First supplement to the lichen checklist of South Africa

Details are given of errors and additions to the recently published checklist of lichens reported from South Africa (Fryday 2015). The overall number of taxa reported from South Africa is increased by 1, to 1751.

Introduction

The compilation of the recent South African lichen checklist (Fryday 2015) was always considered a first step in producing an up-to-date, comprehensive checklist for the country. It was inevitable that some records and other taxonomic and nomenclatural changes would be overlooked and, through the Lichens-L listserv, lichenologists were encouraged to send any additions or corrections to the author that would be published as a first supplement to the list. This paper is the result of those contributions. These mostly refer to corrections to the text and nomenclatural updates but also included the records from a publication on Usnea (Motyka 1961) that was overlooked in the production of the original checklist, and the results of the revision in 2004 by the first author of a large number of Cladoniaceae from the Bolus Herbarium (BOL) of which very little has been published. Duplicates of many specimens were retained in the University of Helsinki Herbarium (H) whereas much of the lichen collection of the Bolus Herbarium has been transferred to the herbarium of the South African National Biodiversity Institute (SANBI), Pretoria (PRE). Another major South African Cladonia collection in Lund (LD) is still being studied by the first author in Helsinki.

In addition to the printed list (Fryday 2015), an online list, which will be regularly updated and includes the changes proposed here, is also now available (Fryday 2016). Future hard copy supplements will include only substantial changes (e.g. new addition to the lichen biota of South Africa and other changes that require explanation), and other changes (corrections to author citations, etc.) will be made to the online list only.

Corrections to the Checklist

General

All author citations (in Cladonia, Collema and Usnea) should be corrected to F. H. Wigg. For example: Cladonia rangiferina (L.) Weber ex F. H. Wigg. should be Cladonia rangiferina (L.) F. H. Wigg.

Additions (43)


Cladonia borbonica Nyl.: Abbayes (1964) described C. poeciloclada from South Africa but, although recognized by Swinscow & Krog (1988), this species was synonymized with C. borbonica by Ahti & Ahti (1992).

Cladonia consta (Nyl.) Robbins: A widespread segregate of C. humilis that was reported from South Africa by Pino-Bodas et al. (2012). Representative specimen: Western Cape, Cape Peninsula, S end of Constantiaberg, 1945, F. M. Leighton 855 p.p. (PRE, H).


Cladonia crispata (Ach.) Flot.: A widespread species in the Northern Hemisphere. Representative specimen: KwaZulu-Natal, Bergville District, top of Mweni Pass, Drakensberg, 10 000 ft., 1958, E. Esterhuysen 27847 (PRE, H). The material seen contains squamatic acid (TLC) and represents var. crispata.
Cladonia cryptochlorophaea Asahina: A widespread, cosmopolitan segregate of C. chlorophaea (Flörke ex Sommerf.) Spreng. Representative specimen: Western Cape, Uniondale Division, Sylpsteenberg, Uniondale Hot Springs 1941, E. Estherhuyzen 7129 (H, PRE); presence of cryptochlorophaeic acid confirmed with TLC (with some uncertainty).

Cladonia grayi G. Merr. ex Sandst.: A widespread, cosmopolitan segregate of C. chlorophaea. Representative specimen: Western Cape, Cape Peninsula, S end of Noordhoek Peak, 1900 ft., 1945, F. M. Leighton 927 (H, PRE). Presence of grayanic acid confirmed with TLC.

Cladonia humilis (With.) J. R. Laundon: A widespread species in temperate regions of the world that was reported from South Africa by Pino-Bodas et al. (2012). Here treated in the strict sense (i.e., excluding C. conista, which is cited above). In South Africa, more common than C. conista. Representative specimen: Western Cape, Stellenbosch Division, Stellenbosch Flats, top of first river terrace, 1944, S. Garside 6106 (PRE, H). Presence of atranorin confirmed with TLC.

Cladonia intermediella Vain.: Widespread in East Africa (Swinscow & Krog 1988). Representative specimen: Western Cape, Cape Peninsula, Table Mountain, summit, 1942, S. Garside s. n. (PRE, H). The South African specimens are not well-developed and therefore not fully certainly distinct from C. pyxidata (L.) Hoffm. s. lat.

