

Taxonomic Results of the BRYOTROP Expedition to Zaire and Rwanda

4. A preliminary check-list of the Hepaticae and Anthocerotae from Central Africa (Zaire, Rwanda, Burundi)

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Abstract. A check-list of the Hepaticae and Anthocerotae from Central Africa (Zaire, Rwanda, Burundi) is presented. 267 liverwort species and 4 hornworts are recognized for the area. For Zaire 215 Hepaticae and 3 species of Anthocerotae are recorded. In Rwanda 150 liverworts and one hornwort have been found. Burundi is far less known and only 48 Hepaticae are recorded.

The Hepatic Flora of Central Africa is, except for Rwanda and the Kivu region of Zaïre, poorly known. Most of the phytogeographical interesting regions, such as the Itombwe or the Upemba mountains are, because of their difficult access, bryologically undercollected or even unknown. The Prodrömus, presented by Demaret (1942) is now out of date and there is a need for a modern list as a base for further taxonomic work. The present check-list is a compilation based mainly on recent literature including taxonomic revisions and the field observations of the author. Some important new records, provided by the Bryotrop-Expedition 1991 are also included. The taxa are arranged according to their systematic position following Schuster (1984 a & b). The nomenclature follows Jones (different papers of "African Hepatics") Vanden Berghen (1972 a & b, 1977), Engel & Schuster (1984) and the modern taxonomic revisions of different

groups

available (e.g. Engel 1980, Kruijt 1988, Meenks & Pócs 1985, Pócs 1984, Vana 1974, 1982, 1985, 1988, Vanden Berghen 1976a, van Slageren 1985). The following symbols are used within the list.

X Species recorded by BRYOTROP (see contributions in this volume)
+ Species recorded by E. Fischer

Jungermanniiidae

Calobryales

Haplomitriaceae

Haplomitrium Nees
blumii (Nees) Schuster

Zre (X), Rwa(X)
Metzgeriales

Fossombroniaceae

Fossombronia Raddi
husnotii Corbier
Zre (Vanden Berghen 1972b, 1978 b), Rwa (+)
pulvinata Stephani
Rwa (Stephani 1914)
pusilla (L.) Dumortier
Zre (Vanden Berghen 1972b), Rwa (+)
occidento-africana Arnell
Zre(+)

Allisoniaceae

Calycularia Mitten
crispula Mitten
Rwa (*)

Pallaviciniaceae

Symphogyna Nees & Mont.
brasiliensis Nees & Mont.
(= *S. lehmanniana* Nees & Mont.)
Zre (Vanden Berghen 1972b)
podophylla (Thunberg) Nees & Mont.
Rwa (Bizot & Pócs1979)
rigida Stephani
Rwa (Stephani 1914)
volkensis Stephani
Zre (Bizot & Pócs 1979)
Pallavicinia S. Gray
lyellii (Hooker) Gray
Zre (Vanden Berghen 1972b), Rwa (+)

Aneuraceae

Aneura Dum.
pinguis (L) Dum.
Rwa (X)
pseudopinguis (Herzog) Pócs
Zre (Vanden Berghen 1972b)
Riccardia S. Gray
amazonica (Spruce) Schiffner ex Gradstein
Zre (Vanden Berghen 1978 b, Meenks & Pócs
1985)
fastigiata (Lehm. & Lindenb.) Arnell
Zre (Vanden Berghen 1972b, Meenks & Pócs

1985)

holstii (Stephani) Jones
Zre (Meenks & Pócs 1985)
limbata (Stephani) Jones
Zre, Rwa
longispica (Stephani) Jones
Zre (Vanden Berghen 1972b)
stephanii (Besch.) Jones
Zre (Vanden Berghen 1972b, Meenks & Pócs
1985)
compacta (Stephani) S.Arnell
Zre (+), Rwa (+)

Metzgeriaceae

Metzgeria Raddi
agnewii Kuwahara
Rwa (+)
attenuata Stephani
Rwa, Bur (Kuwahara 1983)
thomeensis Steph.
Zre (Vanden Berghen 1960, 1977)
consanguinea Schiffner
Zre (Kuwahara 1983)
elliottii Stephani
Zre (Vanden Berghen 1948a, 1960), Rwa
(Vanden Berghen 1948a, 1960)
leptoneura Spruce
Rwa (Vanden Berghen 1948a)
limbato-setosa Stephani
Zre (Vanden Berghen 1948a, 1960) Rwa
(Vanden Berghen 1948a, 1960, 1977)
musciicola (X)
nudifrons Stephani
Zre (Vanden Berghen 1948a)
quadrifaria Stephani
Zre (Vanden Berghen 1960) Bur (Vanden
Berghen 1960)
violacea (Ach.) Dum.
Zre (Vanden Berghen 1948a) Bur (Vanden
Berghen 1960, 1977)
propagulifera Vanden Berghen
Zre (Vanden Berghen 1948a)
vandenberghenii Kuwahara
Zre (Kuwahara 1983), Rwa (+)

Jungermanniales

Herbertaceae

Herbertus S. Gray
dicranus (Taylor) Gola
 Zre (Demaret 1942)
doggeltianus (Stephani) Demaret
 Zre (Demaret 1942)
lobatus (Stephani) Demaret
 Zre (Demaret 1942)
subdentatus (Stephani) Fulford
 Zre, Rwa (Gradstein, Pócs & Vana 1983)

