

## CHECKLIST AND DISTRIBUTION OF THE LIVERWORTS OF THE ANDASIBE (PÉRINET) REGION (MADAGASCAR)

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**Abstract:** This updated checklist of Marchantiophyta (liverworts) of Andasibé (Périnet) region, Madagascar was compiled from the literature, from herbarium specimens and recent collections. A total of 222 species including 9 infraspecific taxa, from 62 genera are recorded. Five species: *Cheilolejeunea ngongensis* Malombe et Pócs, *Cheilolejeunea uncioba* (Lindenb.) Malombe, *Heteroscyphus grandistipus* (Steph.) Schiffn., *Lejeunea angulifolia* Mitt. and *Kymatocalyx africanus* Váňa et Wigginton are newly reported for Madagascar. Detailed information on species occurrences are provided as a basis for subsequent research on species distributions and conservation.

**Keywords:** checklist, liverwort flora, Andasibe, Madagascar

## INTRODUCTION

Madagascar is located in the southwestern Indian Ocean and is the fourth largest island in the world, with a total area of 590000 km<sup>2</sup>. The island is one of the world's biodiversity hotspots (Myers 2003) with over 90% endemism in several animal taxa (e.g. 100% for amphibians 92% for reptiles; Vences *et al.* 2009) and 82% in



vascular plants. Endemism is lower for spore-dispersed plants (50% for ferns) (Rakotondrainibe 2003) and 29% in bryophytes (Marline *et al.* 2012). However, bryophytes are an active field of research, especially in the early 21st century with an increase of taxonomical and ecological studies (Marline *et al.* 2020). The first modern checklist of bryophytes was published in 2012 with 1144 species (Marline *et al.* 2012), updated in 2022 with 1274 species (Marline *et al.* 2022), an increase of 10% in species reported for the Island.

In September 2018, within the frame of BRYOTAN a workshop was conducted in TAN herbarium (Parc zoologique et Botanique de Tsimbazaza, Antananarivo, Madagascar), resulting in seven taxa reported as new to Madagascar found among specimens stored in TAN herbarium (Reeb *et al.* 2019). This workshop was followed by a field trip involving 13 bryologists in the Andasibe National Park and its surroundings (*Figures 3, 4*).

The checklist of the liverworts of this area proposed here, is based on the records of this field trip and of herbarium-housed specimens collected during earlier explorations and recent data from the literature (Reeb *et al.* 2018; Reeb and Gradstein 2020; Pócs 2011, 2015, 2020a, b, c; 2021; Sass-Gyarmati and Reeb 2021; Gradstein *et al.* 2022; Sass-Gyarmati *et al.* 2022).

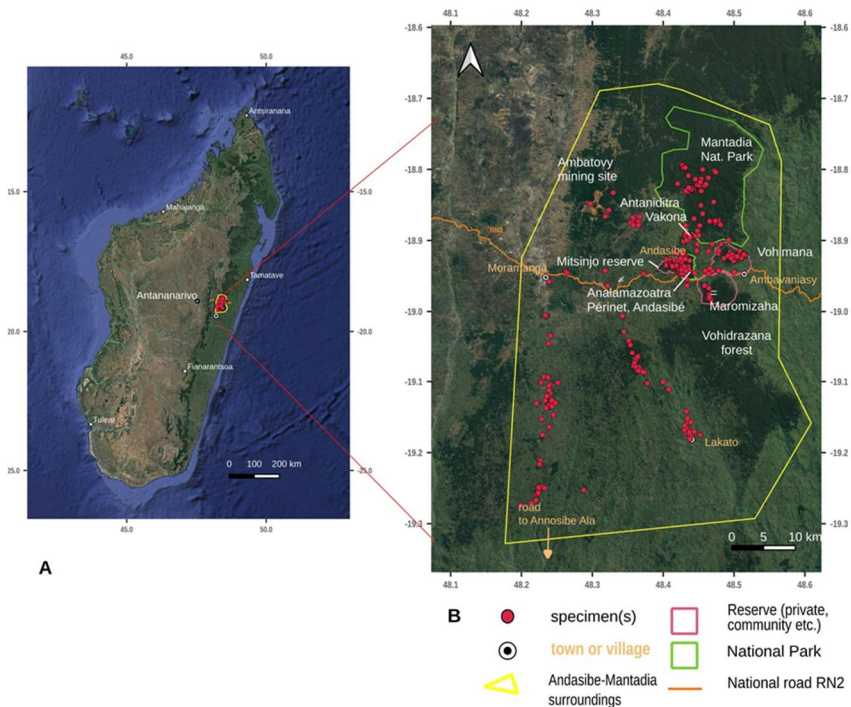
## **MATERIAL AND METHODS**

### **Area delimitation**

Andasibe Mantadia National Park is located 140 km east from Antananarivo, the capital of Madagascar (*Figure 1A*). Easily accessible by road, it is one of the most visited national parks in Madagascar. A large area was first defined around Andasibe Mantadia National Park, by a long 70 km long North-South polygon, centred on either side of the RN2 road and 50 km east of Moramanga, in the same altitudinal range (800–1200 m). It was refined after geolocalization (GPS coordinates or on locality / elevation information) of all collected specimens. Maps were obtained using Google Earth (7.3.4.8248) and QGIS (Odense 3.20) (*Figures 1A, B*).

The area covered is considered as “Andasibe-Mantadia and surroundings” (AMS) in this publication (*Figure 1B*). Located in the Alaotra-Mangoro region (Toamasina province in the ancient

administrative system), the AMs belongs to the East domain (Humbert 1951), under a humid climate (Cornet 1974) and is originally covered by a sempervirent humid forest (Moat and Smith 2007). The AMs also belongs to the Eastern forest corridor (Ankeniheny-Zahamena Corridor, 500000 ha) (Randriaranimanana *et al.* 2014), a theoretically continuous humid forest area spanning three regions (Alaotra-Mangoro, Atsinanana, Analanjirifo) making it one of the largest remaining area of rainforest in Madagascar.



**Figure 1.** A. General location of Andasibe area, around 140 km east from Antananarivo, the capital. B. GPS position of the specimens reported in the checklist (sup. file 1) : in some cases, several specimens for one species are located at the same GPS point, they are only represented by one red point. The yellow line delimits the Andasibe area and surroundings.

## Specimens treatment

The liverwort specimens collected by the authors during the 2018 field trip were identified. Specimens deposited at the PC (Muséum National d'Histoire naturelle, Paris France), in EGR (EGER, Hungary), MO (St. Louis, Missouri, USA) and TAN (Antananarivo, Madagascar) were selected. Species nomenclature follows Söderström *et al.* (2016); He *et al.* (2014); Bastos and Gradstein (2020); Söderström and Hagborg (2023) and Wigginton (2018). 26 taxa endemic to Madagascar have found on the studied area and are marked with an asterisk (\*).

## RESULTS AND DISCUSSION

About 700 specimens are reported for 222 taxa presented in a check-list below. In this detailed checklist, each specimen belongs to a defined location (*Figure 1B*), listed in *Table 1*. For each species 1–5 specimens were selected for each area where it occurs. The location is written in bold at the beginning of the listing, and the information “Madagascar, Alaotra-Mangoro” is not repeated. The information on the original labels has been retained, but the format was homogenised and presented, where possible, in the following order: station, habitat, altitude, date, GPS, collector, collecting number(s), (Herbarium).

The Malagasy herbarium specimens held at the Muséum National d'Histoire Naturelle, Paris (PC) are partly from the former collections of: Benoist, Boiteau, Bosser, Cremers and the very prolific collector Pierre Tixier. On the other hand, recent collections were made during several collecting trips in the framework of the MADBRYO (<https://www.madbryo.org>) and BRYOTAN GBIF (<https://www.bryotan.com>) projects. At Eszterházy Károly Catholic University, Eger (EGR), the material was mainly collected by Prof. Tamás Pócs who participated in four collecting expeditions (1990, 1994, 1998, 2004). Members of the Botanical Department accompanied him once and collected during the research trip to Madagascar in 1994. Before and after this period, materials were sent to the herbarium mainly by donation or exchange (Sass-Gyarmati *et al.* 2022).

The Andasibe-Mantadia area harbours 50% of the Malagasy liverwort bryoflora (Marline *et al.* 2022), for an area representing

only 0, 42% of Madagascar's total surface. Although this mid-altitude humid forest (*Figure 2*) is one of the best explored regions in the country, and the climatic conditions are very favourable for a rich bryoflora, as well as to vascular plants (Koechlin 1972), the exceptional bryological richness is an additional argument for conservation efforts, which are unfortunately threatened by severe deforestation, even in the vicinity of or within the boundaries of the National park.



**Figure 2.** A view of Mantadia National Park, a sempervirent humid forest, with a medium high (10–15 m) canopy (Photo: Catherine Reeb).

The data presented below provide detailed information on species occurrences in the area, which will form the basis for subsequent research on species distributions, assessment of threat status and conservation.

**Table 1.** Localities of the Andasibe Mantadia surrounding check-list.

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*Ambatovy forest*  
*Analamazoatra = Perinet (Andasibe National Park)*  
*Anosibe-An'ala road*  
*Antaniditra forest*  
*Lakato forest and road*  
*Mitsinjo reserve, belongs to Analamazoatra area*  
*Mantadia National Park*  
*Maromizaha reserve*  
*Moramanga surroundings*  
*Vakona Lodge surroundings*  
*Vohimana reserve (Fokotana Ambavaniasy)*

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## CHECK-LIST

All the specimens are located in: Madagascar, (Toamasina province), Alaotra-Mangoro (region).

### ***Acanthocoleus madagascariensis* (Steph.) Kruijt**

**Mantadia National Park.** Chute Sacrée, rocks by river in forest, 970 m, 2.10.2018, -18.82563 48.43576, *Hodgetts 10586b*. Chute Sacrée. Twigs of forest shrub, 985 m, 2.10.2018, -18.82655 48.4366, *Hodgetts 10598*; Chute Sacrée, rocks by river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts 10608a*; Chute Sacrée, rocks by river in forest, 1035 m, 2.10.2018, -18.82822 48.43967, *Hodgetts 10633*. **Mitsinjo Reserve.** Epiphytic in forest, 930 m, 29.9.2018, -18.93623 48.41298 *Hodgetts 10304*. Rock near stream in forest, 950 m, 29.9.2018, -18.93527 48.41269 *Hodgetts 10329*. Forest tree, 940 m, 29.9.2018, -18.93223 48.41272, *Hodgetts 10449*. **Vakona Lodge surroundings.** Dead tree bought by river, 970 m, 2.10.2018, -18.88964 48.43249, *Hodgetts 10685a*.

### ***Acrolejeunea emergens* (Mitt.) Steph.**

**Anosibe-An'ala road.** Anosibé, pk20, 18.4.1978, *Tixier 11759* (PC0793336A). **Vohimana reserve.** Epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10720*.

### **\**Allorgella rabenorii* (Tixier) Bechteler, G.E. Lee, Schäf.-Verw. et Heinrichs**

**Lakato road.** Épiphyllous en forêt dense, 1000 m, 2.6.1979, *Tixier 12597* (PC0763012, PC0763013).

The holotype is *Tixier 12591* according to the original literature (Tixier 1988).

**\**Allorgella subana* (Pócs) Pócs**

**Mantadia National Park.** Tropical rainforest with 40–50 m tall trees near the end of the graphite mining road, epiphyllous 1030 m, 2.10.1994, –18.87222 48.47388, Pócs & Szabó 9485/R **HOLOTYPE** (EGR, as *Otolejeunea subana*).

***Amazoopsis diplopoda* (Pócs) J.J. Engel & G.L. Merr.**

**Analamazoa = Périnet.** Montane rainforest on the rocky ridge of Mt. Adrianavibe, 5 km ESE of Andasibe (Périnet), on soil, 3.10.1994, 950–1050 m, –18.9425 48.4777, Orbán 9487/BO (as *Arachniopsis diacantha*) (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert". On roadcut, 900–1000 m, 16.3.1990, Pócs *et al.* 90104/A (EGR); Analamazoa Forest Station south of Andasibe, trails between Mitsinjo office and Orchid Park, Forest secondary, 885 m, 04.01.2023, –18.9336690 48.4121560, Brinda 12204 (MO). **Mantadia National Park.** Chute Sacrée, small shaded cliff by river in forest, 990 m, 2.10.2018, –18.82698 48.43771, Hodgetts 10620; Chute Sacrée, Forest, 2.10.2018, 1000 m, –18.8299 48.4317, Hodgetts *s.n.* dead log in elfin forest, 1267m, 2.10.2018, –18.81555 48.4525, Vanderpoorten MD44; vertical sandstone cliff and wet rocks by stream in elfin forest, 1029m, 2.10.2018, 18.83111 48.43666, Vanderpoorten MD64, MD68 (LG, det. S.R. Gradstein). **Maromizaha reserve**, P17, along the river below the camp, 1002 m, 4.7.2012, –18.9762 48.46514, Reeb MTM1271, MTM1299 (TAN). **Mitsinjo reserve.** Rock near stream in forest, 940 m, 29.9.2018, –18.93576 48.41296, Hodgetts 10322. **Moramanga surroundings.** Route de Moramanga a Tamatave, á 17 km de Moramanga, arbre d'un bois d'*Eucalyptus*, 1.11.1970, Onraedt 70.M.076 (as *Arachniopsis diacantha*) (EGR). **Vakona Lodge surroundings.** Crocodile Sanctuary, on bank by track, 1020 m, 2.10.2018, –18.89547 48.43802, Hodgetts 10662a; Forest, 1025 m, 2.10.2018, –18.8946 48.4385, Hodgetts *s.n.*; Soil banks in forest, 960 m, 2.10.2018, –18.9327 48.4131, Hodgetts *s.n.* **Vohimana reserve.** Path 2 to the summit, 870 m, 14.4.2010, –18.92194 48.5013, Reeb, *Andriamanantena*, Bidault CRAE38, CRAE39, CRAE52 (PC0724443A), CRAE70 (TAN); Rocks by river, 785 m, 4.10.2018, –18.9243 48.51027, Hodgetts 10809; On ground by stream, 950m, 4.10.2018, –18.91805 48.49583, Vanderpoorten MD60 (LG, det. S.R. Gradstein).

***Anastrophyllum piligerum* (Nees) Steph.**

**Analamazoa = Périnet.** Sur tronc, 9.11.1951, Benoist 1844 (PC0792945C). **Vohimana reserve.** Liana in forest, 900 m, 4.10.2018, –18.92156 48.50214, Hodgetts 10789.

***Aneura latissima* Spruce**

**Vohimana reserve.** Path 2, on dead or living trees 870 m, 14.4.2010, –18.9219444 48.5015833, Reeb, *Andriamanantena*, Bidault, CRAE69; Path 2, on dead or living trees 860 m, 14.4.2010, –18.923388 48.505861, Reeb, *Andriamanantena*, Bidault CRAE73, CRAE76; Exploited forest left bank of the Vohimana rivere, 827 m, 15.4.2010, –18.91942 48.51372, Reeb, *Andriamanantena*, Bidault, CRAE143. **Maromizaha reserve**, P17, along the river below the camp, 7.5.2012, –18.97622 48.46514, Reeb MTM1285.

***Bazzania decrescens*** (Lehm. et Lindenb.) Trevis.

**Analamazaotra = Périnet.** Sur tronc, 9.11.1951, *Benoist 1846* (PC0762870); 23.2.1976, *Tixier 9883* (PC0762950C); NR Périnet, auf Rinde, 900 m, 27.6.1994, *Lü MAD13*, 22 (EGR); NR Périnet, auf Moder, 900 m, 28.6.1994, *Lü MAD29* (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on decaying wood, 900–1000 m, 16.3.1990, *Pócs et al. 90104/F* (EGR); 19.3.2004, *Asakawa & Harinantenaina MAD20044/A, MAD20046* (EGR); montane rainforest, on granitic ground, E of the "Station de Pisciculture", with *Ocotea, Pandanus Memecylon* spp., corticolous 920–990 m, 15.3.1990, *Pócs et al. 90103/U, 90103/J* (EGR); **Lakato road.** pk 14, 12.5.1979, *Tixier 12555* (PC0762899), *12588* (PC0762898), *12589* (PC0762902); 2.6.1979, *Tixier 12691* (PC0762882), *12699* (PC0762884), *12701* (PC0762887), *12716* (PC0762883), *12718* (PC0762938), *12721* (PC0762937); 10.6.1979, *Tixier 12898* (PC0762947A), *12899* (PC0762897), *12962* (PC0762985); 10.6.1979, *Tixier 12934* (PC0793405), *12951* (PC0762934); 25.6.1979, *Tixier 12961* (PC0762901); pk9, 25.6.1979, *Tixier 12990* (PC0762933).

**Mantadia National Park.** Primary humid forest, on soil, 900–1100 m, 1.10.2018, *Sass-Gyarmati et al. 1803/G* (EGR); Tsakoka trail, base of shrub in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10494*; Forest, 1000 m, -18.7979 48.4281, *Hodgetts s.n.*; Chute Sacrée, forest, 1000 m, -18.8299 48.4317, *Hodgetts s.n.*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, -18.81763 48.45243, *Hodgetts 10844a*, 10864, 10870a; Belakato & Sanody Forests, tree base in elfin forest, -18.82131 48.44621 *Hodgetts 10899*; Belakato & Sanody Forests, shrub in elfin forest, 1140 m, -18.82131 48.44621, *Hodgetts 10905*. **Maromizaha reserve.** Autour du centre entre camp 2 et 3, 960 m, 7.4.2012, -18.976 48.465, *Reeb MTM1275*. **Mitinsjo reserve.** Analamazaotra Forest Station, primary-secondary rainforest, Cardiff Circuit, on bark, 900–1000 m, 29.9.2018, *Sass-Gyarmati 1801/B, 1801/G, 1801/F*; On bark 30.9.2018, *Sass-Gyarmati 1802/E, 1802/LI* (EGR); epiphytic in tree nursery, 940 m, 29.9.2018, -18.93603 48.41308, *Hodgetts 10202*; Forest, -18.93603 48.41308, *Hodgetts s.n.* **Vakona Lodge surroundings.** 7 km north from the Périnet park, degraded rainforest, on soil, 1025 m, 3.10.2018, *Sass-Gyarmati 1805/A* (EGR); 3.10.2018, -18.8946 48.4385, *Hodgetts s.n.* **Vohimana Reserve.** Humid rainforest at mid-elevation, on soil, 4.10.2018, *Sass-Gyarmati et al. 1806/A, 1806/R* (EGR); Humid rainforest at mid-elevation, on tree root, 4.10.2018, *Sass-Gyarmati 1806/L* (EGR); Humid rainforest at mid-elevation, on bark, 4.10.2018, *Sass-Gyarmati 1806/M, 1806/O, 1806/M* (EGR); Forest. 900 m, 4.10.2018, -18.9243, 48.5103. *Hodgetts s.n.*

\****Bazzania decrescens ssp. curvidens*** (Steph.) Gyarmati

**Mantadia National Park.** On touristic trail "Sacred Waterfall Rainforest" primary rainforest, lignicolous. 2.10.2018, *Sass-Gyarmati et al. 1804/F* (EGR).

***Bazzania decrescens ssp. pumila*** (Mitt.) Pócs

**Lakato road.** 2.6.1979, *Tixier 12722* (PC0793406). **Mitsinjo Reserve.** Analamazaotra Forest Station, primary-secondary rainforest, Cardiff Circuit, on bark, 900–1000 m, 30.9.2018, *Sass-Gyarmati 1802/C* (EGR). **Mantadia National Park.** Primary humid forest, on tree base, 900–1100 m, 1.10.2018, *Sass-Gyarmati et al. 1803/Q* (EGR). **Vakona Lodge surroundings.** Forest, 1025 m, 3.10.2018, -18.8946 48.4385, *Hodgetts s.n.*



***Bazzania nitida*** (F. Weber) Grolle

**Analamazoatra (=Périnet).** 900 m, 10.1905, Ex hb. Alleizette 102 (PC0762834); Tixier 9883. 23.11.1976 (PC0762950B); montane rainforest 500 m E of the railway station, on the W slope of ridge, 920–1010 m, near the aerial, corticolous 17.3.1990, Pócs *et al.* 90108/M, 90108/R, (EGR); montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., on decaying wood, 920–990 m, 15.3.1990, Pócs & Magill, *Lafarge-England 90103/Q, 90103/R* (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", corticolous 900–1000 m, 16.3.1990, Pócs *et al.* 90104/B (EGR); 1.5 km W of the railway station, degraded montane rainforest, corticolous 930–990 m, 17.3.1990. Pócs *et al.* 90106/AD, 90106/U, 90106/AD (EGR); montane rainforest on the rocky ridge of Mt. Adrianavibe, 5 km ESE of Andasibe (Périnet), on soil, 950–1050 m, 3.10.1994, –18.9425 48.4777, Pócs 9487/BK (EGR); Périnet, auf Rinde, 900 m, 27.6.1994, Lü MAD13 (EGR). Lakato road. Lakato 4. 10.6.1979, Tixier 12898 (PC0762947B), 12904 (PC0762989). **Mantadia National Park.** *Pandanus pulcher* swamp forest in Saharanga River Valley, on palm, 995 m, –18.87222 48.47361, 2.10.1994, Pócs 9484/E (EGR); Primary humid forest, on bark, 900–1100m, 1.10.2018, *Sass-Gyarmati 1803/C* (EGR); Tsakoka trail, tree base in elfin forest, 1070 m, –18.79735 48.43133, *Hodgetts 10461*; dead log in stream in elfin forest, 1099m, 2.10.2018, –18.82722 48.44027, *Vanderpoorten MD53* (LG, det. S.R. Gradstein). **Maromizaha reserve.** Path between summit of the hill and Camp 3, 1084 m, 7.7.2012, –18.98256 48.46692, *Reeb MTM12113*. **Mitsinjo reserve:** Analamazoatra Forest Station, primary-secondary rainforest "Cardiff Circuit", on bark of *Dalbergia bardoii*, 900–1000 m, 30.9.2018, *Sass-Gyarmati et al. 1802/F, 1802/J* (EGR). **Moramanga surroundings.** Degraded secondary montane evergreen forest 4 km E of Moramaga near Antsahotsaka village, corticolous 4.10.1994, –18.94472 48.27555, *Kis 9490/M* (EGR). **Vohimana reserve.** Blue path, 800 m, 6.9.2012, –18.92139 48.50561, *Reeb MTV1233*; shrub in elfin forest, 950 m, 4.10.2018, –18.9192 48.49682, *Hodgetts 10337*; dead wood in forest, 905 m, 4.10.2018, –18.92143 48.5019, *Hodgetts 10351*. Tree trunk in forest, 875 m, 4.10.2018, –18.92264, 48.50463, *Hodgetts 10797*.

**\**Bazzania perrotiana*** E.W. Jones

**Analamazoatra = Périnet.** Andasibe, 19.3.2004, *Asakawa & Harinantenaina 20047/A* (EGR). **Mantadia National Park.** On touristic trail "Sacred waterfall rainforest" primary rainforest, on bark, 2.10.2018, *Sass-Gyarmati et al. 1804/B* (EGR). **Vohimana Reserve.** Humid rainforest at mid-elevation, on tree base, 4.10.2018, *Sass-Gyarmati et al. 1806/B 1806/D, 1806/F* (EGR); Humid rainforest at mid-elevation, on tree roots 4.10.2018, *Sass-Gyarmati et al. 1806/Q* (EGR).

***Bazzania praerupta*** (Reinw., Blume et Nees) Trevis.

**Analamazoatra = Périnet,** 23.11.1976, *Tixier 9883* (PC0762950A, as *B. borbonica*). **Lakato road.** 2.6.1979, *Tixier 12689* (PC0762942 as *B. borbonica*); Lakato 4, 10.6.1979, *Tixier 12898* (PC0762947A, as *B. borbonica*).

