# Typification of plant names in *Thymelaeaceae* published by Linnaeus and Linnaeus filius

#### Zachary S. Rogers<sup>1</sup> & Mark A. Spencer<sup>2</sup>

- <sup>1</sup> Missouri Botanical Garden, P.O. Box 299, Saint Louis, Missouri, 63166-0299, U.S.A. zachary.rogers@mobot .org (author for correspondence)
- <sup>2</sup> Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Twenty four lectotypes, and three neotypes are designated for 27 plant names (25 at species rank and two at varietal) belonging to the family *Thymelaeaceae* and published by Linnaeus and Linnaeus filius. Epitype specimens are designated for three of the lectotypes. Of the species names, three were first published by J. R. & G. Forster and became the nomenclatural basis of names adopted by Linnaeus filius. All type choices made here are intended to support current usage of their respective names.

KEYWORDS: Linnaeus, Linnaeus filius, nomenclature, Thymelaeaceae, typification.

## INTRODUCTION

Linnaeus and Linnaeus filius collectively authored 66 names in the family *Thymelaeaceae* at the rank of genus and below (47 by Linnaeus, including 10 generic and 37 specific names; 19 by Linnaeus filius, including 1 generic, 16 specific, and 2 varietal names). The typification status of each name was carefully evaluated to determine which names are currently untypified or ineffectively typified. Of the total number of names, every name at the rank of genus, as well as 22 at the rank of species (Table 1) were found to have been effectively typified in previous publications. Earlier typification statements cannot be considered effective for four binomials (Daphne tartonraira L., Passerina ciliata L., P. hirsuta L., Struthiola nana L. f.). One untypified name, Lachnaea conglomerata L., has been rejected (Brummitt, 2000: 805; approved by the General Committee and the Nomenclature Section at the XVII International Botanical Congress, Vienna, 2005), while three other recombinations, Passerina gnidia (J. R. Forst. & G. Forst.) L. f., P. pilosa L. f., and P. prostrata (J. R. Forst. & G. Forst.) L. f., are based on Forster binomials. Two names are illegitimate, Passerina pilosa L. f., and Struthiola erecta L. Two names, Capura purpurata L. and Daphne rotundifolia L. f., are both associated with particularly complex taxonomic problems and are not typified here. A third name, D. foetida L. f., is also excluded because the material upon which the name was based is referable to Rubiaceae as first indicated by Fosberg (1993). Effective typifications are presented below for 27 names; 15 of these were published by Linnaeus, nine by Linnaeus filius, three by J. R. & G. Forster providing the basis for names used by Linnaeus filius, two as new combinations, and one as a superfluous illegitimate name.



The methods and format employed in this paper follow those described in detail by Turland & Jarvis (1997: 458–461). A few of the most important considerations concerning typifications are summarized here for convenience.

When selecting types, the most complete specimens are chosen over illustrations, whenever possible, except when such a selection would upset current usage of the name. In these less common instances, an illustration supporting current usage is designated instead. For several names lectotypified by illustrations, epitypes are chosen to avoid taxonomic ambiguity in the application of that particular name. Neotypes are designated only after all sources of potential original material have been checked, but nothing of relevance has been found. When possible, epitypes and neotypes are selected from material collected from the same geographical region as indicated by the provenance statements mentioned in the protologue (e.g., "Habitat in ...").

Complete details are not provided here for each new typification, but full documentation (e.g., lists of original material) pertaining to each name is available from the authors. Additional information related to names published by Linnaeus is posted on the Linnaean Plant Name Typification Project's website: <a href="http://www.nhm.ac.uk/research-curation/projects/linnaean-typification/index.html">http://www.nhm.ac.uk/research-curation/projects/linnaean-typification/index.html</a>

Table 1. The 22 effectively typified binomials belonging to *Thymelaeaceae* that were published by Linnaeus and Linnaeus filius. Names in bold italics are the currently accepted names. LT = lectotype; NT = neotype; INT = isoneotype; TT = typotype; V = voucher.

