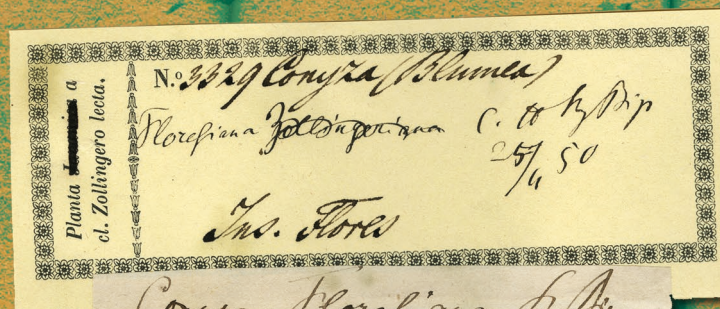


Lectotypification of three names in the genus *Blumea* DC. (Asteraceae)

Muthalaveetil DILSHA &
George SATHEESH



Conyza Floresiana Sch. Bip.
in Zolling. Verz. p. 121
Flores: Zolling. n. 3329

Conyza Floresiana Sch. Bip.
Flor. latea
ad raper prope Baria
L. infus. Flores v. 11.
Fava: Zollinger! n. 3329

Herb. Schultz Bip.

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Lectotypification of three names in the genus *Blumea* DC. (Asteraceae)

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KEY WORDS

Asteraceae,
Blumea,
Inulinae,
Inulae,
lectotypification.

ABSTRACT

Typification of three names in the genus *Blumea* DC. (Asteraceae) viz. *B. solidaginoides* (Poir.) DC., *B. floresiana* (Sch.Bip. ex Miq.) Boerlage and *B. dregeanoides* Sch.Bip. ex A.Rich. is discussed and lectotypes are designated.

MOTS CLÉS

Asteraceae,
Blumea,
Inulinae,
Inulae,
lectotypification.

RÉSUMÉ

Lectotypification de trois noms dans le genre Blumea DC. (Asteraceae).

La typification de trois noms dans le genre *Blumea* DC. (Asteraceae), à savoir, *B. solidaginoides* (Poir.) DC., *B. floresiana* (Sch.Bip. ex Miq.) Boerlage et *B. dregeanoides* Sch.Bip. ex A.Rich. est discutée et les lectotypes sont désignés.

INTRODUCTION

The genus *Blumea* was erected by De Candolle (1833) and it is named in honour of Carl Ludwig Blume, the taxonomist who has contributed immensely to Indian Botany and discovered several new species. This genus is the largest one in the subtribe Inulinae (Anderberg 1991), and is represented mostly by herbs and shrubs, small trees are rare (Pornpongrueng *et al.* 2016). South East Asia is most likely the centre of origin of *Blumea* as most of its species is seen in this region (Randeria 1960). It comprises ca. 100 species worldwide and 36 species in India (Hooker 1882; Hajra *et al.* 1995).

During the taxonomic studies of the genus *Blumea* DC. in peninsular India, the authors studied relevant literature, type sheet information, etc. From the outcome we found out that proper typification is lacking for some names. Hence we lectotypified three names namely *Blumea solidaginoides* (Poir.) DC., *B. floresiana* (Sch.Bip. ex Miq.) Boerlage and *B. dregeanoides* Sch.Bip. ex A.Rich. according to article 9.3 of Schenzen code (Turland *et al.* 2018).

TYPIFICATIONS

Family ASTERACEAE Bercht. & J.Presl
Genus *Blumea* DC.

Blumea solidaginoides (Poir.) DC.
(Fig. 1)

Prodromus Systematis Naturalis Regni Vegetabilis 5: 443 (De Candolle 1836). — Basionym: *Gnaphalium solidaginoides* Poir., *Encyclopédie méthodique. Botanique. Supplément* 2: 805 (Poiret 1812).

Blumea axillaris DC., *Prodromus Systematis Naturalis Regni Vegetabilis* 5: 434 (De Candolle 1836).