Cladonia merochlorophaea Asahina: A widespread, cosmopolitan segregate of C. chlorophaea. Representative specimen: Western Cape, Clanwilliam Division, Cederberg, Kromme Rivier, 3500 ft., 1949, T. P. Stokoe 9444 (H, PRE). Presence of merochlorophaeic acid confirmed with TLC.


Cladonia poeciloclada f. brachiata Abbeyes: Cladonia poeciloclada f. poeciloclada Abbeyes was synonymized with C. borbonica Nyl. (Ahti & Aptroot 1992), but the identity of the f. brachiata, which was also described from South Africa, is unresolved and so is included as a distinct taxon pending further study.

Cladonia subpungens Abbeyes: This species was described from South Africa (Abbeyes 1964; Ahti 1993).


Heppia guapinii var. nigrolimbata Nyl.: Of uncertain application but probably distinct from H. guapinii (Delise) Nyl. (= Peltula euploca (Ach.) Poelt; see below). It is provisionally included as a distinct taxon pending further study.


Rinodina atroalbida (Nyl.) C.W.Dodge: Described from South Africa but the type could not be located (Mayrhofer 1984, Matzer & Mayrhofer 1996).

Rinodina australiensis Müll.Arg.: Reported by Mayrhofer et al. (2014).


Rinodina oleae Bagl.: Reported by Matzer & Mayrhofer (1996; as R. gennarii Bagl.).


Rinodina microphthalma A. Massal.: Confirmed for South Africa by Matzer & Mayrhofer (1996) but excluded from Rinodina.


Siphula torulosa (Thunb. ex Ach.) Nyl.: Recognized as a good species by Mathey (1971) and Kantvilas (2002), not a synonym of S. decumbens Nyl. Stereocaulon pulvinatum Ach. should be included as a synonym.

The following Usnea species were all reported by Motyka (1961) from collections made by R. A. Mass Geesteranus in 1949 – a publication that was overlooked in the production of the original checklist (Fryday 2015). All collections are in the Nationaal Herbarium Nederland, Leiden (L). Full collection details can be found in Motyka (1961), which is available online.

Usnea chrysoleuca Motyka: Cited Specimen: Cape Province, Franschhoekpas between Franschhoek and Villiersdorp, Mass Geesteranus 6584, 11979.
Usnea dichroa var. spinulosa Motyka: Cited Specimen: Cape Province, Knysna District, Ruigtevlei between George and Knysna, Mass Geesteranus 12005.

Usnea eburnea Motyka: Cited Specimens: Cape Province, Knysna, Garden of Eden, Mass Geesteranus 12027a, 12027b; Tzitzkama Mts., Plaat Forest near Storms River, Mass Geesteranus 12105.

Usnea implicita (Stirt.) Zahlbr.: Cited Specimen: Cape Province, Knysna, Garden of Eden, Mass Geesteranus 12028.

Usnea indigena Motyka: Cited Specimens: Cape Province, Knysna, Garden of Eden, Mass Geesteranus 12022, 12027b, 12026.

Usnea luteola Motyka: Cited Specimens: Cape Province, Knysna District, Deepwalls Forest Reserve, north of Knysna, Mass Geesteranus 694, 6696, 6697.

Usnea lyngei Motyka: Cited Specimen: Cape Province, Knysna District, Ruigtevlei between George and Knysna, Mass Geesteranus 12021.

Usnea myrioclada (Müll. Arg.) Zahlbr.: Cited Specimens: Cape Province, Knysna District, Deepwalls Forest Reserve, north of Knysna, Mass Geesteranus 6691, 6693.

Usnea os-elephantis Motyka var. os-elephantis: Cited Specimen: Cape Province, Knysna, Garden of Eden, Mass Geesteranus 12021.


Usnea rubescens Stirt.: Cited Specimens: Cape Province, Knysna District, Ruigtevlei between George and Knysna, Mass Geesteranus 12004, 12006; Knysna, Garden of Eden, Mass Geesteranus 12028; Knysna District, Deepwalls Forest Reserve, north of Knysna, Mass Geesteranus 6688, 6695.

Usnea torquescens Stirt.: Cited Specimens: Transvaal, between Sabie and Lijdenburg, Mt. Anderson, Mass Geesteranus 11939; Cape Province, Knysna District, Deepwalls Forest Reserve, north of Knysna, Mass Geesteranus 6695.

Xanthoparmelia mollis Hale: Inadvertently included with the previous entry, X. minutella, by Fryday (2015).