type; TT = typotype; V = voucher.		
Binomial	Type(s)	Designated by/Reference to typification
Dais cotinifolia L.	LT: Herb. Linn. No. 554.1 (LINN)	Peterson/Fl. Trop. E. Afr., Thymel.: 16 (1978)
Dais octandra L. <b>= Phaleria</b> octandra (L.) Baill.	LT: Herb. Linn. No. 554.2 (LINN)	Ding Hou/Fl. Malesiana, ser. I, 6: 18 (1960)
Daphne alpina L.	LT: [icon] "Chamelaea alpina incana" in L'Obel, Pl. Icon.: t. 370, 1581	Urbani/ <i>Taxon</i> 40: 494 (1991)
Daphne indica L. ≡ Wikstroemia indica (L.) C. A. Mey.	LT: Herb. Linn. No. 500.11 (LINN) [designated as "holotype" in reference]	Townsend/Rev. Handb. Fl. Ceylon 2: 503 (1981)
Daphne laureola L.	Proposed conserved type: Herb. Clifford: 147,  Daphne 1 (BM)	Mathew/ <i>Taxon</i> 41: 572 (1992)
Daphne mezereum L.	LT: Herb. Linn. No. 500.1 (LINN)	Peterson/Fl. Iranica 95: 2 (1972)
Daphne pontica L.	LT: [icon] "Thymelaea pontica, citrei foliis" in Tournefort, Rel. Voy. Levant: 3: 180, t. 180, 1717; V: P-TRF 5834	Tan/Fl. Turkey 7: 522 (1982)
Daphne pubescens L. ≡ Thymelaea pubescens (L.) Meisn.	LT: Herb. Linn. No. 500.4 (LINN)	Tan/Notes Roy. Bot. Gard. Edinburgh 38: 231 (1980)
Daphne thymelaea L. ≡ Thymelaea sanamunda All.	LT: Herb. Linn. No. 500.3 (LINN)	Tan/Notes Roy. Bot. Gard. Edinburgh 38: 233 (1980)
Daphne villosa L. ≡ <b>Thymelaea</b> villosa (L.) Endl.	LT: Herb. Linn. No. 500.5 (LINN)	Tan/Notes Roy. Bot. Gard. Edinburgh 38: 229 (1980)
Dirca palustris L.	LT: Herb. Linn. No. 501.1 (LINN)	Nevling/J. Arnold Arbor. 45: 158 (1964)
Gnidia filamentosa L. f. ≡ Lach- naea pomposa Beyers	LT: Herb. Linn. No. 502.13 (LINN)	Beyers/Strelitzia 11: 65 (2001)
Lachnaea eriocephala L.	NT: South Africa, Western Cape Province, Hottentots Holland Mountains, Sir Lowry's Pass, 6 Sep 1998, <i>J. Beyers 270</i> (NBG; INT: BM, BOL, K, MO, NY, P, PRE, S, Z)	Beyers/Strelitzia 11: 98 (2001)
Lobelia hirsuta L. ≡ <b>Gnidia</b> hirsuta (L.) Thulin	LT: [icon] "Rapuntium foliis subrotundis" in Burman, Rar. Afric. Pl.: 105, t. 40, f. 2, 1739; TT: Herb. Burman (G)	Thulin & al./Taxon 35: 722, f. 1, 2 (1986)
Passerina capitata L. ≡ Lachnaea capitata (L.) Crantz	LT: [icon] "Thymelaea foliis linearibus" in Burman, Rar. Afric. Pl.: 133, t. 48, f. 3, 1739	Beyers/Strelitzia 11: 66 (2002)
Passerina ericoides L.	LT: Herb. Linn. No. 504.5 (LINN)	Thoday/Bull. Misc. Inform. Kew 1924: 388 (1924)
Passerina filiformis L.	LT: [icon] " <i>Passerina foliis linearibus</i> " in Linnaeus, Hort. Cliff:: 146, t. 11, 1738; V: Herb. Clifford: 146, <i>Passerina 1</i> (BM)	
Passerina grandiflora L. f. ≡ Lach- naea grandiflora (L. f.) Baill.	LT: Herb. Linn. No. 504.13 (LINN)	Beyers/Strelitzia 11: 45 (2001)
	LT: [icon] "Thymelaea ramosa, linearibus" in Burman, Rar. Afric. Pl.: 131 [132], t. 48, f. 1, 1739	Beyers/Strelitzia 11: 43 (2001)
Stellera chamaejasme L.	LT: [icon] "Chamaeiasme radice Mandragorae" in Amman, Stirp. Rar. Ruth.: 16, t. 2, 1739	Tan/Regnum Veg. 127: 91 (1993)
Stellera passerina L. ≡ Thymelaea passerina (L.) Coss. & Germ.		Tan/Notes Roy. Bot. Gard. Edinburgh 38: 237 (1980)
Struthiola nana L. f. ≡ Gnidia nana (L. f.) Wikstr.	NT: [specimen annotated] " <i>Cap. b. spei. Thunberg</i> ", Herb. Thunberg No. 3733 (UPS) [designated as "lectotype" in reference]	



