

Nomenclatural novelties in *Cestrum* (Solanaceae)

Rajeev Kumar Singh¹ and Sanjeet Kumar^{2*}

¹Botanical Survey of India, Arid Zone Regional Centre, AIIMS Road, Jodhpur, Rajasthan, India

²Biodiversity and Conservation Laboratory, Ambika Prasad Research Foundation, Bhubaneswar, Odisha, India

*E-mail: sanjeetaprf@gmail.com; ORCID: <https://orcid.org/0000-0001-9538-397X>

Article Details: Received: 2024-02-10 | Accepted: 2024-05-10 | Available online: 2024-05-11



Licensed under a Creative Commons Attribution 4.0 International License

Abstract: Replacement names *Cestrum franceyanum* R.Kr.Singh & Sanjeet Kumar, *C. lallanii* R.Kr.Singh & Sanjeet Kumar, *C. lallan-singhii* R.Kr.Singh & Sanjeet Kumar and *C. vishwanathii* R.Kr.Singh & Sanjeet Kumar are proposed for the illegitimate names *C. tenuiflorum* Francey, *C. angustifolium* Francey, *C. reticulatum* Francey and *C. granadense* Francey respectively. A new combination is made for *Sessea regnellii* Taub. under the genus *Cestrum* L. as *C. regnellii* (Taub.) R.Kr.Singh & Sanjeet Kumar. Lectotypes are designated for the names *C. angustifolium* Francey, *C. granadense* Francey, *C. granadense* Roem. & Schult., *C. reticulatum* Francey, *C. tenuiflorum* Francey and *Sessea regnellii* Taub.

Keywords: Brazil, Colombia, Endemic, Illegitimate, Later homonym, Lectotype, Replacement name

Introduction

The New World genus *Cestrum* L. (Solanaceae) is represented by about 230 species (POWO, 2024). In Colombia, the genus is represented by 49 species, namely *Cestrum affine* Kunth, *C. alternifolium* (L.) O.E.Schulz, *C. angustifolium* Francey, *C. bigibbosum* Pittier, *C. brunneopurpureum* Francey, *C. buxifolium* Kunth, *C. colombianum* Francey, *C. conglomeratum* Ruiz & Pav., *C. cuneifolium* Francey, *C. cuspidatissimum* Francey, *C. darcyanum* C.Benitez de Rojas & Sawyer, *C. glabrum* Francey, *C. glanduliferum* Kerber ex Francey, *C. granadense* Francey, *C. grandifolium* Francey, *C. humboldtii* Francey, *C. imbricatum* Rusby, *C. killipii* Francey, *C. langeanum* D'Arcy, *C. latifolium* Lam., *C. lehmannii* Francey, *C. lindenii* Dunal, *C. lucidum* Francey, *C. macrophyllum* Vent., *C. mariquitense* Kunth, *C. megalophyllum* Dunal, *C. microcalyx* Francey, *C. morae* Hunz., *C. mutisii* Willd. ex Roem. & Schult., *C. nocturnum* L., *C. ochraceum* Francey, *C. olivaceum* Francey, *C. pennellii* Francey, *C. petiolare* Kunth, *C. pulverulentum* Francey, *C. racemosum* Ruiz & Pav., *C. reflexum* Sendtn., *C. reticulatum* Francey, *C.*

rigidifolium Francey, *C. salicifolium* Jacq., *C. santanderianum* Francey, *C. scandens* Vahl, *C. schlechtendalii* G.Don, *C. schulzianum* Francey, *C. strigilatum* Ruiz & Pav., *C. stuebelii* Hieron. ex Francey, *C. tillettii* Benítez & D'Arcy, *C. tomentosum* L.f. and *C. tubulosum* Sendtn., of which 15 species are endemic, viz. *C. angustifolium*, *C. brunneopurpureum*, *C. colombianum*, *C. cuspidatissimum*, *C. glabrum*, *C. granadense*, *C. grandifolium*, *C. killipii*, *C. lehmannii*, *C. lucidum*, *C. pennellii*, *C. pulverulentum*, *C. reticulatum*, *C. rigidifolium* and *C. santanderianum* (POWO, 2024). However, the names *C. angustifolium* Francey, *C. granadense* Francey and *C. reticulatum* Francey are illegitimate because these names are later homonym of *C. angustifolium* G.Lodd., *C. granadense* Roem. & Schult. and *C. reticulatum* Willd. ex Roem. & Schult. respectively according to Article 53.1 in Turland et al. (2018). Therefore, a new, replacement name is proposed here for each illegitimate names. Additionally, lectotype is designated for the names *C. angustifolium* Francey, *C. granadense* Francey, *C. granadense* Roem. & Schult. and *C. reticulatum* Francey, and the guidelines and recommendations of Article 9 of ICN (Turland et al., 2018) were followed.

