

Lectotypifications and two replacement names in *Pilea* (Urticaceae)

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Abstract: A new name, *Pilea bakeriana* R. Kr. Singh, Deroliya & Sanjeet Kumar, is proposed here as a replacement name for the illegitimate name *P. longipes* Baker, being a later homonym of *P. longipes* Liebm. A replacement name *P. royenii* R. Kr. Singh, Deroliya & Sanjeet Kumar is here proposed for the illegitimate *P. hederacea* P. Royen, being a later homonym of *P. hederacea* Wedd. Lectotypes are designated for the names *P. alaotrae* Leandri, *P. bemarivensis* Leandri, *P. callicometes* Leandri, *P. capitata* Baker, *P. perrieri* Leandri and *P. tsaratananensis* Leandri.

Keywords: Endemic, Illegitimate, Later homonym, Lectotype, Madagascar, New Guinea

Introduction

The genus *Pilea* Lindl. is represented by about 610 species worldwide in tropics and subtropics regions and constitutes the largest genus of family Urticaceae (POWO, 2024). In Madagascar, the genus is represented by 18 taxa, viz. *Pilea alaotrae* Leandri, *P. andringitrensis* Leandri, *P. bemarivensis* Leandri, *P. boiviniana* Wedd. var. *boiviniana*, *P. boiviniana* var. *borealis* Leandri, *P. callicometes* Leandri, *P. capitata* Baker subsp. *capitata*, *P. capitata* subsp. *occidentalis* (Leandri) Leandri, *P. humbertii* Leandri, *P. ivohibeensis* Leandri, *P. lokohensis* Leandri, *P. longifolia* Baker, *P. longipes* Baker, *P. perrieri* Leandri, *P. rivularis* Wedd., *P. supersedens* (Leandri) Leandri, *P. tetraphylla* (Steud.) Blume and *P. tsaratananensis* Leandri. Except, *P. rivularis* and *P. tetraphylla*, all other taxa are endemic to Madagascar (POWO, 2024). However, the name *P. longipes* Baker is illegitimate because it is a later homonym of *P. longipes* Liebm. in accordance to Article 53.1 in Turland et al. (2018). Therefore, a new, replacement name is proposed here as *P. bakeriana* R. Kr. Singh, Deroliya & Sanjeet Kumar. Additionally, lectotypes are designated for the names *P. alaotrae* Leandri, *P. bemarivensis* Leandri, *P.*

callicometes Leandri, *P. capitata* Baker, *P. perrieri* Leandri and *P. tsaratananensis* Leandri to fix the identity and to avoid misapplication of names, because no holotype cited in the protologue of these names and also yet not typified. In lectotypifications, the guidelines and recommendations of Article 9 of ICN (Turland et al., 2018) were followed. In New Guinea, the genus is represented by 34 taxa, viz. *Pilea alta* Gilli, *P. brassii* Chew ex P. Royen, *P. caudata* H. J. P. Winkl., *P. craspedodroma* A. K. Monro, *P. cuneata* H. J. P. Winkl., *P. effusa* H. J. P. Winkl., *P. hedemarkii* W. N. Takeuchi, *P. hederacea* P. Royen, *P. helxinoides* Ridl., *P. jayaensis* A. K. Monro, *P. johnsii* A. K. Monro, *P. klossii* A. K. Monro, *P. lacorum* P. Royen, *P. lamii* H. J. P. Winkl., *P. lapestris* Chew ex A. K. Monro, *P. ledermannii* H. J. P. Winkl., *P. mediophylla* Gilli, *P. michaelensis* P. Royen, *P. minutissima* H. J. P. Winkl., *P. montis-wilhelmi* P. Royen, *P. pandurata* P. Royen, *P. papuana* H. J. P. Winkl., *P. plicatidentata* H. J. P. Winkl. var. *plicatidentata*, *P. plicatidentata* var. *microphylla* Gilli, *P. roemerii* H. J. P. Winkl., *P. rubiacea* Ridl., *P. schlechteri* H. J. P. Winkl., *P. stellarioides* H. J. P. Winkl., *P. stenoneura* H. J. P. Winkl., *P. thymoidea* H. J. P. Winkl., *P. versteegii* H. J. P. Winkl., *P. victoriensis* P. Royen, *P. wollastonii* A. K. Monro and *P. zaranensis* P. Royen, of which *P. alta*, *P. brassii*, *P. hedemarkii*, *P. hederacea*, *P. lacorum*, *P. mediophylla*, *P. michaelensis*, *P. montis-wilhelmi*, *P. pandurata*, *P. plicatidentata* var. *microphylla*, *P. victoriensis* and *P. zaranensis* are endemic to Papua New Guinea. However, the name *P. hederacea* P. Royen is illegitimate because it is a later homonym of *P. hederacea* (Savigny) Wedd. according to Article 53.1 in Turland et al. (2018). Therefore, a replacement name is proposed here as *P. royenii* R. Kr. Singh, Deroliya & Sanjeet Kumar.