#### NAMES AND TYPIFICATIONS

Entries in this list appear in alphabetical order in the following format: Linnaean name with full bibliographic references, any earlier homonym (placed in square brackets), any later homotypic Linnaean name (recombination), the currently accepted name (when different), any lectotype, any epitype that supports a lectotype, and any explanatory notes that may be necessary. The first name cited in each entry is the name being typified; cur-

rently accepted names are indicated in **bold italic** typeface and placed in square brackets if not homotypic with the typified name.

Banksia gnidia J. R. Forst. & G. Forst., Char. Gen. Pl., ed. 1: 4. 29 Nov 1775; ibid., ed. 2: 8. 1 Mar 1776 ≡ Passerina gnidia (J. R. Forst. & G. Forst.) L. f., Suppl. Pl. 226. Apr 1782 ≡ Pimelea gnidia (J. R. Forst. & G. Forst.) Willd. – Lectotype (designated here by Rogers): [specimen annotated] "Nova Zelandia, Dusky Bay, J. R. Forster & G. Forster" (BM-000829816).

Note. – See Nicolson & Fosberg (2003: 663–664) for a thorough discussion of the material collected by the Forsters.

Banksia prostrata J. R. Forst. & G. Forst., Char. Gen. Pl., ed. 1: 4. 29 Nov 1775; ibid., ed. 2: 8. 1 Mar 1776 ≡ Passerina prostrata (J. R. Forst. & G. Forst.) L. f., Suppl. Pl. 227. Apr 1782 ≡ Pimelea prostrata (J. R. Forst. & G. Forst.) Willd. – Lectotype (designated here by Rogers): [specimen annotated] "G. Forsters Herbarium 85" (BM-000829811).

Note. – See Nicolson & Fosberg (2003: 665–666) for a thorough discussion of the material collected by the Forsters.

Banksia tomentosa J. R. Forst. & G. Forst., Char. Gen. Pl., ed. 1: 4. 29 Nov 1775; ibid., ed. 2: 8. 1 Mar 1776 ≡ Banksia pilosa J. R. Forst. & G. Forst., Nova Acta Regiae Soc. Sci. Upsal. 3: 174. 1780, nom. illeg. ≡ Passerina pilosa L. f., Suppl. Pl. 226. Apr. 1782, nom illeg. ≡ Pimelea tomentosa (J. R. Forst. & G. Forst.) Druce. − Lectotype (designated here by Rogers): [specimen annotated] "Nova Zelandia, Forster" (BM-000829812).

Note. – Banksia pilosa J. R. Forst. & G. Forst. (1780) is illegitimate, as was Linnaeus filius' combination, Passerina pilosa, because the description of the earlier, validly published B. tomentosa J. R. Forst. & G. Forst. (1775) was repeated as the first part of the description in the protologue of B. pilosa and listed as a synonym in the protologue of P. pilosa (see also Nicolson & Fosberg, 2003).

**Daphne cneorum** L., Sp. Pl. 1: 357. 1 May 1753 – Lectotype (designated here by Rogers): [specimen annotated] "*Thymelaeae* affinis facie externa Bauh. Cneorum Matthioli Clusio. In Pyrenaeis.", Herb. Burser XXIV: 45 (UPS).

**Daphne gnidium** L., Sp. Pl. 1: 357. 1 May 1753 – Lectotype (designated here by Rogers): [specimen annotated] "*Thymelaea* foliis Lini Bauh. Kellershalss. Zeilandt. Monspelii et Liborni Italiae.", Herb. Burser XXIV: 40 (UPS).

Daphne squarrosa L., Sp. Pl. 1: 358. 1 May 1753 ≡ Gnidia squarrosa (L.) Druce. – Lectotype (designated here by Rogers): [icon] "Thymelaea capitata, lanuginosa, foliis creberrimis, minimis, aculeatis" in Burman, Rar. Afric. Pl.: 134, t. 49, fig. 1. 1739. – Epitype (designated here by Rogers): South Africa, Western Cape Province, Cape Peninsula, Cape Point, 20 Nov 1938, E. Wall s.n. (MO-5653217).