In Brazil, the genus is represented by 46 species, namely *Cestrum axillare* Vell., *C. bracteatum* Link & Otto, *C. capsulare* Carvalho & A.Schnoor, *C. corcovadense* Miers, *C. cordatum* Schott ex Sendtn., *C. coriaceum* Miers, *C. corymbosum* Schldl., *C. cuspidatum* Sendtn., *C. eriochiton* Sendtn., *C. euanthes* Schldl., *C. gardneri* Sendtn., *C. glomeratum* Schott ex Sendtn., *C. intermedium* Sendtn., *C. lanceolatum* Miers, *C. latifolium* Lam., *C. magnifolium* Francey, *C. mariquitense* Kunth, *C. martii* Sendtn., *C. memorabile* Witasek, *C. morretense* Toledo ex Handro, *C. mositicum* Toledo, *C. obovatum* Sendtn., *C. ovale* (Sendtn.) Francey, *C. parqui* (Lam.) L'Hér., *C. pauciflorum* Willd. ex Roem. & Schult., *C. pedicellatum* Sendtn., *C. polyanthum* Sendtn., *C. ramulosum* Francey, *C. reflexum* Sendtn., *C. retrofractum* Dunal, *C. salzmännii* Dunal, *C. schlechtendalii* G.Don, *C. schulzianum* Francey, *C. sessiliflorum* Schott ex Sendtn., *C. sprucei* Francey, *C. strictum* Schott ex Sendtn., *C. strigilatum* Ruiz & Pav., *C. subpulverulentum* Mart., *C. subumbellatum* Vig.-Silva & M.Nee, *C. subuniflorum* Dunal, *C. tenuiflorum* Francey, *C. tenuifolium* Francey, *C. toledii* Carvalho & A.Schnoor, *C. tubulosum* Sendtn., *C. velutinum* Hiern and *C. viminale* Sendtn., of which 28 species are endemic, viz. *C. corcovadense*, *C. coriaceum*, *C. cuspidatum*, *C. eriochiton*, *C. gardneri*, *C. glomeratum*, *C. magnifolium*, *C. martii*, *C. memorabile*, *C. morretense*, *C. mositicum*, *C. obovatum*, *C. ovale*, *C. pauciflorum*, *C. pedicellatum*, *C. polyanthum*, *C. ramulosum*, *C. retrofractum*, *C. salzmännii*, *C. sessiliflorum*, *C. sprucei*, *C. strictum*, *C. subpulverulentum*, *C. subumbellatum*, *C. tenuiflorum*, *C. tenuifolium*, *C. toledii* and *C. viminale* (POWO, 2024). However, the name *C. tenuiflorum* Francey is illegitimate because it is a later homonym of *C. tenuiflorum* Kunth in accordance with Article 53.1 of the ICN (Turland et al., 2018). Therefore, a replacement name is herein proposed. The name *C. graciliflorum* Francey (1935: 255) is also illegitimate because it is a later homonym of *C. graciliflorum* Dunal (1852: 669). The study of holotype (M0172005) and protologue of *C. graciliflorum* Francey shows that it is conspecific to *C. schlechtendalii* G.Don (1837: 482). Carvalho & Schnoor (1998) given a new name *C. capsulare* while transferring *Sessea regnellii* Taub. to the genus *Cestrum* and the epithet *regnellii* was not used for making new combination, but in doing so the name *Cestrum capsulare* is illegitimate and superfluous. Furthermore, lectotype is designated for the names *C. tenuiflorum* Francey and *Sessea regnellii* Taub.

Nomenclature

Cestrum franceyanum R.Kr.Singh & Sanjeet Kumar, *nom. nov.*

≡ *Cestrum tenuiflorum* Francey, *Candollea* 6: 251. 1935, *nom. illeg., non* Kunth, *Nov. Gen. Sp.* [H.B.K.] 3: 61. 1818.

Lectotype (designated here): Brazil, Porto Novo, Minas Gerais, January–February 1932, *J. Frambach* 135 (V0414074F!, Figure 1).

Remaining syntype: Brazil, Rio de Janeiro, Novo Friburgo, *s.d.*, *Schlechtendal s.n.* (HAL0075365!).

Distribution: Endemic to Brazil.

Etymology: The new name is named after Pierre Francey (1910–1944), Swiss Botanist.