**\**Bazzania reflexa*** (Gottsche) Steph.

**Lakato road.** 2.6.1979, *Tixier 12690* (PC0762984).

***Bryopteris gaudichaudii* Gottsche**

**Analamazoatra = Périnet.** Moramanga, ab indigen callus. *Bonaparte, 1901.* SYNTYPE. PC0104041 (PC, as *B. madagassus*); ISOTYPE. Moramanga vallie au l'Analamazoatra, ab indigen callus. *Bonaparte, 1901.* PC0101880 (PC, as *B. madagassus*); montane rainforest on granitic ground, at 920-990 m, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus*, *Memecylon* spp., corticolous 15.3.1990, *Pócs & Magill, Lafarge-England 90103/AQ* (EGR).

***Calypogeia arguta* Nees & Mont.**

**Vohimana reserve.** Big waterfall of Vohimana reserve, -18.92878 48.49906, 849 m, 15.4.2010, *EB5*.

***Calypogeia bidentula* (F. Weber) Nees**

**Vakona Lodge surroundings.** Crocodile Sanctuary, on bank by track, 1020 m, 3.10.2018, -18.89547 48.43802, *Hodgetts 10662c*.

***Calypogeia mascarenensis* Bischl.**

**Mantadia National Park.** Chute Sacrée, rocks by river in forest, 970 m, -18.82563 48.43576, *Hodgetts 10586a*; Chute Sacrée, rocks by river in forest, 1005 m, -18.82689 48.43723, *Hodgetts 10606c*; damp boulder by stream in elfin forest, 1029 m, 2.10.2018, -18.83111 48.43666, *Vanderpoorten MD54, MD59* (LG, det. S.R. Gradstein). **Vohimana reserve.** Rocks by river, 785 m, -18.9243 48.51027, *Hodgetts 10811*; along the Babakoto Circuit, forest, primary, 928 m, 4.10.2018, -18.91647 48.49452, *Brinda 12448* (MO); on ground by stream, 950m, 4.10.2018, -18.91805 48.49583, *Vanderpoorten MD66* (LG, det. S.R. Gradstein).

***Capillolejeunea mascarena* S.W. Arnell**

**Anosibe-An'ala road.** km 29, 15.9.1952, *Millot & Bosser 6320/4* (PC0762440, as *Capillolejeunea mascarena*); **Mitsinjo Reserve.** tree trunk in forest, 950 m, 29.9.2018, -18.93505 48.41235, *Hodgetts 10333a*; epiphytic on *Erythroxylum*, 970 m, -18.93383 48.4124, *Hodgetts 10428*. **Mantadia National Park.** Rainforest in a rocky streambed along a tributary of Saharanga River, epiphyllous 1000m, 2.10.1994, -18.87222 48.47388, *Vojtkó 9486/V* (EGR, as *Drepanolejeunea mascarena*); Tsakoka trail, shrub in elfin forest, 1070 m, 4.10.2018, -18.79735 48.43133, *Hodgetts 10467, 10250* (bark of shrub in elfin forest). **Vohimana Reserve.** Epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10333*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10744b*. Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10854*.

***Caudalejeunea hanningtonii* (Mitt.) Schiffn.**

**Anosibe-An'ala road.** km 57, épiphyllie, forêt humide au bord d'un torrent, 900 m, 15.9.1953, *Bosser 6391a* (PC0723965). 10 km au sud de Moramanga, épiphyllie sur *Pandanus* 31.3.1974, *Cremers 3048* (EGR).

***Caudalejeunea lewallei* Vanden Berghen**

**Anosibe-An'ala road.** km 54, forêt humide au bord d'un ruisseau, 900 m, 15.9.1953, *Bosser 6408a* (PC0723956 as *C. madagassa*). **Mantadia reserve.** Tsakoka trail, épiphyllous on shrub in forest, 1000 m, -18.79761, 48.42856, *Hodgetts 10535*; Tsakoka trail, épiphyllous on *Rafia* palm etc. in forest, 970 m, -18.79786 48.42806, *Hodgetts 10545*.

***Cephaloziella transvaalensis* S.W. Arnell**

**Analamazoatra = Périnet.** Logged montane rainforest and roadcut surface S of the railway station, 940 m, on roadcut, 16.3.1990, *Pócs et al. 90105/N* (EGR); On rock and earth banks along the railway line 1 km of the station, on roadcut, 910 m, 17.3.1990, *Pócs et al. 90107/H* (EGR).

***Ceratolejeunea belangeriana* (Gottsche) Steph.**

**Mantadia National Park.** Tsakoka trail, bark of shrub in elfin forest, 1070 m, 1.10.2018, -18.79735, 48.43133, *Hodgetts 10470*; Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts10617c*; Damp boulder by stream in elfin forest, 1070m, 2.10.2018, -18.81 48.43916, *Vanderpoorten MD58* (LG, det. S.R. Gradstein). **Vakona Lodge surroundings.** On bank by hotel, 970 m, 3.10.2018, -18.88972 48.43547, *Hodgetts 10651*; tree trunk in forest, 1030 m, 3.10.2018, -18.89523, 48.43887, *Hodgetts 10664a*. **Vohimana Reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts10746a*; Rotten wood in forest, 860 m, 4.10.2018, -18.9232 48.50555, *Hodgetts 10803*.

***Ceratolejeunea coarina* (Gottsche) Steph.**

**Mantadia National Park.** Chute Sacrée, 1070m, 2.10.2018, -18.82777 48.44055, *Vanderpoorten MD52* (det. S.R. Gradstein); flat flooded rock by waterfall, 1099m, 2.10.2018, -18.82722 48.44027, *Vanderpoorten MD55* (LG, det. S.R. Gradstein); **Maromizaha Reserve.** Mossy montane rainforest with bamboo (*Nastus* sp.) undergrowth on the summit ridge of Mt. Maromizaha, south of the Andasibe, 1080-1214 m a.s.l., on *Pandanus* leaf intermixed among *C. saroltae* Pócs. 26.8.1998. *S. Pócs 9890/CA* (EGR).

***Ceratolejeunea cornuta* (Lindenb.) Steph.**

**Mitsinjo Reserve.** Epiphyllous on *Pandanus* by lake at forest edge, 965 m, -18.93281 48.41314, *Hodgetts 10421*; epiphyllous on *Pandanus* in forest, 940 m, 30.9.2018, -18.93346 48.41293, *Hodgetts 10427b*; epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, -18.9337 48.41213, *Hodgetts 10432*. **Mantadia reserve.** Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts10555*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10373*. **Mitsinjo Reserve.** Epiphyllous on *Pandanus* by lake at forest edge, 965 m, -18.93281 48.41314, *Hodgetts 10421*; epiphyllous on *Pandanus* in forest, 940 m, 30.9.2018, -18.93346 48.41293, *Hodgetts 10427b*; epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, -18.9337 48.41213, *Hodgetts 10432*. **Vakona Lodge surroundings** Dead tree bough by river,

970 m, 3.10.2018, –18.88964 48.43249, *Hodgetts 10685*. **Vohimana reserve**. Twigs and bamboo in forest, 920 m, 4.10.2018, –18.9202 48.49899, *Hodgetts 10758c*.

**\**Ceratolejeunea saroltae* Pócs**

**Maromizaha Reserve**. Mossy montane rainforest with bamboo (*Nastus* sp.) undergrowth on the summit ridge of Mt. Maromizaha, south of Andasibe, 1080–1214 m a.s.l., on twigs, *S. Pócs 9890/BJ*, 26.8.1998 (HOLOTYPE: EGR). At the same time and locality, on *Pandanus* leaf inter-mixed among *C. diversicornua*, *S. Pócs 9890/CK* (PARATYPE: EGR).

***Cheilolejeunea adnata* var. *autoica* Gradst. & Ilk.-Borg.**

**Mantadia National Park**. Chute Sacrée, epiphyllous on *Pandanus* in forest, 1035 m, 2.10.2018, –18.82822 48.43967, *Hodgetts 10635* (EGR); Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10773b*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10882a, 10883* (EGR); 1080 m, 5.10.2018, –18.82230 48.45077, *Hodgetts 10826a*; **Mitsinjo Reserve**. Epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, –18.93370 48.41213, *Hodgetts 10431a*; **Vohimana reserve**. Epiphyllous on tree in elfin forest, 950 m, 4.10.2018, –18.91920 48.49682, *Hodgetts 10730*.

***Cheilolejeunea cordigera* (Steph.) Grolle**

**Analamazoatra = Périnet**. Montane rainforest, 500 m E of the railway station, on the W slope of ridge, near the aerial, epiphyllous 920–1010 m, 17.3.1990, *Pócs et al. 90108/BO* (EGR).

***Cheilolejeunea decursiva* (Sande Lac.) R.M. Schust.**

**Mitsinjo Reserve**. Shrub in forest, 990 m, 5.10.2018, –18.93399 48.41137, *Hodgetts 10362*. **Mantadia National Park**. Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018; –18.79723 48.4306, *Hodgetts 10509g*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10824b*.

**\**Cheilolejeunea hodgettsii* Pócs**

**Mantadia National Park**. Belakato and Sanody Forests. Tree trunk in elfin forest. 1250 m, 3.10.2018, –18.81763 48.45243, **ISOTYPE** *Hodgetts 10830b* (EGR).

***Cheilolejeunea intertexta* (Lindenb.) Steph.**

**Analamazoatra = Périnet**. Andasibe, broussaille d'altitude, 1200 m, 10.11.1976, *Tixier 9627* (PC0785617); andasibé. NR Périnet, Epiphyll auf *Pandanus* und *Microscorium*. 900 m, 27.6.1994, *Lü MAD17 F, E* (EGR). **Mantadia National Park**. Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10455c*; Tsakoka trail, bark of shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10470a*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10771a*; Chute

Sacrée, twigs overhanging river in forest, 1005 m, -18.82689 48.43723, *Hodgetts s.n.*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10630d*; Chute Sacrée, tree fern frond in forest, 1030 m, 2.10.2018, -18.82761 48.43908, *Hodgetts 10639*. **Mitsinjo Reserve**. Epiphytic on shrubs in forest, 960 m, -18.93418 48.4122, *Hodgetts 10356*; branch fallen from canopy in forest, 990 m, 4.10.2018, -18.93403 48.41166, *Hodgetts 10358*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, -18.93281 48.41314, *Hodgetts 10422*; Analamazaotra Forest Station south of Andasibe, trails between Mitsinjo office and Orchid Park, forest, secondary, 885 m, 30.9.2018, -18.9336690 48.4121560, *Brinda 12241*(MO). **Vohimana reserve**. Epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10714*; shrub in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts 10737*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10744c*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, -18.92111 48.5016, *Hodgetts 10350*; dead wood in forest, 905 m, 4.10.2018, -18.92143 48.5019, *Hodgetts 10785*.

***Cheilolejeunea krakammae*** (Lindenb.) R.M. Schust.

**Analamazaotra = Périnet**. Andasibe. Broussaille d'altitude 1200 m, 10.11.1976, *Tixier 9617* (PC0785612); Périnet. **Antaniditra forest**. corticolous, 900 m, 6.7.1977, *Tixier 10674* (PC0785615). **Lakato road**. Forêt dense primaire, 1000 m, 2.6.1979, *Tixier 12599* (PC0785611).

***Cheilolejeunea montagnei*** (Gottsche ex Mont.) R.M. Schust.

**Analamazaotra = Périnet**. Périnet, sur tronc, 9.11.1951, *Benoist 1844* (PC0792945A, as *Euosmolejeunea montagnei*). **Mantadia National Park**. Chute Sacrée, liana by river in forest, 970 m, 2.10.2018, -18.82563 48.43576, *Hodgetts 10582a*; Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts s.n.*, *Hodgetts 10484*; Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10482a*; Tsakoka trail, shrubs in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10490*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10852*. **Maromizaha reserve**. P18, le long de la rivière sous le camp Falaise, talus terreux 2-2.5 m de haut, très ombragé en cirque, 5.7.2012, -18.97572 48.46356, *Reeb MTM1286*. **Vohimana reserve**. Cliff between stone bridge and old tunnel, 789 m, 28.6.2012, -18.92031 48.51586, *Reeb MT12V15*; epiphytic on shrub in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts 10777*.

***Cheilolejeunea ngongensis*** Malombe et Pócs

**Mantadia National Park**. Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10632b* (EGR). New to Madagascar.

***Cheilolejeunea pluriplacata*** (Pearson) R.M. Schust.

**Analamazaotra = Périnet**. Andasibe, sur branchettes, 1000m, 4.6.1977, *Tixier 10159* (PC0762998, as *Anomalolejeunea pluriplacata*). **Mantadia National Park**. Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018,

–18.79735 48.43133, *Hodgetts 10772c*. **Vakona Lodge surroundings**. Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10701b*.

***Cheilolejeunea rigidula* (Nees ex Mont.) R.M. Schust.**

**Mitsinjo Reserve**. Trunk of small shrub in forest, 955 m, 30.9.2018, –18.93473 48.41248, *Hodgetts 10341*. **Mantadia National Park**. Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10373*.

***Cheilolejeunea trapezia* (Nees) Kachroo & R.M. Schust.**

**Mitsinjo reserve**. Forest shrub, 940 m, 29.9.2018, –18.93576 48.41296. 29.9.2018, *Hodgetts 10317*; epiphyllous on *Pandanus* in forest, 990 m, 29.9.2018, –18.93375 48.41074, *Hodgetts 10369*; epiphyllous on *Pandanus* in forest, 1000 m, 29.9.2018, –18.93366 48.41034, *Hodgetts 10378*; epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, –18.9337 48.41213, *Hodgetts 10438*. **Mantadia National Park**. Tsakoka trail, shrub in elfin forest, 1070 m, –18.79735 48.43133, *Hodgetts 10467b*; Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10482*; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10503*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10558*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, –18.79735 48.43133, *Hodgetts 10773c*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts 10298*; Chute Sacrée, epiphyllous on *Pandanus* by road through forest, 980 m, 2.10.2018, –18.83082 48.4332, *Hodgetts 10646a*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10815*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10824a*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10849*. **Vakona Lodge surroundings**. Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10699b*. **Vohimana Reserve**. Twigs and bamboo in forest, 920 m, 4.10.2018, –18.9202 48.49899, *Hodgetts 10759a*; epiphyllous on *Pandanus* leaves in forest, 930 m, 4.10.2018, –18.92474 48.49924, *Hodgetts 10767*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, –18.92111 48.5016, *Hodgetts 10780a*.

***Cheilolejeunea trifaria* (Reinw., Blume & Nees) Mizut.**

**Mitsinjo Reserve**. Epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, –18.93281 48.41314, *Hodgetts 10422a*.

***Cheilolejeunea uncioba* (Lindenb.) Malombe**

**Mitsinjo reserve, epiphytic** on forest tree, 960 m, 30.9.2018, –18.93370 48.41213, *Hodgetts 10442* (EGR). New to Madagascar.

***Cheilolejeunea xanthocarpa* (Lehm. et Lindenb.) Malombe**

**Analamazoatra = Périnet**. Andasibe, corticole en forêt secondaire, 1200 m, 10.10.1976, Tixier s.n. (PC0793367 as *Leucolejeunea xanthocarpa*); Andasibé,

corticole en forêt secondaire, 1100 m, 10.11.1976, *Tixier 9614* (PC0793366 as *L. xanthocarpa*); Andasibé, 1000m, forêt secondaire, 10.11.1976, *Tixier 9616* (PC0793362 as *L. xanthocarpa*); Andasibé, brousse secondaire, 1100 m, 10.11.1976, *Tixier 9630* (PC0793365 as *L. xanthocarpa*); Andasibé, corticole en forêt secondaire, 1100 m, 4.6.1977, *Tixier 10526* (PC0793370 as *L. xanthocarpa*); Périnet, pk 155 de la route Tananarive. Forêt secondaire, 900 m, 5.7.1977, *Tixier 10627* (PC0793369 as *L. xanthocarpa*); Périnet, Antaniditra, forêt marécageuse à *Pandanus* sp., 900 m, 6.7.1977, *Tixier 10645* (PC0793368 as *L. xanthocarpa*); forêt de Sandrangato, 850 m, *Millot, s.n.* et s.d. (PC0793373 as *L. xanthocarpa*). **Mantadia National Park.** Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, -18.82251 48.45004, *Hodgetts 10820b* (EGR); Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts s.n.*; Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, -18.79721 48.43041, *Hodgetts 10518*. **Vohimana reserve.** Trunk of shrub in forest, 930 m, 4.10.2018, -18.92474 48.49924, *Hodgetts 10763*.

**\**Cololejeunea adnata* Tixier**

**Analamazoatra = Périnet.** 23.11.1976, *Tixier 9821, 9822, 9832* (mixed as PC0793129).

***Cololejeunea appressa* (A. Evans) Benedix**

**Analamazoatra = Périnet.** Épiphyll sur *Decaryodendron perrieri* Cavaco, 900 m, 30.3.1974, *Cremers 3021* (PC0793124); épiphyll sur une Guttifere, 900 m, 30.3.1974, *Cremers 3034a* (PC0793125); épiphyll, 900 m, 30.3.1974, *Cremers 3035b* (PC0793123); 23.11.1976, *Tixier 9820* (PC0793127). **Anosibe-An'ala road.** km 29, route de Moramanga à Anosibe, sur feuilles de *Selaginella* sp. Forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6332/b* (PC0793126). **Lakato road.** 12.5.1976, *Tixier 12427, 12428, 12429, 12441, 12446* (mixed as PC0793128). **Mantadia National Park.** Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, -18.79761 48.42856, *Hodgetts 10534b*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts 10822a*.

***Cololejeunea bidentula* (Steph.) E. W. Jones**

**Anosibe-An'ala road.** km 29, épiphyll sur *Pandanus* sp., forêt marécageuse, 900 m, 15.9.1953, *Bosser 6305* (PC0793121A); sur feuilles de *Pandanus* sp., forêt marécageuse, km 29, 15.9.1953, *Millot et Bosser 6323* (PC0793119A); km 29, sur feuilles de *Selaginella* sp., forêt marécageuse, 900 m, *Millot et Bosser 6332/d* (PC0793120).

**\**Cololejeunea camusii* Tixier**

**Analamazoatra (?).** Ambatoloana\*, Andasibe, Épiphyll, 1200 m, 10.11.1976, **TYPE**, *Tixier 9592*. PC 0702779; Ambatoloana\*, Andasibe, 1400 m, 10.11.1976, **ISOTYPE**, *Tixier 9592*, PC0702780; Ambatoloana\*, Andasibe. Épiphyll, 1200 m, 10.11.1976, **ISOTYPE**, *Tixier 9592*, PC0103331; Andasibé, épiphyll en forêt de

montagne, 1300 m, 10.11.1976, **ISOTYPE**, *Tixier 9593* (EGR); andasibé, 10.11.1976, *Tixier 9596*; forêt de Périnet, forêt humide, épiphyll, 900 m, 1953, **TOPOTYPE**, *Benoist H1447* (EGR). **Mantadia National Park**. Tsakoka trail, 1000 m, 1.10.2018, epiphyllous on shrub in forest, -18.79761 48.42856, *Hodgetts 10534e* (EGR).

\*The location of the specimens « Ambatoloana » is ambiguous this town being 35 km West from Moramanga, outside of the Andasibe Mantadia surroundings. But as it is followed by Andasibe, we suppose that it is only an imprecise location, even if the elevation (1400 m) is higher than usual elevation in the Andasibe area.

### ***Cololejeunea cuneata*** (Lehm et Lindenb.) Herzog

**Analamazoatra = Périnet**. 900 m, 9.2.1951, *Benoit s.n.* (PC0793102); epiphyllous forêt ombrophylle, 1000 m, 16.12.1962. *Bosser 16504* (PC0784777H as *C. subciliata*); 900 m, 5.7.1977, *Tixier 10623* (PC0793103); montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus*, *Memecylon* spp., ramicolous, 920–990 m, 15.3.1990, *Pócs et al. 90103/DA*; montane rainforest 500m E of the railway station, on the W slope of ridge, near the aerial, corticolous, 920–1010 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90108/BB* (EGR); **Anosibe-An'ala road**. En forêt, 1100 m, 18.4.1978, *Tixier 11694* (PC0793106); **Lakato road**. 12.5.1979, *Tixier 12429, 12440* (mixed as PC0793110); corticole en forêt, 1000 m, 12.5.1979, *Tixier 12499* (PC0793107); corticole en forêt, 1000 m, 2.6.1979, *Tixier 12714* (PC0793104). **Mantadia National Park**. Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10482f*; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10499a; 10539a*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10769*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10632a*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10873*. **Mitsinjo reserve**. Epiphyllous on *Pandanus* in forest, 1000 m, 30.09.2018, -18.93366 48.41034, *Hodgetts 10386*; epiphyllous on *Pandanus* etc in forest, 995 m, 30.9.2018, -18.93188 48.41021, *Hodgetts 10396*. **Vohimana reserve**. Epiphyllous on tree in elfin forest, 950 m, 5.10.2018, -18.9192 48.49682, *Hodgetts 10731*; epiphyllous on *Pandanus* leaves in forest, 930 m, 5.10.2018, -18.92474 48.49924, *Hodgetts 10766*; epiphyllous on *Pandanus* leaves in forest, 915 m, 5.10.2018, -18.92111 48.5016, *Hodgetts 10784*.

### ***Cololejeunea decemplicata*** (Steph.) Tixier

**Analamazoatra = Périnet**. Andasibe, forêt secondaire, 1100 m, 10.11.1976, *Tixier 9600* (PC0793101).

### ***Cololejeunea distalopapillata*** (E.W. Jones) R.M. Schust.

**Analamazoatra = Périnet**. Périnet. 23.11.1976, *Tixier 9824* (PC0793098).

### ***Cololejeunea elegans*** Steph.

**Anosibe An'ala road**. km 27, forêt, 900 m, 15.4.1955. *Bosser 6361*. (PC0793063 as *C. xaverii*); Route Moramanga Anosibe, km 57, forêt 900 m, 15.4.1955. *Bosser 6378*.



(PC0793064 as *C. xaverii*). **Vohimana reserve.** Epiphyllous in forest, 860 m, 4.10.2018, -18.92320 48.50555, *Hodgetts 10804b* (EGR); epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10712b, 10712c, 10712d* (EGR).

***Cololejeunea falcata* (Horik.) Benedix**

**Analamazoatra = Périnet.** Épiphyll en forêt, 900 m, 7.7.1977, *Tixier 10612* (EGR).

***Cololejeunea hasskarliana* (Lehm.) Schiffn.**

**Vakona Lodge surroundings.** Epiphytic on Marchantia on bank by track in forest, 1035 m, 3.10.2018, -18.89484 48.43893, *Hodgetts 10665b*.

***Cololejeunea hillebrandii* (Austin) Steph.**

**Analamazoatra = Périnet.** 23.11.1976, *Tixier 9811* (PC0793091 as *C. filicaulis*); Parcs aux Cerfs 960 m, 19.2.1977, *Tixier 10297* (PC0793092 as *C. filicaulis*); Station d'Analamazoatra, arboretum, 19.2.1977, *Tixier 10298* (PC0793090 as *C. filicaulis*).

**Note:** The type material of the species was collected by Wilhelm Hillebrand (1821-1886) in Hawaii. It was described by Austin in a short note (Austin 1876) where the epithet was incorrectly spelled "Hildebrandi". This spelling was corrected by Stephani to "Hillebrandii" upon transfer to *Cololejeunea* (Stephani 1897), but this has not always been followed by later authors (cf. Grolle 1995, Söderström *et al.* 2016). We maintain that these are orthographic variants and that Stephani's correction is allowed under the Code.