Note. – Some features of the flowers illustrated in the Burman plate (Burman, 1739) do not reflect the typical floral characteristics of Thymelaeoideae, the subfamily to which both *Daphne* and *Gnidia* belong. The sepals appear to be adnate to the base, rather than to the mouth of the floral tube, and the flowers are drawn as distinctly pedicellate instead of being sessile or subses-

sile. It is plausible that the artist mistakenly interpreted the bracts, which often occur directly below the inflorescences in the species, to be sepals, and the defoliated portions of the stem to represent pedicels. The Burman illustration is perfectly acceptable as original material from a nomenclatural perspective and does not conflict with the description given in the protologue (Linnaeus, 1753: 358). An epitype supporting current usage is selected to remove any morphological or taxonomic ambiguity.

Daphne tartonraira L., Sp. Pl. 1: 356. 1 May 1753 ≡ Thymelaea tartonraira (L.) All. – Lectotype (designated here by Rogers): [specimen annotated] "Thymelaea foliis candicantibus serici instar mollibus Bauh. Tarton-Raire Massiliensium Lob. Prope Massiliam in Colle rotundo dicto.", Herb. Burser XXIV: 43 (UPS).

Note. - Tan (1980: 216) cited Herb. Linn. No. 500.6 as the "type". While the specimen fully supports current usage of the name and is annotated as "tartonraira" by Linnaeus, Tan's typification cannot be considered effective because the sheet lacks a relevant Species Plantarum number, in this case "3". Absence of such a number indicates that the sheet was almost certainly a post-1753 addition to the Linnaean herbarium. Two other potential sources of original material exist at LINN (Herb. Linn. Nos. 500.7 and 502.14), but neither correspond taxonomically to Thymelaea tartonraira (L.) All., despite annotations with the correct Species Plantarum species name and number in Linnaeus' own hand. The specimen in the Burser herbarium cited above is designated as the lectotype as it is original material and supports current usage of the name.

*Gnidia capitata* L. f., Suppl. Pl.: 224. Apr 1782 – Lectotype (designated here by Rogers): Herb. Smith No. 688.1 (LINN-SM).

Note. – Sheet No. 688.1 in the Smith herbarium was annotated by Linnaeus filius as both "Gnidia capitata" and "Gnidia daphnaefolia var. hirsuta". Comparison of the specimen with the protologues for each name (Linnaeus, 1782: 224 & 225), demonstrates that it most closely matches the description of *G. capitata* L. f. and corresponds to current usage of the name. However, sheet 688.1 also bears the provenance inscription, "de Madagascar", in Linnaeus filius' hand on a Thouin label, which contradicts the provenance information, "Cap. bonae spei", mentioned in the protologue of *G. capitata*.

All literature and herbarium specimens we have examined suggest that *G. capitata* is restricted to southern Africa, whereas *G. daphnifolia* L. f. which includes *G. daphnifolia* var. *glabra* L. f. (typified in the following entries) is endemic to Madagascar. Therefore, the origin of the specimen affixed to the sheet is probably South Africa rather than Madagascar. Sheet No. 688.1 is the only extant original material for *G. capitata* and *G. daphnifolia* var. *hirsuta* L. f. and is designated as the lectotype

of both names.

*Gnidia daphnifolia* L. f., Suppl. Pl.: 225. Apr 1782, as "*daphnaefolia*" – Lectotype (designated here by Rogers): Herb. Smith No. 688.5 (LINN-SM).

Note. – Linnaeus filius (Linnaeus, 1782: 225) mentioned "Habitat in Madagascar. *Thouin*" below the diagnosis and above the description of the binomial in the protologue of *Gnidia daphnifolia* L. f., followed by the descriptions of two varieties, var. *glabra* ( $\equiv G. daphnifolia$ ) and var. *hirsuta* ( $\equiv G. capitata$ ). Herb. Smith No. 688.5 (LINN-SM), bearing the inscription "G. daphnifolia var. *glabra*" in Linnaeus filius' own hand, is the only extant original material and is designated here as the lectotype of G. daphnifolia.