Trichocoleaceae

Blepharostoma Dum.
trichophyllum (L.) Dum.
 Rwa (Bizot & Pócs 1979)

Jungermanniaceae

Gymnocoleopsis (Schuster) Schuster
multiflora (St.) Schust.
 Zre (Vana 1982), Rwa (+)
Anastrophyllum (Spruce) Stephani
auritum (Lehm.) Steph.
 Zre, Rwa (Vana 1982)
minutum (Schreb.in Cranz) Schuster
 Rwa (+)
piligerum (Nees) Spruce
 Rwa (X)
Chandonanthus Mitten
hirtellus (Weber) Mitten
 Zre, Rwa (Vanden Berghen 1965)
hirtellus ssp. giganteus (Stephani) Vanden
 Berghen
 Zre, Rwa (Vanden Berghen 1979, Bizot & Pócs
 1979)
(Tetralophozia) cavallii Gola
 Zre, Rwa (Vanden Berghen 1965, Bizot &
 Pócs 1979)
Andrewsianthus Schuster
jamesonii (Mont.) Vana
 (= *A. kilimanjaricus* (Arnell) Grolle & Vana
 Zre, Rwa (Gradstein, Pócs & Vana 1983)
bilobus (Mitten) Grolle
 Zre (X)
Tritomaria Schiffner
exsecta (Schrud.) Schiffn. ex Loeske
 Rwa (X)
Jungermannia L.
abyssinica Nees
 Rwa (+)

sphaerocarpa Hooker
 Zre, Rwa (Vana 1974)
borgenii Gottsche
 Zre, Rwa (Vanden Berghen 1978 b, Vana
 1974)
mildbraedii Stephani
 Zre (+), Rwa (Vana 1974)
Jamesoniella (Spruce) Carring.
purpurascens Stephani
 Rwa (X)
Notoscyphus Mitten
belangerianus (Lehm. & Lindenb.) Mitten
 Rwa (+)

Gymnomitriaceae

Gymnomitrium Corda
laceratum (St.) Horikawa
 Zre, Rwa (Vana 1985)
Marsupella Dum.
africana Stephani
 Zre, Rwa (Vana 1985)
emarginata (Ehrh.) Dum.
 Rwa (Vana 1985)
subintegra Arnell
 Rwa (Vana 1985)

Geocalyceae

Clasmatocolea Spruce
vermicularis (Lehm.) Grolle
 Zre, Bur (Grolle & Vanden Berghen 1970a,
 Vanden Berghen 1972b, Engel 1980)
Leptoscyphus Mitten
hedbergi (Arnell) Grolle
 Zre (+), Rwa (+)
infuscatus Mitten
 Zre, Rwa (Jones 1953, Grolle 1962)
expansus (Lehm.) Grolle
 Zre (Vanden Berghen 1978 b)
Chiloscyphus Corda
dubius Gottsche
 Zre (Jones 1953)
cuspidatus (Nees) Engel & Schuster
 Zre (Vanden Berghen 1961), Rwa, Bur
 (Vanden Berghen 1961)
muricatus (Nees) Engel & Schuster
 Zre (Vanden Berghen 1961) Rwa (Vanden
 Berghen 1977) Bur (Vanden Berghen
 1961)

martianus (Nees) Engel & Schuster
Zre (Jones 1953, Vanden Berghen 1972b,
Grolle 1959, Gradstein, Pócs & Vana
1983)

difformis (Nees) Engel & Schuster
Zre (Vanden Berghen 1961 1972), Rwa
concretus (Mont.) Engel & Schuster
Zre (Vanden Berghen 1972b)

Plagiochilaceae

Plagiochila (Dum.) Dum.
integerrima Stephani
Zre (Jones 1962), Rwa (X)
pectinata (Willd.) Lindenb.
Zre (X), Rwa (X)
subalpina Stephani
Zre (Jones 1962), Rwa (+)
barteri Mitten
Zre (Jones 1962), Rwa (X)
pinniflora Stephani
Zre (Jones 1962)
moenkemeyeri Stephani
Zre (Jones 1962)
neckeroidea Mitten
Zre (Jones 1962)
salvadorica Stephani
Zre (Jones 1962)
praemorsa Stephani
Zre (Jones 1962)
strictifolia Stephani
Zre (Jones 1962, Vanden Berghen 1972b)
heterostipa Stephani
Zre (Jones 1962), Rwa (+), Bur (Jones 1962)
fusifera Taylor
Zre (Jones 1962, Vanden Berghen 1972b,
1978 b), Rwa (X)
squamulosa Mitten
Zre (Jones 1962), Rwa (+), Bur (Jones 1962)
colorans Stephani
Zre (Jones 1962), Rwa (+)
sinuosa Mitten
Zre (Jones 1962), Rwa (+), Bur (Jones 1962,
Petit & Symons 1974)
lastii Mitten
Zre, Rwa (Jones 1962)
ericicola Stephani
Zre (Jones 1962), Rwa (+)
haumanni Herzog
Zre (Jones 1962)

terebrans Lindenberg
Zre, Rwa (Jones 1962)
divergens Stephani
Zre (Jones 1962), Rwa(+), Bur (Jones 1962,
Petit & Symons 1974)
crispulo-caudata Gottsche
Zre (Jones 1962, Vanden Berghen 1972b)
Syzygiella Spruce
concreta (Gottsche) Spruce
Zre, Rwa (Vana, Pócs & De Sloover 1979,
Vana 1985)
geminifolia (Mitten) Stephani
Zre, Rwa (Vana 1985)
ruwenzoriensis Stephani
Zre (Stephani 1914)