Deletions (42)


Cladonia bacillaris (Ach.) Genth: Usually recognised as a barbatic acid chemotype of C. macilenta Hoffm. The presence of both thamnolic and barbatic acid chemotypes in South Africa has been reported (Stenroos 1994).

Cladonia caespiticia (Pers.) Flörke: Not substantiated from South Africa.

Cladonia coniocraea (Flörke) Spreng.: All the Southern Hemisphere records of this species appear to belong to the closely related C. ochrochlora Flörke (cf. Ahti 2000), which has been substantiated from South Africa. However, the taxonomy of this complex is still incompletely understood.

Cladonia furcata (Huds.) Schrad.: Not substantiated for South Africa. It is expected that the records are referable to C. subpungens Abbayes.

Cladonia flabelliformis Vain.: nom. illeg. (not (Flörke) Vain.): A recognised synonym of C. polydactyla (Flörke) Spreng., but the name is misapplied and C. polydactyla does not occur in South Africa.

Cladonia multiformis G. Merr.: A misapplied name. Cladonia multiformis is known only from North America. Both African and more recent Asian reports have been found to be incorrect.

Cladonia pertricosa Kremp.: South African records are referable to C. subpungens. Cladonia pertricosa is an Australian endemic.

Cladonia polia R. Sant.: A synonym of C. confusa R. Sant. representing its usnic acid deficient strain (called Cladina confusa f. bicolor (Müll. Arg.) Ahti in Ahti 2000). This strain exists in South Africa, though it was not reported by Ahti (2000).

Cladonia portentosa (Dufour) Coem.: First reported from South Africa by Abbayes (1939), as C. impexa Harm. South African records are referable to C. confusa.

Cladonia pycnoclada (Pers.) Nyl.: South African records are referable to C. confusa. The given synonym f. exalbescens Vain. is a synonym of C. confusa.

Cladonia rangiferina (L.) E.H. Wigg. (NOT Weber ex F.H. Wigg.): South African records are probably referable to C. confusa.

Cladonia rangiformis Hoffm.: South African records are referable to C. subpungens.

Cladonia rei Schaer.: Inadvertently included with C. rangiformis by Fryday (2015). Cladonia fimbriata var. nemoxyna (Ach.) Coem. and C. fimbriata var. nemoxyna f. fibula (Ach.) Vain. are synonyms of this species not C. rangiformis. However, C. rei has not been substantiated for South Africa.

Cladonia radiata (Vain.) Sandst.: Not substantiated from South Africa. The given synonym C. fimbriata var. balfouri (Cromb.) Vain. belongs to C. macilenta, but the name has been used for C. subradiata in North America.

Cladonia subulata (L.) F. H. Wigg.: Not substantiated for South Africa. The records are probably referable to C. corniculata Ahti & Kashiw.
Heppia euploca Vain.: A synonym of Peltula euploca (Ach.) Poelt. Vainio (1921) under a note on Lichen euplocus Ach. gives a brief description comparing it to Heppia guepinii and then writes ‘quae eam ob causam est Heppia euploca (Ach.)’ [which is why it is Heppia euploca (Ach.)] so, clearly, he was making a new combination rather than describing a new species.

Heppia guepinii (Delise) Nyl.: A synonym of Peltula euploca (Ach.) Poelt.

Lithographa fumida Nyl.: Not validly published (nomen nudum). Stizenberger (1891) says, ‘1211. L. fumida Nyl. in Hb. Lojka — Saxicola socia Siphulae tabularis in Monte Tabularis ad Promontorium Bonae Spei, McOwen. — Endem.’, which does not constitute a valid description.

Pannaria capensis J. Steiner: This species, which was described from South Africa, is a synonym of Pannaria lurida (Mont.) Nyl. subsp. lurida (Jürgensen 2004)

Peccania arabica (Müll. Arg.) Henssen: The type collection is so meagre (there is only one small apothecia left) that it is not possible to confidently determine its identity, especially since there are several other small Peccania spp. from Arabia and northern Africa (e.g., ‘Synalissa’ arabica, Peccania sarnaensis, P. tiruncula).

Peltigera leptheroma Nyl.: Listed as a synonym of P. didactyla (With.) J.R. Laundon but according to Vitikainen (1994) this is a misapplication, although the exact taxonomic status of the name is still uncertain.