Notes: Francey (1935) mentioned type information for *Cestrum tenuiflorum* as “Brésil: Prov. Rio de Janeiro, in vallibus ad Novo Friburgo (Schlechtendal in hb. Halle, —fl. et fr.: juin); prov. Minas Geraes, Porto Novo, S. Roque, Invernada (Frambach n. 135 in hb. Field Museum, —fr.: Janv. et Févr.)”. Two specimens were traced for the name *C. tenuiflorum* Francey, one of *Schlechtendal s.n.* (HAL0075365) and one of *Frambach* 135 (V0414074F). The specimen V0414074F, is selected here as the lectotype as it agrees well with the protologue.

Cestrum lallanii R.Kr.Singh & Sanjeet Kumar, *nom. nov.*

≡ *Cestrum angustifolium* Francey, *Candollea* 7: 16. 1936, *nom. illeg., non* G.Lodd., *Bot. Cab.* 7(2): t. 618. 1822.

Lectotype (designated here): Colombia, Ocana, La cruz, *s.d.*, *L.J. Schlim* 464 (G00342918!, Figure 2); isolectotypes BM000617881!, BR0000008290373!, K001484907!, P00451560!, P00451561!, P00479196!.

Distribution: Endemic to Colombia.

Etymology: The new name is named after in remembrance of late Shri Lallan Singh, father of the lead author.

Notes: Francey (1936) mentioned type information for *Cestrum angustifolium* as “Colombie: Prov. d'Ocana, Nouvelle Grenade, La Cruz, 5000 pieds (Linden, voy. Schlim, n. 464 in hb. Boiss., Deless. et Brux., —fl.: Févr.)”. Relating to the type specification, seven specimens (BM000617881, BR0000008290373, G00342918, K001484907, P00451560, P00451561 and P00479196) were traced. Of these, the best one G00342918, is designated here as the lectotype.

Cestrum lallan-singhii R.Kr.Singh & Sanjeet Kumar, *nom. nov.*

≡ *Cestrum reticulatum* Francey, *Candollea* 6: 374. 1935, *nom. illeg., non* Willd. ex Roem. & Schult., *Syst. Veg.*, ed. 15 bis 4: 808. 1819.



Figure 1: Lectotype of *Cestrum tenuiflorum* Francey (V0414074F, © Field Museum of Natural History, Chicago)



Figure 2: Lectotype of *Cestrum angustifolium* Franchey (G00342918, © Conservatoire & Jardin botaniques de la Ville de Genève)