Nomenclatural novelties

Pilea bakeriana R.Kr.Singh, Deroliya & Sanjeet Kumar, **nom. nov.**

≡ *Pilea longipes* Baker, J. Linn. Soc., Bot. 21: 446. 1885, *nom. illeg.*, *non* Liebm., Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd. ser. 5, 2: 301. 1851 et Engl., Pflanzenw. Ost-Afrikas, C: 163. 1895.

Holotype: Madagascar, Central Madagascar, s.d., R. Baron 3261 (K000242935!).

Distribution: Endemic to Madagascar.

Etymology: Named after John Gilbert Baker (1834–1920), British botanist.

Pilea royenii R.Kr.Singh, Deroliya & Sanjeet Kumar, **nom. nov.**

≡ *Pilea hederacea* P. Royen, Alpine Fl. New Guinea 3: 2097. 1982, *nom. illeg.*, *non* (Savigny) Wedd., Ann. Sci. Nat., Bot. sér. 3, 18: 222. 1852.

Isotypes: Papua New Guinea, Southern Highlands district (Southern Highlands province), Mendi subdistrict, slopes of Mount Giluwe, 11500 ft., 17 June 1967, M.J.E. Coode 32537 (K000741121! [Figure 1], L0039772!).

Distribution: Endemic to Papua New Guinea.

Etymology: Named after Pieter van Royen (1923–2002), Dutch botanist.

Lectotypifications

Pilea alaotrae Leandri, Ann. Mus. Colon. Marseille sér. 6, 7-8: 37. 1950.

Lectotype (designated here): Madagascar, Massif de l'Andrangovalu au Sud-Est du lac Alaotra (Réserve Naturelle n° 3 dite de Zekamena, bassin de l'Onibe), c 1200 m, October 1937, *H. Humbert & G. Cours 17964 ter* (P00102530!), Figure 2).

Remaining syntypes: Madagascar, Massif de l'Andrangovalu au Sud-Est du lac Alaotra (Réserve Naturelle n° 3 dite de Zekamena, bassin de l'Onibe), 1000–1300 m, October 1937, *H. Humbert & G. Cours 17964 bis* (P00102531!); 1000–1200 m, October 1937, *H. Humbert & G. Cours 17955 bis* (P00102532!); c 1200 m, October 1937, *H. Humbert & G. Cours 17873* (P00102533!); Massif de Tsaratanana et haute vallée du Sambirano (Réserve Naturelle n° 4), c 2300 m, November–December 1937, *H. Humbert 18363* (P00102534!).

Distribution: Endemic to Madagascar.

Notes: Leandri (1950) described *Pilea alaotrae* based on specimens collected by H. Humbert and G. Cours from Madagascar, but no holotype was designated by him. Leandri's types are known to be held mainly at P and PC (Stafleu & Cowan, 1979). Five original herbarium sheets were traced for the name *P. alaotrae* Leandri at P (P00102530–P00102534). Of these, the best-preserved specimen, P00102530, is designated here as the lectotype as it agrees well with the protologue.

Pilea bemarivensis Leandri, Ann. Mus. Colon. Marseille sér. 6, 7-8: 34. 1950.

Lectotype (designated here): Madagascar, Ankaijana, c 1500 m, August 1908, *H. Perrier de la Bâthie 2344* (P00102529!), Figure 3).