Acrobolbaceae

Lethocolea Mitten
congesta (Lehm.) Arnell
Zre (X), Rwa (Bizot & Pócs 1979)
Tylimanthus Mitten
ruwenzoriensis Arnell
Rwa (+)

Arnelliaceae

Gongylanthus Nees
ericetorum (Raddi) Nees
Zre (Vanden Berghen 1972b, 1978 b)

Schistochilaceae

Schistochila Dum.
congoana Stephani
Zre (Jones 1976 b)

Balantiopsidaceae

Isotachis Mitten
aubertii (Schwaegr.) Mitt.
Zre, Rwa (Vana 1982)

Lepidoziaceae

Arachniopsis Spruce
diacantha (Mont.) Howe
Zre, Rwa (Vanden Berghen 1977, 1978 b,
Pócs 1984a)
diplopoda Pócs

Zre (Pócs 1984a)
Sprucella Stephani
succida (Mitten) Stephani
 Zre (Vanden Berghen 1983, Pócs 1984a)
Lepidozia (Dum.) Dum.
cupressina (Swartz) Lindenb.
ssp. quinquefida (Stephani) Pócs
 Zre (Pócs 1984a)
pearsoni Spruce var. *pearsoni*
 Zre (Pócs 1984a)
 var. *lacerata* (Stephani) Pócs
 Zre, Rwa (Pócs 1984a)
 var. *pulvinata* (Stephani) Pócs
 Zre, Rwa (Pócs 1984a)
stuhlmannii Stephani
 Zre, Rwa (Pócs 1984a)
carnosa Stephani
 Zre, Rwa (Pócs 1984a)
Kurzia von Martens
capillaris (Swartz) Grolle
ssp. capillaris
 Rwa (Pócs 1984a)
irregularis (Stephani) Grolle
 Zre, Rwa (Pócs 1984a)
Telaranea Spruce
nematodes (Gott.) Howe
 Zre, Rwa (Vanden Berghen 1972b, Pócs
 1984a)
trifida (Stephani) Schuster
 Zre (X), Rwa (Pócs 1984a)
Bazzania S. Gray
decrescens (Lehm. & Lindenb.)Trev.
 Zre, Rwa (Vanden Berghen 1978 b, Jones
 1975)
decrescens ssp. molleri (Stephani)Jones
 Zre (Vanden Berghen 1972b, Jones 1975)
nitida (Weber) Grolle
 Rwa (Jones 1976)
roccatii Gola
 Zre (Jones 1975), Rwa (+)
pumila Mitten
 Zre (X), Rwa (X)

Calypogeiaceae

Calypogeia Raddi
fissa (L.) Raddi
 Zre, Rwa (Bischler 1970, Vanden Berghen
 1977)
fusca (Lehm.) Stephani

Zre (X), Rwa (Jones 1976)
arguta Montagne & Nees
 Zre (Vanden Berghen 1972b)
afrocaerulea Jones
 Zre (+), Rwa (+)

Cephaloziaceae

Cephalozia (Dum.) Dum.
crassicaulis Stephani
 Zre (Vanden Berghen 1972b)
africana Vana
 Zre (X)
bicuspidata (L.) Dum.
 Rwa (X)

Cephaloziellaceae

Cephalojonesia Grolle & Vanden Berghen
incuba Grolle & Vanden Berghen
 Zre (Grolle & Vanden Berghen 1970b,
 Vanden Berghen 1972b)
Cephaloziella (Spruce) Schiffner
atroviridis (Sim) Jones
 Zre (Vanden Berghen 1972b)
kiaerii (Austin) Douin
 Zre (Vanden Berghen 1978 b), Rwa (X)
gittinsii Jones
 Zre (Vanden Berghen 1972b), Rwa (X)
vaginans Stephani
 Rwa (X)

Adelanthaceae

Adelanthus Mitten
decipiens (Hooker) Mitten
 Zre, Rwa (+)
lindenbergianus (Lehm.) Mitt.
 Zre, Rwa (+)

Mastigophoraceae

Mastigophora Nees
diclados (Brid.) Nees
 Rwa (+)

Porellaceae

Porella L.
abyssinica (Nees) Arnell

Zre (Vanden Berghen 1972b)
subdentata (Mitten) Jones
 Zre (Jones 1963, Vanden Berghen 1972b),
 Rwa (+)