Gnidia daphnifolia var. glabra L. f., Suppl. Pl.: 225. Apr  $1782 \equiv Gnidia \ daphnifolia \ L. f. (1782) - Lectotype (designated here by Rogers): Herb. Smith No. 688.5 (LINN-SM).$ 

Gnidia daphnifolia var. hirsuta L. f., Suppl. Pl.: 225. Apr 1782 ≡ Gnidia capitata L. f. (1782) – Lectotype (designated here by Rogers): Herb. Smith No. 688.1 (LINN-SM).

Note. – See above comment under *Gnidia capitata*. *Gnidia imbricata* L. f., Suppl. Pl.: 225. Apr 1782 – Lectotype (designated here by Rogers): [specimen annotated] "Cap. b. spei. *Thunberg*", Herb. Thunberg No. 9552 (UPS).

Note. - Linnaeus filius (Linnaeus, 1782: 225) stated "Habitat in Cap. bonae spei. Thunberg" as the provenance in the protologue of G. imbricata L. f. and annotated Herb. Linn. No. 502.14 (LINN) as both "Gnidia imbricata" and "Daphne tartonraira". The taxonomic identity of the specimen on the sheet does not conform with current usage of D. tartonraira, a name lectotypified above with a specimen in the Burser herbarium. Despite the missing provenance and sterile condition of the specimen, the sheet may still represent original material of G. imbricata. However, a more suitable source of relevant material for the name is an ample flowering sheet collected by Thunberg from the Cape of Good Hope. This sheet, Herb. Thunberg No. 9552 (UPS), is chosen as the lectotype of G. imbricata, instead of the specimen in Linnaean herbarium, so as to circumvent the potential for taxonomic ambiguity in the application of the name.

*Gnidia oppositifolia* L., Sp. Pl. 1: 358. 1 May 1753. – Lectotype (designated here by Rogers): Herb. Linn. No. 502.8 [second specimen from the left-hand side of sheet] (LINN).

Note. – Herb. Linn. No. 502.8 (LINN) bears the correct *Species Plantarum* number for *Gnidia oppositifolia* L., in this case the number "3". Four specimens are affixed to the sheet, but only one, the small fragmentary specimen, second from the left-hand side, actually sup-

ports current usage of the name. Peterson (1959: 476) was the first to point out the identity of the fragment as *G. oppositifolia* and to recognize that the other three specimens on the sheet belong to *G. tomentosa* L.

Gnidia pinifolia L., Sp. Pl. 1: 358. 1 May 1753, non L. f. (1782). – Lectotype (designated here by Rogers): [icon] "Rapunculus foliis nervosis linearibus, floribus argenteis, non galeatis" in Burman, Rar. Afric. Pl.: 112, t. 41, fig. 3. 1739. – Epitype (designated here by Rogers): South Africa, Western Cape Province, Cape Peninsula, slopes of mountains above Clovelly, c. 400 ft, 24 Sep 1983, P. Goldblatt 6953 (MO-3116540).

Note. – Gnidia pinifolia L. was selected as the type of the generic name by Hitchcock & Green (1929: 150). In Supplementum Plantarum (Linnaeus, 1782: 225), Linnaeus filius elaborated on his father's earlier description of G. pinifolia using more complete material (Herb. Linn. No. 502.15) that Linnaeus himself had received from Anders Sparrman (1748–1820) around 1772 and identified as belonging to that species (fide Savage, 1945). This supplemental material taxonomically belongs to G. simplex L.

*Gnidia radiata* L., Syst. Nat., ed. 12, 2: 272; Mant. Pl.: 67. 15–31 Oct 1767 [= *Gnidia pinifolia* L. (1753)] – Lectotype (designated here by Rogers): Herb. Linn. No. 502.2 (LINN).

*Gnidia sericea* (L.) L., Syst. Nat., ed. 12, 2: 272. 15–31 Oct 1767: see *Passerina sericea* L.

*Gnidia simplex* L., Syst. Nat., ed. 12, 2: 272; Mant. Pl.: 67. 15–31 Oct 1767. – Lectotype (designated here by Rogers): Herb. Linn. No. 502.3 (LINN). – Epitype (designated here by Rogers): South Africa, Western Cape Province, Houw Hoek, 1500 ft, 24 Nov 1896, *F. R. R. Schlechter 9388* (MO-5473554; Isoepitype: US).

Note. – Despite being a legitimate, senior name, *Gnidia simplex* L. (1767a, b) has been placed in synonymy with *G. subulata* Lam. (1786) in the most inclusive treatments of the group (e.g., Meisner, 1857; Wright, 1915). The lectotype is sterile, so an epitype, explicitly cited in Wright's work, is chosen to correspond to his concept of *G. subulata*, which included *G. simplex*.