***Cololejeunea inflectens* (Mitt.) Benedix**

**Vohimana reserve.** Twigs and leaf petioles on tree in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts 10731a*.

***Cololejeunea leloutrei* (E.W. Jones) R.M. Schust.**

**Analamazoatra = Périnet.** Forêt marécageuse, 900 m, 15.9.1953, *Bosser 6305* (PC0793121B); station forestière Périnet. 15.9.1966. Boiteau 184/2 (PC0793079); *Tixier 9813, 9814, 9815, 9816, 9817, 9818, 9820, 9821, 9824, 9825, 9826, 9827, 9829, 9831, 9832, 9835, 9837, 9838, 9839, 9840, 9842, 9845, 9846, 9847*. 23.11.1976 (mixed as PC0793088); épiphyll, en forêt 977 m, 23.11.1976, *Tixier 9841* (PC0793077); épiphyll en forêt, 960 m, *Tixier 9860*. 23.11.1976 (PC0793085); 917m. *Tixier 10295, 10296*. 19.2.1977 (mixed as PC0793072); Parc aux Cerfs 960 m, 19.2.1977, *Tixier 10297* (PC0793074), *10298* (mixed as PC0793078); Much exploited mixed rainforest called E Analamazoatra forest, epiphyllous on Bignoniaceae, 850–900 m, 29.3.1971, -18.916 48.500, *Mabberley 823/A* (EGR); NR Périnet, epiphyll auf *Pandanus* und *Microsorium*. 900 m, 27.6.1994, *Lü MAD17 D* (EGR). **Anosibé An'Ala road.** km 29, épiphyll, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6334* (PC0793358B), s.n. (PC0793080); épiphylls de Fougères forêt marécageuse, km 29, 15.9.1953, *Millot & Bosser 6315* (PC0793082A), 6315b (PC0793081) s.n. (PC0793056B); sur feuilles de *Pandanus* sp., forêt marécageuse, km. 29, 15.9.1953, *Millot & Bosser 6323* (PC0793119B); km 29, 900 m, 15.9.1953, *Bosser 6332* (PC0793084); km 27,

15.9.1953, *Millot & Bosser 6370* (PC0793083); Antaniditra forest. 19.2.1977, *Tixier 10332* (PC0793073); **Lakato road**. 12.5.1979, *Tixier 12425 to 12448* (mixed as PC0793089); 12.6.1979, *Tixier 12593, 12599* (mixed as PC0793087); épiphyllé, en forêt 1000 m, 10.6.1979, *Tixier 12865* (PC0793075). **Mantadia National Park**. Tsakoka trail, epiphyllous on *Rafia* palm in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10548*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10534f*.

### ***Cololejeunea lemuriana* Tixier**

**Analamazoatra = Périnet**. Épiphyllé en forêt, 900 m, 3.11.1951, *Benoist s.n.* **HOLOTYPE**, (PC 0103335); **Lakato**. 2.6.1979, *Tixier 12596, 12597, 12598* (PC). **Mantandia National Park**. Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10534a*. Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10548a*. **Mitsinjo reserve**. Epiphyllous on *Pandanus* in forest, 960 m, 30.9.2010, –18.9337 48.41213, *Hodgetts 10435*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts 10631a*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1035 m, 2.10.2018, –18.82822 48.43967, *Hodgetts 10635b*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10821a*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10890*. **Vakona Lodge surroundings**. Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10699*.

### ***Cololejeunea marginata* (Lehm. & Lindenb.) Pearson**

**Mantadia National Park**. Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10534*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10560*; Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, –18.79721 48.43041, *Hodgetts 10520*; Tsakoka trail, epiphyllous on *Pandanus* etc in elfin forest, 1020 m, 1.10.2018, –18.79755 48.42923, *Hodgetts 10524c*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82618 48.4362, *Hodgetts 10640a*; Chute Sacrée, epiphyllous on *Pandanus* etc in forest, 995 m, 2.10.2018, –18.82987 48.43173, *Hodgetts 10647a*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10822*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10887*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10841*. **Mitsinjo reserve**. Epiphyllous on *Pandanus* in forest, 990 m, 30.9.2018, –18.93375 48.41074, *Hodgetts 10368, 10374*; epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, –18.93366 48.41034, *Hodgetts 10380, 10387*; epiphyllous on *Pandanus* etc in forest, 995 m, 30.9.2018, –18.93188 48.41021, *Hodgetts 10406*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, –18.93281 48.41314, *Hodgetts 10423*; epiphyllous on *Pandanus* in forest, 960 m, –18.9337 48.41213, *Hodgetts 10434*. **Vakona Lodge surroundings**. Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10699a*. **Vohimana reserve**. Epiphyllous in forest, 875 m, 4.10.2018, –18.92251 48.50434, *Hodgetts 10712*; epiphyllous on *Pandanus* leaves in forest, 915 m,

4.10.2018, -18.92111 48.5016, *Hodgetts 10783*; epiphyllous in forest, 900 m,  
4.10.2018, -18.92156 48.50214, *Hodgetts 10791c*; epiphyllous in forest, 860 m,  
4.10.2018, -18.9232 48.50555, *Hodgetts 10804a*.

***Cololejeunea moramangae* Tixier**

**Analamazoa** = **Périnet**. 23.11.1976, *Tixier 9816* (PC0793070); **Lakato**.  
12.5.1979, *Tixier 12439, 12448* (mixed as PC0793069).

***Cololejeunea obliqua* (Nees et Mont.) Schiffn.**

**Anosibe An'ala road**. km 29, épiphyllé sur feuilles de Fougères forêt marécageuse.  
15.9.1953, *Millot et Bosser 6315a* (PC0793115 as *C. crenatiflora*); km 29, Épiphyllé  
sur *Pothos* forêt humide fond d'une torrent, 900 m, 15.9.1953, *Millot et Bosser*  
6392 (PC0793114 as *C. crenatiflora*); pk 57, 1000 m, 15.9.1953, *Bosser 6401*  
(PC0793116 as *C. crenatiflora*); **Analamazoa** = **Périnet**. Epiphyllous forêt  
ombrophylle, 1000 m, 16.12.1962, *Bosser 16504*. (PC0784777E as *C. crenatiflora*);  
7.7.1977, *Tixier 10606, 10609* (mixed as PC0793117 as *C. crenatiflora*).

***Cololejeunea obtusifolia* (E.W. Jones) Tixier**

**Mantadia National Park**. Tsakoka trail, epiphylls on *Pandanus* etc in elfin forest,  
1020 m, 1.10.2018, -18.79755 48.42923, *Hodgetts s.n.*

**\**Cololejeunea plagiochiliana* Tixier**

**Analamazoa** = **Périnet**. 900 m, 3.9.1951, **HOLOTYPE**, *Benoist s.n.* PC0102018  
(PC); épiphyllé, forêt très humide, 900 m, 3.9.1951, *Benoist 51M 1702*  
(PC0793065); épiphyllé. Forêt ombrophylle, 900 m, 3.9.1951, *Benoist 51M2358*  
(PC0793066). 3 km SE of Périnet, E Analamazoa Forest, epiphyllous on  
Bignoniaceae leaves 850–900 m., 29.3.1971, **PARATYPE**, *Mabberley 823/B* (EGR);  
forêt de Périnet, forêt humide, epiphyll, 900 m, 1953, **TOPOTYPE** *Benoist JE-*  
*H1447* (EGR).

***Cololejeunea platyneura* (Spruce) A. Evans**

**PC specimens**: Route Moramanga à Anosibé, km 57. Forêt près de torrent, 900 m.  
16.9.1955. *Bosser 6378* (PC0793122 as *C. bichiana*).

**\**Cololejeunea praeruptorum* Tixier**

**PC specimens**: **PARATYPE**. Route Moramanga-Anosibé, 900 m, épiphyllé en forêt.  
*Tixier 8645*. 9.6.1976, PC0103339 (PC).

***Cololejeunea tanzaniae* Pócs**

**Analamazoa** = **Périnet**. E Analamazoa Forest, epiphyllous on Bignoniaceae  
leaves 850–900 m, 29.3.1971, **PARATYPE**, *Mabberley 823* (EGR). **Mantadia**  
**National Park**. Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m,  
1.10.2018, -18.79738 48.43112, *Hodgetts 10499*; Tsakoka trail, epiphyllous on  
shrub in forest, 1000 m, 1.10.2018, -18.79761 48.42856, *Hodgetts 10534d*;  
Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, 18.79786

48.42806, *Hodgetts 10548b*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, 5.10.2018, *Hodgetts 10824*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10850*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10880a*; Chute Sacrée, epiphyllous on *Pandanus* in forest 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts s.n.*; Chute Sacrée, Epiphylls on *Pandanus* etc in forest, 995 m, 2.10.2018, -18.82987 48.43173, *Hodgetts 10647b*. **Mitsinjo Reserve**. Epiphyllous on *Pandanus* in forest, 1000 m, 29.9.2018, -18.93366 48.41034, *Hodgetts 10388*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 29.9.2018, -18.93281 48.41314, *Hodgetts 10414*; **Vakona Lodge surroundings**. Epiphylls by river, 970 m, 3.10.2018, -18.88964 48.43249, *Hodgetts 10686b*. Vohimana reserve. Epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts 10776d*.

### ***Cololejeunea zenkeri* (Steph.) E.W. Jones**

**Analamazoatra = Périnet**. Épiphyllie sur Fougère, 900 m, 1955, *Bosser 7742* (PC0793051); 23.11.1976, *Tixier 9814, 9815, 9825, 9827, 9829, 9835* (mixed as PC0793097 as *C. duvignaudii*); épiphyllie, en forêt, 917 m, 5.5.1977, *Tixier 10559, 10560, 10567* (mixed as PC0793093 as *C. duvignaudii*); épiphyllie, 900 m, 7.7.1977, *Tixier 10609, 10611, 10612* (mixed as PC0793094 as *C. duvignaudii*); **Anosibe-An'ala road**. km 29, épiphyllie, forêt marécageuse, 900 m, 5.9.1953, *Millot et Bosser 6319/b* (PC0793052), *6346* (PC0793055A), *6351* (PC0793050); km 29, épiphyllies de Fougères forêt marécageuse, 15.9.1953, *Millot et Bosser 6017* (PC0793061A), *6307* (PC0793062A), *6310* (PC0793060A), *6311* (PC0793058), *6316/a* (PC0793054), s.n. (PC0793056A); Province de Tamatave. km 29, 15.9.1953, *Millot & Bosser 6320/1* (PC0785599D as *Aphanolejeunea zenkeri*); km 29, épiphyllie sur jeune palmier, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6348* (PC0793059); km 57, épiphyllie, forêt ombrophyllie, au bord d'un torrent. 16.9.1953, *Millot & Bosser 6387* (PC0793057); **Lakato road**. 12.5.1979, *Tixier 12425, 12426, 12427, 12428, 12429, 12430, 12431, 12434, 12435, 12438, 12439, 12440, 12442, 12443, 12444, 12445, 12447, 12448* (mixed as PC0793096 as *C. duvignaudii*); 2.06.1979, *Tixier 12598* (PC0793100 as *C. duvignaudii*); épiphyllie, 1000 m, 10.6.1979, *Tixier 12866* (PC0793099 as *C. duvignaudii*). **Mantadia National Park**. Tsakoka trail, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts s.n.*; Mantadia, Tsakoka trail, Epiphylls on *Pandanus* etc in elfin forest, 1020 m, 1.10.2018, -18.79755 48.42923, *Hodgetts 10524b*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, -18.79761 48.42856, *Hodgetts 10534c*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts 10562*; Chute Sacrée, Epiphylls on *Pandanus* etc in forest, 995 m, 2.10.2018, -18.82987 48.43173, *Hodgetts 10647d*; *Belakato & Sanody Forests*, epiphyllous on fern, 1080 m, 5.10.2018, -18.82251 48.45004, *Hodgetts 10818*; *Belakato & Sanody Forests*, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts 10827*; *Belakato & Sanody Forests*, epiphyllous in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10850b*; *Belakato & Sanody Forests*, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10880*. **Mitsinjo Reserve**. Epiphytic in tree nursery, 940 m, 29.9.2018, -18.93603 48.41308, *Hodgetts s.n.*; epiphyllous on *Pandanus* etc

in forest, 995 m, -18.93188 48.41021, *Hodgetts 10409*. **Vohimana reserve**. epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10721*; twigs and bamboo in forest, 920 m, 4.10.2018, -18.9202 48.49899, *Hodgetts 10344*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, -18.92111 48.5016, *Hodgetts 10781a*; epiphyllous in forest, 900 m, 4.10.2018, -18.92156 48.50214, *Hodgetts 10791b*; epiphyllous on *Pandanus* leaves in forest, 890 m, 4.10.2018, -18.92196 48.50327, *Hodgetts 10895*.

**\**Colura bicornis* Jovet-Ast**

**Antaniditra forest**. Corticole près du sol 900 m, 19.2.1977, *Tixier s.n.* (PC0793048); **Anosibe-An'ala road**. km 29, sur feuilles de Palmier, forêt marécageuse, 15.9.1953, **TYPE**, *Millot & Bosser 6319*, (PC0102057); km 29, épiphyllous, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6306* (PC0793046); km 29, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6329* (PC0793047); **Lakato road**. 2.6.1979, *Tixier 12599* (PC0793049).

***Colura calyptrifolia* (Hook.) Dumort.**

**Maromizaha reserve**. epiphyllous in a mossy cloud forest on the summit ridge of Mt. Maromizaha, 1080–1214 m, S. & T. *Pócs 9890/DB* (EGR).

***Colura digitalis* (Mitt.) Steph.**

**Mantadia National Park**. Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts 10557*; Chute Sacrée, Epiphylls on *Pandanus* etc in forest, 980 m, 2.10.2018, -18.83122 48.43373, *Hodgetts 10644b*. **Mitsinjo reserve**. epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, -18.93366 48.41034, *Hodgetts 10385*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, -18.93281 48.41314, *Hodgetts 10419*; **Vohimana reserve**. Commune Ambavaniasy, epiphyllous in forest, 900 m, 4.10.2018, -18.92156 48.50214, *Hodgetts 10791*.

***Colura heimii* Jovet-Ast**

**Analamazoatra = Périnet**. 3.9.1951, *Benoist s.n.* (PC0793043); 9.11.1951, *Benoist s.n.* (PC0793045); Épiphyllous, 900 m, 9.11.1951, *Benoist* (PC); km 29, forêt marécageuse de, sur feuille de *Pandanus* 15.9.1953, *Millot & Bosser 6320* (PC0793030); Station forestière de Périnet, sur feuille d'arbre. 1966. *Boiteau 184* (PC0793033); 917 m, 23.11.1976, *Tixier 9829* (PC0793039); Parc aux Cerfs. 19.2.1977, *Tixier s.n.* (PC0793038); 7.7.1977, *Tixier 10296* (PC0793037); 900 m, épiphyllous en forêt, 7.7.1977, *Tixier 10598* (PC0793041); 1000 m, 23.11.1979, *Tixier 9817* (PC0793036); Montane rainforest 500m E of the railway station, on the W slope of ridge, near the aerial, epiphyllous 920–1010 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90108/AJ* (EGR); montane rainforest on the rocky ridge of Mt. Adrianavibe, on twigs 950–1050 m, 3.10.1994, -18.9425 48.4777, *Pócs 9487/HN, Kis 9487/AQ* (EGR); montane rainforest E of Andasibe village, epiphyllous 900–970 m, -18.905 48.4691, 25.8.1998, *Pócs & Szabó 9889/BF* (EGR); montane rainforest E of Andasibe village, epiphyllous 900–970 m, -18.90548.4691, 25.8.1998, *Pócs & Szabó 9889/BJ* (EGR). **Mantadia National Park**. Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, -18.79721 48.43041, *Hodgetts 10516a*;

Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10540a*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10772*; Chute Sacrée, 2.10.2018, epiphyllous on *Pandanus* in forest, 1030 m, –18.82862 48.44029, *Hodgetts 10630i*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10819a*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10888*. **Vohimana reserve**, epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, –18.92111 48.50160, *Hodgetts 10782* (EGR); epiphyllous in forest, 875 m, 4.10.2018, –18.92251 48.50434, *Hodgetts 10722*; epiphyllous on *Pandanus* leaves in forest, 930 m, 4.10.2018, –18.92474 48.49924, *Hodgetts 10767a*; epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, –18.92474 48.50761, *Hodgetts 10776b*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, –18.92111 48.5016, *Hodgetts 10782*. km 54, forêt humide sur fronde de Fougère, 900 m, 15.9.1953, *Millot & Bosser 6303* (PC0793031); **Anosibe-An'ala road**. km 29, forêt marécageuse de la route de Moramanga à Anosibé. Sur feuille. 15.9.1953, *Millot & Bosser 6327* (PC0793032), *6370* (PC0793028), *6372* (PC0793029); pk 20, epiphyllous 1000 m, 18.4.1978, *Tixier 11650*, *11651*, *11652*, *11653* (mixed as PC0793040).

### ***Colura humbertii*** Jovet-Ast

**Analamazoatra = Périnet**. Épiphyllous, 900 m, 9.11.1951, *Benoist s.n.* (PC0793027). **Maromizaha reserve**. Mossy montane rainforest with bamboo (*Nastus* sp.) undergrowth on the summit ridge of Mt. Maromizaha, 2 km SW of Anevoka village, on *Pandanus* leaves. 1080–1214 m, 26.8.1998, –18.96333 48.4583, *Pócs 9890/DB* (EGR).

### **\**Colura inornata*** Jovet-Ast

**Analamazoatra = Périnet**. Montane rainforest, 500 m E of the railway station, on the W slope of ridge, 920–1010 m, 17.3.1990, near the aerial, ramicolous *Pócs & Magill, Lafarge-England 90108/BA* (EGR); montane rainforest on granitic ground, 920–990m, 15.3.1990, E of the "Station de Pisciculture", with *Ocotea, Pandanus Memecylon* spp. ramicolous *Pócs & Magill, Lafarge-England 90103/DC* (EGR); Degraded heath forest 4 km E of Moramanga, near Antsahatsoka village, 950–980 m, with many *Cladonia, Leucobryum* and *Diphasium* on ground, on twigs, 3.10.1994, –18.95416 48.5000, *Pócs & Szabó 9489/AF* (EGR). **Anosibe-An'ala road**. km 29, forêt marécageuse, sur feuilles de *Pandanus* 15.9.1953, *Millot et Bosser 6376* (PC0793026); Périnet. Corticol, pk 155, 850 m, *Tixier 10629*. 5.7.1977 (PC0793024); Lakato. 12.5.1979, *Tixier 12500* (PC0793025). **Mantadia National Park**. Tsakoka trail, epiphytic on shrub twigs in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10456b*, 10476; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10501*; Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, –18.79721 48.43041, *Hodgetts 10516*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10540*. **Moramanga surroundings**. Degraded heath forest 4 km E of Moramanga, near Antsahatsoka village, with many *Cladonia, Leucobryum* and *Diphasium* on ground, ramicolous 950–980 m, 3.10.1994, –18.95416 48.5000, *Pócs & Szabó 9489/E* (EGR); **Vohimana reserve**.

Small trunk in dense scrub, 4.10.2018, 840 m, *Hodgetts 10711* (EGR); twigs of shrub in open scrub, 800 m, 4.10.2018, -18.92443 48.50797, *Hodgetts 10705*; fallen tree in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10741*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, -18.92111 48.5016, *Hodgetts 10782b*.

***Colura obesa*** Jovet-Ast

**Anosibe-An'ala road.** km 57, épiphyllous forêt humide, bord d'un torrent, 16.9.1953, *Millot & Bosser 6378* (PC0793020); km 57, forêt de Sandrangato, forêt de transition entre le domaine oriental et de domaine central, 750–950 m, 15.9.1953, *Millot & Bosser 6388* (PC0793022), 6397 (PC0793023), s.n. (PC0793021); **Mantadia National Park.** Chute Sacrée, 1030 m, 2.10.2018, epiphyllous on *Pandanus* in forest, -18.82862 48.44029, *Hodgetts 10630k* (EGR).

***Colura tenuicornis*** (A. Evans) Steph.

**Analamazoatra = Périnet.** 3.9.1951, *Benoist s.n.* (PC0793019); **Anosibe-An'ala road.** km 54 Forêt humide 900 m, sur fronde de Fougère, 9.1953, *Millot & Bosser 6303* (PC0793018); km 54, forêt de Sandrangato, forêt de transition entre le domaine oriental et de domaine central 750–950 m, épiphyllous 15.9.1953, *Millot & Bosser 6391* (PC0793015), 6400 (PC0793014), 6409 (PC0793011), 6414 (PC0793016), 6421 (PC0793012); km 57, forêt humide, bord d'un torrent, 16.9.1953, *Millot & Bosser 6440* (PC0793017). **Vohimana reserve,** Exploited forest left bank of the Vohimana rivere, 848 m, 16.4.10, -18.91999 48.51283, *Reeb, Andriamanantena, Bidault CRAE132*.

***Conoscyphus trapezioides*** (Sande Lac.) Mitt. ex Schiffn.

**Mantadia National Park.** Tsakoka trail, slender shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10487*; Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, -18.79723 48.4306, *Hodgetts 10264*; Belakato & Sanody forests tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10844*; ridge above the Belakato Circuit towards summit (Sahanody) *Brinda 12487*; Chute Sacrée, 1095 m, on a branch in elfin forest, with *Pleurozia gigantea*, -18.82888 48.44083, *Vanderpoorten MD24* (LG). **Vohimana reserve.** Bark of larger tree in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts 10734*.

***Cryptolophocolea martiana*** (Nees) L. Söderstr., Crand.-Stotl. & Stotler

**Mantadia National Park.** Chute Sacrée, forest, 1000 m, 2.10.2018, -18.8299 48.4317, *Hodgetts s n.* flat flooded rock by stream in elfin forest, 1099 m, 2.10.2018, -18.82722 48.44027, *Vanderpoorten MD65* (LG, det. S.R. Gradstein). **Maromizaha reserve.** Along the river, upside from camp 3, 921 m, 7.8.2012, -18.98161 48.46417, *Reeb MTM12118*. **Vohimana reserve.** Left bank of the Vohimana river, 798 m, 16.4.2012, -18.92378 48.51153, *Reeb, Andriamanantena, Bidault CRAE151ter* (PC0724330A). **Mitsinjo reserve.** Dead wood in forest, 960 m, -18.9327 48.4131, *Hodgetts s.n.* **Vakona Lodge surroundings.** Forest, 1025 m, 3.10.2018, -18.8946 48.4385, *Hodgetts s.n.*

***Cuspidatula contracta* (Reinw., Blume et Nees) Steph.**

**Analamazoatra = Périnet.** Much exploited, mixed rain forest with *Pinus* plantations. Epiphytes esp. Hymenophyllaceae common on the few remaining old trees 1.4.1970, -18.916 48.500, *Mabberley 803* (EGR). **Vohimana reserve.** On small tree trunk in dense scrub, 840 m, 4.10.18, -18.92411 48.50703, *Hodgetts 10710*; on liana in forest, 900 m, 4.10.18, -18.92156 48.50214, *Hodgetts 10787*.

***Cylindrocolea kiaeri* (Austin) Váňa**

**Mantadia National Park.** Chute Sacrée, Soil bank by path under tree in forest, 990 m, 2.10.2018, -18.82772 48.43915, *Hodgetts 10572*; Tsakoka trail, soil bank in elfin forest, 1070 m, 1.10.18, -18.79735 48.43133. **Vakona Lodge surroundings.** On the ground of a slope, 960m, 3.10.2018, -18.885 48.43472, *Vanderpoorten MD35* (LG). **Vohimana reserve.** Humid rainforest at mid-elevation, lignicolous 4.10.2018, *Sass-Gyarmati et al. 1806/N1* (EGR, as *Cephaloziella kiaeri*). Exploited forest left bank of the Vohimana rivere, 824 m, 16.4.10, -18.91888 48.51305, *Reeb, Andriamanantena, Bidault CRAE123* (as *Cephaloziella kiaeri*).

