PROPOSALS TO CONSERVE OR REJECT NAMES

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(2675) Proposal to conserve *Alectoria fuscescens* (*Bryoria fuscescens*), nom. cons., against the additional names *Usnea implexa*, *Alectoria capillaris*, *A. cana*, *A. rubens*, *A. fuscidula*, *A. degenii*, *A. forissii*, *A. ostrobotniae*, *A. kuemmerleana*, *A. haynaldiae*, *A. achariana*, *A. lanestris*, *A. prostratosteola*, and *A. viridescens* (*Fungi*, *Ascomycota*, *Lecanorales*, *Parmeliaceae*)

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(2675) ***Alectoria fuscescens*** Gyeln. in Nyt Mag. Naturvidensk. 70: 55. 25 Jan 1932 ('1931'), nom. cons. (*Bryoria fuscescens* (Gyeln.) Brodo & D. Hawksw.).
Typus: Finland, Tavastia austr., Hollola, ad truncos *Pini* locis aprici oribus in silva, 18 Sep 1882, *Norrlin* in Norrlin & Nylander, Herb. Lich. Fenn. [exs.] No. 466a (BP No. 33947; isotypi: BM, CANL Nos. 29907 & 32345, H barcodes H9500263 & H9511272). Epitypus (vide Boluda & al. in Persoonia 42: 87. 2018): Finland, Etelä-Savo, Savitaipale, 600 m NW of Mustapää, *Picea* forest near Tikkioja, on twigs of *Picea abies*, 61.1721° N, 27.6900° E, 2005, *Myllys 464* (H barcode H9209715).

(=) *Lichen chalybeiformis* L., Sp. Pl.: 1155. 1 Mai 1753 (nom. cons.) (*Bryoria chalybeiformis* (L.) Brodo & D. Hawksw.), nom. rej.
Typus: Herb. Linnaeus No. 1273.291 (LINN) (typ. cons.).

(=) *Usnea implexa* Hoffm., Deutschl. Fl. 2: 134. 1796 (*Bryoria implexa* (Hoffm.) Brodo & D. Hawksw.), nom. rej. prop.
Neotypus (vide Hawksworth in Taxon 18: 395. 1969): *Hoffmann 8569* (MW).

(=) *Alectoria capillaris* (Ach.) Cromb. in J. Bot. 9: 177. 1 Jun 1871 (*Parmelia jubata* var. *capillaris* Ach., Methodus: 273. Jan–Apr 1803) (*Bryoria capillaris* (Ach.) Brodo & D. Hawksw.), nom. rej. prop.
Lectotypus (vide Hawksworth in Taxon 18: 393. 1969): Suecia (H-ACH No. 1799A [barcode H9503990]).

(=) *Alectoria cana* (Ach. ex Westr.) Leight., Lich. Fl. Gr. Brit.: 88. 1 Sep 1871 (*Lichen jubatus* [unranked] *canus* Ach. ex Westr., Sv. Lafv. Färghist.: 185. 1807), nom. rej. prop.
Lectotypus (hic designatus, IF 556317): [icon in] Westring, Sv. Lafv. Färghist.: t. [14], fig. B. 1807.

(=) *Alectoria rubens* (Kernst.) Gyeln. in Folia Cryptog. 1: 598. 2 Mai 1928 (*Alectoria cana* f. *rubens* Kernst. in Verh. K. K. Zool.-Bot. Ges. Wien 42: 341. 1892), nom. rej. prop.
Lectotypus (vide Hawksworth in Taxon 18: 394. 1969): Italy, "Tirolia, ad ramulos *Abietum* in sylva versus montem Roën in jugo Mendel", *Arnold 1339* [Zahlbruckner, Krypt. Exs. Vindob. No. 1048] (W; isolectotypus: BM).

(=) *Alectoria fuscidula* (Arnold) Vain. in Ann. Acad. Sci. Fenn., Ser. A, 27(6b): 70. 1928 (*Alectoria cana* f. *fuscidula* Arnold, Lich. Exs. Nos. 914a, 914b. 1882) (*Bryoria fuscidula* (Arnold) Bystrek), nom. rej. prop.
Lectotypus (vide Hawksworth in Lichenologist 5: 211. 1972): Italy, "Südtirol, an dünnen Zweigen einer *Pinus Cembra* am oberen Waldsaume gegen den Vocche See bei Paneveggio", 30 Jul 1882, *Arnold* in Arnold, Lich. Exs. No. 914a (M; isolectotypi: BM, H barcode H9511275, H-NYL No. 35921 [barcode H9511274]).

