

The checklist of parmelioid and similar lichens in Europe and some adjacent territories: additions and corrections

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Abstract: Additions and corrections to the checklist published in 2008 are presented. Ten additional species are recognized: *Allantoparmelia almquistii*, *Asahinea chrysantha*, *Hypogymnia bryophila*, *Hypotrachyna afrorevoluta*, *Melanelixia glabrata*, *Parmelia encyrtata*, *Parmelina atricha*, *P. cryptotiliacea*, *Parmotrema cinereopruinata*, and *Punctelia rudecta*. *Myelochroa subaurulenta* is deleted, and *Xanthoparmelia Perezdepazii* is also noted as newly described from the Canary Islands. In addition, *Cavernularia hultenii* is now placed in *Hypogymnia*, the *Canoparmelia crozalsiana* group is included within *Parmotrema*, and *Parmelinopsis* is treated as a synonym of *Hypotrachyna*. The typification of the name *Lichen quercinus* is also corrected with the designation of the original figure as lectotype, and the new combination *Hypotrachyna cryptochlora* comb. nov. (syn. *Parmelia cryptochlora*) is made.

Key words: Ascomycota, biogeography, *Hypotrachyna cryptochlora*, Lecanoromycetes, Parmeliaceae

Introduction

Hawksworth *et al.* (2008) presented a first checklist of parmelioid and similar lichens in Europe and some adjacent territories, in which 25 genera and 143 species were accepted; synonyms used at species level in the European literature were also cross-referenced to the names of accepted taxa. The publication of a checklist always stimulates others to point out omissions and corrections, and that checklist was no exception. The present contribution summarizes the additions and corrections that have been drawn to our attention, along with subsequently made taxonomic changes that have been introduced.

Additions and Corrections

Additional species now recognized are indicated in **bold** type, accepted species with additions or corrections are placed in regular type, and additional or revised synonyms are given in *italic* type. The country codes used (Table 1) follow those in Hawksworth *et al.* (2008: Table 1) with the addition of Albania (AL) and Crete (CRE), the latter records of which are now separated from those of the rest of Greece. Literature and online sources used in preparing this update are listed under 'References' below.

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Allantoparmelia almquistii (Vain.) Essl.
1978
GRO, RUS

Lit.: Urbanavichus (2010).

Arctoparmelia incurva
Add IS

Asahinea chrysantha (Tuck.) W.L. Culb.
& C.F. Culb. 1965
N, RUS

Lit.: Hakulinen & Ulvinen (1966), Randlane & Saag (1989).

TABLE 1. Abbreviations used for country and island names (for notes on usages see Hawksworth et al. 2008)

A	Austria	F	France	MAD	Madeira
AL	Albania	FIN	Finland	MNE	Montenegro
AND	Andorra	FO	Faeroe Islands	N	Norway
AZO	Azores	FYRM	Macedonia	NL	The Netherlands
B	Belgium	GB	United Kingdom	P	Portugal
BG	Bulgaria	GR	Greece	PL	Poland
BIH	Bosnia-Herzegovina	GRO	Greenland	RO	Romania
BR	Belarus	H	Hungary	RUS	Russia
CH	Switzerland	HR	Croatia	S	Sweden
CR	Crete	I	Italy	SRBI	Serbia
CZ	Czech Republic	IRL	Ireland	SK	Slovakia
D	Germany	IS	Iceland	SLO	Slovenia
DK	Denmark	JM	Jan Mayen	SV	Svalbard
E	Spain	L	Luxembourg	TR	Turkey
EC	Canary Islands	LT	Lithuania	UA	Ukraine
EST	Estonia	LV	Latvia		

Brodoa intestiniformis

Add GR

Brodoa oroarctica

Add SV

Canoparmelia crozalsiana = *Parmotrema crozalsianum**Cavernularia hultenii* = *Hypogymnia hultenii***Cetrelia alaskana**

Change RUS to RUS (?)