TYPE SPECIMEN. — Antilles, s.d., *Anonymus s.n.*, lecto-, FI [FI006309, digital image]!, here designated; isolecto, G-DC[G00457524]!, P[P01816030]!.

TYPE LOCALITY. — Antilles (vs herb. desfont.).

REMARKS

De Candolle (1836) created a new combination using the name *Gnaphalium solidaginoides* Poir. In protologue, Poiret mentioned that he saw the specimen (or specimens) in Desfontaines's herbarium (vs herb. desfont.). It is not clear whether Poiret saw a single specimen or more than one specimen at Desfontaine's herbarium. Poiret (1812) also stated that the species was collected from Antilles ("cette plante croît aux Antilles"). We found three sheets of Poiret's *Gnaphalium solidaginoides* specimen from FI, GDC and P. No herbarium or a specific sheet is mentioned in the protologue. These sheets are syntypes according to article 9.6 of Shenzhen code. Hence all the three sheets qualified to be original material. The general herbarium of Desfontaines was acquired by Webb and is now at FI (Stafleu & Cowan 1976), so we chose FI sheet (FI006309) as the lectotype for the name *Blumea solidaginoides*.

Blumea floresiana (Sch.Bip. ex Miq.) Boerlage
(Fig. 2)

Handleiding tot de kennis der flora van Nederlandsch Indië: Beschrijving van de families en geslachten der Nederl. Indische phanerogamen 2 (1): 238 (Boerlage 1891). — Basionym: *Conyza floresiana* Sch. Bip. Ex Miq., *Flora van Nederlandsch Indië* 2: 45 (Miquel 1856).

Blumea sessiliflora Decne., *Nouvelles Annales du Muséum d'Histoire naturelle* 3: 410 (Decaisne 1834).

TYPE SPECIMEN. — Barie island, *Ad rupes prope Barie, insula Flores*, 25.IV.1850, *Zollinger 3329* (lecto-, P[P00692057, digital image]!, here designated; isolecto-, L[L.3021868]!, M[M-0093753]!, P[P01816044, P00692058, P00692059]!, U [U0246861]!).

TYPE LOCALITY. — Barie island.

REMARKS

Various author citations are encountered for the name *Blumea floresiana*. Some of them are '(Sch.Bip. ex. Miq.) Boerl. ex Koord.', '(Sch. Bip. ex. Miq.) Koord.', '(Sch.-Bip.) Boerl.', 'Sch.Bip.', 'Boerlage' and '(Sch.-Bip.) Boerl'. In two important revisionary studies of *Blumea* by Randeria (1960) and Pornpongrueng *et al.* (2016), the author citation followed is '(Sch.-Bip.) Boerl'. Boerlage (1891) created a combination using the name *Conyza floresiana* Sch.-Bip. (in Zollinger 1854). But the name *Conyza floresiana* is invalid. Schulz-Bipontinus listed 25 *Conyza* species, among them *C. floresiana* (no. 16), *C. celebica* (no. 23) and *C. monocephala* (no. 24), for which a single descriptive character is provided: "*Fl. lutei*" – i.e. yellow flowers – not serving as a diagnostic character and so these names were not valid. Miquel (1856) validated *Conyza floresiana* Sch.-Bip. by providing a description. Hence, the correct author citation for the name *Blumea floresiana* is definitely '(Sch.Bip. ex Miq.) Boerlage'.

The name *Conyza floresiana* Sch.-Bip. first appeared in a publication of Zollinger (1854). Zollinger stated that the determination of Compositae in his work was carried out by Schultz-Bipontinus. In protologue herbarium number of *Zollinger 3329* is mentioned, while no specific herbarium is mentioned. We traced four sheets of *Zollinger 3329* from P, one each from L, M and U. Schultz-Bipontinus cited the locality as "*Ad rupes pr. Barie L. ins. Flores VI*". Zollinger detailed the locality as "*Eiland flores, op rotsen aan de kust bij bari*", meaning: "Island of Flores, on rocks on the coast near Bari". Most of the herbarium sheets of Zollinger used by F. A. W. Miquel for his *Flora van Nederlandsch Indië* is at P. So we designate the sheet with barcode P00692057 as the lectotype of the name *Blumea floresiana*.