Remaining syntypes: Madagascar, Andrarongo (Bemarivo du versant Nord-Est), 800 m, November 1912, *H. Perrier de la Bâthie 9970* (P00102523!, P00102524!); massif du Tsaratanana, c 1700 m, January 1923, *H. Perrier de la Bâthie 15484* (P00102525!, P00102526!); *H. Perrier de la Bâthie 15497* (P00102527!, P00102528!); montagnes entre le haut Sambirano et le haut Maivarano (entre Mangindrano et Ampanompia), 1400–1800 m, November 1937, *H. Humbert 18142* (P00102522!).

Distribution: Endemic to Madagascar.

Notes: Eight original herbarium sheets were traced for the name *Pilea bemarivensis* Leandri at P (P00102522–P00102529). Of these, the specimen P00102529 is better preserved as it contains well-developed stem, mature leaves and flowers, and is therefore designated as the lectotype.

Pilea callicometes Leandri, Ann. Mus. Colon. Marseille sér. 6, 7-8: 41. 1950.

Lectotype (designated here): Madagascar, Massif du Tsaratanana et haute vallée du Sambirano (Réserve Naturelle n° 4), c 1100 m, November-December 1937, *H. Humbert 18175* (P00102540!, Figure 4); isolectotypes P00102538!, P00102539!.

Remaining syntypes: Madagascar, Montagnes entre le haut Sambirano et le haut Maivarano (entre Mangindrano et Ampanompia), 1400–1800 m, November 1937, *H. Humbert 18141* (P00102541!); Mont Tsaratanana, c 2700 m, s.d., *H. Perrier de la Bâthie 9971* (P00102542!).

Distribution: Endemic to Madagascar.

Notes: Five specimens were traced for the name *Pilea callicometes* Leandri at P (P00102538–P00102542). Of these, the specimen P00102540 is better preserved as it contains well-developed stem, mature leaves and flowers, and is therefore designated as the lectotype.

Pilea capitata Baker, J. Linn. Soc., Bot. 21: 446. 1885.

Lectotype (designated here): Madagascar, Central Madagascar, s.d., *R. Baron 2621* (K000242925!, Figure 5); isolectotypes P00102543!, P00102544!.

Remaining syntype: Madagascar, Central Madagascar, s.d., *R. Baron 2528* (K000242924!).

Distribution: Endemic to Madagascar.

Notes: Four specimens were traced for the name *Pilea capitata* Baker, two each at K (K000242924 and K000242925) and P (P00102543 and P00102544). Of these, the specimen K000242925 is better preserved and contains mature leaves and flowers, and is therefore designated as the lectotype.

Pilea perrieri Leandri, Ann. Mus. Colon. Marseille sér. 6, 7-8: 39. 1950.

Lectotype (designated here): Madagascar, Massif du Tsaratanana, 1700 m, January 1923, *H. Perrier de la Bâthie 15389* (P00102817!, Figure 6); isolectotypes P00102816!, P00102818!.

Remaining syntypes: Madagascar, Masoala, 300 m, October 1912, *H. Perrier de la Bâthie 9974* (P00102814!, P00102815!).

Distribution: Endemic to Madagascar.

Notes: Five specimens were traced for the name *Pilea perrieri* Leandri at P (P00102814–P00102818). The specimen P00102817 is better preserved and contains mature stem, leaves and flowers, and is therefore chosen here as the lectotype.

Pilea tsaratananensis Leandri, Ann. Mus. Colon. Marseille sér. 6, 7-8: 40. 1950.



Figure 1: Isotype of *Pilea hederacea* P.Royen (K000741121, © The Trustees of the Royal Botanic Gardens, Kew)



Figure 2: Lectotype of *Pilea alaoatra* Leandri (P00102530, © Muséum National d'Histoire Naturelle, Paris)



Figure 3: Lectotype of *Pilea bemarkensis* Leandri (P00102529, © Muséum National d'Histoire Naturelle, Paris)



Figure 4: Lectotype of *Pilea callicometes* Leandri (P00102540, © Muséum National d'Histoire Naturelle, Paris)