Jubulaceae

Frullania Raddi
apicalis Mitten
 Zre, Rwa (Vanden Berghen 1976a)
schimperii Nees
 Rwa (Vanden Berghen 1976a)
imerinensis Stephani
 Rwa (Vanden Berghen 1976a)
angulata Mitten
 Rwa (Vanden Berghen 1976a)
serrata Gottsche
 Zre, Rwa (Vanden Berghen 1976a)
obscurifolia Mitten
 Zre, Rwa (Vanden Berghen 1972b, 1976a)
arecae (Spreng.) Gottsche
 Zre, Rwa (Vanden Berghen 1972b, 1976a)
ericoides (Nees) Montagne
 Zre, Rwa (Vanden Berghen 1972b, 1976a)
caffraria Stephani
 Zre, Rwa (Vanden Berghen 1972b, 1976a)
depressa Mitten
 Zre, Rwa (Vanden Berghen 1976a)
letestui Vanden Berghen
 Zre (Vanden Berghen 1976a)
eplicata Stephani
 Zre (Vanden Berghen 1972b, 1976a)
grossiclava Stephani
 Zre (Vanden Berghen 1976a)
variegata Stephani
 Bur (Vanden Berghen 1976a)
nodulosa (Reinw., Blume & Nees) Nees
 Zre (Vanden Berghen 1976a)
socotrana Mitten
 Zre (Vanden Berghen 1972b, 1976a)
africana Stephani
 Zre (Vanden Berghen 1976a)
spongiosa Stephani
 Zre (Vanden Berghen 1976a)
trinervis (Lehm. & Lindenb.) Gottsche,
 Lindenb. & Nees
 Zre (Vanden Berghen 1972b, 1976a)

Lejeuneaceae

Acrolejeunea (Spruce) Schiffner
emergens (Mitten) Stephani
 Zre, Rwa, Bur (Vanden Berghen 1972b,
 Gradstein 1975, Vanden Berghen
 1978a)
Brachiolejeunea (Spruce) Schiffner
tristis (Stephani) Stephani
 Zre, Rwa, Bur (Vanden Berghen 1960, 1978a,
 Van Slageren 1985)
Mastigolejeunea (Spruce) Schiffner
nigra Stephani
 Zre (Vanden Berghen 1951c)
rhodesica (Vanden Berghen) Jones
 Zre (Vanden Berghen 1972b)
Caudalejeunea Stephani
africana (Stephani) Stephani
 Zre (Vanden Berghen 1984)
hanningtonii (Mitt.) Schiffner
 Zre (Vanden Berghen 1948, 1984)
katangensis Vanden Berghen
 Zre (Vanden Berghen 1972b, 1984)
lewallei Vanden Berghen
 Zre, Rwa, Bur (Vanden Berghen 1972a, 1977)
yangambiensis (Vanden Berghen) Jones
 Zre, Rwa (Vanden Berghen 1978, 1984)
Archilejeunea Stephani
africana Stephani
 Zre (Vanden Berghen 1972b)
elobulata Stephani
 Zre (Vanden Berghen 1972b)
linguifolia Stephani
 Zre (Bizot & Pócs 1979)
Acanthocoleus Schuster
aberrans (Lindenb. & Gott.) Kruijt
 Zre (Kruijt 1988)
madagascariensis (Stephani) Kruijt
 Rwa, Bur (Vanden Berghen 1978a, Kruijt
 1988)
chrysophyllus (Lehm.) Kruijt
 Zre, Rwa (Vanden Berghen 1978, Kruijt 1988)
Evansiolejeunea Vanden Berghen
roccatii (Gola) Vanden Berghen
 Zre (Vanden Berghen 1960, 1978a), Rwa
 (Vanden Berghen 1978a)
Ptychanthus Nees
striatus (Lehm. & Lindenb.) Nees
 Zre, Bur (Vanden Berghen 1972b, 1978a)
Schiffneriolejeunea Verdoorn
altimontana Vanden Berghen
 Zre, Rwa (Vanden Berghen 1976b)