Blumea dregeanoides Sch.Bip. ex A.Rich.
(Fig. 3)

Tentamen florae Abyssinicae: seu, Enumeratio plantarum hucusque in plerisque Abyssiniae provinciis detectarum et praecipue a beatis doctoribus Richard 1: 392 (Richard 1847).

Blumea axillaris DC., *Prodromus Systematis Naturalis Regni Vegetabilis* 5: 434 (De Candolle 1836).

TYPE LOCALITY. — Wogera.

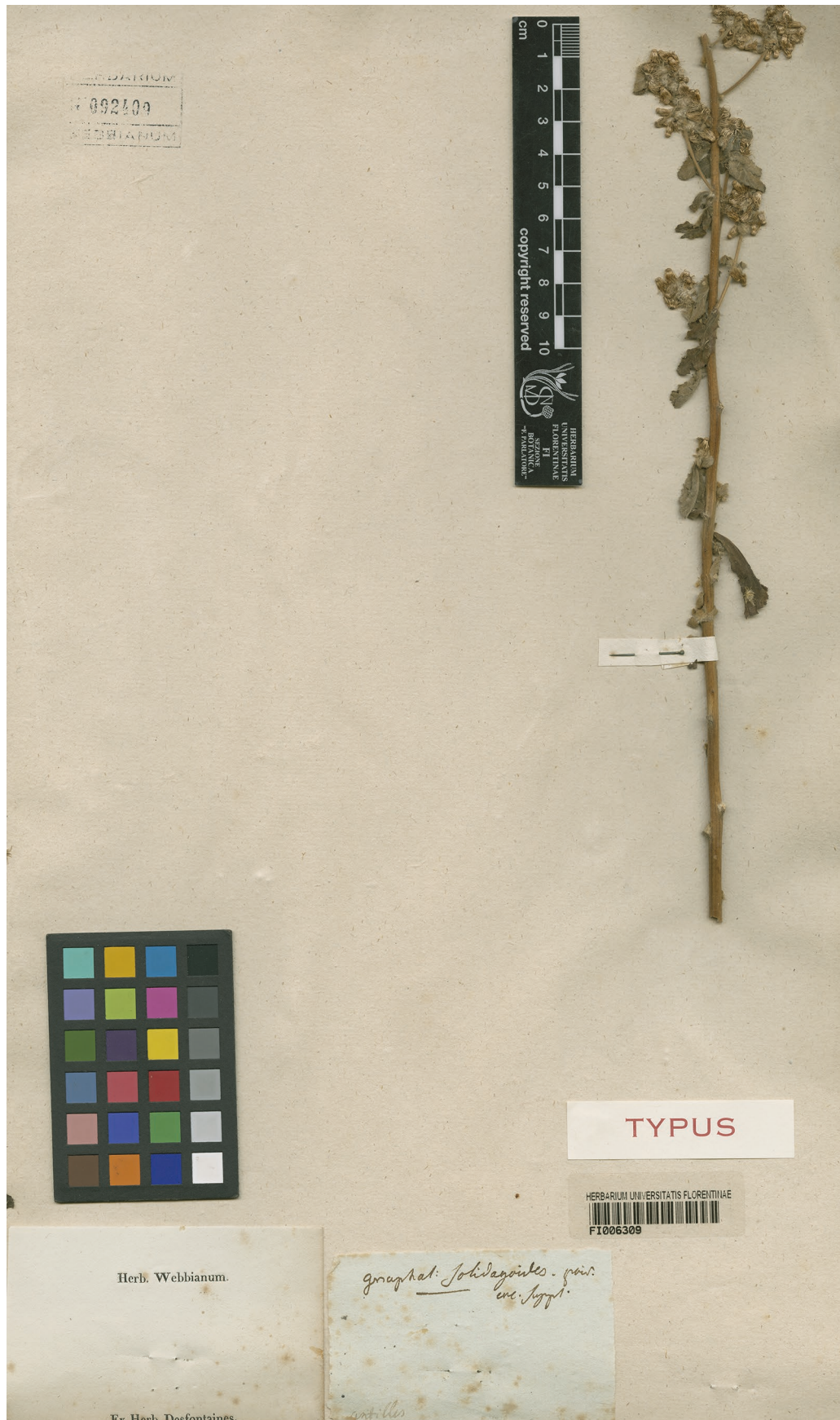


FIG. 1. — Lectotype of *Blumea solidaginoides* (Poir.) DC. (FI006309). © Natural History Museum, Italy, Firenze.