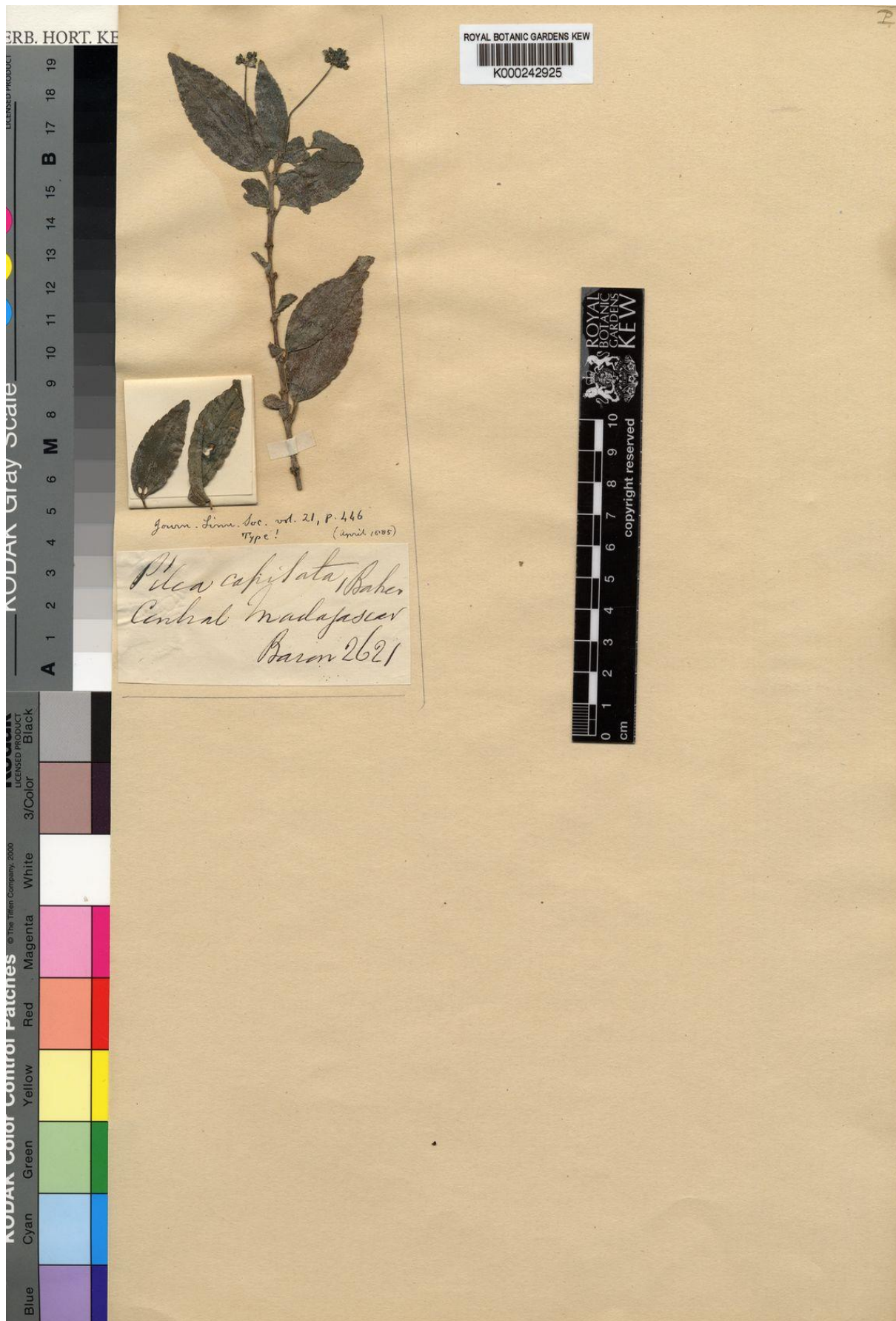


Figure 5: Lectotype of *Pilea capitata* Baker (K000242925, © The Trustees of the Royal Botanic Gardens, Kew)