(=) *Alectoria degenii* Szatala in Magyar Bot. Lapok 29: 96. 1930, nom. rej. prop.
Lectotypus (vide Hawksworth in Taxon 18: 394. 1969): Bulgaria, "Čepelarska planina, in jugo "Čepelare", supra corticem *Piceae excelsae*", alt. ca. 1600 m, 4 Jun 1929, *Szatala* (BP No. 33940; isolectotypi: BP No. 33941, H barcode H9511282).

(=) *Alectoria subcana* (Nyl. ex Stizenb.) Gyeln. in Magyar Bot. Lapok 30: 54. 22 Mai 1931 (*A. prolixa* var. *subcana* Nyl. ex Stizenb. in Ann. K. K. Naturhist. Hofmus. 7: 129. 1892) (*Bryoria subcana* (Nyl. ex Stizenb.) Brodo & D. Hawksw.), nom. rej.
Lectotypus (vide Hawksworth in Lichenologist 5: 249. 1972): Scotland, Ben Lawers, 1873, *Crombie* (H-NYL No. 35835 [barcode H9511273]; isolectotypi: BM barcodes BM000974527 & BM000974528).

(=) *Alectoria forissii* Gyeln. in Magyar Bot. Lapok. 30: 53. 22 Mai 1931, nom. rej. prop.
Lectotypus (vide Hawksworth in Taxon 18: 394. 1969): France, Hautes-Pyrénées, sur sapins, Aug 1927, *Jeanjean* (BP No. 33946).

(=) *Alectoria ostrobotniae* Gyeln. in Magyar Bot. Lapok 30: 54. 22 Mai 1931, nom. rej. prop.
Holotypus: Finland, "Ob., Simo, kuusella" [= on *Picea*], 15 Jun 1915, *Räsänen* (BP No. 33956; isotypus H barcode H9500279).

(=) *Alectoria kuemmerleana* Gyeln. in Magyar Bot. Lapok 30: 54. 22 Mai 1931 ('*kümmerleana*') (*Bryoria kuemmerleana* (Gyeln.) Brodo & D. Hawksw.), nom. rej. prop.
Holotypus: Slovakia, "Hungaria, Com. Szepes, fenyveserdő alomalján, a "Stösschen" lejtöjén a Magas Tátrában, ca. 1380 m", 17 Jul 1917, *Timkó 3264* (BP No. 33952).

(=) *Alectoria haynaldiae* Gyeln. in Nyt Mag. Naturvidensk. 70: 49. 25 Jan 1932 ('1931') ('*haynaldii*'), nom. rej. prop.
Holotypus: Slovakia, "Hungaria, Csorbai erdőből", 20 Jul 1883, *Amália Haynald* (BP No. 33949).

(=) *Alectoria achariana* Gyeln. in Nyt Mag. Naturvidensk. 70: 54. 25 Jan 1932 ('1931'), nom. rej. prop.
Holotypus: Hungary, Fenyőn, "D. Tomnatecului" nyugati oldalában a Kudzsiri havasokban Hunyad megyében, 1320 m, *Fóriss 2425* (?BP deest).

(=) *Alectoria lanestris* (Ach.) Gyeln. in Nyt Mag. Naturvidensk. 70: 58. 25 Jan 1932 ('1931') (*Alectoria jubata* var. *lanestris* Ach., Lichenogr. Universalis: 593. Apr–Mai 1810) (*Bryoria lanestris* (Ach.) Brodo & D. Hawksw.), nom. rej. prop.
Lectotypus (vide Hawksworth in Lichenologist 5: 222. 1972, 'holotype'): Helvetia, [*Schleicher 926*] (H-ACH No. 1808A [barcode H9503032]).

(=) *Alectoria prostratosteola* Gyeln. in Nyt Mag. Naturvidensk. 70: 58. 25 Jan 1932 ('1931'), nom. rej. prop.
Lectotypus (vide Gyelnik, Ann. Mus. Natl. Hung. 32: 156. 1939): Hungaria, Com. Esztergom, *Fraxinus* korhadt tuskóján a Keserűs-hegy Vadálló-köveknél, Dömös mellett, 400 m, 18 Jul 1914, *Timkó* (BP).

(=) *Alectoria viridescens* Gyeln. in Nyt Mag. Naturvidensk. 70: 50. 25 Jan 1932 ('1931'), nom. rej. prop.
Holotypus: Russia, "Fennia, Karelia ladogensis, Sortavala, Kirjavalahti, Vaaralahti ("Vaalavahti"), ad piceam", 7 Jun 1923, *Linkola* (BP No. 33964; isotypus: H barcode H9500207).