- fragilis* Gradstein & Jones
Zre (Jones 1982, Gradstein & Vanden Berghen 1985)
- pappeana* (Nees) Gradstein
Zre, Rwa (Gradstein & Vanden Berghen 1985, Vanden Berghen 1978a)
- polycarpa* (Nees) Gradstein
(= *Phragmolejeunea mollerii* (Stephani) Schuster)
Zre (Vanden Berghen 1972b)
- Lopholejeunea* (Spruce) Schiffner
abortiva (Mitten) Stephani
Zre (Vanden Berghen 1984)
var. fragilis Stephani
Zre (Vanden Berghen 1960 1972, 1984)
- subfusca* (Nees) Stephani
Zre (Vanden Berghen 1984)
- Prionolejeunea* Stephani
serrula (Mitten) Stephani
Zre, Rwa (Vanden Berghen 1977)
- Ceratolejeunea* (Spruce) Stephani
calabariensis Stephani
Zre (Vanden Berghen 1951)
- diversicornua* Stephani
Zre (Vanden Berghen 1977)
- jungneri* Stephani
Zre (Vanden Berghen 1951)
- Drepanolejeunea* (Spruce) Schiffner
cultrella (Mitt.) Steph.
Zre, Rwa, Bur (Vanden Berghen 1977)
- deslooveri* Vanden Berghen
Rwa (Vanden Berghen 1977)
- friesii* Vanden Berghen
Rwa (Vanden Berghen 1961)
- symoensii* (Vanden Berghen) Grolle
Rwa (Vanden Berghen 1961, 1977)
- Marchesinia* S. Gray
deslooveri Vanden Berghen
Rwa (Vanden Berghen 1976b)
- excavata* (Mitten) Stephani
Zre (Vanden Berghen 1948)
- moelleriana* Pears.
Bur (Vanden Berghen 1978)
- Leptolejeunea* (Spruce) Schiffner
astroidea (Mitten) Stephani
Zre, Bur (Vanden Berghen 1972b, 1977)
- maculata* (Mitten) Schiffner
Zre (Vanden Berghen 1977)
- quintasii* Stephani
Zre (Vanden Berghen 1977)
- Odontolejeunea* (Spruce) Schiffner
tortuosa (Lehm. & Lindenb.) Stephani
Zre, Rwa, Bur (Vanden Berghen 1977)
- Lejeunea* Libert
acuta Mitten
Rwa, Bur (Vanden Berghen 1961, 1977)
- caespitosa* Lindenberg
Zre, Rwa, Bur (Vanden Berghen 1977)
- conformis* Nees & Mont.
Rwa, Bur (Vanden Berghen 1972a, 1977)
- grossecristata* (Stephani) Jones
Zre (Jones 1968)
- eckloniana* Lindenberg
Zre (Vanden Berghen 1978 b)
- flava* (Swartz) Nees
Zre, Rwa, Bur (Vanden Berghen 1972a, 1977, 1978 b)
- isophylla* Jones
Zre (Vanden Berghen 1972a, 1977)
- kamerunensis* (Stephani) Vanden Berghen
Zre, Rwa, Bur (Vanden Berghen 1977)
- letabaensis* Arnell
Zre (Vanden Berghen 1972b)
- lyratiflora* (Stephani) Vanden Berghen
Rwa, Bur (Vanden Berghen 1977)
- pallidissima* Gola
Zre (Vanden Berghen 1972b)
- setacea* Stephani
Zre, Bur. (Vanden Berghen 1972a)
- ulicina* (Taylor) Taylor *ssp. ocellifera* (S. Arnell) Schuster
Rwa, Bur (Vanden Berghen 1972a, 1977)
- wilmsii* (Stephani) Stephani
Zre (Vanden Berghen 1972b)
- Cheilolejeunea* (Spruce) Schiffner
decursiva (Sande Lacoste) Schuster
Zre (Vanden Berghen 1972b)
- pócsii* E.W. Jones
(= *Lejeunea brevifissa* Gottsche sensu Vanden Berghen 1960)
Rwa (Vanden Berghen 1960, Jones 1988)
- krakammae* (Lindenb.) Schust.
Zre (Jones 1988), Bur (Vanden Berghen 1960)
- Leucolejeunea* Evans
xanthocarpa (Lehm. & Lindenb.) Evans
Zre, Rwa (Vanden Berghen 1948, 1978a)
- Diplasiolejeunea* (Spruce) Schiffner
brachyclada Evans
Zre (Vanden Berghen 1977)
- cornuta* Stephani

Rwa (Vanden Berghen 1977)
deslooveri Vanden Berghen
 Rwa (Vanden Berghen 1977)
kraussiana (Lindenb.) Stephani
 Zre, Bur (Vanden Berghen 1972a, 1977)
runssorensis Stephani
 Zre, Rwa (Vanden Berghen 1960)
symoensii Vanden Berghen
 Rwa, Bur (Vanden Berghen 1960, 1977)
Colura Dum.
calyptrifolia (Hook.) Dum.
 Zre, Rwa (Pócs 1991)
tenuicornis (Evans) Vanden Berghen
 Zre, Rwa, Bur (Vanden Berghen 1977, Pócs 1991)
digitalis (Mitten) Stephani
 Zre, Rwa, Bur (Vanden Berghen 1972a, 1977)
Aphanolejeunea Evans
exigua Evans
 Zre, Rwa, Bur (Pócs 1984b)
fadenii (Pócs) Pócs
 Rwa (Pócs 1984b)
lisowskii Pócs
 Zre (Pócs 1984b)
mammillata (Angstr.) Stephani
 Rwa (Pócs 1984b)
Cololejeunea (Spruce) Schiffner
bolombensis (Steph.) Vanden Berghen
 Zre, Bur (Vanden Berghen 1972a, 1977)
cardiocarpa (Montagne) Evans
 Zre, Bur (Vanden Berghen 1972a, 1977)
crenatiflora Stephani
 Zre (Jones 1954), Bur (Vanden Berghen 1972a, 1977)
cuneifolia Stephani
 Zre (Jones 1954)
dentata (E.W. Jones) Schuster
 Zre (Pócs 1985)
deslooveri Vanden Berghen
 Zre (Vanden Berghen 1977)
distalopapillata (Jones) Schuster
 Zre, Rwa, Bur (Vanden Berghen 1972a, 1977)
duvigneaudii Jones
 Zre, Rwa (Vanden Berghen 1977)
filicaulis Stephani
 Rwa (Vanden Berghen 1977)
harrisii Pócs
 Rwa (Vanden Berghen 1977)
himalayensis (Pande & Misra) Schuster
 Zre, Bur (Vanden Berghen 1972a, 1972b)

malanjae Stephani
 Zre, Rwa (Vanden Berghen 1977)
minutissima (Sm.) Schiffner *ssp. utriculifera*
 Vanden Berghen
 Zre, Rwa, Bur (Vanden Berghen 1961, 1977)
parva Vanden Berghen
 Rwa (Vanden Berghen 1977)
pusilla Stephani
 Zre, Rwa, Bur (Vanden Berghen 1972a, 1977, 1978 b)
runssorensis (Stephani) Pócs
 Zre, Rwa, Bur (Vanden Berghen 1977)
zenkeri Stephani
 Rwa, Bur (Vanden Berghen 1972a, 1977)