**\**Diplasiolejeunea andringitrae* Schäf.-Verw.**

**Analamazoatra = Périnet.** Montane rainforest, on branches 900–970 m, 25.8.1998, -18.90548.4691, **PARATYPE**, *Pócs T. & S. and Szabó 9889/AG* (EGR). **Mantadia National Park.** Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10773*; epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts 10778a*. Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018 -18.8223 48.45077, *Hodgetts 10825a*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10882, 10886a*. **Vohimana reserve.** Twigs and bamboo in forest, 920 m, 4.10.2018, -18.9202 48.49899, *Hodgetts 10759b*.

***Diplasiolejeunea cavifolia* Steph.**

**Analamazoatra = Périnet.** 1000 m, 3.2.1951, *Benoist s.n.* (PC0792995 as *D. javanica*); 9.11.1951, *Benoist s.n.* (PC0793013 as *D. javanica* Steph.); 960 m, épiphyll. 28.2.1976, *Tixier 9841* (PC0792993), *9849* (PC0792987 as *D. javanica*); 1200. 4.6.1977, *Tixier 10523* (PC0792996 as *D. javanica*); 917 m, épiphyll. 5.7.1977, *Tixier 10561, 10565, 10567* (mixed as PC0792998 as *D. javanica*); 900 m, 7.7.1977, *Tixier 10609, 10611, 10612, 10604, 10603, 10599* (mixed as PC0792988 as *D. javanica*); epiphyllous on Bignoniaceae leaves 850-900 m.s.m, 29.3.1971, *Mabberley 823/E* (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", epiphyllous 900–1000m, 16.3.1990, *Pócs & Magill, Lafarge-England 90104/AZ, BB* (EGR); logged montane rainforest and roadcut surface S of the railway station, epiphyllous 940 m, 16.3.1990, *Pócs & Magill, Lafarge-England. 90105/AD* (EGR); montane rainforest 500 m E of the railway station, on the W slope of ridge, near the aerial, epiphyllous 920–1010 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90108/AP* (EGR); montane rainforest on the rocky ridge of Mt. Adrianavibe, epiphyllous 950–1050 m, -18.9425 48.4777, 3.10.1994, *Pócs 9487/JO, Vojtkó 9487/JH, Orbán 9487/JJ* (EGR); Degraded montane



rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, 950–1000 m, 3.10.1994, –18.95416 48.43333, epiphyllous *Vojtkó, Szabó 9488/AS Pócs 9488/AM, AO* (EGR); Epiphyll auf *Pandanus* und *Microsorium.*, 900 m, 27.6.1994, *Lü MAD17G* (EGR); montane rainforest E of Andasibe village, on branches epiphyllous 900–970 m, 25.8.1998, –18.90548.4691, *Pócs & Szabó 9889/AD, Szabó 9889/AO, BC* (EGR). **Antaniditra forest.** 13.2.1977, *Tixier 10330* (PC0792994 as *D. javanica*). **Lakato road.** embranchement de la route de Lakato, 1000 m, 25.9.1976, *Tixier 12781* (PC0792999), *Tixier s.n.* (PC0792989 as *D. javanica*); pk 14. 12.5.1979, *Tixier 12561* (PC0792990 as *D. javanica*); épiphyll en forêt, 1000 m, 10.6.1979, *Tixier 12864* (PC0792992 as *D. javanica*). **Mantadia National Park.** Mantady Forest Reserve *Pandanus pulcher* swamp forest in Saharanga River Valley, epiphyllous 995 m, 2.10.1994, –18.87222 48.47361, *Pócs & Szabó 9484/AE, AP, AR* (EGR); Mantady Forest Reserve, tropical rainforest with 40–50 m tall trees near the end of graphite mining road, epiphyllous 1030 m, 2.10.1994, –18.87222 48.47388, *Pócs & Szabó 9485/U* (EGR); Mantady Forest Reserve, rainforest in a rocky streambed along a tributary of Saharanga River, epiphyllous, 1000m, –18.87222 48.47388, 2.10.1994, *Pócs, Orbán and Szabó 9486/L, P Vojtkó & Pócs 9486/T* (EGR); Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10546b* (EGR). Chute Sacrée, epiphyllous on *Pandanus* by road through forest, 980 m, 2.10.2018, –18.83082 48.4332, *Hodgetts 10646*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10538*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10768*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts 10631d*; Chute Sacrée, tree fern frond in forest, 1030 m, 2.10.2018, –18.82761 48.43908, *Hodgetts 10639c*; Chute Sacrée, Epiphylls on *Pandanus* etc in forest, 980 m, 2.10.2018, –18.83122 48.43373, *Hodgetts 10644c*; Chute Sacrée, branch fallen from forest canopy by road, 995 m, 2.10.2018, –18.82987 48.43173, *Hodgetts 10649a*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10817*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10826*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10886*. **Mitsinjo Reserve.** epiphytic in forest, 930 m, 30.9.2018, –18.93623 48.41298, *Hodgetts 10303*; epiphyllous on *Pandanus* in forest, 990 m, 30.9.2018, –18.93375 48.41074, *Hodgetts 10375*; epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, –18.93366 48.41034, *Hodgetts 10381, 10383*; epiphyllous on *Pandanus* in forest, 995 m, 30.9.2018, –18.93188 48.41021, *Hodgetts 10408*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, –18.93281 48.41314, *Hodgetts 10412*; **Moramanga surroundings** (?). 1000 m, 9.6.1976, *Tixier 8649* (PC0792991 as *D. javanica*); Moramanga, pk 132 de la route de Tamatave; 1000 m, épiphyll. 24.1.1979, *Tixier s.n.* (PC0792997 as *D. javanica*); Degraded secondary montane evergreen forest 4 km E of Moramanga, near Antsahotsaka village, epiphyllous 4.10.1994, –18.94472 48.27555, *Vojtkó 9490/A* (EGR); **Vakona Lodge surroundings.** Epiphylls by river, 970 m, 3.10.2018, –18.88964 48.43249, *Hodgetts 10686a*; epiphyllous on *Pandanus* leaves, 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10698*.

***Diplasiolejeunea cobrensis* Steph.**

**Anosibe-An'ala road.** km 29, forêt dense, 15.9.1953, *Bosser 6954* (PC0793001 as *D. harpaphylla*).

***Diplasiolejeunea cornuta* Steph.**

**Analamazaotra = Périnet.** Épiphyllle, forêt ombrophylle, 900 m, 13.9.1951, *Benoist 51M2369* (PC0793009); 1200 m, *Tixier 9603* (PC0793003, PC0793004, PC0793007), 9622 (PC0793006) 10.11.1976; pk 155. 5.7.1977, *Tixier 10621* (PC0793008); Degraded montane rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, epiphyllous 950–1000 m, 3.10.1994, –18.95416S 48.43333, *Szabó 9488/AP* (EGR); montane rainforest E of Andasibe village, epiphyllous, 900–970 m, 25.8.1998, –18.90548.4691, *Pócs & Szabó 9889/BB* (EGR). **Anosibe-An'ala road.** km 29, épiphyllle sur *Pandanus* sp., forêt marécageuse 900 m, 15.9.1953, *Millot et Bosser 6320/3* (PC0793010); **Lakato road.** 12.5.1979. *Tixier 11438, 11442* (mixed as PC0793409); pk 9. 12.5.1979, *Tixier 12501* (PC0793002); pk 14, 1000 m, 2.6.1979, *Tixier 12591* (PC0793005). **Mantadia National Park.** Tsakoka trail, 1.10.2018, Shrub trunk in elfin forest, 1070 m, –18.79735 48.43133, *Hodgetts 10456c*; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10498a*; Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, –18.79721 48.43041, *Hodgetts 10519*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, 18.81763 48.45243, *Hodgetts 10838*; Mantady Forest Reserve NE of Andasibe (Périnet). *Pandanus pulcher* swamp forest in Saharanga River Valley, epiphyllous 995 m, 2.10.1994, –18.87222 48.47361, *Pócs & Szabó 9484/AH* (EGR); montane rainforest on the rocky ridge of Mt. Adrianavibe, 950–1050m, 3.10.1994, –18.9425 48.4777, epiphyllous *Orbán 9487/JN* (EGR); **Vakona Lodge surroundings.** Epiphytic on *Erica* on dry hillside, 950 m, 3.10.2018, –18.89339 48.43143, *Hodgetts 10695*. **Vohimana reserve.** Epiphyllous on *Pandanus* leaves in forest, 930 m, 4.10.2018, –18.92474 48.49924, *Hodgetts 10765*. Epiphyllous on *Pandanus* leaves in forest, 890 m, 4.10.2018, –18.92196 48.50327, *Hodgetts 10896*.

**\**Diplasiolejeunea ensifera* Tixier**

**Mantadia National Park.** Tsakoka trail, on twigs of slender shrub and epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10482b, 10773a* (EGR); Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts 10631c*.

**\**Diplasiolejeunea lemuriana* Tixier**

**Analamazaotra = Périnet.** 900 m, 5.7.1977, *Tixier 10620* (PC0792986). **Lakato road.** pk9. corticole en forêt, 1000m, 25.6.1979, *Tixier 12994* (PC0015275). **Mitsinjo reserve.** Epiphyllous on *Pandanus* in forest, 1000 m, 20.9.2018, –18.93366 48.41034, *Hodgetts 10384*.

**\**Diplasiolejeunea palustrium* Tixier**

**Mantadia National Park.** Tsakoka trail, epiphytic on shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10475* (EGR).

***\*Diplasiolejeunea phyllarthonii* Tixier**

**Analamazaotra = Périnet.** 1300 m, 10.10.1976, *Tixier 9612* (PC0792985).

***\*Diplasiolejeunea ranomafanae* Pócs**

**Mantadia National Park.** Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10874*.

***Diplasiolejeunea subcornuta* Tixier**

**Analamazaotra = Périnet.** Épiphyllle en forêt, 7.7.1977, *Tixier 10609* (PC0792977); épiphyllle, 917 m, 5.7.1977, *Tixier 10567* (PC0792979); NR Périnet, epiphyll auf *Pandanus* und *Microsorium*. 900 m, 27.6.1994, *Lü MAD17* (EGR). **Antaniditra forest.** 19.2.1977, *Tixier 10331* (PC0015277, PC0015278); épiphyllle en Laurisilva, 1000m, 1.7.1977, *Tixier 10588* (PC0792978). **Mantadia National Park.** Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10498b*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, -18.79761 48.42856, *Hodgetts 10538c*. **Mitsinjo reserve.** Epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, -18.93366 48.41034, *Hodgetts 10382*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, -18.93281 48.41314, *Hodgetts 10418a*.

***Diplasiolejeunea symoensis* Vanden Berghen**

**Analamazaotra = Périnet.** 1200 m. 10.11.1976, *Tixier 9606* (PC0792980 as *D. symoensis*), 9615 (PC0792983 as *D. symoensis*); Andasibé, 1200 m. 10.11.1976, *Tixier 9609* (PC0792984 as *D. symoensis*); Périnet, pk 155, 820 m, 5.7.1977, *Tixier 10167* (PC0792982 as *D. symoensis*), 10168 (PC0792981 as *D. symoensis*).

***Diplasiolejeunea utriculata* Steph.**

**Analamazaotra = Périnet.** Forêt ombrophyllle, 900 m, 9.10.1951, *Benoist s.n.* (PC0792975), 51M2371 (PC0792976A); epiphyllous on Bignoniaceae leaves. 850–900 m, 29.3.1971, *Mabberley 823/F* (EGR).

***Diplasiolejeunea villaumei* Steph.**

**Analamazaotra = Périnet.** Montane rainforest E of Andasibe village, on branches, 900–970 m, 25.8.1998, -18.90548.4691, *S. & T. Pócs Szabó 9889/AE*, AF (EGR). **Lakato road.** 1000 m, 2.6.1979, *Tixier 12711* (PC0792973); corticole en forêt 1000 m, 2.6.1979, *Tixier 12726* (PC0015284).

***Diplasiolejeunea zakia* Tixier**

**Analamazaotra = Périnet.** 23.11.1976, **PARATYPE**, *Tixier 9811*, 9830, 9834 (mixed as PC0104268); 19.2.1977, *Tixier 10295*, 10296 (mixed as PC0792971). 1000 m, 7.7.1977, *Tixier 10607* (PC0792972). Épiphyllle, forêt ombrophyllle, 900 m, 13.9.1951, *Benoist 51M2383* (PC0015270 as *D. kraussiana*) *Benoist 51M2385* (PC0015271 as *D. kraussiana*), *Benoist s.n.* (PC0015268 as *D. kraussiana*); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", epiphyllous 900–1000m, 16.3.1990, *Pócs & Magill, Lafarge-England 90104/BA* (EGR); montane rainforest 500m E of the railway station, on the W slope of ridge,

920–1010 m, 17.3.1990, near the aerial, epiphyllous *Pócs & Magill, Lafarge-England 90108/AQ* (EGR). **Anosibe An-ala road.** km 27, forêt marécageuse, 15.9.1953, *Bosser 6361* (PC0015285 as *D. kraussiana*). **Mantadia National Park.** *Pandanus pulcher* swamp forest in Saharanga River Valley, epiphyllous 995m, 2.10.1994, –18.87222 48.47361, *Pócs & Szabó 9484/AF, Vojtkó 9484/AA* (EGR); Rainforest in a rocky streambed along a tributary of Saharanga River, epiphyllous 1000 m, 2.10.1994, –18.87222 48.47388, *Vojtkó and Pócs 9486/S, Pócs, Orbán and Szabó 9486/Q, Pócs, Orbán and Szabó 9486/K, Vojtkó 9484/AO* (EGR); tropical rainforest with 40–50 m tall trees near the end of graphite mining road 1030 m, –18.87222 48.47388, epiphyllous 2.10.1994, *Pócs & Szabó 9485/T* (EGR); Degraded montane rainforest on Mt. Ambatokiriji the S edge of Andasibe (Périnet) Forest Reserve, epiphyllous 950–1000m, 3.10.1994, –18.95416S 48.43333, *Pócs 9488/AL* (EGR); montane rainforest E of Andasibe village, epiphyllous, 900–970 m, 25.8.1998, –18.90548.4691, *S. & Pócs T. and Szabó 9889/AN, 9889/BA* (EGR); Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10538a*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10546a*; Chute Sacrée, 2.10.2018, epiphyllous on *Pandanus* in forest, 1030 m, –18.82862 48.44029, *Hodgetts 10631*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10820a, b*; **Mitsinjo Reserve.** epiphyllous on *Pandanus* etc in forest, 995 m, 30.8.2018, –18.93188 48.41021, *Hodgetts 10403*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.8.2018, –18.93281 48.41314, *Hodgetts 10418*; **Vohimana reserve.** Epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, –18.92474 48.50761, *Hodgetts 10776c*.

### ***Drepanolejeunea cultrella* (Mitt.) Steph.**

**Mantadia National Park.** Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10550*. **Vakona Lodge surroundings.** Epiphyllous by river, 970 m, 03.10.2018, –18.88964 48.43249, *Hodgetts 10686*.

### ***Drepanolejeunea dactylophora* (Nees, Lindenb. & Gottsche) J.B.**

Jack & Steph.

**Mantadia National Park.** Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10496*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts 10630b*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10359*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10827a*; Belakato & Sanody, Forests epiphyllous in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10850c*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10891*. **Maromizaha reserve.** Mossy montane rainforest with bamboo (*Nastus* sp.) undergrowth on the summit ridge of Mt. Maromizaha, 2 km SW of Anevoka village, on *Pandanus* leaves. 1080–1214m, 26.8.1998, –18.96333 48.4583, *Pócs 9890/CC* (EGR). **Vohimana Reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018,

-18.91933 48.49711, *Hodgetts 10745*; dead wood in forest, 905 m, 4.10.2018,  
-18.92143 48.5019, *Hodgetts 10786*.

***Drepanolejeunea friesii*** Vanden Berghen

**Mantadia National Park.** Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018  
-18.79735 48.43133, *Hodgetts 10484b*.

***Drepanolejeunea hamatifolia*** (Hook.) Schiffn.

**Analamazaotra = Périnet.** Epiphyllous forêt ombrophyllle, 1000 m, 16.12.1962,  
*Bosser 16504* (PC0784777G).

***Drepanolejeunea madagascariensis*** (Steph.) Grolle

**Analamazaotra = Périnet.** 3.9.1951, *Benoist s.n.* (PC0792962); épiphyllle, forêt ombrophyllle, 900 m, 3.9.1951, *Benoist 51M2382* (PC0792956); forêt ombrophyllle, 900 m, 9.9.1951, *Benoist 51M2371* (PC0792976E); epiphyllous on Bignoniaceae leaves 850–900 m, 29.3.1971, *Mabberley 823/D.* (EGR); montane rainforest 500 m E of the railway station, on the W slope of ridge, 920–1010m, near the aerial, epiphyllous 17.3.1990, *Pócs & Magill, Lafarge-England 90108/AH* (EGR); montane rainforest E of Andasibe village, epiphyllous 900–970m, 25.8.1998, -18.905 48.4691, *S. & T. Pócs 9889/BD* (EGR). **Anosibe road.** km 29, épiphyllles de Fougères forêt marécageuse, 15.9.1953, *Millot et Bosser s.n.* (PC0793056D), *Millot et Bosser 6358* (PC0792957); km 54, forêt humide au bord d'un torrent, épiphyllle sur feuille de *Smilax kraussiana*, 15.9.1953, *Bosser 6414* (PC0792958A); km 54, sur Palmier, près de torrent, 15.9.1953, *Bosser 6416* (PC0792955). **Mantadia National Park.** *Pandanus pulcher* swamp forest in Saharanga River Valley, on *Pandanus pulcher* leaf, 995 m, 2.10.1994, -18.87222 48.47361, *Vojtkó 9484* (EGR); Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10497*; Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, -18.79721 48.43041, *Hodgetts 10515*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, -18.79761 48.42856, *Hodgetts 10533*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts 10565*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10347*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10632*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10298*; Chute Sacrée, Epiphylls on *Pandanus* etc in forest, 980 m, 2.10.2018, -18.83122 48.43373, *Hodgetts 10644*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts 10823*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10850a*. **Maromizaha reserve.** Mossy montane rainforest with bamboo (*Nastus* sp.) undergrowth on the summit ridge of Mt. Maromizaha, on *Pandanus* leaves 1080–1214 m, 26.08.1998, -18.96333 48.4583, *Pócs 9890/CW* (EGR). **Mitsinjo Reserve.** Epiphyllous on *Pandanus* in forest, 990 m, 30.9.2018, -18.93375 48.41074, *Hodgetts 10370, 10372*; epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, -18.93366 48.41034, *Hodgetts 10377, 10389*; epiphyllous on *Pandanus* etc in forest, 995 m, 30.9.2018, -18.93188 48.41021, *Hodgetts 10398*; epiphyllous on

*Pandanus* by lake at forest edge, 965 m, 30.9.2018, –18.93281 48.41314, *Hodgetts 10413*; epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, –18.9337 48.41213, *Hodgetts 10431*; **Vakona Lodge surroundings**. Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10700a*. **Vohimana reserve**. Epiphyllous in forest, 875 m, 4.10.2018, –18.92251 48.50434, *Hodgetts 10715*; twigs and bamboo in forest, 920 m, 4.10.2018, –18.9202 48.49899, *Hodgetts 10760b*. Epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, –18.92474 48.50761, *Hodgetts 10776*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, –18.92111 48.5016, *Hodgetts 10780*; epiphyllous in forest, 900 m, 4.10.2018, –18.92156 48.50214, *Hodgetts 10791a*, epiphyllous in forest, 860 m, 4.10.2018, –18.9232 48.50555, *Hodgetts 10804*.

***Drepanolejeunea pentadactyla* (Mont.) Steph.**

**Analamazaotra = Périnet**. Epiphytish, 900 m, 27.6.1994, 12 (EGR, as *D. cambouena*); **Mantadia National Park**. Rainforest in a rocky streambed along a tributary of Saharanga River, 1000m, 2.10.1994, –18.87222 48.47388, epiphyllous *Pócs, Orbán & Szabó 9486/E* (EGR, as *D. micholitzii*); Belakato & Sanody, Forests epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10818a* (EGR).

***Drepanolejeunea pentadactyla* (Mont.) Steph.**

var. ***dactylophoroides* (Herzog) Pócs**

**Maromizaha reserve**. Mt. Maromizaha, montane rainforest 1200 m, 26.8.1998, on *Pandanus* leaf, *Pócs 9890/CC* (EGR).

***Drepanolejeunea physifolia* (Gottsche) Pearson *sensu stricto***

**Analamazaotra = Périnet**. Epiphyllous, forêt ombrophylle, 900 m, 3.9.1951, *Benoist 51M2370* (PC0792949 as *D. physaefolia*); Much exploited, mixed rain forest with *Pinus* plantations epiphytes Hymenophyllaceae common on the few remained old trees 1.4.1970, –18.916 48.500, *Mabberley 803* (EGR). **Anosibe-An'ala road**. km 29, épiphyllous, forêt marécageuse, 900 m, 15.9.1953, *Millot et Bosser 6342/1* (PC0792947 as *D. physaefolia*); **Lakato road**. corticole en forêt, 1000 m, 10.6.1979, *Tixier 12939* (PC0792948 as *D. physaefolia*). **Mantadia National Park**. Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10497a*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10770b*; Chute Sacrée, 2.10.2018, epiphyllous on *Pandanus* in forest, 1030 m, –18.82862 48.44029, *Hodgetts 10630*; *Belakato & Sanody Forests*, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10885*; *Belakato & Sanody forests* epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10823a*. *Belakato & Sanody forests* epiphyllous in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10837*; *Belakato & Sanody forests* tree trunk in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10846*; branches, S. & T. *Pócs, A. Szabó 9889/AC*; rocky ridge 5 km ESE of Andasibe, montane rainforest, 950–1050 m, epiphyllous, *Szabó 9487/JL*; NE of Andasibe, rainforest in a rocky streambed along tributary of Saharanga stream, 1000 m, on twigs, *Pócs, Orbán, Szabó 9486/H*; Maromizaha Reserve. S of Andasibe Nat. Park, 2

km SW of Anevoka village, summit ridge of Mt Maromizaha, montane rainforest with bamboo (*Nastus* sp.), 1080–1214 m, on *Pandanus* leaves, S. & T. Pócs 9890/CJ (EGR).

***Drepanolejeunea pocsii* Grolle**

**Analamazaotra = Périnet.** NR Périnet, Epiphyll auf *Pandanus* und *Microsorium*, 900 m, 27.6.1994, sammelnummer 10/A, B, Lü MAD17 (EGR).

***Drepanolejeunea trematodes* (Nees) Bischl.**

**Analamazaotra = Périnet.** épiphyll. 900 m, 23.11.1976 *Tixier 9811* (PC0792950); 23.11.1976, *Tixier 9814, 9816, 9819, 9826, 9829, 9837, 9840, 9842* (mixed as PC0793404); montane rainforest E of Andasibe village, 900–970m, 25.8.1998, -18.90548.4691, epiphyllous, S. & T. Pócs, Szabó 9889/BE (EGR); montane rainforest E of Andasibe village, on branches 900–970m, 25.8.1998, -18.90548.4691, Pócs & Szabó 9889/AC (EGR). **Anosibe-An'ala road.** km 35, épiphyll sur Palmier, au bord d'un ruisseau sous forêt, 900 m, 15.9.1952, *Bosser 16466* (PC0792952); km 29, sur feuilles de *Selaginella* sp., forêt humide, 900 m, 15.9.1953, *Millot & Bosser 6332/c* (PC0792953); km 29, épiphyll, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6342/2* (PC0792951), *6342/3* (PC0792954); **Mantadia National Park.** *Pandanus pulcher* swamp forest in Saharanga River Valley, 995m 2.10.1994, -18.87222 48.47361, epiphyllous on *Pandanus pulcher* leaf. *Vojtkó 9484/AC* (EGR); Mantady Forest Reserve NE of Andasibe (Périnet). Rainforest in a rocky streambed along a tributary of Saharanga River 1000m 2.10.1994, -18.87222 48.47388, epiphyllous Pócs, Orbán and Szabó 9486/N (EGR); Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10495*; Tsakoka trail, epiphylls on *Pandanus* etc in elfin forest, 1020 m, 1.10.2018, -18.79755 48.42923, *Hodgetts 10524*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10631*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10770*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts 10821b*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10836, 10850d*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10893*. **Mitsinjo Reserve.** epiphytic in tree nursery, 940 m, 29.9.2018, -18.93603 48.41308, *Hodgetts s.n.* **Vakona Lodge surroundings.** Epiphyllous in forest, 1055 m, 3.10.2018, -18.89404 48.43931, *Hodgetts 10673*; epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, -18.89455 48.43852, *Hodgetts 10700*; **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91954 48.49791, *Hodgetts 10749*; epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10713a*; epiphyllous on shrub in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts 10774*; epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts 10776*; epiphyllous on *Pandanus* leaves in forest, 930 m, 4.10.2018, -18.92474 48.49924, *Hodgetts 10764*.