Alectoria fuscescens, the basionym of *Bryoria fuscescens* (Gyeln.) Brodo & D. Hawksw. (in Opera Bot. 42: 83. 1977) has already been conserved against *Lichen chalybeiformis* (with a conserved type) and *A. subcana* (Nyl. ex Stizenb.) Gyeln. (*A. prolixa* var. *subcana* Nyl. ex Stizenb.). That proposal was made by Hawksworth & Jørgensen (in Taxon 62: 1057. 2013), recommended for approval by the Nomenclature Committee for Fungi with a 75% vote in favour (May in Taxon 66: 483–495. 2017), and accepted at the XIX IBC in Shenzhen (Wilson in Taxon 66: 743. 2017; Turland & al. in Taxon 66: 1236. 2017).

A comprehensive multi-authored molecular study of this complex using five genes and data from 18 microsatellite markers revealed a mismatch between phenotypes and genotypes, and concluded that the current taxonomy based on chemical components, thallus colour, and some minor morphological features could not be upheld, and the currently accepted 11 species should be reduced to just 4 (Boluda & al. in Persoonia 42: 75–100. 2018).

In order to irrefutably fix the application of names in this complex, molecular sequence data are essential, which would require epitypification by sequenced specimens of all pertinent species epithets. While this has not been done for the species names proposed for rejection above, we consider it unlikely that this would place them elsewhere on the basis of what is known of their chemical products and morphological characters. It is therefore prudent to propose their rejection in order to safeguard the epithet of the already conserved name *Alectoria fuscescens*.

We considered taking up the earliest species name in the complex, but that would have meant resurrecting the rejected *Lichen chalybeiformis* and typifying it with a sequenced epitype as only *Alectoria fuscescens* is conserved over that name. The epithets of *Lichen chalybeiformis*, and also the two other earliest species rank names in the complex, *Usnea implexa* and *Alectoria capillaris*, are all traditionally linked to particular suites of morphologies and chemical products (e.g., Hawksworth in Taxon 18: 393–399. 1969; Brodo & Hawksworth in Opera Bot. 42: 1–165. 1977; Myllys & al. in Nordic Lich. Fl. 4: 36–37. 2011; Velmala & al. in Ann. Bot. Fenn. 51: 345–371. 2014; Myllys & al. in Bryologist 119: 29–38. 2016), and so their use could indicate that reference was being made to a taxon with their traditionally diagnostic features. This would be less of an issue in persisting with *Bryoria fuscescens* as material referred to it has actually already been reported as including several chemotypes (Hawksworth & al. in Bull. Brit. Lichen Soc. 109: 9–11. 2011; Myllys & al. in Lichenologist 43: 617–638. 2011; Boluda & al. in Lichenologist 47: 279–286. 2015); as a result, many records will have unwittingly already included other chemotypes than the fumarprocetraric acid one represented by its lecto- and epitypes.

We concluded that the addition of a further 14 names to those over which *Alectoria fuscescens* is already conserved best serves nomenclatural stability. Amongst these names, are ones that have long been regarded as synonyms of the species being newly synonymized. This act avoids the possibility of any of those names being taken up through new epitypifications to threaten other species names in the complex. The proposal does not, however, preclude any of the additional names proposed here for rejection from being taken up in future should fresh molecular work indicate that they should be treated as distinct from *A. fuscescens*.

The names *Alectoria subachariana* Gyeln. (in Acta Fauna Fl. Universali, Ser. 2, Bot. 1(1): 4. 1932; holotype: BP No. 33963) and *A. vrangiana* Gyeln. (in Magyar Bot. Lapok 31: 46. 31 May 1932; holotype: BP No. 33967) are not proposed for rejection here as these were published after 25 Jan 1932. Further, the name *Alectoria rubescens* Anders (Strauch- & Laubflechten Mitteleur.: 181. Nov–Dec 1928; ascribed to "Kernstock") is also omitted as this was evidently intended to be a raising of Kernstock's *A. cana* f. *rubens* Kernst. (see above) to species rank with an intentional or unintentional change in orthography, but Gyelnik had already made the combination in May 1928 so Anders' name is superfluous and illegitimate (Art. 52.1 of the *ICN*; Turland & al. in Regnum Veg. 159. 2018).

The interpretations or typifications provided for three of the names treated above merit further explanation:

(1) The interpretation of the rank of "*Usnea implexa*" and similar names in Hoffmann's *Deutschlands Flora* of 1796 has been a long-standing cause of debate. Some appeared in parentheses in small type

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blocks of text under numbered accepted species, as in this case, while others appear as if a new entry but with no number (e.g., *Usnea ramulosa*). Hawksworth (in Taxon 18: 395. 1969) argued that because Hoffmann explained that he used parentheses when he was unsure of the rank to apply on the fourth (unnumbered) page of his "Vorbericht", the name should be regarded as an unranked "taxon vagum", although the *Taxon* Editor at the time decided to list it as of species rank in the final publication. In section "P4" of the unpaginated Index, however, not discussed in 1969, the name is listed in an identical way to all other species names in the work, and that can be interpreted as a clear indication of species rank. The name is therefore now accepted as validly published at species rank in 1796.