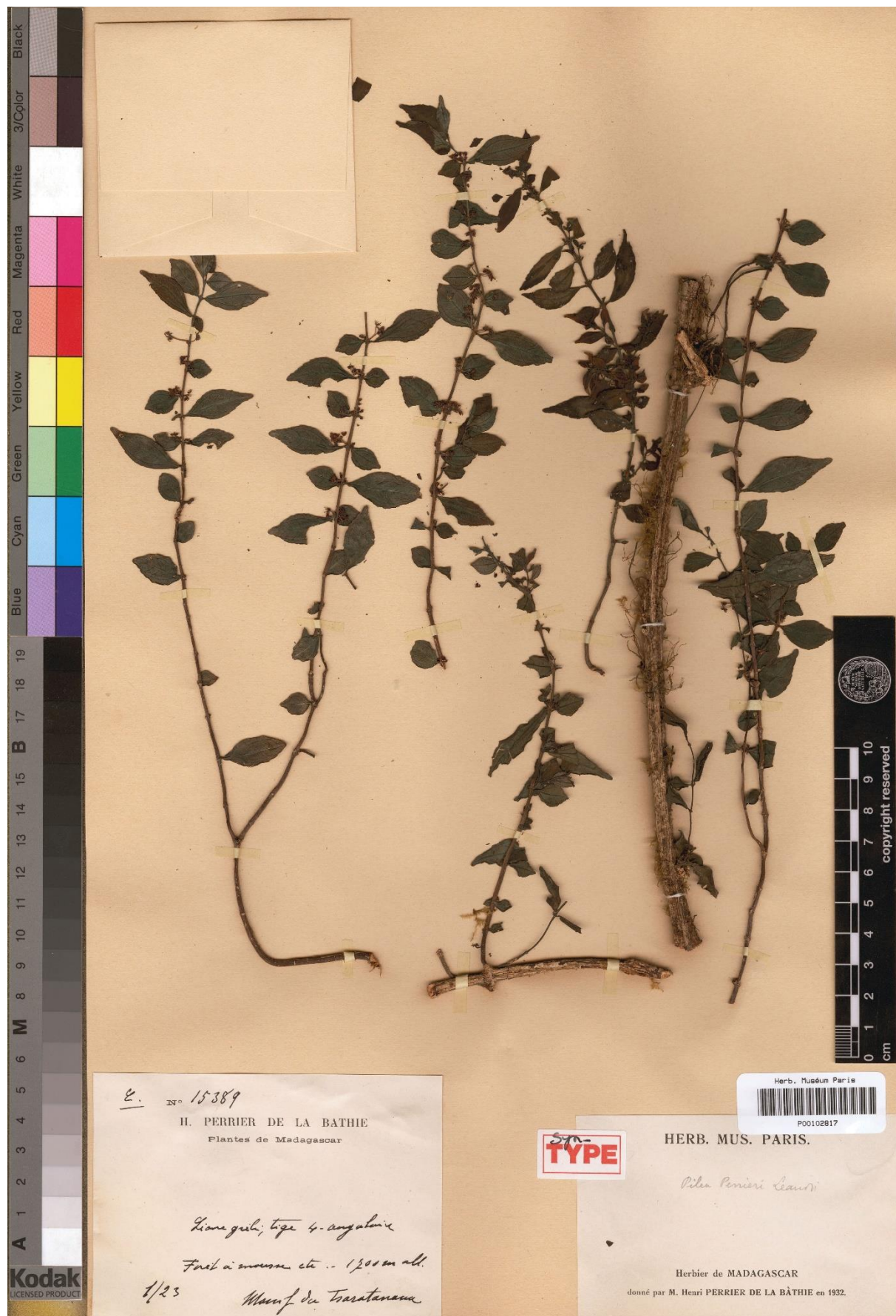


Figure 6: Lectotype of *Pilea perrieri* Leandri (P00102817, © Muséum National d'Histoire Naturelle, Paris)