*Gnidia tomentosa* L., Sp. Pl. 1: 358. 1 May 1753 – Neotype (designated here by Rogers): South Africa, Western Cape Province, Kalk Bay Mountain, Cape Peninsula, above Boyes Drive, 2 Jun 1974, *P. Goldblatt* 2024 (MO-2243060).

Passerina anthylloides L. f., Suppl. Pl.: 225. Apr 1782 ≡ *Gnidia anthylloides* (L. f.) Gilg – Lectotype (designated here by Rogers): [specimen annotated] "Cap. b. spei. *Thunberg*", Herb. Thunberg No. 9566 (UPS).

Passerina ciliata L., Sp. Pl. 1: 559. 1 May 1753 ≡ Struthiola ciliata (L.) Lam. – Lectotype (designated here by Rogers): Herb. Clifford: 146, Passerina 2 [specimen on left-hand side of sheet] (BM).

Note. - Four specimens are affixed to the sheet labeled "Passerina 2" in the Clifford herbarium. With regard to the layout of the specimens attached to the sheet, Peterson (1959: 478) wrote, "There are three specimens in one row and the middlemost of these is stuck in an urn of the same kind as used by Clifford. This specimen fits the description very well and is what we nowadays call Struthiola ciliata (L.) Lam., ...". Peterson's use of the word "This" in the second sentence of the quote indicates that he considered the specimen with the paper urn label to represent the original material of Passerina ciliata L., but the remark is almost certainly an unintentional error as the urn fragment obviously conflicts with the description in the protologue (e.g., flowers much longer than the leaves on the specimen vs. leaves and flowers of similar length in the description). The placement of Peterson's annotation label on the Herb. Clifford sheet, indicating it as the type of P. ciliata, is also problematic because the label is ambiguously affixed equidistant between the specimen in the paper urn and the fragment to the left of the plant in the urn. The specimen located to the left of the urn plant is the only one that corresponds taxonomically to S. ciliata as currently understood, and is therefore designated as the lectotype of P. ciliata.

Passerina dodecandra L., Cent. Pl. I: 10. 19 Feb 1755 ≡ Struthiola erecta L. (1767), nom. illeg. superfl. ≡ Struthiola dodecandra (L.) Druce. – Neotype (designated here by Rogers): South Africa, Western Cape Province, Caledon District, Cape Hangklip, near the hotel, c. 50 m, 1 Oct 1956, R. Dahlgren & B. Peterson 526 (MO-5033766).

Note. – Linnaeus (1755: 10) stated "Habitat in Aethiopia. *D. Gronovius*" in the protologue of *Passerina dodecandra* L. We found no specimens bearing that name in Linnaeus' hand, attributable to Johan Frederik Gronovius (1690–1762) or otherwise. Literature sources (e.g., Wright, 1915; Bredenkamp & Beyers, 2003) and available herbarium specimens indicate that *Struthiola dodecandra* (L.) Druce is endemic to the Western Cape Province of South Africa. This distribution is consistent with Linnaeus' provenance statement "*Aethiopia*" as he is known to have used the geographical name when referring to South Africa (Stearn, 1957: 146). A suitable specimen from the Western Cape Province is designated as the neotype of *P. dodecandra*.

*Passerina gnidia* (J. R. Forst. & G. Forst.) L. f., Suppl. Pl. 226. Apr 1782: see *Banksia gnidia* J. R. Forst. & G. Forst.

Passerina hirsuta L., Sp. Pl. 1: 559. 1753 ≡ Thymelaea hirsuta (L.) Endl. – Lectotype (designated here by Rogers): [specimen annotated] "Thymelaea tomentosa foliis Sedi minoris Bauh. Erica Alexandrina Tab. Welsche Heyde. Pisis in horto Magni Ducis.", Herb.

Burser XXIV: 44 (UPS).

Note. – Jafri (1977: 4) and Tan (1980: 210, 1982: 528) cited Herb. Linn. No. 504.4 (LINN) as the type of *Passerina hirsuta* L. However, none of those statements constitute effective typifications because Herb. Linn. No. 504.4 was received from Baron Clas Alströmer (1736–1794) as a post-1753 addition to the Linnaean herbarium (Savage, 1945: 70), and therefore cannot possibly represent original material of the name.