Radulaceae

Radula Dum.
allamanoi Gola
 Zre, Rwa (Jones 1977)
appressa Mitten
 Zre (Jones 1977)
boryana (Weber) Nees
 Zre, Rwa (Vanden Berghen 1977, Jones 1977)
evelynae Yamada
 Zre (Jones 1977)
flaccida Lindenb. & Gottsche
 Zre, Rwa (Vanden Berghen 1972b, 1977, Jones 1977)
holstiana Stephani
 Rwa (Jones 1977)
meyeri Stephani
 Zre (Vanden Berghen 1972b)
multiramea Gola
 Zre (Vanden Berghen 1972b)
recurvifolia Stephani
 Zre, Rwa (Jones 1977)
stenocalyx Montagne
 Rwa, Bur (Vanden Berghen 1977)
stipatiflora Stephani
 Zre, Rwa (Jones 1977)
quadrata Gott.
 Zre (X)

Marchantiidae

Marchantiales
 Marchantiinae

Aytoniaceae

Asterella P. Beauv.
abyssinica (Gottsche) Grolle
 Zre (Vanden Berghen 1972b)
marginata (Nees) Arnell
 Zre (Vanden Berghen 1972b)
Plagiochasma Lehm. & Lindenb.
eximium (Schiffner) Stephani
 Zre (Vanden Berghen 1978 b)

Lunulariaceae

Lunularia Adans.
cruciata (L.) Dum.
 Zre, Rwa (Vanden Berghen 1972b)

Marchantiaceae

Dumortiera Nees
hirsuta (Swartz) Nees
 Zre, Rwa (Vanden Berghen 1972b)
Marchantia L.
debilis Goebel
 Zre (Vanden Berghen 1954, 1972)
pappeana Lehmann
 Zre, Rwa (Vanden Berghen 1954)
polymorpha L.
 Zre, Rwa (Vanden Berghen 1954)
wilmsii Stephani
 Zre (Vanden Berghen 1954, 1972)

Targioniinae

Targioniaceae

Targionia L.
hypophylla L.
 Zre (Vanden Berghen 1972b), Rwa (+)

Cyathodiaceae

Cyathodium Kunze
africanum Mitten
 Zre (Jones 1952, Jovet-Ast 1970, Vanden
 Berghen 1972b)

Ricciinae

Ricciaceae

Ricciocarpus Corda
natans L.
 Zre (Jones 1957, Vanden Berghen 1972b),
 Rwa (+)
Riccia L.
cavernosa Hoffmann ex Raddi
 Zre (Jones 1957)
stricta (Lindenb.) Perold
 (= *R. fluitans* Auct.)
 Zre (Jones 1957, 1985, Vanden Berghen
 1972b), Rwa (X)
intermedia Jones
 Zre (Vanden Berghen 1972b, 1978 b)
lanceolata Stephani
 Rwa (X)
membranacea Gott. & Lindenb.
 Zre (Vanden Berghen 1972b)
moenkemeyeri Stephani
 Zre (Vanden Berghen 1972b)
nigrosquamata Jones
 Rwa (+)
okahandjana Arnell
 Zre (X)
symoensii Vanden Berghen
 Zre (Vanden Berghen 1972b)
vulcanicola Fischer
 Rwa (X)

Anthocerotae

Anthocerotaceae

Anthoceros L.
mandoni Stephani
 Zre (Vanden Berghen 1978 b)
myriandroecius Stephani
 Rwa (Stephani 1914)
punctatus L.
 Zre (Vanden Berghen 1972b)
Phaeoceros Prosk.
laevis (L.) Proskauer
 Zre (Vanden Berghen 1972b)