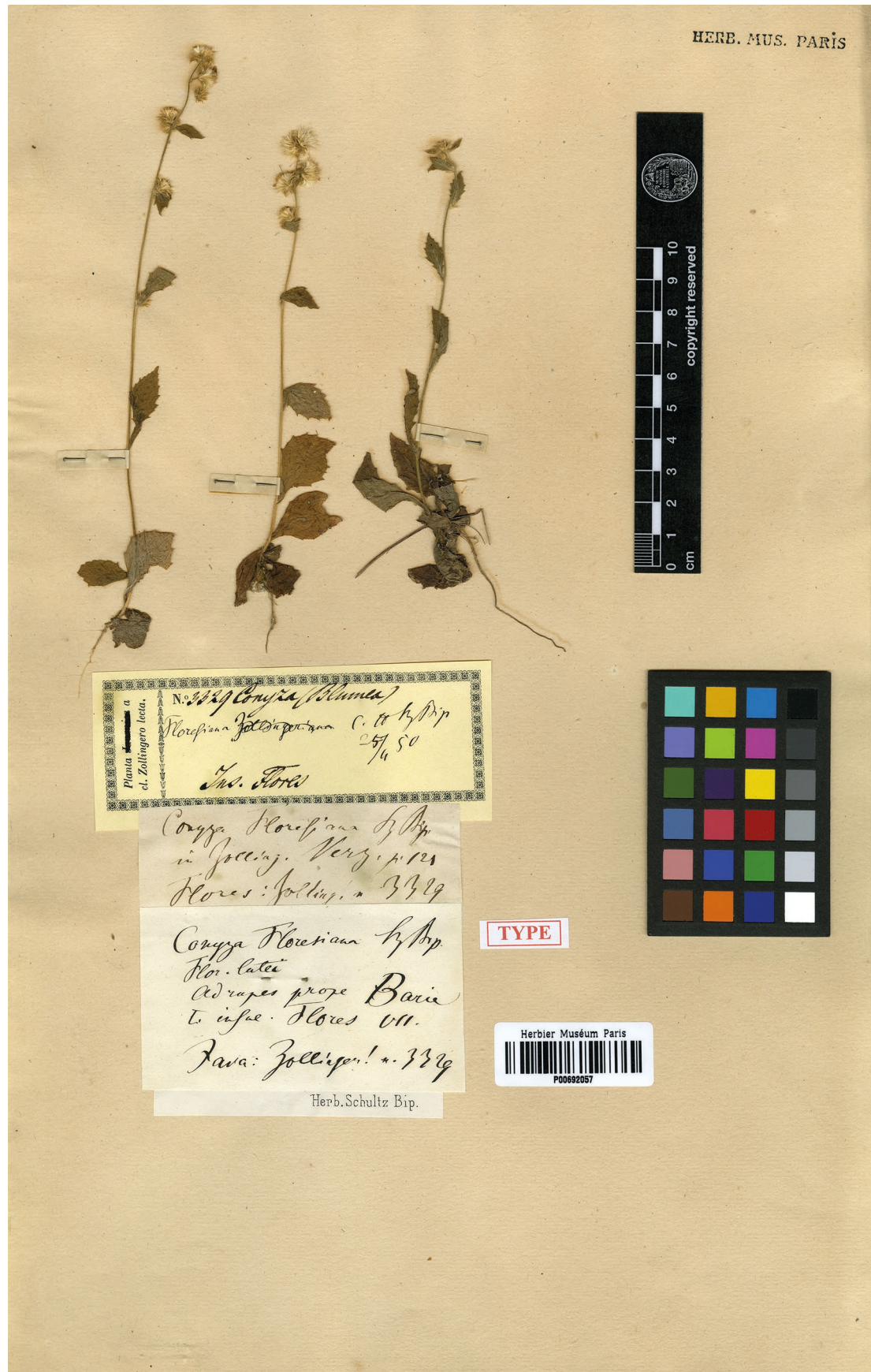


FIG. 2. — Lectotype of *Blumea floresiana* (Sch.Bip. ex Miq.) Boerlage (P00692057). © Muséum national d'Histoire naturelle, France, Paris.



FIG. 3. — Lectotype of *Blumea dregeanoides* Sch.Bip. ex A.Rich. (P033041). © copyright of Muséum national d'Histoire naturelle, France, Paris.

LECTOTYPE. — *In vallibus profundis provinciae Wogera, Schimper 1297* (lecto-, P[P033041, digital image]!, here designated; isolecto-, BR[BR0000008873378]!; CAL[CAL232105, CAL232106]; HEID[HEID701377]!; M[M0104618]; MO[MO-391520]!; P[P033037, P033038, P033039, P033042, P033043]!; S[S13-23862, S-G-985]!; TUB[TUB004944, TUB004945, TUB004974, TUB004975]!; US[US00610920, US00610921]!; W[W20060016714].

REMARKS

Richard (1847) provided a description for the name *Blumea dregeanoides* and thereby validated it. In that publication he gave a reference to *Blumea dregeanoides* C.H. Schultz in pl. Schimp. Abyss., sect. II, 633 et 1297. The reference goes to a printed herbarium label of a series of exsiccata distributed on the occasion of “*Schimperi Iter Abyssinicum*” (section secunda): *prope Aguar* (Abyssinia: Ethiopia), 8 April 1839. This series was distributed to numerous herbaria.