Pyxine nubila Moberg: A synonym of Culbersonia nubila (Moberg) Essl., which was already included in Fryday (2015).

Rinodina detecta (Stizenb.) Zahlbr.: A synonym of R. oxydata (Matzer & Mayrhofer 1996).

Rinodina deminutula (Stizenb.) Zahlbr.: The scant type (from Western Cape) is in poor condition and a treatment of this species is not possible (Mayrhofer 1984).

Rinodina exigua (Ach.) S. F. Gray: The single South African collection was referred to R. ficta by Mayrhofer et al. (2014).

Rinodina exiguaella (Vain.) H. Magn.: Not treated by Matzer & Mayrhofer (1996) or Mayrhofer et al. (2014). This species was described from the Arctic and its presence in South Africa is highly unlikely.

Rinodina huefferiana Müll. Arg.: The single South African collection was referred to R. ficta (Stizenb.) Zahlbr. by Mayrhofer et al. (2014).

Rinodina roboris Arnold: South African collections were referred to R. australiensis by Mayrhofer et al. (2014).

Rinodina sophodes (Ach.) A. Massal.: No South African collections of this northern hemisphere species could be traced by Mayrhofer et al. (2014) who rejected the species.

Rinodina sophodes var.atroalbida (Nyl.) Zahlbr.: type cannot be located (Mayrhofer 1984). Another South African collection was referred to R. huillensis by Mayrhofer et al. (2014).

Roccella arnoldii Vain.: A synonym of Roccella tinctoria DC. (Tehler et al. 2004), which does not occur in South Africa. All specimens seen are referable to R. montagnei Bél. (cortex C+ red; soralia C–).

Roccella capensis Follm.: A synonym of Rocecella hypomeca (Ach.) Bory (Tehler and Irestedt 2007).

Roccella fusiformis (L.) Lam. & DC.: Does not occur in South Africa (Tehler et al. 2004).

Roccella phycopsis Ach.: does not occur in South Africa (Tehler et al. 2004). All specimens seen are referable to R. montagnei (cortex C+ red; soralia C–).

Roccella fucozones (Dicks.) Vain.: A synonym of Roccella phycopsis Ach. (Tehler 2003), which does not occur in South Africa (Tehler et al. 2004). All specimens seen are referable to R. montagnei (cortex C+ red; soralia C–).

Roccella tinctoria DC.: Does not occur in South Africa (Tehler et al. 2004; Tehler et al. 2010). All specimens seen are referable to R. montagnei (cortex C+ red; soralia C–).

Siphula ceratites (Wahlenb.) Fr.: Misidentifications (Mathey 1971, Kantvilas 2002).


Siphula incrustans Vain.: Included in the synonymy of S. verrucigera by Kantvilas (2002).

Siphula minor Vain.: Included in the synonymy of S. verrucigera by Mathey (1971) and Kantvilas (2002).


Errata
Arthothelium fusco-nigrum (Nyl.) Müll. Arg.: Should be Arthothelium fusconigrum.

Bacidia luteola f. chlorotica Zahlbr.: A synonym of B. rubella (Hoffm.) A. Massal. NOT Porina chlorotica (Nyl.) Müll. Arg.
The basionym is *Lecidea luteola* var. *chlorotica* Ach. *not Verrucaria chlorotica* Ach.

*Cetrelia* cetrarioides (Delise) W.L. Culb. & C.F. Culb.: The correct author citation is *(Delise ex Duby)* W.L. Culb. & C.F. Culb, and that of the basionym is *Parmelia cetrarioides Delise ex Duby*.

*Cetrelia* olivetorum (Nyl.) W.L. Culb. & C.F. Culb.: the correct author citation for the synonym *Parmelia olivaria* is *(Ach.) Hue*.

Chiodecton natalense Nyl.: The correct spelling of the epithet of the synonym is *roseocinctum*. Vainio (1890) spelled the name ‘*roseo-cincta*’ but this is an orthographic error to be corrected.

Cladonia fimbriata var. chlorophaeoides Vain. and var. chondroidea Vain.: Listed as synonyms of *C. fimbriata* (L.) Fr. but, although still not typified, they cannot belong to *C. fimbriata*. They probably represent *C. subsquamosa* Kremp. (Ahti 2000) but that species is not known from South Africa. It is expected that the material belongs to *C. chlorophaeoa* (L.) Fr.