References

- Bischler, H. 1970:** Les espèces du genre *Calypogeia* sur le continent africain et les îles africaines. *Revue Bryologique Lichénologique* 37: 63-134.
- Bizot, M. & Pócs, T. 1979:** East African Bryophytes, III. *Acta Botanica Academiae Scientiarum Hungaricae* 25: 223 - 261.
- Engel, J.J. 1980:** A Monograph of *Clasmatocolea* (Hepaticae). *Fieldiana Botany. New Series, No. 3*, 1 - 229.
- Engel, J.J. & Schuster, R.M. 1984:** An overview and evaluation of the genera of Geocalycaceae subfamily Lophocoleoideae (Hepaticae). *Nova Hedwigia* 34: 385-463.
- Gradstein, S.R. 1975:** A Taxonomic Monograph of the Genus *Acrolejeunea* (Hepaticae). *Bryophytorum Bibliotheca* 4: 1 - 162.
- Gradstein, S.R., Pócs, T. & Vana, J. 1983:** Disjunct Hepaticae in Tropical America and Africa. *Acta Botanica Hungarica* 29 (1 - 4): 127 - 171.
- Gradstein, R.S. & Vanden Berghen, C. 1985:** *Schiffneriolejeunea* sect. *Pappeanae* en Afrique. In Gradstein, S.R. 1985: Contribution to a Monograph of the Lejeuneaceae, Subfamily Ptychanthoideae. *Beiheft Nova Hedwigia* 80: 173-194.
- Grolle, R. 1962:** Monographie der Lebermoosgattung *Leptoscyphus* Mitt. *Nova Acta Leopoldina* 161, Bd. 25, 143 pp.
- Grolle, R. & Vanden Berghen, C. 1970a:** *Clasmatocolea vermicularis* (Lehm.) Grolle au Burundi. *Revue Bryologique et Lichénologique* 37: 385.
- Grolle, R. & Vanden Berghen, C. 1970b:** Un genre nouveau pour la famille des Cephalozellaceae: *Cephalojonesia* Grolle. *Revue Bryologique et Lichénologique* 37: 763-767.
- Jones, E.W. 1952:** African Hepatics I. The genus *Cyathodium* in Africa. *Transactions of the British Bryological Society* 2: 55-61.
- Jones, E.W. 1953:** African Hepatics V. *Lophocolea*, with Notes on *Chiloscyphus* and *Leptoscyphus*. *Transactions of the British Bryological Society* 2: 172-202.
- Jones, E.W. 1954:** African Hepatics X. *Leptocolea* and *Cololejeunea*. *Transactions of the British Bryological Society* 2: 408-438.
- Jones, E.W. 1957:** African Hepatics XIII. The Ricciaceae in Tropical Africa. *Transactions of the British Bryological Society* 3: 208-227.
- Jones, E.W. 1962:** African Hepatics XV. *Plagiochila* in Tropical Africa. *Transactions of the British Bryological Society*: 254-325.
- Jones, E.W. 1963:** African Hepatics XVI. *Porella* in Tropical Africa. *Transactions of the British Bryological Society* 4: 446-461.
- Jones, E.W. 1968:** African Hepatics XIX. The *Lejeuneaflava* complex. *Transactions of the British Bryological Society* 5: 548-562.
- Jones, E.W. 1975:** African Hepatics XXVII. *Bazzania*. *Journal of Bryology* 8: 299 - 316.
- Jones, E.W. 1976:** African Hepatics XXVIII. *Schistochila* Dum. *Journal of Bryology* 9: 33 - 41.
- Jones, E.W. 1977:** African Hepatics XXX. The genus *Radula* Dumortier. *Journal of Bryology* 9: 461 - 504.
- Jones, E.W. 1982:** African Hepatics XXXIII. Some new Lejeuneaceae. *Journal of Bryology* 12: 37-48.
- Jones, E.W. 1985:** African Hepatics XXXV. Some new or little-known species and some noteworthy records. *Journal of Bryology* 13: 497-508.
- Jones, E.W. 1988:** African Hepatics XXXVIII. *Cheilolejeunea* subgenus *Strepsilejeunea* (Spruce) Schust., with special reference to East Africa. *Journal of Bryology* 15: 149-160.
- Jovet-Ast, S. 1970:** *Cyathodium africanum* Mitt. au Yémen et en Afrique. *Revue Bryologique et Lichénologique* 37: 57-62.
- Kruijt, R.Ch. 1988:** A Monograph of the Genera *Dicranolejeunea* and *Acanthocoleus*. *Bryophytorum Bibliotheca* 36: 1 - 136.
- Kuwahara, Y. 1983:** *Metzgeria vandenberghenii* sp. nov. du Zaïre et quelques autres *Metzgeria* (Hepaticae) reconnus récemment en Afrique. *Bulletin du Jardin Botanique National de Belgique* 53: 67-73.
- Meenks, J.L.D. & Pócs, T. 1985:** East African Bryophytes IX. Aneuraceae. *Abstracta Botanica* 9: 79 - 98.
- Petit, E. & Symons, F. 1974:** Les bryophytes des bois artificiels de Cupressus et d'Acacia au Burundi. Analyse factorielle de la végétation bryophytique. *Bulletin du Jardin Botanique National de Belgique* 44: 219 - 247.
- Pócs, T. 1984a:** Synopsis of the African Lepidozioideae K. Müll. *Proceedings of the Third Meeting of the Bryologists from Central and East Europe, Praha*: 107-119.
- Pócs, T. 1984b:** New or little known epiphyllous liverworts, III. The genus *Aphanolejeunea* Evans in Tropical Africa. *Cryptogamie, Bryologie-Lichénologie*. 5, 3: 239 - 267.
- Pócs, T. 1985:** East African Bryophytes, VII. The Hepaticae of the Usambara Rain Forest Project Expedition, 1982. *Acta Botanica Hungarica* 31, 1985.
- Pócs, T. 1991:** The genus *Colura* in East Africa. *Bulletin of the British Bryological Society* 57: 33 - 39.
- Schuster, R.M. 1984a:** Evolution, Phylogeny and Classification of the Hepaticae. In: Schuster, R.M. (Ed): *New Manual of Bryology, Volume 2*: 892 - 1070.
- Schuster, R.M. 1984b:** Morphology, Phylogeny and Classification of the Anthocerotaeae. In: Schuster, R.M. (Ed): *New Manual of Bryology, Volume 2*: 1071 - 1092.
- Slageren, M.W.S.J.M. van 1985:** A Taxonomic Monograph