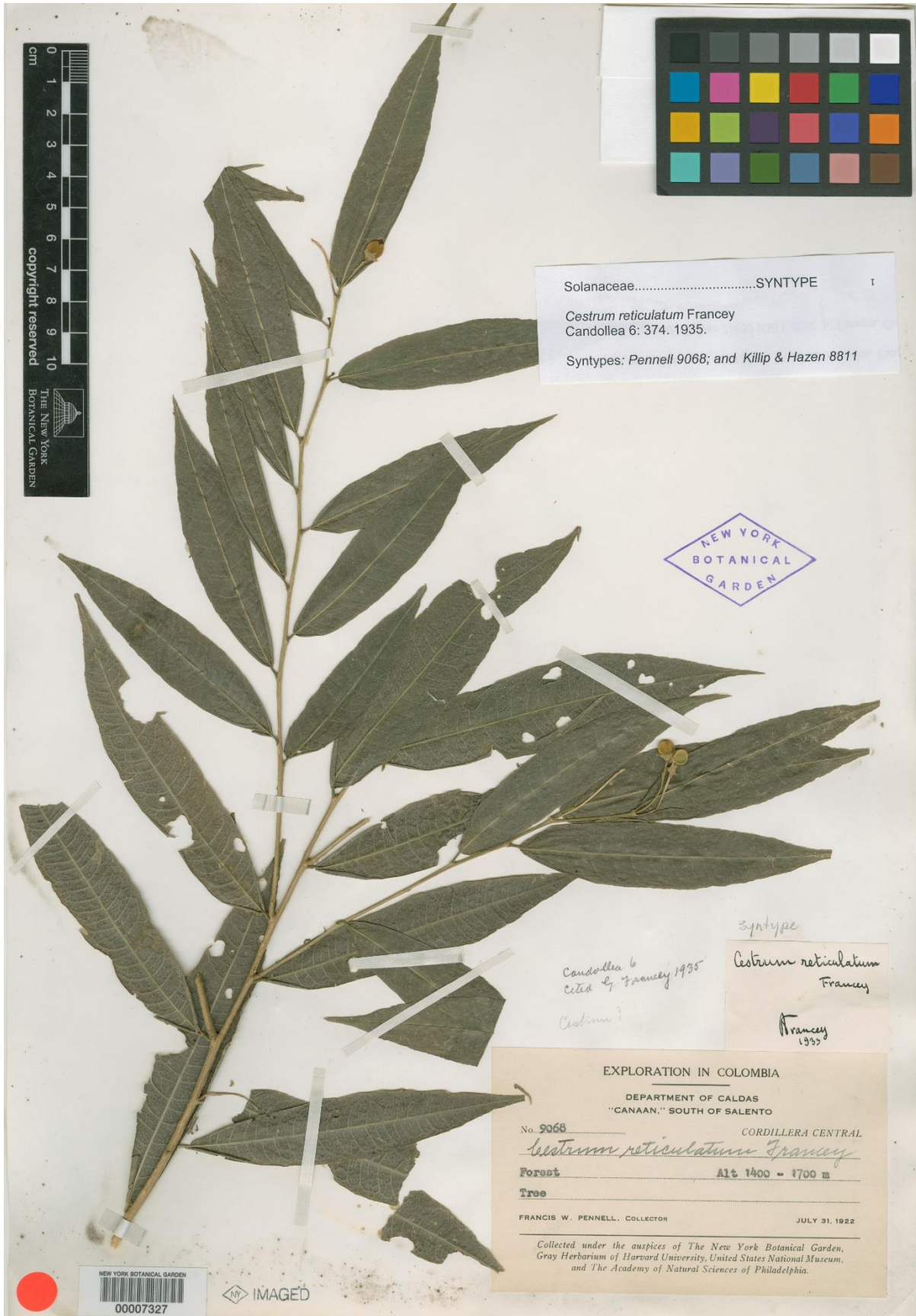


Figure 3: Lectotype of *Cestrum reticulatum* Francey (NY00007327, © Herbarium of the New York Botanical Garden)



Figure 4: Lectotype of *Sessea regnellii* Taub. (S09-28773, © Swedish Museum of Natural History, Stockholm)



Figure 5: Lectotype of *Cestrum granadense* Francey (NY00007350, © Herbarium of the New York Botanical Garden)



Figure 6: Lectotype of *Cestrum granadense* Roem. & Schult. (B-W04450-010, © Botanischer Garten und Botanisches Museum Berlin-Dahlem)

Lectotype (designated here): Colombia, Cordillera Central, South of Salento, 1400–1700 m, 31 July 1922, *F.W. Pennell 9068* (NY00007327!, Figure 3); isolectotype PH00004116!.

Remaining syntypes: Colombia, Rio Boquia, Salento, 1600–1900 m, 27 July 1922, *E.P. Killip & T.E. Hazen 8811* (GH00046467!, NY00007328!, PH00004115!).

Distribution: Endemic to Colombia.

Etymology: The new name is named after late Shri Lallan Singh, father of the lead author.

Notes: For the name *Cestrum reticulatum*, Francey (1935) mentioned type information as “*Colombie: Cordillera Central, Depart. of Caldas, « Canaan », South of Salento, forest, 1400-1700 m. (Pennell, n. 9068 in hb. New York, — fr.: Juill.); id., Rio Boquia, Salento, forest, 1600-1900 m. (Killip et Hazen, n. 8811 in hb. New York, — fl.: Juill.)*”. One specimen of *E.P. Killip & T.E. Hazen 8811* and one of *F.W. Pennell 9068* are extant at NY. Of these, the better-preserved specimen NY00007327, is chosen here as the lectotype. *Cestrum reticulatum* Willd. ex Roem. & Schult. is heterotypic synonym of *C. conglomeratum* Ruiz & Pav. The holotype of *C. reticulatum* Willd. ex Roem. & Schult. is extant at Berlin herbarium (B-W04463-010).

Cestrum regnellii (Taub.) R.Kr.Singh & Sanjeet Kumar, *comb. nov.*

≡ *Sessea regnellii* Taub., Bot. Jahrb. Syst. 15(5, Beibl. 38): 18. 1893. *Cestrum capsulare* Carvalho & Schnoor, Rodriguésia 45-49(71-75): 17. 1998, *nom. illeg. et superfl.*

Lectotype (designated here): Brazil, Minas Gerais, Caldas, 18 September 1847, *A.F. Regnell III 1005* (S09-28773!, Figure 4); isolectotypes BR0000005531509, BR0000005531837!, BR0000005537822!, BR0000005538157!, F0BN003010!, M0171988!, P00454366!, US00028065!, US01014220!, US01014221!.