**\**Drepanolejeunea vanderpoortanii*** Gradst. & Pócs

**Mantadia National Park.** Chutes Sacrées 1029m, on flooded stone in stream. 10.2018, **HOLOTYPE**, *Vanderpoorten MD67* (EGR); Chute Sacrée, 1029 m, on a wet boulder in stream. 10.2018, **PARATYPE**, *Vanderpoorten MD62* (EGR).

***Drepanolejeunea vesiculosa*** (Mitt.) Steph /

***Drepanolejeunea physifolia*** (Gottsche) Pearson *sensu lato*

**Mantadia National Park.** Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10244*; Tsakoka trail, bark of shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 102501, 10468b*; Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, -18.79723 48.4306, *Hodgetts 10509b*; Chute Sacrée, 2.10.2018, Twigs overhanging river in forest, 1005 m, -18.82689 48.43723, *Hodgetts 10292*; Chute Sacrée, 02.10.2018, epiphyllous on *Pandanus* in forest, 1035 m, -18.82822 48.43967, *Hodgetts 10299*; Belakato & Sanody forests epiphyllous on fern in forest, 1080 m, 5.10.2018; -18.82251 48.45004, *Hodgetts 1035*; Belakato & Sanody forests epiphyllous in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10362*; Belakato & Sanody forests tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10851, 10865a, 10870b*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10373*; **Mitsinjo Reserve.** tree trunk in forest, 950 m, 29.9.2018, -18.93505 48.41235, *Hodgetts 10214*; branch fallen from canopy in forest, 990 m, 29.9.2018, -18.93403 48.41166, *Hodgetts 10223*. **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10744*; twigs and bamboo in forest, 920 m, 4.10.2018, -18.9202 48.49899, *Hodgetts 10758a*; epiphyllous on *Pandanus* leaves in forest, 915 m, 4.10.2018, -18.92111 48.5016, *Hodgetts 10350*; dead wood in forest, 905 m, 4.10.2018, -18.92143 48.5019, *Hodgetts 10351*; tree trunk in forest, 875 m, 4.10.2018, -18.92264 48.50463, *Hodgetts 10798*.

***Dumortiera hirsuta*** (Sw.) Nees

**Anosibe-An'ala road**, km 57, forêt humide, bord de torrent, 15.9.1953, *Bosser 6393* (PC0792946). **Maromizaha reserve**, P18, along the river under the camp, 5.07.2012, -18.97572 48.46356, *Reeb, MTM1287*. **Vohimana reserve**, Big waterfall of Vohimana reserve, 849 m, 15.5.2010, -18.92878 48.49906, *Reeb, Andriamanantena, Bidault CRAE93* (PC0738888).

***Fossombronina pulvinata*** Steph.

**Vohimana reserve.** Big waterfall of Vohimana reserve, 849 m, 30.6.2012, -18.92878 48.49906, *Reeb MTV1247*. **Réserve de Maromizaha.** Au dessus du camp 3, 1002 m, 6.7.2012, -18.98144 48.46392, *Reeb MTM1298*.

***Frullania anderssonii*** Ångstr.

**Lakato road.** 1.6.1979, *Tixier 12248* (PC0792942); pk7. 25.6.1979, *Tixier 12992* (PC0792944); pk9. 12.5.1979, *Tixier 12504* (PC0792943).



***Frullania angulata* Mitt.**

**Lakato road.** pk 14. 12.5.1979. *Tixier 12558* (PC0792940). **Vakona Lodge surroundings.** Fallen bough in forest, 1055 m, 3.10.2018, -18.89404 48.43931, *Hodgetts 10671a*.

***Frullania apicalis* Mitt.**

**Analamazoatra = Périnet.** Hepatique sur tronc, 9.11.1951, *Benoist 1820* (PC0792939); Station forestière de Périnet, sur arbre. 15.9.1966. *Boiteau 19513* (PC0792938); corticole, 1200 m, 10.11.1976, *Tixier 9631* (PC0792936); sur branchettes 1200 m, 10.11.1976, *Tixier 9631* (PC0792935). Montane rainforest on granitic ground, along the stream leading to the "Lac Vert". ramicolous 900–1000 m, 16.3.1990, *Pócs et al. 90104/Z* (EGR); logged montane rainforest and roadcut surface S of the railway station, ramicolous 940 m, 16.3.1990, *Pócs et al. 90105/BB* (EGR); Epiphitisch, 900 m, 28.6.1994, *Lü MAD34* (EGR). **Anosibe-An'ala road.** Sur feuilles de *Pandanus* sp., d'une forêt marécageuse, km 29, 15.9.1953, *Millot & Bosser 6323a, b* (PC0792914B); **Mantadia National Park.** Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10455a*; Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10465a*; Tsakoka trail, epiphytic on shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10477*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10830a, 10855a, 10866a*; Belakato & Sanody Forests, tree base in elfin forest, 1140 m, 5.10.2018, -18.82131 48.44621, *Hodgetts 10900*. **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91954 48.49791, *Hodgetts 10752*.

***Frullania apiculata* (Reinw., Blume & Nees) Nees**

**Analamazoatra = Périnet.** corticole. 10.11.1976, *Tixier 9610*. (PC0792934). Logged montane rainforest and roadcut surface S of the railway station, on bark, 940 m, 16.3.1990, *Pócs et al. 90105/J* (EGR); 19.3.2004. *Asakawa & Harinantenaina MAD20042/A* (EGR). **Mantadia National Park.** Tsakoka trail, Shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10467d*; Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts 10617b*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10770c*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10830*; Belakato & Sanody Forests, tree base in elfin forest, 1140 m, 5.10.2018, -18.82131 48.44621, *Hodgetts 10900a*. **Mitsinjo Reserve.** Forest shrub, 940 m, 30.9.2018, -18.93576 48.41296, *Hodgetts 10319*. **Vakona Lodge surroundings.** Fallen bough in forest, 1055 m, 3.10.2018, -18.89404 48.43931, *Hodgetts 10671c*. **Vohimana reserve,** Big waterfall, 849 m, 10.4.2010, -18.93 48.500, *Reeb, Andriamanantena, Bidault CRAE99* (PC0724362).

***Frullania capensis* Gottsche**

**Analamazoatra = Périnet.** 9.11.1951 *Benoist* (PC0792928). **Lakato road.** pk 9. 25.6.1979. *Tixier 12993* (PC0792930). **Mitsinjo Reserve.** Leaning tree in forest, 990 m, 30.9.2018, 18.93384 48.41076, *Hodgetts 10366a*; epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, -18.9337 48.41213, *Hodgetts 10442b*. **Mantadia**

**National Park.** Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10245*; Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10482*.

***Frullania diptera* (Lehm.) Drège**

**Analamazoatra = Périnet.** Épiphyllie avec *Odontolejeunea tortuosa*, *Radula stenocalyx*. 15.9.1966, *Boiteau 184/1* (PC0792927). **Mitsinjo reserve.** Epiphytic in forest 930 m, 29.9.2018, –18.93623 48.41298, *Hodgetts 10305*; Forest shrub, 940 m, 29.9.2018, –18.93576 48.41296, *Hodgetts 10320*.

***Frullania gabonensis* Vanden Berghen**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on decaying wood, 900–1000 m, 16.3.1990, *Pócs et al. 90104/L* (EGR); am morschen ast. 900 m, 28.6.1994, *Lü MAD46* (EGR). **Mantadia National Park.** Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts 10630a*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10771c*. **Mitsinjo reserve.** Leaning tree in forest, 990 m, –18.93384 48.41076, *Hodgetts 10366*.

***Frullania grossiclava* Steph.**

**Analamazoatra = Périnet.** Logged montane rainforest and roadcut surface S of the railway station, ramicolous 940m, 16.3.1990, *Pócs & Magill, Lafarge-England 90105/BA* (EGR). **Mantadia National Park.** Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10467e, 10500c*; Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, –18.79723 48.4306, *Hodgetts 10509f*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10771*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10877c*. **Vakona Lodge surroundings.** Fallen bough in forest, 1055 m, 3.10.2018, –18.89404 48.43931, *Hodgetts 10671b*. **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, –18.91933 48.49711, *Hodgetts 10746c*.

***Frullania humbertii* Vanden Berghen**

**Mantadia National Park.** Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10455b*; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10500*. **Vohimana reserve.** Twigs and bamboo in forest, 920 m, 4.10.2018, –18.9202 48.49899, *Hodgetts 10758b* epiphyllous on *Pandanus* leaves in forest, 890 m, 4.10.2018, –18.92196 48.50327, *Hodgetts 10897*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10877*.

***Frullania imerinensis* Steph.**

**Anosibe-An'ala road (?)**. Forêt orientale au S de Moramanga 800 m Im *Ficus sorocevidea* Baker, *Decary 18180*. Sine data (PC0792921); km 54, tronc de Palmier, forêt humide, bord de torrent, 15.9.1953, *Bosser 6416* (PC0792922). **Mantadia**

**National Park.** Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.82230 48.45077, 5.10.2018, *Hodgetts 10826b* (EGR).

***Frullania lindenberghii* Lehm.**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp. ramicolous 920–990 m, 15.3.1990, *Pócs & Magill, Lafarge-England 90103/DH* (EGR); Degraded montane rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, 950–1000 m, 3.10.1994, -18.95416 48.43333, epiphyllous *Vojtkó 9488/AA* (EGR). **Mantadia National Park.** Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10467f*; Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts s.n.*; Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts s.n.*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10630*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10877d*. **Mitsinjo Reserve.** Forest shrub, 980 m, 30.10.2018, -18.93252 48.41015, *Hodgetts 10392*. **Vohimana reserve.** Small trunk in dense scrub, 840 m, 4.10.2018, -18.92411 48.50703, *Hodgetts 10710a*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91954 48.49791, *Hodgetts 10749c*; epiphyllous on *Pandanus* leaves in forest, 1070 m, 4.10.2018, -18.79735 48.43133, *Hodgetts 10771b*; twigs of shrub in open scrub. 800 m, 4.10.2018, -18.92443 48.50797, *Hodgetts 10705a* (EGR).

***Frullania loricata* Pearson**

**Analamazoatra = Périnet.** Décembre 1905. *Ch. d'Alleizette* (PC0792920) Lakato road, 1000 m, 10.6.1979, *Tixier 12876* (PC0792919). **Mantadia National Park.** Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10855, 10865*. **Vakona Lodge surroundings.** Fallen bough in forest, 1055 m, 3.10.18, -18.89404 48.43931, *Hodgetts 10672a*.

***Frullania obscura* (Sw.) Nees ex Mont.**

**Analamazoatra = Périnet,** 1100 m, 10.11.1976, *Tixier 9708* (PC0792932); sur brindilles. 4.7.1977, *Tixier 10524* (PC0792933 as *F. arecae*). 19.3.2004. *Asakawa & Harinantenaina MAD20044/B* (EGR, as *F. arecae*). **Vakona Lodge surroundings.** Tree in hotel garden by lake, 985 m, 3.10.2018, -18.88979 48.43464, *Hodgetts 10688; Brinda 12367*.

***Frullania purpurea* Steph.**

**Analamazoatra = Périnet.** Épiphyllé, 1200m, 6.7.1977, *Tixier 10590* (PC0792916); montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., 920–990 m, 15.3.1990, *Pócs et al. 90103/P*, DB (ramicolous), *90103/BG* (épiphyllous) (EGR); logged montane rainforest and roadcut surface S of the railway station, ramicolous 940 m, 16.3.1990, *Pócs et al. 90105/H* (EGR); 1.5 km W of the railway station, degraded montane rainforest, epiphyllous 930–990 m, 17.3.1990, *Pócs et al. 90106/BB* (EGR); montane rainforest 500 m E of the railway station, on the W slope of ridge,

near the aerial, 920–1010 m, 17.3.1990, *Pócs et al. 90108/E* (on bark), *90108/AO* (epiphyllous) (EGR); am morschen ast. 900 m, 28.6.1994, *Lü MAD46pp* (EGR); **Anosibe-An'ala road.** km 29, sur feuilles de *Pandanus* sp. d'une forêt marécageuse, 15.9.1953, *Millot & Bosser 6323a et b* (PC0792914A); km 29, hépatiques sur branches forêt marécageuse, 15.9.1953, *Millot & Bosser 6362* (PC0792915); km 29, forêt humide de l'Est, 900 m, 9.1953, *Millot & Bosser 6944* (PC0792917); Antaniditra **forest.** Forêt à *Pandanus* branchettes 1000 m, 6.7.1977, *Tixier 10643* (PC0792931B). **Mantadia National Park.** Tsakoka trail, Shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10464*; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10500a*; Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, –18.79723 48.4306, *Hodgetts 10509a*; Tsakoka trail, epiphyllous on shrub in elfin forest, 1055 m, 1.10.2018, –18.79721 48.43041, *Hodgetts 10517*. **Mitsinjo reserve.** Epiphytic in forest, 930 m, 29.9.2018, –18.93623. Long 48.41298. *Hodgetts 10309*; Forest shrub, 940 m, 29.9.2018, –18.93576 48.41296, *Hodgetts 10316*. Tree trunk in forest, 950 m, –18.93505 48.41235, *Hodgetts 10336*; branch fallen from canopy in forest, 990 m, –18.93403 48.41166, *Hodgetts s.n.*; epiphyllous on *Pandanus* etc in forest, 995 m, –18.93188 48.41021, *Hodgetts 10399*. **Vohimana reserve,** Forest, 900 m, 4.10.2018, –18.9243 48.5103, *Hodgetts s.n.*

### ***Frullania repandistipula*** Sande Lac.

**Analamazoatra = Périnet.** am morschen ast, 900 m, 28.6.1994, *Lü MAD46* (EGR). **Mantadia National Park.** Tsakoka trail, On twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10482d*; Tsakoka trail, epiphyllous on shrubs in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10500b*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10539*.

### ***Frullania schimperi*** Nees

**Analamazoatra = Périnet (?).** About 160 km East from Antananarivo. 19.3.2004. *Asakawa & Harinantenaina MAD20048* (EGR). **Vakona Lodge surroundings.** epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10697*.

### ***Frullania schimperi*** Nees var. *laciniata* Vanden Berghen

**Vakona Lodge surroundings.** Twigs of shrub in open scrub, 800 m, 4.10.2018, –18.92443 48.50797, *Hodgetts 10705b*; dead twigs on ground in elfin forest. 940 m, 3.10.2018, –18.91933 48.49711, *Hodgetts 10746*. **Vohimana reserve.** Epiphytic on *Erica* on dry hillside, 950 m, 3.10.2018, –18.89339 48.43143, *Hodgetts 10695a*.

### ***Frullania serrata*** Gottsche

**Analamazoatra = Périnet.** 10.2.1976, *Tixier 9594, 9596* (mixed as PC0792910); 23.4.1976, *Tixier 9818, 9826* (mixed as PC0792913); much exploited, mixed rain forest with *Pinus* plantations, epiphytes Hymenophyllaceae common on the few remained old trees 1.4.1970, –18.916 48.500, *Mabberley 803*. (EGR); Much exploited mixed rain forest with *Pinus* plantation, Chlaenaceae, composite trees

notably *Brachylaena*, *Araliaceae*, *Ravenala* and *Cyathea* spp. 900 m, 14.1970, -18.91666 48.500. *Mabberley 849A* (EGR); montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., ramicolous 15.3.1990, 920–990 m, *Pócs & Magill, Lafarge-England 90103/H* (EGR), epiphytish. Sammelnummer 12, 900 m, 27.6.1994, *Lü MAD19* (EGR); Epiphytish. 900 m, 27.6.1994, *Lü MAD25* (EGR). **Lakato road.** 1000 m, 23.4.1979, *Tixier 12118* (PC0792906); 1000 m, 12.5.1979, *Tixier 12505* (PC0792903); pk 14, 12.5.1979, *Tixier 12590* (PC0792904); 2.6.1979, *Tixier 12592, 12598* (mixed as PC0792912); 1000 m, 10.6.1979, *Tixier 12845* (PC0792909); 1000 m, 10.6.1979, *Tixier 12902* (PC0792905); 1000 m, 25.6.1979, *Tixier 12960* (PC0792907). **Mantadia National Park.** Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10468*; Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10483*; Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10485*; Tsakoka trail, base of tree in elfin forest, 1070 m, 1.10.2018, -18.79738 48.43112, *Hodgetts 10505a*; **Mitsinjo reserve**, Forest shrub, 980 m, 30.9.2018, -18.93252 48.41015, *Hodgetts 10391*; **Vakona Lodge surroundings.** Fallen bough in forest, 1055 m, 3.10.2018, -18.89404 48.43931, *Hodgetts 10671*; epiphytic on *Erica* on dry hillside, 950 m, 3.10.2018, -18.89339 48.43143, *Hodgetts 10696*.

***Frullania serrata* Gott var. *pertenuis* (Nees.) Schiffn.**

**Analamazoatra = Périnet.** 900 m, 23.11.1976, *Tixier 9862* (PC0792908).

***Frullania spongiosa* Steph.**

**Mantadia National Park.** Tsakoka trail, epiphytic on shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10477a*. **Mitsinjo reserve.** Epiphytic in tree nursery, 940 m, 29.9.2018, -18.93603 48.41308. *Hodgetts s.n.*

***Frullania usambarana* Schiffn. ex Steph.**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp. ramicolous 920–990m, 15.3.1990, *Pócs, Randrianasolo, Magill, Lafarge-England 90103/DF* (EGR). **Maromizaha reserve.** Montane rainforest on the rocky ridge of Mt. Andrianavibe, 5 km ESE of Andasibe (Périnet), 950–1050 m, 3.10.1994, -18.9425 48.4777, corticolous *Pócs 9487/BY* (EGR). **Vohimana reserve.** Small trunk in dense scrub, 840 m, 4.10.2018, -18.92411 48.50703, *Hodgetts 10708*.

***Frullania usambarana* var. *reducta* Vanden Berghen**

**Mantadia National Park.** Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10770d*.

***Frullania vandenberghenii* Pócs**

Mentions: *Frullania epiphylla* Vanden Berghen 1976, hom. illeg. [non S.Hatt. 1974] = *Frullania vandenberghenii* Pócs 1979 (Bizot & Pócs 1979). *F. vandenberghenii* is synonymous with *F. épiphylla* Vanden Berghen (Pócs pers. comm.)

**Analamazoatra = Périnet.** Épiphyllé on forêt, 900 m, 7.7.1977, **TOPOTYPE**, *Tixier 1061* (EGR). Sur une rameille, forêt humide, 10.11.1955, *Bosser 7741b* (PC0792923 as *Frullania epiphylla*). Epiphyllé en forêt de montagne 1300 m, 10.11.1976, **ISOTYPE**, *Tixier 9593* (EGR); épiphyllé en forêt, 900 m, 7.7.1977, **TOPOTYPE**, *Tixier 10612* (EGR). **Mantadia National Park.** Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts 10825b*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10866*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018; -18.81763 48.45243, *Hodgetts 10878a*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10884*. **Mitsinjo Reserve.** Epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, -18.93281 48.41314, *Hodgetts 10420*; epiphyllous on *Pandanus* in forest, 940 m, 30.9.2018, -18.93346 48.41293, *Hodgetts 10427a*. **Vohimana reserve.** Twigs of shrub in open scrub, 800 m, 4.10.2018, -18.92443 48.50797, *Hodgetts 10705c*; epiphyllous on tree in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts s.n.*

***Fuscocephaloziopsis connivens* subsp. *fissa* (Steph.) Váňa & L. Söderstr.**

**Mantadia National Park.** On ground among roots in a ravine in elfin forest Chute Sacrée, 980m, 2.10.2018, -18.82722 48.43944, *Vanderpoorten MD25* (LG); dead log in elfin forest with *Sphagnum*, 1260m, 2.10.2018, -18.81555 48.4525, *Vanderpoorten MD36* (LG). **Maromizaha reserve.** Small valley undercamp 3, 1095 m, 28.6.2018, -18.98381 48.46792, *MT12112bis*. **Vohimana reserve.** Botanical pathway, tunnel, 789 m, 6.9.2012, -18.92031 48.51586, *Reeb MTV1223*.

***Haplolejeunea sticta* Grolle**

**Vohimana reserve,** Rotten wood in elfin forest, 940 m, 4.10.2018, -18.91997 48.49837, *Hodgetts 10746d*; Rotten wood in elfin forest, 940 m, 4.10.2018, -18.91997 48.49837, *Hodgetts 10757*.

***Herbertus dicranus* (Taylor) Trevis.**

**Mantadia National Park.** Belakato & Sanody Forests; bough of tree in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10832*.

***Herbertus juniperoides* (Sw.) Grolle**

**Analamazoatra = Périnet.** Montane rainforest on the rocky ridge of Mt. Adrianavibe, 950–1050 m, 3.10.1994, -18.9425 48.4777, on branches *Pócs 9487/A* (EGR). **Mantadia National Park.** Tsakoka trail, epiphytic on shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10479*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10847*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts s.n.*; Belakato & Sanody Forests, tree base in elfin forest, 1140 m, 5.10.2018, -18.82131 48.44621, *Hodgetts 10898*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m,

5.10.2018, -18.82177 48.44797, *Hodgetts s.n.* **Mitsinjo Reserve**. Leaning tree in forest, 990 m, 20.08.2018, -18.93384 48.41076, *Hodgetts 10364*. **Vohimana reserve**. Tree trunk in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts s.n.*

***Heteroscyphus dubius*** (Gottsche) Schiffn.

**Mitsinjo Reserve**. Rock near stream in forest, 950 m, 30.9.2018, -18.93527 48.41269, *Hodgetts 10329a*.

***Heteroscyphus grandistipus*** (Steph.) Schiffn.

**Mantadia National Park**. Chute Sacrée, rocks by river in forest, 970 m, 2.10.18, -18.82563 48.43576, *Hodgetts 10586*; small shaded cliff by river in forest, 990 m, 3.10.18, -18.82698 48.43771, *Hodgetts 10620b*. New to Madagascar.

***Heteroscyphus splendens*** (Lehm. & Lindenb.) Grolle

**Analamazoatra = Périnet**. Ridge above the Belakato Circuit towards summit (Sahanody), Forest, primary, 1234 m, 5.10.2018, -18.8166660, 48.4524510 *Brinda 12495* (MO). **Mantadia National Park**. Chute Sacrée, tree trunk in forest, 970 m, 2.10.2018, 990m, -18.82561 48.43572, *Hodgetts 10576*.