- of the Genera *Brachiolejeunea* and *Frullanoides* (Hepaticae), with a SEM Analysis of the Sporophyte in the Ptychanthoideae. Mededelingen van het Botanisch Museum en Herbarium van de Rijksuniversiteit te Utrecht 544: 1 - 309.
- Stephani, F. 1914:** Hepaticae in Mildbraed, J. (Ed.): Wissenschaftliche Ergebnisse der Deutschen Zentral-Afrika Expedition 1907-1908, II: 111 - 134.
- Vana, J. 1974:** Studien über die Jungermannioideae (Hepaticae). 5. *Jungermannia* Subg. *Plectocolea* und Subg. *Solenostoma*: Afrikanische Arten. Folia Geobotanica et Phytotaxonomica 9: 277 - 312.
- Vana, J. 1982:** Notes on Some African Hepatic Genera. 1 - 5. Folia Geobotanica et Phytotaxonomica 17: 63-87.
- Vana, J. 1985:** Notes on Some African Hepatic Genera. 6 - 9. Folia Geobotanica et Phytotaxonomica 20: 81 - 99.
- Vanden Berghen, C. 1946:** Note sur *Sprucella succida* (Mitt.) Steph. au Congo Belge. Bulletin du Jardin Botanique de Bruxelles 18: 91 - 95.
- Vanden Berghen, C. 1948a:** Contribution à l'étude des espèces africaines du genre *Metzgeria*. Bulletin du Jardin Botanique de Bruxelles 19: 187 - 204.
- Vanden Berghen, C. 1948b:** Notes sur quelques Lejeunéacées de l'Afrique centrale. Revue Bryologique et Lichénologique 27: 1 - 4.
- Vanden Berghen, C. 1951a:** Contribution à l'étude des espèces africaines du genre *Ceratolejeunea* (Spruce) Schiffn. Bulletin du Jardin Botanique de Bruxelles 21: 61 - 81.
- Vanden Berghen, C. 1951b:** Note sur trois hepaticues du Congo Belge. Bulletin de la Société Royale de Botanique de Belgique 84: 61 - 64.
- Vanden Berghen, C. 1951c:** Contribution à l'étude des espèces africaines du genre *Brachiolejeunea* (Spruce) Schiffn. Bulletin du Jardin Botanique de Bruxelles 21: 87-94.
- Vanden Berghen, C. 1954:** Le genre *Marchantia* L. au Congo Belge. Bulletin du Jardin Botanique de Bruxelles 24: 37 - 50.
- Vanden Berghen, C. 1960:** Hepaticues récoltées par le Dr. J.J. Symoens dans la région péritanganyikaise. Bulletin de la Société Royale de Botanique de Belgique 92: 111 - 138.
- Vanden Berghen, C. 1961:** Hepaticues récoltées par le Dr. J.J. Symoens dans la région péritanganyikaise. Bulletin de la Société Royale de Botanique de Belgique 93: 55 - 74.
- Vanden Berghen, C. 1965:** Hepaticues récoltées par le Dr. J.J. Symoens dans la région péritanganyikaise. Bulletin de la Société Royale de Botanique de Belgique 98: 129 - 174.
- Vanden Berghen, C. 1971:** *Cololejeunea leonardii* Vanden Berghen, hépatique épiphyllé nouvelle du Burundi. Bulletin du Jardin Botanique National de Belgique 41: 283 - 286.
- Vanden Berghen, C. 1972a:** Hépatiques épiphyllés récoltés au Burundi par J. Lewalle. Bulletin du Jardin Botanique National de Belgique 42: 431-494.
- Vanden Berghen, C. 1972b:** Hépatiques et Anthocérotes. In: Symoens, J.J. (Ed.): Exploration Hydrobiologique du Bassin du Lac Bangweolo et du Luapula, VIII, fasc. 1, 1 - 202. Bruxelles.
- Vanden Berghen, C. 1976a:** Frullaniaceae (Hepaticae) africanae. Bulletin du Jardin Botanique National de Belgique 46: 1-220.
- Vanden Berghen, C. 1976b:** Deux Lejeunéacées holostipées nouvelles pour la Flore Africaine. Revue Bryologique Lichénologique 42, 4: 923 - 929.
- Vanden Berghen, C. 1977:** Hepaticues epiphyllés récoltés par J.L. De Sloover au Kivu (Zaïre), au Rwanda et au Burundi. Bulletin du Jardin Botanique National de Belgique 47: 199 - 246.
- Vanden Berghen, C. 1978a:** Notes sur quelques Lejeunéacées holostipées africaines. Revue Bryologique Lichénologique 44, 2: 123 - 132.
- Vanden Berghen, C. 1978b:** Hépatiques du Shaba. Corrections et additions. Bulletin du Jardin Botanique National de Belgique 48: 367 - 372.
- Vanden Berghen, C. 1983:** *Lepidozia* Dum. emend. Joerg. subgen. *Sprucella* (Steph.) Vanden Berghen comb. et stat. nov. (Hepaticae). Bulletin du Jardin Botanique National de Belgique 53: 321-330.
- Vanden Berghen, C. 1984a:** Le genre *Lopholejeunea* (Spruce) Schiffn. (Lejeuneaceae, Hepaticae) en Afrique. Bulletin du Jardin Botanique National de Belgique 54 (3/4): 393 - 464.
- Vanden Berghen, C. 1984b:** Le genre *Caudalejeunea* (Stephani) Schiffn. (Lejeuneaceae, Hepaticae) en Afrique. Cryptogamie, Bryologie-Lichénologie 5, 1-2: 99 - 109.