Note: The reported specimen from RUS requires confirmation.**Cetrelia cetrarioides**

Add EST

Cetrelia chicitae

Add RUS

Cetrelia monachorum

Add S

Cetrelia olivetorum

Change EST (extinct) to EST

Flavoparmelia caperata

Change EST (extinct) to EST

Flavoparmelia soledians

Add GR, MAD, RUS, and S

Hypogymnia bitteri

Add GR (?) and GRO, and delete NL

Hypogymnia bryophila McCune 2002
P*Lit.:* McCune (2002).**Hypogymnia farinacea**

Add NL (extinct)

Hypogymnia hultenii (Degel.) Krog 1951

GB, N, S

Note: Molecular sequence data shows that this species has to be included within *Hypogymnia* (Miądlikowska et al. 2011), as proposed earlier by Räsänen (1943) and Krog (1951).**Hypogymnia incurvoides**

Add GRO

Hypogymnia laminisorediata

Add GR and SRBI

Hypogymnia physodes

Add GR and JM

Hypogymnia subobscura

Add FIN

Lit.: Thell & Moberg (2011), Stenroos et al. (2011).**Hypogymnia vittata**

Change DK (extinct) to DK, and add GR (?) and NL (extinct)

Hypogymnia madeirensis (in Note)

Add EC

Hypogymnia obscurata (Ach.) Zopf 1907 = *H. austerodes***Hypogymnia obscurata auct. non** (Ach.) Zopf 1907 = *H. bitteri***Hypogymnia pertusa** (Schrank) Zopf 1907 = *Menegazzia terebrata***Hypotrachyna afrorevoluta** (Krog & Swinscow) Krog & Swinscow 1978

CH, D, EC, F, GB, IRL, N, NL, P, RUS, TR

Note: Canary Islands material has now been confirmed by molecular sequence data, but no sequence data are yet available from European collections. However, the species is accepted here now as it is being recognized on morphological grounds by European lichenologists (e.g. Masson 2005).

Hypotrachyna britannica

Add CH

Hypotrachyna cryptochlora (Vain.) D.

Hawksw. & A. Crespo 2011¹

AZO, EC

Hypotrachyna horrescens (Taylor) Krog

& Swinscow 1987

AZO, CH, E, EC, F, GB, I, IRL, MAD, P,
SLO

Hypotrachyna minarum (Vain.) Krog &

Swinscow 1987

AZO, CH, E, EC, F, GB, GR, I, MAD, P,
TR

Hypotrachyna revoluta

Add GR (?)

Note: add “Some records may refer to *H. afrorevoluta*.”

Hypotrachyna rockii

Start on a new line.

Hypotrachyna prolongata (Kurok.) Hale 1975

Reported from MAD

Hypotrachyna pseudosinuosa (Asah.) Hale

1975

Reported from AZO and EC

Hypotrachyna subfaticens (Kurok.) Swinscow

& Krog 1988

Reported from AZO

Imshaugia aleurites

Add GRO

Melanelia disjuncta

Add FO, GR

Melanelia panniformis

Add EST, FO

Melanelia hepatizon

Add GR (?), and change EST (extinct) to
EST

Melanelia sorediella = *Cetrariella sorediella*
(Lettau) V. J. Rico & A. Thell 2011

Note: This taxon was established as a member of the cetrarioid clade, along with *C. commitxta* (Nyl.) A. Thell 1995, by Nelson *et al.* (2011) on the basis of molecular phylogenetic studies.

Melanelia stygia

Add SV

Melanelia tominii

Add SV

Melanelixia fuliginosa

Replace existing country records by: A, B, CRE, CZ, D, DK, E, EST, F, FIN, FO, GB, GR, I, IRL, IS, L, N, P, PL, RO, RUS, S, SV (?), UA

Note: Reports from AL, AND, BG, BIH, BR, CH, EC, FO, FYRM, H, HR, IS, LT, LV, MAD, MNE, NL, SRBI, SK, SLO, and TR may include or refer to *M. glabratula* and are in need of reassessment.

Lit.: Arup & Sandler Berlin (2011), Thell & Moberg (2011).

Melanelixia fuliginosa subsp. *glabratula* =

Melanelixia glabratula

Melanelixia glabra

Add CRE

Melanelixia glabratula (Lamy) Sandler & Arup 2011

A, B, CH, CZ, D, DK, E, EST, F, FIN, GB, GR, GRO, H, I, IRL, L, LT, LV, N, NL, P, RO, RUS, S, SK, UA

Note: Some reports of *M. fuliginosa* from other countries (see *Note* above) may include or represent this species.

Lit.: Arup & Sandler Berlin (2011), Thell & Moberg (2011).

Melanelixia subargentifera

Add NL

Melanelixia subaurifera

Add GR and NL, MAD, and delete FO

Melanohalea elegantula

Change EST (extinct) to EST, and add SV

Melanohalea exasperata

Add CRE

Melanohalea exasperatula

Add CRE

Melanohalea olivacea

Add CH and N

Melanohalea laciniatula

Add CRE and RUS (?)