***Isotachis aubertii*** (Schwägr.) Mitt.

**Analamazoatra = Périnet**. Sur sol, 900–1000 m, 2.10.1971, *Cremers 1926* (PC0792902), 1929 (PC0792901); 5.7.1977, *Tixier 10655* (PC0793408). **Lakato road**. 10.6.1979, *Tixier 12247* (PC0793407). Montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on roadcut, 900–1000 m, 16.3.1990, *Pócs 90104/T* (EGR); an wegböschung 900 m, 27.6.1994, *Lü MAD10* (EGR); an offener Böschung 900 m, 28.6.1994, *Lü MAD49* (EGR). **Mantadia National Park**. Tsakoka trail, compacted soil on bank by track in elfin forest, 1025 m, 1.10.2018, -18.79754 48.42945, *Hodgetts 10526*. **Vakona Lodge surroundings**. 7 km north from the Périnet park, degraded rainforest, on soil, 3.10.2018, *Sass-Gyarmati 1803* (EGR); On bank by hotel, 970 m, 3.10.2018, -18.88972 48.43547, *Hodgetts 10652a*; Vakona Forest, 1025 m, 3.10.2018, -18.8946 48.4385, *Hodgetts s.n.* **Vohimana Reserve**. Humid rainforest mid-elevation, on roadcut, 4.10.2018, *Sass-Gyarmati et al. 1806/C* (EGR); small cliff behind huts, 782 m, 13.4.10, -18.921 48.515, *Reeb, Andriamanantena, Bidault CRAE4* (MO, PC, TAN); railway between two small cliffs, 776 m, 13.4.10, -18.915 48.508, *Reeb, Andriamanantena, Bidault CRAE19*; big waterfall of Vohimana reserve, small block on soil, on vertical faces rock, 849 m, 15.4.10, -18.93 48.500, *Reeb, Andriamanantena, Bidault CRAE104* (MO, PC, TAN); pathway between forest and camp, near "researchers camp", 790 m, 16.4.2010, -18.919 48.510, *Reeb, Andriamanantena, Bidault CRAE153, CRAE155bis* (MO, PC0724331).

***Kurzia capillaris*** (Sw.) Grolle

**Mantadia National Park**. Tsakoka trail, dead wood in elfin forest, 1020 m, 1.10.2018, -18.79755 48.42923, *Hodgetts 10525*; Belakato & Sanody Forests, branch of tree in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts*

10862.; dead log in elfin forest, 1054m, 5.10.2018, -18.79194 48.42944, *Vanderpoorten MD28* (LG); at the base of a tree along stream in elfin forest, 5.10.2018-18.82722 48.44027, *Vanderpoorten MD30, MD49* (LG); in a small cave with ferns by stream in elfin forest, 1029m, 5.10.2018, 18.83111 48.43666, *Vanderpoorten MD51* (LG). **Maromizaha reserve**. Path between summit of the hill and Camp 3, 1084 m, 7.7.2012, -18.98256 48.46692, *Reeb MTM12113*. **Vohimana reserve**. Rotten wood in elfin forest, 940 m, 4.10.2018, -18.91997 48.49837, *Hodgetts 10756*; Path N°2 on the way, 860 m, 14.4.2010, -18.92339 48.50586, *Reeb, Andriamanantena, Bidault CRAE74*.

### ***Kymatocalyx africanus* Váňa & M. Wigginton**

**Mantadia National Park**. Chute Sacrée, rocks by river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts 10613c*. New to Madagascar.

### ***Kymatocalyx madagascariensis* (Steph.) Gradst. et Váňa**

**Mantadia National Park**. Chute Sacrée, rocks by river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts 10608, 10613*; Chute Sacrée, rocks by river in forest, 990 m, 2.10.2018, -18.82772 48.43915, *Hodgetts s.n.*; Chute Sacrée, damp boulder by stream in elfin forest, 1070m, 2.10.2018, -18.82777 48.44055, *Vanderpoorten MD56* (LG, det. S.R. Gradstein). **Vohimana reserve**. The Grand Cascade, on rock river, 849m, 1.4.2010, -18.9425 48.51283, *Reeb, Andriamanantena, Bidault CRAE102-B* (EGR). Rocks by river, 785 m, 4.10.2018, -18.9243 48.51027, *Hodgetts 10808a*.

### ***Lejeunea alata* Gottsche**

**Anosibe-An'ala road**, km 54, épiphyllé, forêt humide au bord d'une rivière; 900 m, 15.9.1953, *Millot & Bosser 6413* (PC0793343).

### ***Lejeunea angulifolia* Mitt.**

**Mantadia National Park**. Chute Sacrée, 1030 m, 2.10.2018, epiphyllous on tree fern fronds in forest, -18.82761 48.43908, 2.10.2018, *Hodgetts 10639a* (EGR). New to Madagascar.

### ***Lejeunea capensis* Gottsche**

**Analamazoatra = Périnet**. Epiphyllous forêt ombrophylle, 1000 m, 16.12.1962, *Bosser 16504* (PC0784777C as *L. caespitosa*). **Anosibe-An'ala road**, km 29, épiphyllé sur feuilles de *Pandanus* sp., forêt marécageuse; 900 m, 15.9.1953, *Millot et Bosser 6320/2* (PC0793342 as *L. caespitosa*).

### ***Lejeunea conformis* Nees & Mont.**

**Vakona Lodge surroundings**. Nodes of large bamboo by croc pool, 980 m, 3.10.2018, -18.89462 48.43616, *Hodgetts 10678*.



***Lejeunea flava* (Sw.) Nees**

**Analamazoatra = Périnet.** Forêt ombrophylle, 900 m, 9.9.1951, *Benoist 51M2371* (PC0792976C); epiphyllous forêt ombrophylle, 1000 m, 16.12.1962, *Bosser 16504* (PC0784777B).

***Lejeunea flava* ssp. *tabularis* (Spreng.) S.W. Arnell**

**Anosibe-An'ala road.** km 29, épiphyllous sur *Selaginella* sp., forêt marécageuse, 900 m, 15.9.1979, *Millot & Bosser 6356* (PC0793341); **Mantadia National Park.** Tsakoka trail, shrub trunk in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts s.n.*; Tsakoka trail, 1.10.2018, shrub trunk in elfin forest, 1070 m, -18.79735 48.43133, *Hodgetts 10467a*; Tsakoka trail, 1.10.2018, bark of shrub in elfin forest, 1070 m, -18.79735 48.43133, *Hodgetts s.n.*; Mantadia, Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts 10563*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10630c*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1035 m, 2.10.2018, -18.82822 48.43967, *Hodgetts s.n.*; Chute Sacrée, Epiphylls on *Pandanus* etc in forest, 995 m, 2.10.2018, -18.82987 48.43173, *Hodgetts 10647c*; Tsakoka trail, 1.10.2018, epiphyllous on *Pandanus* leaves in forest, 1070 m, -18.79735 48.43133, *Hodgetts 10770a*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10840*; Belakato & Sanody Forests, 5.10.2018, twigs in elfin forest, 1250 m, -18.81763 48.45243, *Hodgetts 10373*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10881a*; Belakato & Sanody Forests, tree base in elfin forest, 1140 m, 5.10.2018, -18.82131 48.44621, *Hodgetts 10901*. **Mitsinjo Reserve.** Epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, -18.93366 48.41034, *Hodgetts 10379*; epiphyllous on *Pandanus* in forest, 960 m, -18.9337 48.41213, *Hodgetts 10442a*; **Vakona Lodge surroundings.** On bank by hotel, 970 m, 3.10.2018, -18.88972 48.43547, *Hodgetts 10653*; Nodes of large bamboo by croc pool, 980 m, 3.10.2018, -18.89462 48.43616, *Hodgetts s.n.*; epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, -18.89455 48.43852, *Hodgetts 10700b*; **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts s.n.*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91954 48.49791, *Hodgetts s.n.*; twigs and bamboo in forest, 920 m, 4.10.2018, -18.9202 48.49899, *Hodgetts 10758*; epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts s.n.*

***Lejeunea flavovirens* Ångstr.**

**Anosibe-An'ala road.** pk. 29, forêt marécageuse à *Pandanus* 19.9.1953, *Bosser 6376* (PC0793346 as *L. flavo-virens*).

***Lejeunea isophylla* E.W. Jones**

**Analamazoatra = Périnet.** Sur tronc, 9.11.1951, *Benoist 1844* (PC0792945B); brousse secondaire, 1200 m, 10.2.1976, *Tixier 9617* (PC0793349); 700 m, corticole en forêt, 5.7.1976, *Tixier 10624* (PC0793347A); broussailles d'altitude, 1200 m, 10.2.1976, *Tixier 9625* (PC0793344). **Anosibe-An'ala road.** forêt primitive de

Sandrangato. 9.1953, *Bosser s.n.* (PC0793345); **Lakato road.** 25.4.1979, *Tixier s.n.* (PC0793348).

***Lejeunea papilionacea* Prantl.**

**Mantadia National Park.** Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10564*.

***Lepidozia stuhlmannii* Steph.**

**Vohimana reserve** Path N°2, summit, 870 m, 14.4.2010, –18.92208 48.50158, *Reeb, Andriananantena, Bidault CRAE36*.

***Lepidozia succida* Mitt.**

**Vohimana reserve,** Exploited forest left bank of the Vohimana river (3), 830 m, 15.5.2010, –18.91925 48.51361 *Reeb, Andriananantena, Bidault CRAE118*.

***Leptolejeunea epiphylla* (Mitt.) Steph.**

**Analamazoatra = Périnet.** Épiphyll; forêt humide 900 m, 3.9.1951, *Benoist s.n.* (PC0793360 as *L. quintasii*); sur une Fougère épiphyte; forêt humide, 900 m, 10.2.1955, *Bosser 7744* (PC0793351 as *L. quintasii*); épiphyll, forêt humide, 900 m, 4.1956. *Bosser 9540* (PC0793364 as *L. quintasii*); **Anosibe-An'ala road.** km 29, sur feuilles de Fougères, forêt marécageuse, 900 m, 15.9.1953, *Millot et Bosser s.n.* (PC0793056C as *L. quintasii*), 6307 (PC0793062B as *L. quintasii*) 6310 (PC0793060B as *L. quintasii*), 6315 (PC0793082B as *L. quintasii*); km 29, épiphyll, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6312/2* (PC0793353 as *L. quintasii*), 6313 (PC0793355 as *L. quintasii*), 6321 (PC0793357 as *L. quintasii*), 6325 (PC0793354 as *L. quintasii*), 6326a (PC0793356 as *L. quintasii*), 6334 (PC0793358A as *L. quintasii*), 6343 (PC0793350 as *L. quintasii*); km 29, route Moramanga-Anosibé, sur feuilles de *Selaginella* sp.; forêt marécageuse; 900 m, 15.9.1953, *Millot & Bosser 6332/a* (PC0793359 as *L. quintasii*); km 29, épiphyll; sous bois. 15.9.1953, *Millot & Bosser 6347* (PC0793361 as *L. quintasii*); 900 m, épiphyll en forêt, 9.6.1976, *Tixier 8641, 8670* (mixed as PC0793352 as *L. quintasii*); **Mantadia National Park.** Tsakoka trail, epiphylls on *Pandanus* etc., in elfin forest, 1020 m, 1.10.2018, –18.79755 48.42923, *Hodgetts 10524a*; Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10541*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10553*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82618. 48.4362, *Hodgetts 10640c*. Vakona epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10700c*. **Mitsinjo Reserve.** Epiphytic in tree nursery, 940 m, 29.9.2018, *Hodgetts s.n.*; epiphyllous in forest, 930 m, –18.93623 48.41298, 29.9.2018, *Hodgetts 10308*; epiphyllous on *Pandanus* in forest, 990 m, –18.93375 48.41074, *Hodgetts 10371, 10373*.

***Leptolejeunea maculata* (Mitt.) Schiffn.**

**Anosibe-An'ala road.** km 54, 900 m. s.d. *Bosser* (PC, as *L. thomeensis*). **Vohimana reserve.** Epiphyllous on tree in elfin forest, 950 m, 4.10.2018, -18.91920 48.49682, *Hodgetts 10727*.

***Lophocolea concreta* Mont.**

**Mantadia National Park.** Chute Sacrée, rocks by river in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10629*. **Mitsinjo reserve.** Epiphytic in tree nursery, 940 m, 29.9.2018, -18.93603 48.41308, *Hodgetts 10202*.

***Lophocolea lucida* (Spreng. ex Lehm.) Mont.**

**Analamazoatra = Périnet.** 900–1000 m, 2.10.1971, *Cremers 1909* (PC0793372). **Mantadia National Park.** Chute Sacrée, forest, 1000 m, 2.10.2018, -18.8299 48.4317, *Hodgetts s.n.* **Mitsinjo reserve.** Forest, m, -18.93603 48.41308, *Hodgetts s.n.* **Vakona Lodge surroundings.** Forest, 1025 m, 3.10.2018, -18.8946 48.4385, *Hodgetts s.n.*

***Lophocolea muricata* (Lehm.) Nees**

**Mitsinjo reserve.** Forest, -18.93603 48.41308, *Hodgetts s.n.*

***Lopholejeunea eulopha* (Taylor) Schiffn.**

**Mantadia National Park.** Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts 10616a*; **Mitsinjo reserve.** Branch fallen from canopy in forest, 990 m, 30.9.2010, -18.93403 48.41166, *Hodgetts 10358b*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2010, -18.93281 48.41314, *Hodgetts 10417*. **Vohimana reserve.** Small trunk in dense scrub, 840 m, 4.10.2018, -18.92411 48.50703, *Hodgetts 10707*.

***Lopholejeunea grandicrista* Steph.**

**Lakato road.** *Tixier* 12586 (PC0792897). 12.5.1979; 1200 m, 10.6.1979, *Tixier 12871* (PC0724305). **Mantadia National Park.** Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, -18.82689 48.43723, *Hodgetts 10617*. **Mitsinjo reserve.** Analamazoatra Forest Station, primary-secondary rainforest "Cardiff-circuit", on bark, 900–1000 m, 29.8.2018, *Sass-Gyarmati et al. 1801/J* (EGR); epiphytic on forest tree, 960 m, -18.9337 48.41213, *Hodgetts 10439*. **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10746b*.

**\**Lopholejeunea onraedtii* Vanden Berghen**

**Lakato road,** 1000 m, 2.6.1979, *Tixier 12732* (PC0741090 as *L. tixieriana*).; **Mitsinjo reserve** Analamazoatra Forest Station, primary-secondary rainforest "Cardiff-circuit", on bark, 900–1000 m, 30.9.2018, *Sass-Gyarmati et al. 1802/H* (EGR). **Vohimana reserve.** Dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10745b*.

***Lopholejeunea sphaerophora*** (Lehm. et Lindenb.) Steph.

**Maromizaha reserve** (?). Degraded montane rainforest of Mt. Ambatokiriji, s of Andasibe Forest Reserve, on bark, 950–1000m, *Pócs 9488/AA* (EGR). **Mantadia National Park**. Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10552*; Chute Sacrée, twigs by river in forest, 990 m, 2.10.2018, –18.82772 48.43915, *Hodgetts 10571d*; Chute Sacrée, tree trunk in forest, 970 m, 2.10.2018, –18.82561 48.43572, *Hodgetts 10577*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10816*; Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, t–18.81763 48.45243, *Hodgetts s.n.* **Mitsinjo reserve**. Epiphyllous on *Pandanus* in forest, 960 m, –18.9337 48.41213, *Hodgetts 10440*.

***Lopholejeunea subfusca*** (Nees) Schiffn.

**Lakato road**. 12.5.1979, *Tixier 12248* (PC0724298). **Analamazoatra (= Périnet)**. 1.5 km W of the railway station, degraded montane rainforest, corticolous 930–990 m, 17.3.1990, *Pócs T. & R. Magill, C. Lafarge-England 90106/D* (EGR). **Vakona Lodge surroundings** 7 km north from the Périnet park, degraded rainforest, on bark, 3.10.2018, *Sass-Gyarmati 1805/H* (EGR). **Vohimana reserve**. Forest, 900 m, 4.10.2018, –18.9243 48.5103, *Hodgetts s.n.*

***Lopholejeunea utriculata*** Steph.

**Analamazoatra (= Périnet)**. Forêt ombrophile, épiphyllé, 1000 m, 16.12.1962. *Bosser 16504* (PC0784777D); station forestière de Périnet, épiphyllé. 15.9.1966, *Boiteau 154/3, 184/3* (PC0793376). **Anosibe-An'ala road**. km 29 forêt marécageuse, épiphyllé, 900 m, 5.9.1953, *Millot & Bosser 6371* (PC0793371A).

***Marchantia debilis*** K.I. Goebel

**Vakona Lodge surroundings**. Grand talus bordant la route d'accès à l'hôtel, 948 m, 23.11.2015, –18.89061 48.43106, *Reeb CR15M100*; **Vohimana reserve**. Left bank of the Vohimana river, 798 m, 15.5.2010, –18.92378 48.51153, *Reeb, Andriamanantena, Bidault CRAE146* (PC0738884).

***Marchantia pappeana*** Lehm.

**Analamazoatra = Périnet**. En forêt, 19.4.1934. *Decary* (PC0738789); Hépatique sur terre mouillée, 9.11.1951, *Benoist 1822* (PC0738800), *s.n.* (PC0738805); Station forestière de Périnet, au bas d'un arbre en forêt, 13–15.9.1966, *Boiteau 216* (PC0738797); Station forestière du Périnet, 9.1966, *Boiteau 228* (PC0738790); an Mauer von Wasserine, 900 m, 28.6.1994, *Lü MAD44* (EGR). **Anosibe-An'ala road**. Forêt entre Moramanga et Anosibé, 1952, *Leandri 1572* (PC0738806); forêt à feuilles persistantes à mousses et sous-bois herbacés et bords de torrents entre Sandrangato et Anosibé, 800–1100 m, 3–7.11.1952, *Leandri 1603 bis* (PC0738799); km 54, forêt humide, bord de torrent, 15.9.1958, sine collector *6410* (PC0738786). **Vakona Lodge surroundings**. Bank along the hotel entrance, 948 m, 23.11.2015, –18.89061 48.43106, *Reeb CR15M105*.

***Mastigophora diclados* (Brid ex F. Weber) Nees**

**Lakato road.** Mountain forest, on trees 1002 m, 7.12.2002, *Fisher & Sieder s.n.* (PC0734673). **Analamazoatra = Périnet.** Montane rainforest on the rocky ridge of Mt. Adrianavibe, 5 km ESE of Andasibe (Périnet), 950–1050 m, 3.10.1994, –18.9425 48.4777, corticolous *Pócs 9487/B* (EGR).; **Mantadia National Park.** Tsakoka trail, epiphytic in elfin forest, 1070 m, 1.10.2018, –18.942518.79735 48.43133, *Hodgetts 10451, 10488, 10504*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts s.n.*; Chute Sacrée, in forest, 1000 m, 2.10.2018, –18.8299 48.4317, *Hodgetts s.n.*; on a branch in elfin forest, Chute Sacrée, 2.10.2018, –18.82888 48.44083, *Vanderpoorten MD33* (LG). **Mitsinjo reserve.** On ground and tree bases at side of path, 1000 m, 30.9.2018, –18.9425 48.4131, *Hodgetts s.n.* **Vakona Lodge surroundings.** forest, 1025 m, 3.10.2018, –18.8946 48.4385, *Hodgetts s.n.* **Vohimana reserve.** Path N°2, summit, 870 m, 14.4.2010, –18.92208 48.50158, *Reeb, Andriamanantena, Bidault CRAE67* (PC0724435A), forest, 900 m, 4.10.2018, –18.9243 48.5103, *Hodgetts s.n.*

***Metzgeria furcata* (L.) Corda**

**Mantadia National Park.** Belakato & Sanody Forests, twigs in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10879*; Chute Sacrée, epiphyllous on *Rafia* palm etc in forest, 970 m, 2.10.2018, –18.79786 48.42806, *Hodgetts 10559*. **Maromizaha reserve.** P18, le long de la rivière sous le camp, falaise, talus terreux 2–2.5 m de haut, très ombragé en cirque, 5.7.2012, –18.97572 48.46356, *Reeb MTM1286*. **Vohimana reserve,** Left bank of the Vohimana river, 798 m, 15.5.2010, 18.92378S 48.51153E *Reeb, Andriamanantena, Bidault CRAE148* (PC0724334).

***Metzgeria nudifrons* Steph.**

**Vakona Lodge surroundings.** Tree in hotel garden by lake, 985 m, 3.10.2018, –18.88979 48.43464, *Hodgetts 10690*.

***Metzgeria warnstorffii* Steph.**

**Mantadia National Park.** Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10559*; Belakato & Sanody Forests, liana in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts 10828*.

***Microlejeunea africana* Steph.**

**Analamazoatra = Périnet.** 1100 m, 10.11.1976, *Tixier 9608* (PC0793374); corticole, 1000 m, 10.11.1976, *Tixier 9618* (PC0793375); corticole en forêt, 700 m, 5.7.1976, *Tixier 10624* (PC0793347B); epiphyllous on Bignoniaceae leaves 850–900 m.s.m, 29.3.1971, *Mabberley 823/G* (EGR). **Mitsinjo reserve.** Epiphyllous on *Pandanus* in forest, 1000 m, 30.9.2018, –18.93366 48.41034, *Hodgetts s.n.*; epiphyllous on *Pandanus* etc, 995 m, –18.93188 48.41021, *Hodgetts 10402*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, –18.93281 48.41314, *Hodgetts s.n.* **Mantadia National Park.** Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts s.n.*; Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, –18.79723 48.4306, *Hodgetts s.n.*; Tsakoka trail, epiphyllous on

shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10536*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10554*; Chute Sacrée, twigs of forest shrub, 985 m, 2.10.2018, –18.82655 48.4366, *Hodgetts s.n.*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82862 48.44029, *Hodgetts s.n.*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1035 m, 2.10.2018, –18.82822 48.43967, *Hodgetts s.n.* **Vakona Lodge surroundings.** Dead tree bough by river, 970 m, 3.10.2018, –18.88964 48.43249, *Hodgetts s.n.* **Vohimana reserve.** Epiphyllous on tree in elfin forest, 950 m, 4.10.2018, –18.9192 48.49682, *Hodgetts s.n.*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, –18.91954 48.49791, *Hodgetts s.n.*; twigs and bamboo in forest, 920 m, 4.10.2018, –18.9202 48.49899, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, –18.82251 48.45004, *Hodgetts 10820*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, –18.8223 48.45077, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts 10894*.

***Microlejeunea filicuspis* (Steph.) Heinrichs, Schäf.-Verw., Pócs et S.**

Dong

**Analamazoatra = Périnet.** Am morschen ast. 900 m, 28.6.1994, *Lü MAD46* (EGR, as *Harpalejeunea filicuspis*).

***Microlejeunea kamerunensis* Steph.**

**Mitsinjo Reserve.** Forest tree, 940 m, –18.93223 48.41272, *Hodgetts 10449a*.

**\**Microlejeunea papulosa* (Gottsche) Pearson**

**Maromizaha reserve.** P18, le long de la rivière sous le camp, falaise, talus terreux 2–2.5 m de haut, très ombragé en cirque, 7.5.2012, –18.97572 48.46356, *Reeb MTM12114*.