After a thorough searching in different herbaria around the world, we found 24 sheets; BR(2), HEID(1), P(5), M(1), S(2), MO(1), TUB(4), US(2), W (1), CAL (2). In most of these herbarium sheets printed label contains an abbreviation ‘u. i. 1842’. The ‘u. i.’ refers to “*Unio Itineraria*”, also known as the “Botanische Reiseverein”, which was a 19th-century joint stock corporation, formed solely to send botanists on expeditions to gather herbarium specimens. Schimper, Georg Wilhelm (1804?, Mannheim-1878, Adoa, Abyssinia) was the Reiseverein's most important, most expensive, and, aside from Welwitsch, most difficult wanderer (Wörz 2007).

In protologue, Richard also added that the species is very polymorphic, some samples likely annuals are only one to two inches tall, while others are perennials with stems sometimes reaching two feet or more. In all the 24 retrieved sheets the different forms are recognized. Richard mentioned four localities in protologue; Chire (*Quartin-Dillon*), Choa and Techeleukote (*Antoine Petit*), Wogera (*Schimper 1297*) and near Ferrokoba (*Schimper 633*). As all the found 24 sheets of *B. dregeanoides* are syntypes after Art. 9.6 of Shenzhen Code, lectotypification was necessary according to Art. 9.3. After dissolution of Unio itineraria most of the collections of Schimper went directly to P. The sheet P033041 is well preserved and thus chosen as the lectotype of the name *Blumea dregeanoides*.

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