus badius</i>
<i>picipes</i> Fr.	= <i>Polyporus badius</i>
<i>queletianus</i> Sacc. & Trav.	= <i>Polyporus ciliatus</i>
<i>ramulorum</i> Gmel., <i>Boletus</i>	= <i>Polyporus varius</i>
<i>subarcularius</i> (Donk) Bond.	= <i>Polyporus brumalis</i>

- subsquamosus* (L.) per Fr. = *Albatrellus ovinus* (Schaeff. per Fr.) Kotl. & P.
 — sensu Wulf. ≡ *Polyporus carinthiacus* q.v.
tiliae S. Schulz. apud Fr. (nomen
 dubium) An *Polyporus floccipes*
umbilicatus Scop., *Boletus* (nomen
 dubium)
varius (Pers.) per Fr.
 — sensu auctt. nonn. = *Polyporus badius*
vernalis Quél. apud Fr. = *Polyporus ciliatus*

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