(2) There is a discrepancy in date and locality information given for the lectotype specimen of *Alectoria jubata* var. *subcana*, H-NYL 35835, when selected by Hawksworth (in Lichenologist 5: 249. 1972) and those presented here and in App. IV of the *Shenzhen Code* (available as an online searchable database at https://botany.si.edu/references/codes/props/). The specimen just has the words "Anglia ? Scotia ? misit Crombie 1875", and the date of 1875 given in 1972 was therefore when it was sent to Nylander ("misit Crombie 1875") and not a collection date. The earlier 1873 date and the additional locality information were based on the material in BM dated 1873 and that has the locality name Ben Lawers which was cited by Crombie (in J. Bot. 14: 360. 1876) when the name first appeared in print and said to be "on the trunks of old firs". In validating the varietal name, Stizenberger (l.c.) stated "Schottland (an alten Coniferenstämmen): Crombie" which we interpret as citing a duplicate of the 1873 Crombie material and so making the H-NYL specimen acceptable as a lectotype (Art. 9.4).

(3) The selection of a specimen from France as "lectotype" for the name *Alectoria jubata* var. *cana* by Hawksworth (in Taxon 18: 393. 1969) was based on the understanding that the varietal epithet was first published by Acharius (in Lichenogr. Universalis: 593. 1810). He overlooked the fact that the varietal epithet was actually taken from a usage by Acharius in an earlier book by Westring on Swedish lichens used for dyeing and that included an illustration that has to be regarded as original material and so is designated above as lectotype.

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(2676) Proposal to conserve the name *Lepisorus* nom. cons. against the additional name *Macroplethus* (*Polypodiaceae*)

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(2676) ***Lepisorus*** (J. Sm.) Ching in Bull. Fan Mem. Inst. Biol. 4: 56. 1933 (*Drynaria* [unranked] *Lepisorus* J. Sm. in Bot. Mag. 72(Comp.): 13. 1846), nom. cons.
Typus: *Drynaria sesquipedalis* J. Sm., nom. illeg. (*Pleopeltis nuda* Hook., *L. nudus* (Hook.) Ching).

(=) *Macroplethus* C. Presl, Epimel. Bot.: 141. Oct 1851; in Abh. Königl. Böhm. Ges. Wiss., ser. 5, 6: 501. Oct 1851, nom. rej. prop.
Typus: *M. platyrhynchos* (Kunze) C. Presl (*Hymenolepis platyrhynchos* Kunze).

The paleotropical fern genus *Lepisorus* (J. Sm.) Ching (in Bull. Fan Mem. Inst. Biol. 4: 56. 1933) is currently represented by about 60–70 species widely distributed in tropical Africa and Asia, but most diversified in subtropical Asia, one species extending to Hawaii (Wang & al. in Bot. J. Linn. Soc. 162: 28–38. 2010a).

Based on convincing molecular phylogenetic results (Kreier & al. in Molec. Phylogen. Evol. 48: 1155–1167. 2008; Wang & al. in Molec. Phylogen. Evol. 54: 211–225. 2010b), Wang & al. (l.c. 2010a) merged *Belvisia* Mirb. (in Lamarck & Mirbel, Hist. Nat. Vég. 3: 473, 5: 111. 1802), *Paragramma* (Blume) T. Moore (Index Filic.: xxxii. 1857) and *Drymotaenium* Makino (in Bot. Mag. (Tokyo) 15: 102. 1901) under a broadly circumscribed *Lepisorus*. Due to the priority of these earlier names, Hovenkamp & al. (in Taxon 60: 591–592. 2011) proposed to conserve the name *Lepisorus* against *Belvisia*, *Paragramma* and *Drymotaenium*. Their proposal was accepted (Applequist in Taxon 61: 1111. 2012; Wilson in Taxon 65: 381. 2016) and is now included in the online Appendices to the *ICN* (http://botany.si.edu/references/codes/props/).

However, Hovenkamp & al. (l.c.) overlooked the existence of another earlier name, *Macroplethus* C. Presl (Epimel. Bot.: 141. 1851; in Abh. Königl. Böhm. Ges. Wiss., ser. 5, 6: 501. 1851; apparently published simultaneously) for which *Macroplethus platyrhynchos* (Kunze) C. Presl (*Hymenolepis platyrhynchos* Kunze) was the only species name included in the protologue and hence is the original type of the generic name. This species was included in *Belvisia*