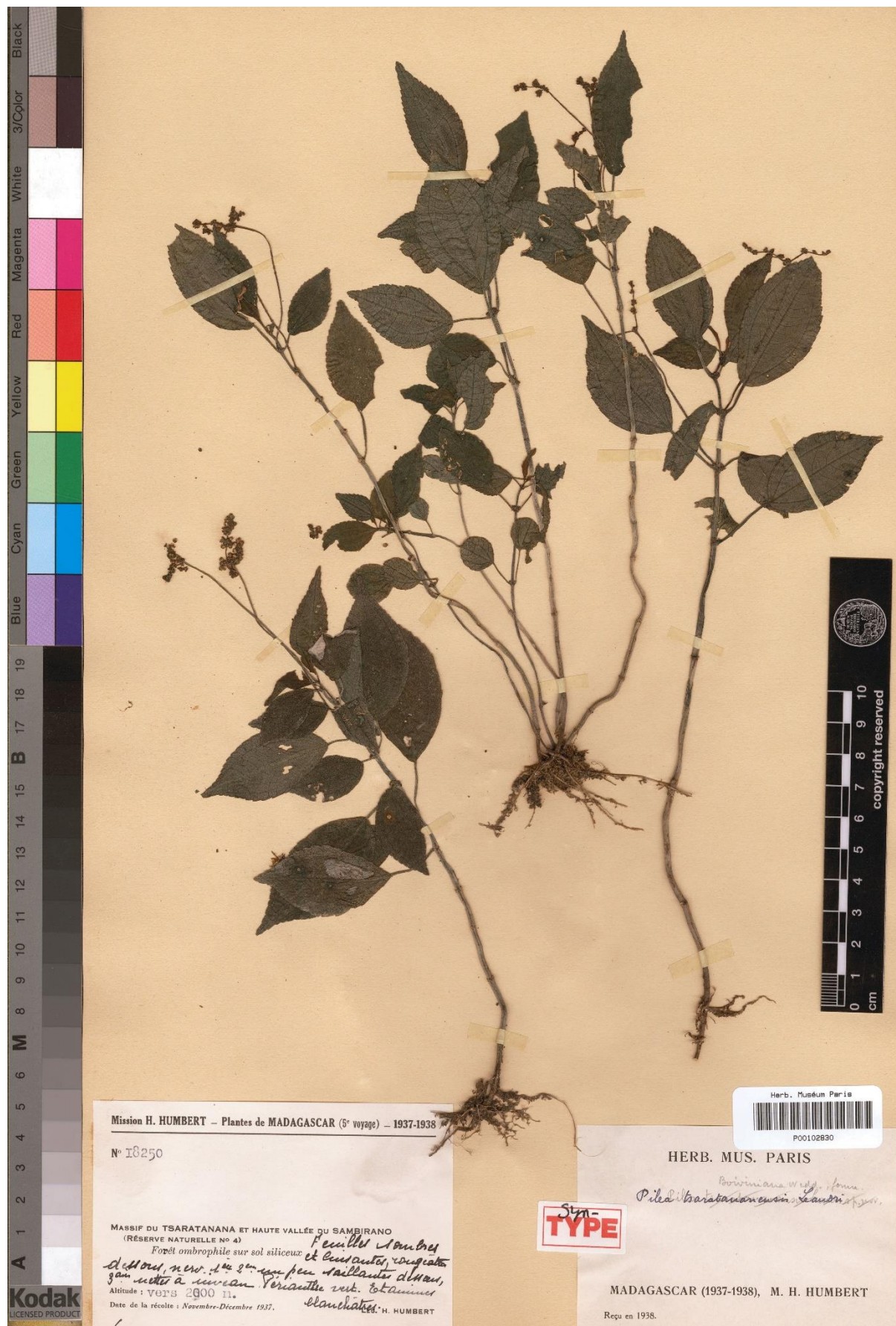


Figure 7: Lectotype of *Pilea tsaratananensis* Leandri (P00102830, © Muséum National d'Histoire Naturelle, Paris)

Lectotype (designated here): Madagascar, Massif du Tsaratanana et haute vallée du Sambirano (Réserve Naturelle n° 4), c 2000 m, November-December 1937, *H. Humbert 18250* (P00102830!, Figure 7); isolectotypes K000242926!, MO-204381!, P00102829!, P00102831!, WAG0024625!.

Remaining syntypes: Madagascar, Environs du mont Tsaratanana, c 1600 m, November 1912, *H. Perrier de la Bâthie 9976* (P00435851!, P00435852!); Montagnes entre le haut Sambirano et le haut Maivarano (entre Mangindrano et Ampanompia), 1400–1800 m, November 1937, *H. Humbert 18152* (P00102827!, P00102828!).

Distribution: Endemic to Madagascar.

Notes: Ten specimens were traced for the name *Pilea tsaratananensis* Leandri, seven at P (P00102827–P00102831, P00435851 and P00435852) and one each at K (K000242926), MO (MO-204381) and WAZ (WAG0024625). Of these, the best-preserved specimen P00102830, is designated here as the lectotype.

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