Remaining syntypes: Brazil, Minas Gerais, Santa Bárbara, 4 May 1892, *A.F.M. Glaziou 19729* (P00454365!, R000011970!).

Distribution: Argentina and Brazil.

Notes: Taubert (1893) mentioned type information for *Sessea regnellii* as “*Habitat in Brasiliae prov. Minas Geraës prope Caldas: Regnell III, 1005; nuperrime etiam a cl. Glaziou sub n. 19729 (loco haud citato) transmissa. — Flor, et fructif. m. Sept.*”. Relating to the type specification, eleven specimens of *A.F. Regnell III 1005* (BR0000005531509, BR0000005531837, BR0000005537822, BR0000005538157, F0BN003010, M0171988, P00454366, S09-28773, US00028065, US01014220 and US01014221) and two of *A.F.M. Glaziou 19729* (P00454365 and R000011970) were traced. Of these, the best one S09-28773, is designated here as the lectotype.

Cestrum vishwanathii R.Kr.Singh & Sanjeet Kumar, *nom. nov.*

≡ *Cestrum granadense* Francey, Candollea 7: 17. 1936, *nom. illeg., non* Roem. & Schult., Syst. Veg.,

ed. 15 bis 4: 807. 1819.

Lectotype (designated here): Colombia, Nouvelle Grenade, Bogotá, Fusagasugá, 1700 m, s.d., *J. Triana s.n.* (NY00007350!, Figure 5); isolectotypes COL000004202!, G00342967!, P00479244!, W0001983!.

Distribution: Endemic to Colombia.

Etymology: The new name is named after in remembrance of late Shri Vishwanath Singh, grandfather of lead author.

Notes: In the protologue of *Cestrum granadense*, Francey (1936) mentioned type information as “Colombie: Nouvelle Grenade, prov. de Bogota, Isagasuga, 1700 m. (Triana, n. 2302 in hb. Berlin, Vienne, New York et DC.)”. Pertaining to this type specification, five specimens (COL000004202, G00342967, NY00007350, P00479244 and W0001983) were traced. Of these, the better preserved specimen NY00007350, is selected here as the lectotype as it agrees well with the protologue.

Cestrum granadense Roem. & Schult. (1819: 807) is heterotypic synonym of *C. tomentosum* L.f. Two syntype specimens of *C. granadense* Roem. & Schult. are extant at Berlin herbarium (B-W04450-010 and B-W04450-020). The specimen B-W04450-010 (Figure 6), is chosen here as the lectotype for the name *C. granadense* Roem. & Schult. as it agrees well with the protologue.

Acknowledgements

The lead author is thankful to the Director, Botanical Survey of India, Kolkata for providing facilities and continual support. Authors are also grateful to the curators of B, BM, BR, COL, F, G, GH, HAL, K, M, NY, P, PH, R, S, US and W for the images and information of type specimens.

References

- Carvalho, L.d'A.F. de and Schnoor, A. (1998). *Sessea* Carvalho et Schnoor - nova seção para o gênero *Cestrum* (Solanaceae). *Rodriguesia* 45–49(71–75): 15–24.
- Don, G. (1837). A general history of the Dichlamydeous plants, vol. 4(1). J.G. and F. Rivington et al., London.
- Dunal, M.F. (1852). *Cestrum* L. In: A.L.P.P. de Candolle (Ed.) *Prodromus Systematis Naturalis Regni Vegetabilis*, vol. 13. Sumptibus Victoris Masson, Paris. pp. 598–673.
- Francey, P. (1935). Monographie du genre *Cestrum* L. *Candollea* 6: 46–398.
- Francey, P. (1936). Monographie du genre *Cestrum* L. - Partie II. *Candollea* 6: 1–132.
- POWO. (2024). Plants of the World Online. Royal Botanic Gardens, Kew. Available from: <http://www.plantsoftheworldonline.org/> (accessed 1 February 2024).
- Roemer, J.J. and Schultes, J. (1819). *Caroli a Linné equitis Systema vegetabilium secundum classes ordines genera species*. J.G. Cottae, Stuttgartiae.

- Taubert, P.H.W. (1893). *Plantae Glaziovianae novae vel minus cognitae*. *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 15(5): 3–19.
- Turland, N.J., Wiersema, J.H., Barrie, F.R., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T.W., McNeill, J., Monro, A.M., Prado, J., Price, M.J. and Smith, G.F. (2018). *International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code)*. *Regnum Vegetabile* 159. Koeltz Botanical Books, Glashütten. <https://doi.org/10.12705/Code.2018>