Cladonia leptoclada Abbayes: Not included by Fryday (2015) but the South African record reported by Ahti (1961) is referable to *C. confusa*.

Cladonia pocillum (Ach.) O.J. Rich.: The correct spelling of the subspecific epithet is *Pocillum bartletii*. Lumbsch: The correct spelling of the epithet of the synonym is *P. bartletii*. Lumbsch.


*Dimelaena* oreina (Ach.) Norman: Additional reference *Mayrhofer et al. 1996* who included several records from South Africa, all referring to chemotype II.

*Diploschistes* diacapis (Ach.) Lumbsch: The correct spelling of the epithet is *diacapis*.

*Diploschistes* muscorum subsp. bartletii Lumbsch: The correct spelling of the subspecific epithet is *bartletti*.

*Fellhanera* ubternella (Nyl.) Vézda: This should be *F. subternella* (Nyl.) Vézda.

*Gonolecania* umosonigricans (Müll. Arg.) Brusse: This should be *G. fumosonigricans* (Müll. Arg.) Brusse.

*Granulopyrenis* Aptroot: Incorrectly placed. It should be before *Graphina* Müller Arg.

*Heterodermia* hypoleuca (Yasuda) D.D. Awasthi: Correct author citation of synonym is *Anaptychia hypoleuca* (Mühl.) A. Massal.

**Heterodermia leucomea** (L.) Poelt: The correct spelling of the epithets is *leucomelos*. The epithets *leucomelea* and *leucomelea* are incorrect variants.

*Lecanora* atrafornis Vain.: Should be corrected to *Lecanora atriformis* (ICN Rec. 60G).

*Lecidea affine* G. Merr.: Corrected spelling is *Lecidea affinis*, which would be a later homonym of *L. affinis* Sch. (1850), if validated.

*Melampylium* africana (Zahlbr.) Zahlbr.: Should be *M. africanum* (Zahlbr.) Zahlbr.

*Pannaria* globigera Hue: Should be *P. globuligera* Hue.

*Pannaria* leucosticta (Tuck.) Nyl. var. isidiopsis Nyl.: This taxon, which was described from South Africa, is a synonym of *P. globuligera* Hue *NOT Fuscopannaria leucosticta* (Tuck.) P.M. Jörg. (Jørgensen & Galloway 1992, Jørgensen 2004).

*Pannaria* rubiginosa (Thunb. ex Ach.) Delise: The correct author citation is *Pannaria rubiginosa* (Ach.) Bory. Add *Jørgensen 2004* to references (type specimen from South Africa cited).

*Pannaria* rubiginosa var. phloeodes (Stirp.) Stizenb.: This taxon, which was described from South Africa, is a synonym of *Pannaria lurida* (Mont.) Nyl. subsp. *lurida* NOT *P. rubiginosa* (Thunb. ex Ach.) Delise (Jørgensen 2004).

*Pannaria* pulvinula P.M. Jörg.: Add *Jørgensen 2004* to references (type specimen from South Africa cited).

*Parmeliella* dactylifera P.M. Jörg.: Add *Jørgensen 2004* to references (type specimen from South Africa cited).

*Parmotrema* natalensis J. Steiner & Zahlbr.: The correct epithet and author citation is *natalense* (J. Steiner & Zahlbr.) Hale.

*Peltula* euploca (Ach.) *Poelt ex Pišút*: Not *Peltula euploca* (Ach.) Poelt ex Ozena & Clauzade. The invalid combination (no basionym) of Poelt (1963) was validated by Pišút (1967) who reported the species from Bulgaria as *Peltula euploca* (Ach.) Poelt, correctly cited the basionym, but did not mention the location of Poelt’s invalid combination.

*Phaeophyscia* adiostola (Essl.) Essl.: The correct spelling is *Phaeophyscia adiastola* (Essl.) Essl.
Physcia adscendens (Fr.) H. Olivier: The correct author citation is H. Olivier because Fries’ name is illegitimate.

Physma allicarpum Hue: This should be P. callicarpum Hue.

Pilophorus aciculare (Ach.) Th. Fr.: The correct spelling of the epithet is acicularis. Pilophoron is an incorrect orthographic variant with no taxonomic status.

Porina euryspermum Zahlbr: The correct spelling of the epithet is euryspema and the author citation (Stizenb.) Zahlbr.

Porina mitatrix Müll. Arg.: This should be P. imitatrix Müll. Arg.