Menegazzia subsimilis

Add IRL

Myelochora aurulenta

Add TR

Myelochroa subaurulenta

Delete the entire species entry; the species is not known from the European part of RUS.

Parmelia angustiphylla = *Xanthoparmelia angustiphylla*

Parmelia austerodes Nyl. 1881 = *Hypogymnia austerodes*

Parmelia barroanae

Add RUS

¹ ***Hypotrachyna cryptochlora*** (Vain.) D. Hawksw. & A. Crespo, **comb.nov.**

Mycobank no.: MB561370

Basionym: *Parmelia cryptochlora* Vain., *ŷ. Bot., Lond.* 34: 34 (1890).

- Parmelia budae* = ? *Melanelixia glabratula*
Parmelia carneopruinata = *Parmotrema carneopruinatum*
Parmelia crozalsiana = *Parmotrema crozalsianum*
Parmelia dissecta = *Hypotrachyna horrescens*
Parmelia encryptata A. Crespo *et al.* 2011
 E, GB, IRL
Lit.: Molina *et al.* (2011)
Parmelia ernstiae
 Add BIH, CZ, DK, EST, F, FIN, GR, L, NL, and RUS
Lit.: Thell & Moberg (2011), Stenroos *et al.* (2011), Urbanavichus (2010).
Parmelia fraudans
 Start on a separate line, and also change the date to 1875.
Parmelia fuliginosa var. *laetevirens* = *Melanelixia glabratula*
Parmelia flotowiana = *Melanelixia glabratula*
Parmelia fuliginosa var. *laetevirens* = *Melanelixia glabratula*
Parmelia glabratula subsp. *fuliginosa* = *Melanelixia fuliginosa*
Parmelia horrescens = *Hypotrachyna horrescens*
Parmelia hypotropoides Nyl. 1874 = *Hypogymnia vittata*
Parmelia incolorata = *Melanelixia glabratula*
Parmelia laetevirens = *Melanelixia glabratula*
Parmelia minarum = *Hypotrachyna minarum*
Parmelia obscurascens (Bitter) Zahlbr. 1929 = *Hypogymnia austerodes*
Parmelia perrugata Nyl. 1885 = *Xanthoparmelia perrugata*
Parmelia saxatilis
 Add CRE
Parmelia sbarbaronis = *Parmotrema carneopruinatum*
Parmelia serrana
 Add A, FIN, RUS, and UA
Lit.: Thell & Moberg (2011), Stenroos *et al.* (2001).
Parmelia submontana
 Add EST and NL
Parmelia sulcata
 Add JM
Parmelina atricha (Nyl.) P. Clerc 2008
 E, F, CH
Note: The Spanish record is based on a recent collection (**Spain**: Girona: Espinavell, road to Setcases, 42°22'55"N 2°23'19"E, alt. 1307 m, on slates, 23 xi 2010, A. Crespo *et al.*, MAF-Lich 16633). It

was also recollected in or near the original locality (**France**: Pyrénées-Orientales: La Preste, road to Le Fourquets, 42°24'59"N 2°24'51"E, alt. 1392 m, on slates, 23 xi 2010, A. Crespo *et al.*, MAF-Lich 16634).

Lit.: Clerc & Truong (2008).

Parmelina carporrhizans
 Add CH, and CRE

Parmelina cryptotiliacea A. Crespo & Núñez-Zapata 2011
 E

Lit.: Núñez-Zapata *et al.* (2011)

Parmelina pastillifera
 Add CRE

Parmelina quercina
 Add CRE, DK (extinct), and NL (extinct)

Note: In typifying the name *Lichen quercinus* Willd. 1787, Argüello *et al.* (2007) designated a neotype from Germany and a sequenced epitype from Spain, rather than selecting the illustration published by Willdenow (1787: pl. 7 fig. 13) as lectotype, as that was not sufficiently diagnostic to fix the application of the name. However, as an illustration was available, under Art. 9.2 Note 2, that is considered part of the original material and so should have been selected despite its shortcomings. It had been anticipated that the *Code* might be modified to preclude the forcing of the use of such inadequate illustrations, but no such proposal was made in time for the upcoming International Botanical Congress. We therefore now formally designate Willdenow's fig. 13 as lectotype for this name (*lectotypus hic designatus*). It is also necessary to formally designate as epitype for Willdenow's illustration the sequenced specimen (**Spain**: Comunidad de Madrid: Aldea del Fresno, alt. 483 m, on *Quercus rotundifolia*, 7 iii 2003, A. Argüello *et al.*, MAF-Lich 13946 – *epitypus hic designatus*). The German specimen (B 60 0033509) consequently has no status as a nomenclatural type.