***Mnioloma fuscum* (Lehm.) R.M. Schust**

**Vohimana reserve.** Big waterfall of Vohimana reserve, 849 m, 6.30.2012, –18.92878 48.49906, *Reeb MTV1257*.

***Myriocoleopsis minutissima* (Sm.) R.L.Zhu, Y.Yu et Pócs**

**Lakato-An'ala road = Périnet.** pk 9, 1000 m, 12.5.1979, *Tixier 12503* (PC0793068 as *Cololejeunea minutissima*).

***Notoscyphus lutescens* (Lehm. et Lindenb.) Mitt.**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on clayey roadcut surface. 900–1000 m, 6.3.1990, *Pócs, Randrianasolo, Magill, Lafarge-England 90104/AK* (EGR); logged montane rainforest and roadcut surface S of the railway station, on road cut, 940 m, 16.3.1990, *Pócs Randrianasolo, Magill, Lafarge-England 90105/M* (EGR); **Maromizaha reserve** (?). Degraded montane rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, on roadcut, 950–1000 m, 3.10.1994,

-18.95416 48.43333, *Pócs 9488/O* (EGR). **Vakona Lodge surroundings.** On bank by hotel, 970 m, 3.10.2018, -18.88972 48.43547, *Hodgetts 10655*; bank by track in forest, 1000 m, 3.10.2018, -18.89613 48.4369, *Hodgetts 10677c*; below *Erica* on dry hillside, 950 m, 3.10.2018, -18.89339 48.43143, *Hodgetts 10696a*; acidic ground along track in dense *Pteridium* vegetation, 960m, -18.89833 48.43027, *Vanderpoorten MD26* (LG). **Vohimana reserve.** Path N°2, summit, 870 m, 14.4.2010, -18.92208 48.50158, *Reeb, Andriamanantena, Bidault CRAE34*; railway between two small cliffs, 776 m, 13.4.2010, -18.91517 48.50853, *Reeb, Andriamanantena, Bidault CRAE16*.

***Odontolejeunea lunulata* (F. Weber) Schiffn.**

**Analamazoatra = Périnet.** 15.9.1966, *Boiteau 184/5* (PC0793400, as *O. tortuosa*). Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., ramiculous. 920-990 m, 15.3.1990, *Pócs & Magill, Lafarge-England 90103/BJ, DD* (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", epiphyllous 900-1000 m, 16.3.1990, *Pócs et al. 90104/BC* (EGR); logged montane rainforest and roadcut surface S of the railway station, epiphyllous 940 m, 16.3.1990, *Pócs et al. 90105/AC* (EGR); Epiphyll auf *Pandanus* und *Microsorium*. Sammelnummer, 900 m, 10.27.6.1994, *Lü MAD17 F, E* (EGR); montane rainforest E of Andasibe village, epiphyllous. 900-970 m, 26.8.1998, -18.90548.4691, *Pócs S. & T. and Szabó 9889/BG* (EGR). Épiphyll, forêt humide, 900 m, 3.9.1951, *Benoist*, s.n. (PC0793392, PC0793393, as *O. tortuosa*); épiphyll, sous bois forêt humide, 900 m, 10.1951, *Bosser 2138* (PC0793396 as *O. tortuosa*); 600 m, 2.9.1951, *Benoist*, s.n. (PC0793382 as *O. tortuosa*); forêt ombrophylle, 900 m, 9.9.1951, *Benoist 51M2371* (PC0792976B as *O. tortuosa*); épiphyll, forêt humide, 900 m, 2.1955, *Bosser 7743* (PC0793395 as *O. sieberiana*); épiphyll, sur feuilles du *Burasaia*, forêt humide. 10.2.1955 *Bosser 7743* (PC0793394 as *O. tortuosa*); epiphyllous forêt ombrophylle, 1000 m, 16.12.1962. *Bosser 16504* (PC0784777F as *O. tortuosa*); épiphyll, 917 m, 23.11.1976, *Tixier 9811* (PC0793378 as *O. tortuosa*); 960 m, 23.2.1977, *Tixier s.n.* (PC0793385 as *O. tortuosa*); 917m. 23.2.1977, *Tixier 10296* (PC0793377 as *O. tortuosa*); Parc aux Cerfs 960 m, 19.2.1977, *Tixier 10298* (PC0793380 as *O. tortuosa*); forêt d'Antaniditra, 960 m, 19.2.1977, *Tixier 10334* (PC0793381 as *O. tortuosa*); montane rainforest 500 m, E of the railway station, on the W slope of ridge, near the aerial, epiphyllous 920-1010 m, 17.3.1990, *Pócs et al. 90108/AN* (EGR). **Anosibe-An'ala road.** km 29, forêt marécageuse, épiphyll, 900 m, 15.9.1953, *Millot & Bosser 6322/a* (PC0793388 as *O. sieberiana*); km 21, forêt marécageuse, épiphyll, 900 m, 15.9.1953, *Millot & Bosser 6357* (PC0793387 as *O. sieberiana*); km 29, forêt humide de l'Est, épiphyll, 900 m, 15.9.1953, *Millot & Bosser s.n.* (PC0793389 as *O. tortuosa*); km 29, forêt marécageuse, épiphyll sur feuilles de Fougère, 900 m, 15.9.1953, *Millot & Bosser s.n.* (PC0793386 as *O. tortuosa*); km 29, forêt marécageuse, sur feuilles de *Pandanus* sp., 900 m, 15.9.1953, *Millot & Bosser 6318b* (PC0793383 as *O. tortuosa*), *6312/J* (PC0793390 as *O. tortuosa*), *6338* (PC0793397 as *O. tortuosa*), *6320/1* (PC0785599B as *O. tortuosa*). **Mantadia National Park.** Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, -18.79761 48.42856, *Hodgetts 10542*; Tsakoka trail, epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, -18.79786 48.42806, *Hodgetts 10547*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m,

1.10.2018, -18.79735 48.43133, *Hodgetts 10347*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts 10630h*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82618 48.4362, *Hodgetts 10640b*; Chute Sacrée, epiphylls on *Pandanus* etc in forest, 995 m, 2.10.2018, -18.82987 48.43173, *Hodgetts 10647*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018; -18.8223 48.45077, *Hodgetts s.n.* **Mitsinjo Reserve**. Epiphyllous on forest shrub, 930 m, 30.9.2018, -18.93623 48.41298, *Hodgetts 10301*; epiphyllous on *Pandanus* by lake at forest edge, 965 m, 30.9.2018, -18.93281 48.41314, *Hodgetts 10416*. **Vohimana reserve**. Epiphyllous in forest, 875 m, 4.10.2018, -18.92251 48.50434, *Hodgetts 10716*; epiphyllous on tree in 4.10.2018, -18.9192 48.49682, *Hodgetts 10728*; epiphyllous on *Pandanus* and other leaves in forest, 920 m, 4.10.2018, -18.92474 48.50761, *Hodgetts 10776a*.

### ***Odontoschisma jishibae* (Steph.) L. Söderstr. & Váňa**

**Maromizaha reserve**. Montane rainforest on the rocky ridge of Mt. Adrianavibe, 5 km ESE of Andasibe (Périnet), corticolous 950–1050 m, 3.10.1994, -18.9425 48.4777, Vojtkó 9487/N (EGR, as *Iwatsukia jishibae*); **Mantadia National Park**. On touristic trail "Sacred waterfall rainforest" primary rainforest, lignicolous, 2.10.2018, *Sass-Gyarmati 1804/G* (EGR); Tsakoka trail, tree base in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10459*. **Vakona Lodge surroundings**. On bank by track in forest, 1020 m, 3.10.2018, -18.89613 48.43690, *Hodgetts 10677d*. **Vohimana reserve**. Big waterfall of Vohimana reserve, 849 m, 30.6.2012, -18.92878 48.49906, *Reeb MTV1257*.

### **\**Otolejeunea moniliata* Grolle**

**Mantadia National Park**. Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018, -18.8223 48.45077, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, -18.82177 48.44797, *Hodgetts 10892*; **Mitsinjo Reserve**. epiphyllous on *Pandanus* in forest, 990 m, 30.8.2018, -18.93375 48.41074, *Hodgetts 10376*.

### ***Pallavicinia lyellii* (Hook.) Carruth.**

**Vohimana reserve**. Big waterfall of Vohimana reserve, 849 m, 30.6.2012, -18.92878 48.49906, *Reeb MTV1241*.

### ***Plagiochila angusta* Lindenb.**

**Analamazoatra = Périnet**. Montane rainforest on granitic ground, 900–1000 m, along the stream leading to the "Lac Vert", ramicolous 16.3.1990, *Pócs et al 90104/M, aM* (EGR); 1.5 km W of the railway station, degraded montane rainforest, ramicolous 930–990 m, 17.3.1990, *Pócs et al. 90106/G* (EGR); **Mantadia National Park**. Tropical rainforest with 40–50 m, tall trees near the end of graphite mining road, corticolous -18.87222 48.47388, 1030 m, 2.10.1994, *Pócs 9485/D* (EGR); Chute Sacrée, trunk of sapling in forest by river, 990 m, 2.10.2018, -18.82661 48.43699, *Hodgetts 10604* **Maromizaha reserve**. Degraded montane rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, ramicolous 950–1000 m, 3.10.1994, -18.9541648.43333, *Pócs 9488/D* (EGR). **Mitsinjo Reserve**.



epiphytic on forest shrub, 960 m, 30.9.2010, -18.9337 48.41223, *Hodgetts 10429*. **Vakona Lodge surroundings.** Forest, 1025 m, 3.10.2018, UTM grid 43376, -18.8946 48.4385, *Hodgetts s.n.*

***Plagiochila corrugata* (Nees) Nees et Mont.**

**Anosibe-An'ala road.** km 29, forêt marécageuse, 900 m, 15.9.1953, *Millot & Bosser 6350* (PC0793391 as *Odontolejeunea tortuosa*); **Moramanga surroundings.** 900 m, 9.6.1976, *Tixier 8728* (PC0785058 as *P. cambouena*); Moramanga, 1000 m, 8.3.1976, *Tixier 8729* (PC0785056 as *P. cambouena*); Anosibe, 1200 m. 10.11.1976, *Tixier 9706* (PC0785055A as *P. cambouena*), *9707* (PC0785057 as *P. chenagonii*).

***Plagiochila drepanophylla* Sande Lac.**

**Anosibe-An'ala road.** 1200 m, 4.6.1977, *Tixier 10534* (PC0792926); pk20. 18.4.1978, *Tixier 11747* (PC0792925); **Analamazoatra = Périnet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., corticolous. 920–990m, 15.3.1990, *Pócs, Magill, & Lafarge-England 90103/AP* (EGR); 1.5 km W of the railway station, degraded montane rainforest, corticolous 930–990m, 17.3.1990, *Pócs, Magill & Lafarge-England 90106/AH* (EGR); **Lakato road,** pk9, 9.12.1979, *Tixier 12494* (PC0785008); pk 9, 12.5.1979, *Tixier 12495* (PC0785190B); pk3, 10.6.1979, *Tixier 12867* (PC0792924). **Maromizaha reserve.** Montane rainforest on the rocky ridge of Mt. Andrianavibe, 5 km ESE of Andasibe (Périnet), on bark, 950–1050 m, 3.10.1994, -18.9425 48.4777, *Pócs 9487/BV, CJ* (EGR); **Mantadia National Park.** Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, -18.82862 48.44029, *Hodgetts s.n.*; Belakato & Sanody Forests, epiphyllous on fern in forest, 1080 m, 5.10.2018, -18.82251 48.45004, *Hodgetts s.n.*; Tsakoka trail, forest, 1000 m, 1.10.2018, -18.7979 48.4281, *Hodgetts s.n.*; **Mitsinjo reserve,** Trunk of forest shrub, 955 m, 30.10.2018, -18.93442 48.41257, *Hodgetts 10343*. **Moramanga surroundings.** Degraded heath forest 4 km E of Moramanga, near Antsahatsoka village, corticolous 950–980m, 3.10.1994, -18.95416 48.5000, *Szabó 9489/H* (EGR); Central E Madagascar, degraded secondary montane evergreen forest 4km E of Moramanga, near Antsahotsaka village, corticolous, 4.10.1994, -18.94472 48.27555, *Pócs 9490/C* (EGR). **Vakona Lodge surroundings.** Forest, 1025 m, 3.10.2018, -18.8946 48.4385, *Hodgetts s.n.* **Vohimana reserve.** Twigs and leaf petioles on tree in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts s.n.*; fallen tree in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts 10738*; 4.10.2018, Forest, 900 m, -18.9243 48.5103, *Hodgetts s.n.*

***Plagiochila incerta* Gottsche**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., on twigs, 920–990 m, 15.3.1990, *Pócs, Magill & Lafarge-England 90103/S, AM* (EGR); logged montane rainforest and roadcut surface S of the railway station, on twigs. 940m, 16.3.1990, *Pócs, Magill & Lafarge-England 90105/G* (EGR); 1.5 km W of the railway station, degraded montane rainforest, on bark, 930–990 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90106/P, aA* (EGR); **Mantadia National Park.** Tropical rainforest with 40–50 m tall trees near the graphite mining road, on twigs. 1030m,

2.10.1994, -18.87222 48.47388, on bark, *Pócs 9485/C* (EGR); **Maromizaha reserve**. Montane rainforest on the rocky ridge of Mt. Andrianavibe, 5 km ESE of Andasibe (Périnet), on bark, 950–1050 m, 3.10.1994, -18.9425 48.4777, *Vojtkó 9487/BX* (EGR); Chute Sacrée, on twigs of forest shrub, 985 m, 2.10.2018, -18.82655 48.43660, *Hodgetts 10597*. **Mitsinjo Reserve**. Analamazaoatra Forest Station. Primary-secondary rainforest "Cardiff Circuit", on twigs 900–1000 m, 29.9.2018, -18.93603 48.41308, *Sass-Gyarmati 1801/N* (EGR), *Hodgetts 10295b*.

### ***Plagiochila integerrima* Steph.**

**Mantadia National Park**. Chute Sacrée, 1000 m, 2.10.2018, -18.8299 48.4317, *Hodgetts s.n.*

### ***Plagiochila kiaeri* Gottsche**

**Analamazaoatra = Périnet**. 19.3.2004, *Asakawa & Harinantenaina MAD20045* (EGR). **Mantadia National Park**. Montane rainforest on the rocky ridge of Mt. Andrianavibe, 5 km ESE of Andasibe (Périnet), on bark, 950–1050 m, 3.10.1994, -18.94472 48.4777, *Pócs 9487/BS* (EGR).

### ***Plagiochila pectinata* Lindenb.**

**Analamazaoatra = Périnet**. 1.5 km W of the railway station, degraded montane rainforest, on bark, 930–990 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90106/T* (EGR); montane rainforest on the rocky ridge of Mt. Andrianavibe, 5 km ESE of Andasibe (Périnet), lignicolous, 950–1050 m, 3.10.1994, -18.9425 48.4777, *Szabó 9487/BP, BT* (EGR). **Mantadia National Park**. Chute Sacrée, rotting log by river in forest, 990 m, 2.10.2018, -18.82698 48.43771, *Hodgetts 10622*; Chute Sacrée, rocks by river in forest, 1035 m, 2.10.2018, -18.82822 48.43967, *Hodgetts 10636*; Belakato & Sanody Forests, tree trunk in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts 10848*; Belakato & Sanody Forests, shrub in elfin forest, 1140 m, 5.10.2018, -18.82131 48.44621, *Hodgetts 10906*. **Vohimana reserve**. Tree trunk in forest, 875 m, 4.10.2018, -18.92264 48.50463, *Hodgetts 10796*.

### ***Plagiochila repanda* (Schwägr.) Lindenb.**

**Analamazaoatra = Périnet**. Forêts, 12.1909, Ch. d'Alleizette 1966 (PC0784903 as *P. mauritiana*); 900 m, 5.7.1977, *Tixier 10672* (PC0784894); montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp., on twigs. 920–990 m, 15.3.1990, *Pócs & Magill, Lafarge-England 90103/A, G* (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", corticolous. 900–1000 m, 16.3.1990, *Pócs et al. 90104/AM* (EGR); 1.5 km W of the railway station, degraded montane rainforest, corticolous. 930–990 m, 17.3.1990, *Pócs et al. 90106/N, O* (EGR); about 160 km, east from Antananarivo. 19.3.2004. *Asakawa & Harinantenaina MAD20043/A, B* (EGR); **Mantadia National Park**. NE of Andasibe (Périnet). Tropical rainforest with 40–50 m, tall trees near the end of graphite mining road 1030 m, -18.87222 48.47388, corticolous 2.10.1994, *Pócs 9485/A, P* (EGR); epiphytisch, 900 m, 28.6.1994, *Lü MAD36* (EGR); 15 km north of Andasibe on touristic trail "Sacred waterfall

rainforest" primary rainforest, lignicolous. 2.10.2018, *Sass-Gyarmati 1804/H* (EGR).

***Plagiochila repanda* var. *perrotiana* (Steph.) Vanden Berghen**

**Analamazoatra = Périnet.** 1.5 km W of the railway station, degraded montane rainforest on bark, 930–990 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90106/J* (EGR); montane rainforest 500 m, E of the railway station, on the W slope of ridge, near the aerial, on bark, 920–1010 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90108/X* (EGR); **Mantadia National Park.** *Pandanus pulcher* swamp forest in Saharanga River Valley, on rotten wood, 995 m, 2.10.1994, –18.87222 48.47361, *Pócs 9484/P* (EGR). **Mitsinjo Reserve.** Trunk of small shrub in forest, 955 m, 30.10.2018, –18.93473 48.41248, *Hodgetts 10339*; epiphytic in tree nursery, 940 m, 29.9.2018, –18.93603 48.41308, *Hodgetts 10295a*. **Vakona Lodge surroundings.** Forest, 1025 m, 3.10.2018, –18.8946 48.4385, *Hodgetts s.n.* **Vohimana reserve.** Trunk of shrub in elfin forest, 940 m, 4.10.2018, –18.91933 48.49711, *Hodgetts 10742*.

**\**Plagiochila sikorae* Steph.**

**Mantadia National Park.** Rocky ridge of Mt. Andrianavibe, 950–1050 m, 10.1994, *Pócs 9487/BQ* (EGR).

***Plagiochila stricta* Lindenb.**

**Mantadia National Park.** Chute Sacrée, tree trunk in forest, 985 m, 2.10.2018, –18.82655 48.43660, *Hodgetts 10591*; trunk of sapling in forest by river, 990 m, 2.10.2018, –18.82661 48.43699, *Hodgetts 10604a*.

***Plagiochila terebrans* Nees & Mont. ex Lindenb.**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp, on bark, 920–990m, 15.3.1990, *Pócs et al. 90103/AL* (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on rock, 900–1000 m, 16.3.1990, *Pócs et al. 90104/AB* (EGR); logged montane rainforest and roadcut surface S of the railway station, on bark, 940 m, 16.3.1990, *Pócs et al. 90105/D* (EGR); 1.5 km W of the railway station, degraded montane rainforest, 930–990 m, 17.3.1990, *Pócs et al. 90106/AG* (EGR); 19.3.2004, *Asakawa & Harinantenaina MAD20042/B* (EGR); **Anosibe-An'ala road.** 1200 m, 10.11.1976, *Tixier 9706* (PC0785055B). **Mantadia National Park.** Tropical rainforest with 40–50 m, tall trees near the graphite mining road, on twigs 1030 m, 2.10.1994, *Pócs 9485/B* (EGR); Tsakoka trail, tree base in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10458*; Chute Sacrée, trunk of forest shrub, 980 m, 2.10.2018, –18.82561 48.43515, *Hodgetts 10569, 10570*; Belakato & Sanody, Forests epiphyllous in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts s.n.*; Tsakoka trail, forest, 1000 m, 1.10.2018, –18.7979 48.4281, *Hodgetts s.n.*; Belakato & Sanody, Forests epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts s.n.* **Mitsinjo reserve.** Analamazoatra Forest Station, primary-secondary rainforest "Cardiff Circuit", on tree base, 900–1000 m, 29.9.2018, *Sass-Gyarmati 1801/A, D* (EGR). **Vakona Lodge surroundings.**

Forest, 1025 m, 3.10.2018, –18.8946 48.4385, *Hodgetts s.n.* **Vohimana reserve**.  
Forest, 900 m, 4.10.2018, –18.9243 48.5103, *Hodgetts s.n.*

***Pleurozia gigantea*** (F. Weber) Lindb.

**Analamazoatra = Périnet.** Sur tronc, forêt ombrophile, 900 m, 1.4.1962, *Bosser 15460* (EGR). **Lakato road**, forêt dense, 1000 m, 2.6.1979, *Tixier 12686* (PC0784851), *12686bis* (PC0784853), *12687* (PC0784856), *12498* (PC0784852); **Mantadia National Park.** Tsakoka trail, tree trunk in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10478*; Belakato & Sanody Forests, epiphyllous on *Pandanus* leaves in elfin forest, 1110 m, 5.10.2018, –18.82177 48.44797, *Hodgetts s.n.*; epiphytic in elfin forest with *Conoscyphus trapezoides*, 1102m, 2.10.2018, –18.79222 48.42527, *Vanderpoorten MD47* (LG).

***Plicanthus hirtellus*** (F. Weber) R.M. Schust.

**Analamazoatra = Périnet.** Montane rainforest on the rocky ridge of Mt. Adrianavibe, 5 km ESE of Andasibe (Périnet), ramicolous 950–1050 m, 3.10.1994, –18.9425 48.4777, *Pócs 9487/AS* (EGR as *Chandonanthus hirtellus*). **Mantadia National Park.** Tsakoka trail, base of tree in elfin forest, 1070 m, 1.10.2018, –18.79738 48.43112, *Hodgetts 10505*; Belakato & Sanody Forests, bough of tree in elfin forest, 1250 m, 5.10.2018, –18.81763 48.45243, *Hodgetts 10833*.

***Prionolejeunea grata*** (Gottsche) Schiffn.

**Mantadia National Park.** Chute Sacrée, rocks by river in forest, 1005 m, 2.10.2018, –18.82689 48.43723, *Hodgetts 10613a*; Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, –18.82689 48.43723, *Hodgetts s.n.*; Chute Sacrée, rocks by river in forest, 990 m, 2.10.2018, –18.82772 48.43915, *Hodgetts 10626*, *10627*; **Mitsinjo Reserve.** Shrub in forest, 990 m, 30.09.2010, –18.93399 48.41137, *Hodgetts 10363*; **Vakona Lodge surroundings.** Epiphytic on *Marchantia* on bank by track in forest, 1035 m, 3.10.2018, –18.89484 48.43893, *Hodgetts 10665c*. **Vohimana reserve.** Bark of larger tree in elfin forest, 950 m, 4.10.2018, –18.9192 48.49682, *Hodgetts s.n.*

***Pycnolejeunea contigua*** (Nees) Grolle

**Analamazoatra = Périnet.** Montane rainforest on the rocky ridge of Mt. Adrianavibe, 5km ESE of Andasibe, –18.9425 48.4777, ramicolous, 950–1050 m, 995 m, 3.10.1994, *Pócs 9487/J* (EGR). **Mitsinjo Reserve.** tree trunk in forest, 950 m, 30.10.2018, –18.93505 48.41235, *Hodgetts 10333*; branch fallen from canopy in forest, 990 m, 30.10.2018, –18.93403 48.41166, *Hodgetts 10358a*. **Mantadia National Park.** Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10484a*.

***Ptychanthus africanus*** Steph.

**Mitsinjo reserve.** Analamazoatra Forest Station, primary-secondary rainforest "Cardiff-circuit", on bark, 900–1000 m, 30.9.2018, *Sass-Gyarmati et al. 1802/D* (EGR).