Psoroma asperellum Nyl.: Add Jørgensen 2004 to references (type specimen from South Africa cited).

Ramalina complanata (Sw.) Ach.: Synonym should be R. complanata var. paraguayensis (not v).

Ramalina gracilis (Pers.) Nyl.: Comment after synonym R. exiguella Stirt. should read (Australian records)

Ramalina roesleri (Hochst. ex Schae.) Nyl.: Correct author citation is (Schaer.) Nyl.


Solorina sorediifera Nyl.: This should be removed from synonymy of Peltigera didactyla (With.) J.R. Laundon. It is already included as P. sorediifera (Nyl.) Vitik.

Sticta hornemannii Fr.: The correct spelling of the epithet is hornemanni.

Tappellaria epithylla (Müll. Arg.) R. Sant.: This should be T. epithylla (Müll. Arg.) R. Sant.

Tuckermannopsis chlorophylla (Willd.) Hale: The correct author citation is (Willd. ex Humb.) Hale. Also the synonym should be Cetraria chlorophylla (Willd. ex Humb.) Poetsch.

Usnea barbata (L.) F.H. Wigg.: Usnea plicata F.H. Wigg., which was included as a synonym of this species, has been typified to U. ceratina Ach., but is nom. utique rej.

Usnea dasopoga (Ach.) Röhl.: the correct author citation for this and the orthographic variant U. daypoga is (Ach.) Nyl.

Usnea floridana Stir.: Add period after author i.e., Stir.
The correct author citation for the synonym Usnea comosa is (Ach.) Vain.

Usnea trichodeoides Vain. ex Motyka: The correct author citation is Vain. and that of the synonym, Dolichousnea trichodeoides (Vain.) Articus.

The following Usnea species were all reported by Motyka 1961, and so this publication should be added to the references for these species:

Usnea delicata Vain.: (localities cited).

Usnea distensa Stirt.: (localities cited).

Usnea horridula (Müll. Arg.) Motyka: (localities cited).

Usnea maculata Stirt.: (localities cited).

Usnea molliuscula Stirt.: (localities cited).

Usnea moniliformis Motyka: (localities cited).

Usnea praelonga Stirt.: (localities cited).

Usnea promontorii Motyka: (localities cited).

Usnea rubicunda Stirt.: (localities for the synonym U. spilota Stirt. cited).

Usnea strigosella J. Steiner: (localities cited).

Usnea subleprosa Motyka: (localities cited).

Usnea trichodeoides Vain.: (localities cited).

Usnea desaea Stirt.: (localities for the synonym U. undulata Stirt. cited).

The second section of Motyka’s Usnea monograph was published in two parts; the first in 1937 and the second in 1938. Most of the South African species were included in the first part and so all references to Motyka 1938 should be changed to Motyka 1937 except for U. bornmuelleri, J. Steiner, U. cornea Motyka, U. filamentosa Motyka, U. primitiva Motyka and U. subleprosa Motyka, which were included in the second part.

Verrucaria compacta aggr. (A. Massal.) Jatta.: This should be (A. Massal.) Jatta, aggr.

Verrucaria viridula Ach.: The author citation should be (Schrad.) Ach.
Xanthoparmelia cedri-montana Brusse: remove hyphen, X. cedrimontana. This is a nomen novum for Parmelia stenophyllo f. hypomelaena Vain. ex Lyng., which should be added to the synonyms.

Xanthoparmelia ceresina (Lyng) Hale: The correct author citation is (Vain. ex Lyng) Hale and that of Parmelia ceresina Vain. ex Lyng.

Xanthoparmelia conspersa (Ach.) Hale: Correct author citation for Parmelia conspersa is (Ach.) Ach.

Xanthoparmelia lichinoidea (Nyl.) O. Blanco et al.: The correct author citation is (Nyl. ex Cromb.) O. Blanco et al.

Xanthoparmelia plittii (Gyeln.) Hale: Delete Parmelia subconspersa var. africana Gyeln. From the synonyms because this is known only from Angola.

Xanthoparmelia schenkiana (Müll. Arg.) Hale: The correct spelling of the epithet is schenkiana.

Xanthoparmelia squamariata (Nyl.) O. Blanco et al.: The correct author citation is (Nyl. ex Cromb.) O. Blanco et al.