Parmelina tiliacea
 Add CRE

Parmelinopsis = *Hypotrachyna*

Note: We previously noted that this genus was perhaps best included within *Hypotrachyna* (Hawksworth *et al.* 2008). Subsequent molecular studies have shown that the European species retained in *Parmelinopsis* belong in the same clade as other *Hypotrachyna* species with adpressed thalli such as *H. revoluta* (Crespo *et al.* 2010). We therefore treat all these species in *Hypotrachyna* here. In doing this, we recognize that subgeneric status might eventually prove to be appropriate for the *Parmelinopsis* clade, but consider that decision should be deferred pending an analysis of additional *Hypotrachyna* species.

Parmelinopsis afrorevoluta = *Hypotrachyna afrorevoluta*

Parmelinopsis cryptochlora = *Hypotrachyna cryptochlora*

Parmelinopsis dissecta = *Hypotrachyna horrescens*

Parmelinopsis horrescens = *Hypotrachyna horrescens*

Parmelinopsis minarum = *Hypotrachyna minarum*

Parmelinopsis subfatiszens (Kurok.) Elix & Hale 1987 = *Hypotrachyna subfatiszens*

Parmeliopsis ambigua

Add GR

Parmeliopsis hyperopta

Add GR, NL (extinct), and SV

Parmotrema carneopruinatum (Zahlbr.)

D. Hawksw. 2011

F, I

Lit.: Hawksworth (2011).

Parmotrema crozalsianum (de Lesd. ex

Harm.) D. Hawksw. 2011

AZO, E, EC, F, I, MAD, P

Note: Molecular sequence data show that this species is not congeneric with the type species of *Canoparmelia*, *C. texana* (Tuck.) Hale & Elix 1987, but rather is a sister group to the main part of the *Parmotrema* (incl. *Rimelia*) clade (Blanco *et al.* 2005; Crespo *et al.* 2010).

Lit.: Hawksworth (2011).

Parmotrema hypoleucinum

Add TR

Parmotrema perlatum

Delete EST (extinct)

Notes: Add “The material reported from EST has been re-identified as *Cetrelia olivetorum*”.

Parmotrema pseudoreticulatum

Add GB, NL

Parmotrema reticulatum

Add RUS and TR

Parmotrema stuppeum

Add NL and RUS

Pleurosticta acetabulum

Add SRBI

Pseudevernia furfuracea

Add CRE

Punctelia borreri

Add RUS and SRBI

Punctelia jeckeri

Add S (extinct)

Punctelia reddenda

Delete S

Notes: Add “The report from S was based on a mixture of *Platismatia glauca* and *Tuckermannopsis chlorophylla*.”

Punctelia rudenta (Ach.) Krog 1982

RUS (?)

Note: Reported from the Caucasus, and also certainly known in southern Siberia.

Lit.: Urbanavichus (2010).

Punctelia stictica

Add GRO

Punctelia subrudecta

Add EST (extinct) and S

Xanthoparmelia conspersa

Add CRE and FO

Xanthoparmelia delisei

Add CRE and EST

Xanthoparmelia felkaensis

Add RUS

Lit.: Urbanavichus (2010).

Xanthoparmelia glabrans

Add CRE and MAD

Xanthoparmelia halei

Add MAD

Xanthoparmelia loxodes

Add CRE

Xanthoparmelia perezdepazii Pérez-

Vargas *et al.* 2007

EC

Lit.: Pérez-Vargas *et al.* (2007).

Xanthoparmelia perrugata

Add F, FIN, GR, H, IRE, ROM, RUS, SK

Lit.: Thell & Moberg (2011), Skult (1993).

Xanthoparmelia plitii

Add FIN (?) and RUS

Lit.: Skult (1990) and Urbanavichus (2010).

Xanthoparmelia pokornyi

Add CRE and delete RUS

Note: Records from RUS are from the Asian part of the country.

Xanthoparmelia protomatrae

Add GR, NL

Xanthoparmelia pulla

Add CRE, and delete GRO

Xanthoparmelia stenophylla

Add CRE, DK, and NL (extinct)

Xanthoparmelia tinctina

Add AZO, CRE, and NL

Xanthoparmelia verrucigera

Add CRE, and TR

Xanthoparmelia verruculifera

Add EST, GR, and MAD

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