***Radula appressa* Mitt.**

**Analamazoatra = Périnet.** Montane rain forest of granitic ground, along the stream leading to the "Lac Vert", ramicolous, 900–1000 m, 16.3.1990, *Pócs & Magill, Lafarge-England 90104/S* (EGR); 1.5km W of the railway station, degraded montane rainforest, corticolous. 930–990 m, 17.3.1990, *Pócs & Magill, Lafarge-England 90106/AB* (EGR); Central E Madagascar, degraded montane rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, 950–1000m 3.10.1994, –18.95416S 48.43333, epiphyllous, *Szabó 9488/L* (EGR); about 160 km, east from Antananarivo. 19.3.2004, *Asakawa & Harinantenaina MAD20044/D* (EGR). **Lakato road.** 10.6.1979, *Tixier 12870* (PC0784816). **Mantadia National Park.** Tropical rainforest with 40–50 m tall trees near the end of the graphite mining road epiphyllous corticolous 1030 m, 2.10.1994, –18.87222 48.47388, *Pócs 9485/E* (EGR); montane rainforest on the rocky ridge of Mt. Andrianavibe, corticolous, 950–1050 m, 3.10.1994, –18.9425 48.4777, *Pócs 9487/BG* (EGR); epiphytic in elfin forest, 960 m, 2.10.2018, –18.79111 48.42694, *Vanderpoorten MD–Rad3* (LG, det. S.R. Gradstein); epiphytic, steam bank in elfin forest, 960 m, 2.10.2018, –18.83111 48.43666, *Vanderpoorten MD–Rad4* (LG, det. S.R. Gradstein); hanging on branches in elfin forest, 950 m, 2.10.2018, –18.82444 48.43472, *Vanderpoorten MD–Rad6* (LG, det. S.R. Gradstein). **Mitsinjo Reserve.** Epiphytic, elfin forest, 985 m, 30.9.2018, –18.93305 48.41027, *Vanderpoorten MD–Rad12* (LG, det. S.R. Gradstein). **Vohimana reserve.** Epiphytic in elfin forest, 930 m, 4.10.2018, –18.91666 48.493611, *Vanderpoorten MD–Rad1* (LG, det. S.R. Gradstein); epiphytic in elfin forest, 939m, 4.10.2018, –18.91805 48.49694, *Vanderpoorten MD–Rad8, MD–Rad17* (LG, det. S.R. Gradstein). Bark of larger tree in elfin forest, 950 m, 4.10.2018, –18.91920 48.49682, *Hodgetts 10735*.

***Radula evelynae* K. Yamada**

**Analamazoatra = Périnet.** Rocky ridge of Mt. Andrianavibe 5 km ESE of Andasibe, on bark, 950–1050m, 3.10.1994, –18.9425 48.47777, *Vojtkó 9487/BE* (EGR).

***Radula flaccida* Lindenb. et Gottsche**

**Analamazoatra = Périnet.** Épiphyllie en forêt, 1951, *Benoist s.n.* (PC0784793); degraded montane rainforest on Mt. Ambatokirijy the S edge of Andasibe (Périnet) Forest Reserve, epiphyllous, 950–1000m, 3.10.1994, –18.95416 48.43333, *Pócs & Szabó 9488/* (EGR); **Mantadia National Park.** Rainforest in a rocky streambed along a tributary of Saharanga River, epiphyllous 1000m, 2.10.1994, –18.87222 48.47388, *Pócs & Szabó 9486/M* (EGR). **Mitsinjo Reserve.** Epiphyllous, 1260m, 30.9.2018, –18.93527 48.41333, *Vanderpoorten MD34* (LG); epiphyllous around the orchid pond, 924 m, 2.10.2018, –18.93194 48.41277, *Vanderpoorten MD46* (LG). **Moramanga surroundings.** Degraded secondary montane evergreen forest 4 km E of Moramanga, near Antsahotsaka village, epiphyllous, 4.10.1994, –18.94472 48.27555, *Vojtkó 9490/AB* (EGR).

***Radula madagascariensis* Gottsche**

**Analamazoatra = Périnet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea, Pandanus Memecylon* spp., ramicolous 920–990m, 15.3.1990, *Pócs & Magill, Lafarge-England 9103/P*, AE (EGR). **Mantadia**

**National Park.** Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, –18.79723 48.4306, *Hodgetts 10509h*; Tsakoka trail, epiphyllous on *Pandanus* leaves in forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10772b*; Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10465, 10467c*; Chute Sacrée, epiphylls on *Pandanus* etc in forest, 980 m, 2.10.2018, –18.83122 48.43373, *Hodgetts 10644a*; Chute Sacrée, twigs overhanging river in forest, 1005 m, 2.10.2018, –18.82689 48.43723, *Hodgetts s.n.*; bark along stream, 960m, 2.10.2018, –18.79111 48.42694, *Vanderpoorten MD–Rad5* (LG, det. S.R. Gradstein). **Vakona Lodge surroundings.** Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, –18.89455 48.43852, *Hodgetts 10700d*; fallen bough in forest, 1055 m, 3.10.2018, –18.89404 48.43931, *Hodgetts 10672*. **Vohimana reserve.** Dead wood in forest, 905 m, 4.10.2018, –18.92143 48.5019, *Hodgetts s.n.*

### ***Radula mexicana* Lindb. et Gottsche**

**Mantadia Reserve.** Near Andasibe, 1030m, *Pócs 9485/F* (EGR). **Mantadia National Park.** Epiphytic, 910m, 2.10.2018, –18.79111 48.42694, *Vanderpoorten MD–Rad19* (LG, det. S.R. Gradstein); epiphytic on *Pandanus*, 1130m, 2.10.2018, –18.82027 48.44499, *Vanderpoorten MD–Rad21* (LG, det. S.R. Gradstein); Mantadia National Park. Tsakoka trail, tree base in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10460*; Chute Sacrée, tree trunk in forest, 970 m, 2.10.2018, –18.82561 48.43572, *Hodgetts 10575*; tree trunk in forest, 970 m, 2.10.2018, –18.82561 48.43572, *Hodgetts 10577a*; rocks by river in forest, 970 m, 2.10.2018, –18.82563 48.43576, *Hodgetts 10586c*; twigs overhanging river in forest, 1005 m, 2.10.2018, –18.82689 48.43723, *Hodgetts 10617a*; rocks by river in forest, 1035 m, 2.10.2018, –18.82822 48.43967, *Hodgetts 10638*. **Mitsinjo Reserve.** Epiphytic on forest tree, 960 m, 30.9.2018, –18.93370 48.412013, *Hodgetts 10433*.

### ***Radula stenocalyx* Mont.**

**Analamazoatra = Perinet.** Épiphyll, sur feuille de Rubiaceae, forêt ombrophylle, 900 m, 10.2.1955, *Bosser 7750* (PC0784773); epiphyllous forêt ombrophylle, 1000 m, 16.12.1962. *Bosser 16504* (PC0784777A); épiphyll. 7.7.1977, *Tixier 10610, 10612* (mixed as PC0784817); épiphyll, 900 m, 30.3.1974, *Cremers 3034/a*; montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp, epiphyllous 920–990 m, 15.3.1990, *Pócs et al. 90103/BE* (EGR); epiphyllous 900 m, 28.6.1994, *Lü MAD40* (EGR). **Anosibe-An'ala road.** km 29, 15.9.1953, *Millot & Bosser 6320/1* (PC0785599C); km 29, forêt marécageuse, épiphyll, 900 m, 15.9.1953, *Millot & Bosser 6337* (PC0784770), *6355* (PC0784778), *6951/1* (PC0784772); km 57, épiphyll forêt ombrophylle, au bord d'un torrent, 15.9.1953, *Millot & Bosser 6388* (PC0784775), *6398* (épiphyll sur feuille d'Orchidée *Lisorchilus*) (PC0784774); **Lakato road.** Épiphyll en forêt 1000 m, 25.5.1979, *Tixier 12426, 12427, 12428, 12429, 12431, 12434, 12436, 12441, 12444, 12246, 12248* (mixed as PC0784788 as *R. holstiana*). **Mantadia National Park.** Tsakoka trail, epiphyllous on shrub in forest, 1000 m, 1.10.2018, –18.79761 48.42856, *Hodgetts 10543*; epiphyllous on *Rafia* palm etc in forest, 970 m, 1.10.2018, –18.79786 48.42806, *Hodgetts 10551*; Chute Sacrée, epiphyllous on *Pandanus* in forest, 1030 m, 2.10.2018, –18.82618 48.4362, *Hodgetts 10640*; Belakato & Sanody Forests, epiphyllous on *Pandanus* in forest, 1080 m, 5.10.2018,

-18.8223 48.45077, *Hodgetts 10821*. **Vakona Lodge surroundings**. Epiphyllous on *Pandanus* leaves 1025 m, 3.10.2018, -18.89455 48.43852, *Hodgetts 10701a*. **Mitsinjo Reserve**. Epiphyllous on *Erythroxylum*, 970 m, 30.9.2018, -18.93383 48.4124, *Hodgetts 10427*; epiphyllous, Orchid Pond, 910m, 30.09.2018, -18.93388 48.40694, *A. Vanderpoorten MD-Rad24 (LG)*.

***Radula voluta*** Taylor ex Gottsche, Lindenb. & Nees

**Mantadia National Park**. Epiphytic in elfin forest, 850 m, 2.10.2018, -18.79722 48.42666, *Vanderpoorten MD-Rad15 (LG, det. S.R. Gradstein)*. **Mitsinjo Reserve**. Analamazaoatra Forest Station, primary-secondary rainforest "Cardiff Circuit", on bark, 900-1000 m, 29.9.2018, *Sass-Gyarmati 1801/J, K (EGR)*; epiphytic in elfin forest, Orchid Pond, 970 m, 2.10.2018, -18.93277 48.40722, *Vanderpoorten MD-Rad15 (LG, det. S.R. Gradstein)*. **Vohimana reserve**. Epiphytic along river in elfin forest, 785 m, 4.10.2018, -18.92361 48.50666, *Vanderpoorten MD-Rad2 (LG, det. S.R. Gradstein)*; bark in elfin forest, 920m, 4.10.2018, -18.82527 48.43611, *Vanderpoorten MD-Rad10 (LG, det. S.R. Gradstein)*; bark in elfin forest, 960 m, 4.10.2018, -18.91583 48.49305, *Vanderpoorten MD-Rad23 (LG, det. S.R. Gradstein)*.

***Riccardia angusticosta*** (Steph.) Grolle

**Maromizaha reserve**. Along the river, upside from camp 3, 921 m, 8.7.2012, -18.98161 48.46417, *Reeb MTM12137*. **Vakona Lodge surroundings** "Chemin des Lemurs", 976 m, 23.11.2015, -18.89003 48.43329, *Reeb CR15M95bis*. **Vohimana reserve**. Path N°2, summit, near crossing, 900 m, 1.7.2012, -18.9215 48.50197, *Reeb MTV1261*.

***Riccardia chamedryfolia*** (With.) Grolle

**Maromizaha reserve**. Petite vallée encaissée sous sommet suivant le camp 3, 1095 m, 7.7.2012, -18.98381 48.46792, *Reeb MTM12135*.

**\**Riccardia gaspardii*** Reeb & Gradst.

**Vohimana reserve**. Big waterfall of Vohimana reserve, 849 m, 30.6.2012, -18.92878 48.49906, *Reeb MTV1246 (Holotype PC0771050; Isotype PC0763876)*. **Maromizaha reserve**. Path between summit of the hill and Camp 3, 1084 m 7.7.2012, -18.98256 48.46692, *Reeb MTM12117*.

***Riccardia inconspicua*** (Steph.) Reeb & Bardat

**Maromizaha reserve**. Sentier vers le camp 3, 1011 m, 6.7.2012, -18.97917 48.46439, *Reeb MTM1295 (PC0763882)*.

***Riccardia longispica*** (Steph.) Pearson

**Analamazaoatra = Perinet**. 800 m, 30.10.1972, -18.55 48.26, *Crosby 9314 (EGR)*; **Maromizaha reserve**. Path between summit of the hill and Camp 3, 1084 m, 7.7.2012, -18.98256 48.46692, *Reeb MTM12102*. **Vakona Lodge surroundings**. "Chemin des Lemurs", 976 m, 23.11.2015, -18.89003 48.43329, *Reeb CR15M106*. **Vohimana reserve**. Big waterfall of Vohimana reserve, 849 m, 30.6.2012,

–18.92878 48.49906, *Reeb MTV1256*; cliff between stone bridge and old tunnel, 789 m, 28.6.2012, –18.92031 48.51586, *Reeb MTV1217*.

***Riccardia martinii*** Reeb & Gradst.

**Maromizaha reserve.** Path between summit of the hill and Camp 3, 1084 m, 8.7.2012, –18.98256 48.46692, *Reeb MTM12116*. **Vohimana reserve.** Blue path, 800 m, 6.9.2012, –18.92139 48.50561, *Reeb MTV1233*.

***Riccardia saccatiflora*** (Steph.) S.W. Arnell

**Vohimana reserve.** Path to the big waterfall, 150m far from it., 918 m, 30.6.2012, –18.92936 48.49981, *Reeb MTV1237*; **Maromizaha reserve.** Petite vallée encaissée sous sommet suivant le camp 3, 1095 m, 7.7.2012, –18.98381 48.46792, *Reeb MTM12110*.

***Riccardia vohimanensis*** Reeb & Gradst.

**Maromizaha reserve.** Sentier vers le camp 3, 1011 m, 6.7.2012, –18.97917 48.46439, *Reeb, MTM1290* (PC0763878); **Vohimana reserve.** Big waterfall of Vohimana reserve, 849 m, 15.5.2010, –18.92878 48.49906, *Reeb, Andriamanantena, Bidault CRAE96* (**HOLOTYPE** PC0771053).

**\**Schiffneriolejeunea madagascariensis*** (Steph.) Gradst.

**Analamazoatra = Perinet.** Corticole, 1100 m, 10.11.1976, *Tixier 9620* (PC0793399); broussaille à Philippia, 10.11.1976, *Tixier 9632* (PC0793398). **Mantadia National Park.** Tsakoka trail, bark of shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10470b*; Tsakoka trail, on twigs of slender shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10482c*.

***Schiffneriolejeunea pappeana*** (Nees) Gradst.

**Analamazoatra = Perinet.** Brousse secondaire, 1200m, 10.11.1976, *Tixier 9163* (PC0793402); 900 m, 6. 28.6.1994, *Lü MAD42* (EGR). **Mantadia National Park.** Tsakoka trail, tree base in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10462a*; Tsakoka trail, epiphytic on shrub in elfin forest, 1070 m, 1.10.2018, –18.79735 48.43133, *Hodgetts 10474, 10486*; Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, –18.79723 48.4306, *Hodgetts 10509i*; Chute Sacrée, branch fallen from forest canopy by road, 995 m, 2.10.2018, –18.82987 48.43173, *Hodgetts 10648*. **Vakona Lodge surroundings.** Branch fallen from forest canopy, 1025 m, 3.10.2018, –18.89458 48.4386, *Hodgetts 10668*; shrub in drive to hotel, 1005 m, 3.10.2018, –18.88943 48.43388, *Hodgetts 10692a*. **Vohimana reserve.** Tree trunk in elfin forest, 950 m, 4.10.2018, –18.9192 48.49682, *Hodgetts 10726*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, –18.91933 48.49711, *Hodgetts 10744a*.



***Schiffneriolejeunea pappeana* (Nees) Gradst. var. *bidentata***

Gradst.

**Analamazoatra = Perinet.** Corticole, 1100m, 10.11.1976, *Tixier* 9601 (PC0793403); pk 142. 23.11.1976, *Tixier* 9862 (PC0793339), 9863 (PC).

***Symphyogyna brasiliensis* Nees**

**Vohimana reserve.** Botanical pathway, 789 m, 28.6.2012, -18.92019 48.51608, *Reeb* MTM1214; big waterfall of Vohimana reserve, 849 m, 15.5.2010, -18.92878 48.49906, *Reeb*, *Andriamanantena*, *Bidault* CRAE86. **Maromizaha reserve.** along the river, upside from camp 3, 921 m, 9.7.2012, -18.98161 48.46417, *Reeb* MTM12130.

***Symphyogyna podophylla* (Thunb.) Mont. et Nees**

**Maromizaha reserve.** Along the river, upside from camp 3, 921 m, 7.8.2010, -18.98161 48.46417 *Reeb* MTM12127. **Vohimana reserve.** Path N°1 on the way, 849 m, 19.4.2010, -18.92878 48.49906, *Reeb*, *Andriamanantena*, *Bidault* CRAE87.

***Syzygiella purpurascens* (Steph.) K. Feldberg, Váňa, Hentschel et Heinrichs**

**Analamazoatra = Perinet.** Montane rainforest on granitic ground, along the stream leading to the "Lac Vert", lignicolous. 900–1000 m, 16.3.1990. *Pócs et al.* 90104/H (EGR, as *Jamesoniella purpurascens*); **Mantadia National Park.** *Pandanus pulcher* swamp forest in Saharanga River Valley, -18.87222 48.47361, corticolous, 995 m, 2.10.1994, *Pócs* 9484/F (EGR, as *Jamesoniella purpurascens*).

***Telaranea coactilis* (Spruce) J.J. Engel & G.L. Merr.**

**Analamazoatra = Perinet.** Montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on tree fern stem, 900–1000 m, 16.3.1990, *Pócs & Magill*, *Lafarge-England* 90104/G (EGR).

***Telaranea diacantha* (Mont.) J.J. Engel & G.L. Merr.**

**Maromizaha reserve.** P17, along the river below the camp, 7.7.2012, -18.97622 48.46514 *Reeb* MTM1271; path between summit of the hill and Camp 3, 1084 m, 7.7.2012, -18.98256 48.46692 *Reeb* MTM12102. **Mantadia National Park. Belakato & Sanody Forests,** branch of tree in elfin forest, 1250 m, 5.10.2018, -18.81763 48.45243, *Hodgetts* 10863.

***Telaranea nematodes* (Gottsche ex. Austin) M. Howe**

**Analamazoatra = Perinet.** Montane rainforest on granitic ground, E of the "Station de Pisciculture", with *Ocotea*, *Pandanus Memecylon* spp. on decaying wood. 920–990 m, 15.3.1990, *Pócs & Magill*, *Lafarge-England* 90103/B, C (EGR); montane rainforest on granitic ground, along the stream leading to the "Lac Vert", on roadcut, 900–1000 m, 16.3.1990, *Pócs & Magill*, *Lafarge-England* 90104/K (EGR). **Mantadia National Park.** Chute Sacrée, small shaded cliff by river in forest, 990 m, 2.10.2018, -18.82698 48.43771, *Hodgetts* 10620a. **Maromizaha reserve.**

Along the river, upside from camp 3, 921 m, 7.7.2012, -18.98161 48.46417, *Reeb MTM12127*. **Vohimana reserve**. Exploited forest left bank of the Vohimana rivière, 848 m, 16.4.2010, -18.91881 48.51283 *Reeb, Andriamanantena, Bidault, CRAE137*. **Vakona Lodge surroundings**. On bank by hotel, 970 m, 3.10.2018, -18.88972 48.43547, *Hodgetts 10653b*.

***Thysananthus auriculatus* (Wilson & Hook.) Sukkharak & Gradst.**  
**Mantadia National Park**. Tsakoka trail, shrub in elfin forest, 1060 m, 1.10.2018, -18.79723 48.4306, *Hodgetts 10509e*.

***Thysananthus humilis* (Gottsche) Sukkharak et Gradst.**  
**Analamazaotra = Périnet**. 5.7.1977, *Tixier 10673* (PC0792900). **Mantadia National Park**. Primary humid forest 900–1100 m, 1.10.2018, UTM grid: 39S 229250E, 7919639S on bark, *Sass-Gyarmati A. 1803/F* (EGR).

***Thysananthus spathulistipus* (Reinw., Blume & Nees) Lindenb.**  
**Anosibe An-ala road**. Sandrangato, km 29, 950 m, Hépatiques du troncs d`arbre. 9.1953, *Millot s.n.* (PC0793401); Anosibe, pk20. 18.4.1978, *Tixier 11759* (PC0793336B); Analamazaotra = **Périnet**. 23.11.1976, *Tixier 9882* (PC0793338); Périnet, pk 142, 7.7.1977, *Tixier 10739* (PC0793332); pk 142. 7.7.1977, *Tixier 10741* (PC0792898); auf Moder. Sammelnummer, 1900 m, 28.6.1994, *Lü MAD29 B* (EGR); Epiphytish an kleinen Asten. 900 m, 6. 28.6.1994, *Lü MAD43* (EGR); auf Rinde. 900 m, 9. 27.6.1994; *Lü MAD16* (EGR); about 160 km, east from Antananarivo. 19.3.2004, *Asakawa & Harinantenaina MAD20049* (EGR); **Lakato road**. 2.6.1979, *Tixier 12707* (PC0793334); 2.6.1979, *Tixier 12897* (PC0793337); **Mantadia National Park**. Tsakoka Trail, primary humid forest 900–1100 m, 1.10.2018, UTM grid: 39S 229250E, 7919639S on bark, *Sass-Gyarmati 1803/O* (EGR); Tsakoka trail, shrub in elfin forest, 1070 m, 1.10.2018, -18.79735 48.43133, *Hodgetts 10469, 10471*; Tsakoka trail, base of tree in elfin forest, 1025 m, 1.10.2018, -18.79754 48.42945, *Hodgetts 10522*; Chute Sacrée, liana by river in forest, 970 m, 2.10.2018, -18.82563 48.43576, *Hodgetts 10581a*. **Mitsinjo reserve**. Primary-secondary rainforest "Cardiff Circuit" 900–1000 m, on tree trunk. 29.8.2018, *Sass-Gyarmati 1801/C* (EGR); epiphytic in tree nursery, -18.9360348.41308. 940 m, 29.9.2018, *Hodgetts 10296*; 940 m, 29.9.2018, -18.93576 48.41296, *Hodgetts 10312*; epiphytic in tree nursery, 940 m, 30.9.2018, -18.93603 48.41308, *Hodgetts 10296*; Forest shrub, 940 m, 30.9.2018, -18.93576 48.41296, *Hodgetts 10312*; tree trunk in forest, 950 m, 30.9.2018, -18.93505 48.41235, *Hodgetts 10335*; trunk of small shrub in forest, 955 m, 30.9.2018, -18.93473 48.41248. *Hodgetts 10342*; branch fallen from canopy in forest, 990 m, 30.9.2018, -18.93403 48.41166, *Hodgetts s.n.*; epiphyllous on *Pandanus* in forest, 960 m, 30.9.2018, -18.9337 48.41213, *Hodgetts s.n.*; Forest shrub, 955 m, -18.9328 48.41225, *Hodgetts 10445*. **Vohimana reserve**, Path N°2, summit, 870 m, 14.4.2010, -18.92208 48.50158, *Reeb, Andriamantena, Bidault CRAE54*; small trunk in dense scrub, 840 m, 4.10.2018, -18.92411 48.50703, *Hodgetts 10709*; bark of larger tree in elfin forest, 950 m, 4.10.2018, -18.9192 48.49682, *Hodgetts s.n.*; dead twigs on ground in elfin forest, 940 m, 4.10.2018, -18.91933 48.49711, *Hodgetts s.n., 10750*; twigs and bamboo in forest, 920 m, -18.9202 4.10.2018,

48.49899, *Hodgetts 10759*; trunk of shrub in forest, 930 m, 4.10.2018, -18.92474  
48.49924, *Hodgetts 10762*; epiphytic on shrub in forest, 920 m, 4.10.2018,  
-18.92474 48.50761, *Hodgetts 10777a*; epiphyllous on *Pandanus* leaves in forest,  
915 m, 4.10.2018, -18.92111 48.5016, *Hodgetts s.n.*

**Dedication** – This paper is dedicated to Dr. Simeon Abalo-Loko, from Togo who passed away too young, on December 25<sup>th</sup>, 2022; a nice and talented person that worked so hard to establish bryology in Togo; a joyful friend who illumined our trip, and who constantly sought to improve his knowledge on bryophytes.



**Figure 3.** The Group of bryologists and students from the BRYOTAN (part of MADBRYO) project. From front right to behind left: Simeon Abalo-Loko, Andrea Sass-Gyarmati, Catherine Reeb, Fara Naniarimino, Roger Lala Andriamiarisoa, Eberhard Fischer, Nick Hodgetts, Miarisoa, Rita, John Brinda, Elysee Alfred, Lisa Lavocat-Bernard, Eliane Rahazisoa, Maggie (the Vakona Lodge owner), Rokiman Letsara, Alain Vanderpoorten.

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**Figure 4.** Simeon Abalo-Loko (1982–2022) to whom is dedicated this publication, working at the Mitsinjo reserve station, with Andrea Sass-Gyarmati (Photo: Catherine Reeb).

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