Passerina laevigata L., Cent. Pl. II: 15. 2 Jun 1756, as "levigata" [= **Gnidia oppositifolia** L. (1753)] – Lectotype (designated here by Rogers): Herb. Linn. No. 502.9 (LINN).

Passerina laxa L. f., Suppl. Pl.: 226. Apr 1782 ≡ Gnidia laxa (L. f.) Gilg. – Lectotype (designated here by Rogers): [specimen annotated] "Cap. b. spei. Thunberg", Herb. Thunberg No. 9590 (UPS).

Passerina pilosa L. f., Suppl. Pl. 226. Apr. 1782, nom illeg.: see Banksia tomentosa J. R. Forst. & G. Forst.

Passerina prostrata (J. R. Forst. & G. Forst.) L. f., Suppl. Pl. 227. Apr 1782: see Banksia prostrata J. R. Forst. & G. Forst.

Passerina sericea L., Cent. Pl. II: 15. 2 Jun 1756 ≡ Gnidia sericea (L.) L., Syst. Nat., ed. 12, 2: 272. 15–31 Oct 1767 – Lectotype (designated here by Rogers): [specimen annotated] "Passerina (sericea) foliis ovatis tomentosis, caule hirsuto, floribus coronatis …", Herb. Burman (G).

Note. – In the protologue of *Passerina sericea* L., Linnaeus (1756: 15) stated the phrase "Habitat in Aethiopia. *Burmannus*" and included a Burman (1739) polynomial in synonymy below the name. Three sheets, representing original material of *P. sericea*, are deposited in the Burman herbarium, but only one is annotated with the name and description appearing in Burman (1739) and Linnaeus (1756). That particular sheet is selected as the lectotype.

Passerina spicata L. f., Suppl. Pl.: 226. Apr 1782 ≡ Gnidia spicata (L. f.) Gilg – Lectotype (designated here by Rogers): [specimen annotated] "Cap. b. spei. Thunberg", Herb. Thunberg No. 9590 (UPS).

Scopolia composita L. f., Suppl. Pl.: 409. Apr 1782 **■ Daphne composita** (L. f.) Gilg. – Neotype (designated here by Rogers): Indonesia, Southeast Java, 1880–1882, *H. O. Forbes 1103* (BM-000884581).

Note. – *Scopolia composita* L. f. (1782) was the only species to be described in *Scopolia* L. f. (1782), which is a later generic homonym of the conserved *Scopolia* Jacq. (1764) [*Solanaceae*]. Linnaeus filius (Linnaeus, 1782: 409) cited the phrase "Habitat in Iava. *Thunberg*" in the protologue of *S. composita*. The only sheet annotated as *S. composita* in the Thunberg herbarium (Herb. Thunberg. No. 24316) taxonomically belongs to *Griselinia* J. R. Forst. & G. Forst. [*Griseliniaceae*] and bears no

inscriptions attributable to Linnaeus filius. Four sheets inside the *Scopolia* folder in the Smith herbarium (Herb. Smith Nos. 390.1–390.4) belong to species of *Rutaceae*, which were previously recognized under another junior generic homonym, *Scopolia* Sm. (1790). None of the material we have examined could have been the basis for *S. composita*, thus a neotypification is required.

Struthiola erecta L., Syst. Nat., ed. 12, 2: 127; Mant. Pl.: 41. 15–31 Oct 1767, nom. illeg. superfl. ≡ *Passerina dodecandra* L. ≡ *Struthiola dodecandra* (L.) Druce.

Note. – *Passerina dodecandra* L. was listed as a synonym in the protologue of *Struthiola erecta* L., which is, therefore, typified by the type of *P. dodecandra* (see above).

Struthiola virgata L., Syst. Nat., ed. 12, 2: 127; Mant. Pl.: 41. 15–31 Oct 1767, typ. cons. of Struthiola L. (1767) [= Struthiola ciliata (L.) Lam.] – Lectotype (designated here by Rogers): Herb. Linn. No. 162.1 (LINN).

### **ACKNOWLEDGEMENTS**

We thank the curatorial staff of B, BM, BR, G, GH, K, LINN, M, MA, NY, UPS, and WAG for providing assistance with their herbarium collections. Several people in particular should be acknowledged for locating and imaging specimens representing potentially relevant material: Hans-Joachim Esser (M), Laurent Gautier and Muriel Hecquet (G), Mats Hjertson (UPS), Vicki Papworth (BM). Charlie Jarvis (BM) provided very helpful comments on several names discussed in this paper. Nicholas Turland (MO) and Angela Beaumont (University of KwaZulu-Natal, South Africa) kindly reviewed our manuscript.