Xanthoparmelia waboombergensis (Essl.) O. Blanco et al.: In spite of the slight spelling difference, this is considered a later homonym of X. waboomsbergensis Elix and so is illegitimate and a new name is required for this taxon.

Xanthothia doidgea Eichenb., Aptroot & Honegger: Correct spelling of the epithet of new name is doidgeae.

Xanthothria elegans (Link) Th. Fr.: The correct author citation of Rusavskia elegans is (Link) S. Y. Kondr. & Kärnefelt.

Crombie J.M.1877: This was actually published in 1876, so should be Crombie J.M.1876b, with the previous reference becoming Crombie 1876a. This means the following references should also be changed: Xanthoparmelia lichinoidea & X. squamariata Crombie 1876a; X. conscriptans Crombie 1876b.

Frey 1949: the correct title is 'Neue Beiträge zu einer Monographie des Genus Umbilicaria Hoffm., Nyl'.

Kondratyuk et al. 2008: the second Xanthodactylon should be in italics.

Name changes

Cladonia cervicornis subsp. verticillata (Hoffm.) Ahti: The current name is Cladonia verticillata (Hoffm.) Schaer.

Degelia plumbea (Lightf.) P.M. Jorg. & P. James: The current name is Pectenia plumbea (Lightf.) P. M. Jorg., L. Lindblom, Wedin & S. Ekman (Ekman et al. 2014).

Lobaria quercizans Michx.: The current name is Ricasolia quercizans (Michx.) Stizenb. (Moncada et al. 2013).

Lobaria scrobiculata (Scop.) P. Gaertn.: The current name is Lobarina scrobiculata (Scop.) Nyl. (Moncada et al. 2013).

Lopezaria versicolor Kalb & Hafellner: The current name is Megalaria versicolor (Flot.) Fryday & Lendemer (Fryday & Lendemer 2010).

Melanelia panniformis (Nyl.) Essl.: The current name is Montanelia panniformis (Nyl.) Divakar, A. Crespo, Wedin & Essl. (Divakar et al. 2012).

Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway: The current name is Lepidocollema brisbanense (C. Knight) P. M. Jorg. (Ekman et al. 2014).

Parmeliella imbricatulum (Müll. Arg.) P. M. Jorg.: The current name is Lepidocollema imbricatulum (Müll. Arg.) P. M. Jorg. (Ekman et al. 2014).

Parmeliella lacerata P. M. Jorg.: The current name is Austroparmeliella lacerata (P. M. Jorg.) P. M. Jorg. (Ekman et al. 2014).

Parmeliella mariana (Fr.) P.M. Jorg. & D.J. Galloway: The current name is Lepidocollema marianum (Fr.) P. M. Jorg. (Ekman et al. 2014).

Pseudocyphellaria aurata (Ach.) Vain.: The current name is Crocodia aurata (Ach.) Link (Moncada et al. 2013).

Other comments

Lichen monocarpus Ach. nom. utique rej: This taxon was described from South Africa and is an earlier name for Cladonia didyma (Fée) Vain. (Stenroos 1994). A proposal by Ahli & DePriest (2005) to reject the name has been accepted.

Results

The current paper includes 43 additions to and 42 deletions from the published list (Fryday 2015), with the result that the overall number of taxa reported from South Africa is increased by 1, to 1751.

Conclusion

In spite of the corrections listed here, the main deficiency of the list remains: because it was a literature-based compilation of taxa reported from the country, and many records date from the 19th (or even 18th) century, there is little doubt that many of the species on the list do not occur in South Africa. This is a problem that can only be addressed by a programme of lichen research, both in the field and the laboratory. In particular, the type of specimens of the numerous species described from South African collections by Stizenberger, Zahlbruckner and other workers, which are mostly in European herbaria, should be examined and their identity ascertained, along with a comprehensive programme of field work that should focus on crustose groups because these are by far the most under-collected and -recorded.

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Competing interests

The authors declare that they have no financial or personal relationships which may have inappropriately influenced them in writing this article.

Authors’ contributions

T.A. provided data on the genera Cladonia and Usnea and made numerous other suggestions. H.M. provided data on the genus Rinodina. M.S. provided data on the family Lichinaceae. A.T. provided data on the family Roccellaceae. A.M.F. identified many other errors or omissions, compiled the correct name for the correct name in Cladoniaceae (Fungi), and made numerous other suggestions. H.M. provided data on the genera

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