The work of Mark Spencer has been supported by an award from the Linnean Society of London to the Linnaean Plant Name Typification Project at The Natural History Museum, London.



#### LITERATURE CITED

- Bredenkamp, C. L. & Beyers, J. B. P. 2003. *Thymelaeaceae*. Pp. 928–935 in: Germishuizen, G. & Meyer, N. L. (eds.), *Plants of Southern Africa: an Annotated checklist*. [Strelitzia 14]. National Botanical Institute, Pretoria.
- **Brummitt, R. K.** 2000. Report of the Committee for Spermatophyta: 50. *Taxon* 49: 799–808.
- **Burman, J.** 1739. *Rariorum Africanarum Plantarum*. Boussière, Amsterdam.
- **Fosberg, F. R.** 1993. The Forster Pacific Islands collections from Captain Cook's Resolution voyage. *Allertonia* 7: 41–86.
- Hitchcock, A. S. & Green, M. L. 1929. Standard-species of Linnaean genera of Phanerogamae (1753–1754). Pp. 111–199 in: Sprague, T. A., Ramsbottom, J., Wilmott, A. J. & Wakefield, E. M. (eds.), International Botanical Congress, Cambridge (England), 1930: Nomenclature: Proposals by British Botanists. HMSO, London.

- Jafri, S. M. H. 1977. Thymelaeaceae. Pp. 1–8 in: Ali, S. I. & Jafri, S. M. H. (eds.), Flora of Libya, vol. 16. Al Faateh Univ., Tripoli.
- Linnaeus, C. 1753. Species Plantarum. L. Salvii, Stockholm.
- Linnaeus, C. 1755. Centuria I Plantarum. [Dissertation of A D. Juslenius], Uppsala.
- **Linnaeus, C.** 1756. *Centuria II Plantarum*. [Dissertation of E. Torner], Uppsala.
- Linnaeus, C. 1767a. Systema Naturae, ed. 12, 2. L. Salvii, Stockholm.
- Linnaeus, C. 1767b. Mantissa Plantarum. L. Salvii, Stockholm.
- **Linnaeus**, C. [filius]. 1782. Supplementum Plantarum. Impensis Orphanotrophei, Brunswick.
- Meisner, C. F. 1857. Ordo CLXVII: *Thymelaeaceae*. Pp. 493–605 in: Candolle, A. de (ed.), *Prodromus Systematis Naturalis Regni Vegetabilis*, vol. 14, pars 2. Treuttel & Würtz, Paris, Strasbourg, and London.
- Nicolson, D. H. & Fosberg, F. R. 2003. The Forsters and the Botany of the Second Cook Expedition (1772–1775). Koeltz Scientific Books, Königstein. [Regnum Veg. 139].
- **Peterson, B.** 1959. Some interesting species of *Gnidia. Bot. Not.* 112: 465–480.
- Savage, S. 1945. A Catalogue of the Linnaean Herbarium. Linnaean Society of London, London.
- Stearn, W. T. 1957. An introduction to the *Species Plantarum* and cognate botanical works of Carl Linnaeus. Pp. 1–176 in: Linnaeus, C., *Species Plantarum, A Facsimile of the First Edition*, 1753, vol. 1. Ray Society, London.
- **Tan, K.** 1980. Studies in the *Thymelaeaceae* II: a revision of the genus *Thymelaea*. *Notes Roy. Bot. Gard. Edinburgh* 38: 189–246.
- **Tan, K.** 1982. *Thymelaeaceae*. Pp. 521–532 in: Davis, P. H. (ed.), *Flora of Turkey and the East Aegean Islands*, vol. 7. Edinburgh Univ. Press, Edinburgh.
- Turland, N. & Jarvis, C. E. (eds.). 1997. Typification of Linnaean specific and varietal names in the *Leguminosae* (Fabaceae). Taxon 46: 457–485.
- Wright, C. H. 1915. Order CXVIII. Thymelaeaceae. Pp. 1–81 in: Thiselton-Dyer, W. T. (ed.), *Flora Capensis*, vol. 5, sect. 2, part 1. L. Reeve & Co., London.