

Typification of Candollean names in the tribe Gnaphalieae (Asteraceae)

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Abstract: Revisionary studies on the tribe Gnaphalieae of Asteraceae (Subfam. Asteroideae) in southern India could identify many names attached to different collections at various herbaria, without precise original materials designated as types. Candollean names of *Anaphalis notoniana* DC., *Helichrysum buddleioides* DC., and *Pseudognaphalium hypoleucum* (DC.) Hilliard & B.L. Burt, have been typified following the latest botanical code.

Keywords: *Anaphalis*, *Helichrysum*, Lectotype, *Pseudognaphalium*

Introduction

Tribe Gnaphalieae Cass. ex Lecoq & Juillet (subfam. Asteroideae) is one of the largest tribes of the family Asteraceae, with c. 2100 species in 178 genera, distributed globally across a wide range of temperate habitats (Smitsen *et al.*, 2020; POWO, 2025). In India, the tribe comprises 12 genera and 81 taxa (74 species and 7 varieties) (Karthikeyan *et al.*, 2020; Remya *et al.*, 2024). Recent systematic investigations by various researchers (Urtubey *et al.*, 2016; Smitsen *et al.*, 2020; Freire *et al.*, 2021, 2022; Xu *et al.*, 2024) have resulted in a revised circumscription of many genera and species of this tribe.

As a part of the revision of the tribe Gnaphalieae in southern India, the nomenclature of several Candollean names was critically reviewed. The names *Anaphalis notoniana* (Wall. ex DC.) DC., *Helichrysum buddleioides* DC. and *Pseudognaphalium*

hypoleucum (DC.) Hilliard & B.L. Burt were found to have been described without precise original material associated with the names and hence need lectotypification following art. 9.3 of the ICN (Turland *et al.*, 2025).

Materials and Methods

The protologues and other relevant literature were accessed from different online sources, including BHL (<https://www.biodiversitylibrary.org/>). Herbarium specimens deposited at BM, BR, CAL, DD, E, GDC, GH, K, L, M, MH, NY, P, PH, (acronyms as per Thiers, 2025) were examined. For nomenclature updation and lectotype designation, the Madrid Code (Turland *et al.*, 2025) was followed.

Lectotypification

Anaphalis notoniana (DC.) DC., Prodr. 6: 273. 1838. *Helichrysum notonianum* DC. in Wight, Contr. Bot. India 20. 1834. *Gnaphalium notonianum* Wall. Numer. List n. 2952, 101. 1831 (*nom. nud.*). *Gnaphalium innominatum* Wall. ex DC. Prodr. 6: 273. 1838. *pro syn. Lectotype* (designated here): INDIA, **Tamil Nadu**, Nilgiris [Nilghiry], *s.d.*, P. J. Noton *s.n.* (G-DC [G00322874] digital image!; isolecto K [K001118253] digital image!). *Residual syntypes*: INDIA, **Tamil Nadu**, Nilgiris [Neelgherry], *s.d.*, R. Wight *s.n.*, Wight Cat. 1466 (E [E00385832, E0038533] digital image!; K [K000899003] digital image!; G [G00322872] digital image!).

Fig. 1c

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Notes: *Gnaphalium notonianum* was published by Wallich (1831) based on P. J. Noton's collections from "Nilghiry" (=Nilgiris), but the name was published without description or diagnosis and is therefore a *nomen nudum* (Art. 38.1 of the ICN). Subsequently, De Candolle (1834) validly published *Helichrysum notonianum* based on collections of R. Wight (Wight Cat. No. 1466) and P. J. Noton (Wall. Cat. No. 2952/62) collections from Nilgiris. In the same treatment, *Gnaphalium innominatum* Wall. ex DC., based on Wight's material cited in Wallich's catalogue (Cat. No. 2933/43) was included only in synonymy under *Helichrysum notonianum*, and was therefore not validly published (Art. 36.1; pro syn.). Later, when De Candolle (1838: 271) established the genus *Anaphalis* DC., he made the combination *Anaphalis notoniana* (DC.) DC., based on the same original material as *Helichrysum notonianum*.

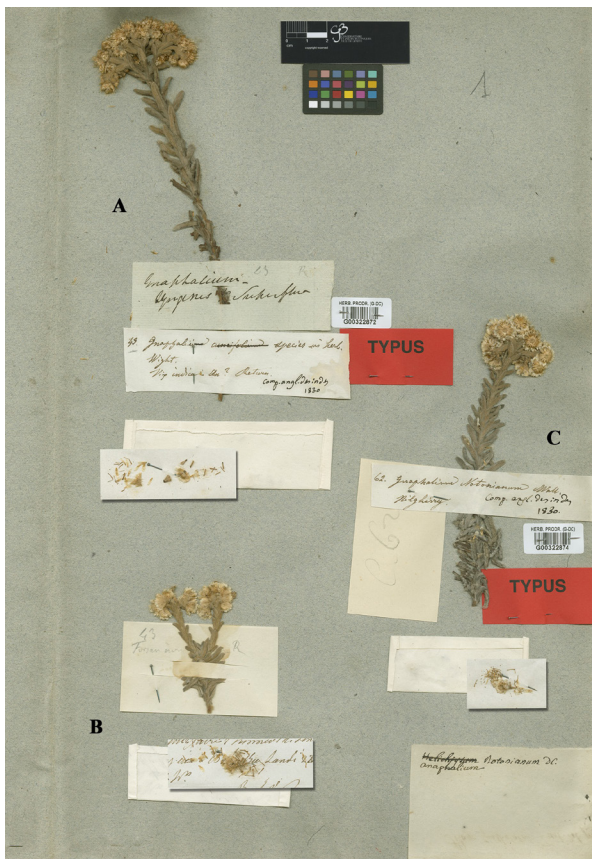


Fig. 1. Lectotype of *Anaphalis notoniana* (Wall. ex DC.) DC. (G-DC [G00460987]). © Conservatoire et Jardin botaniques de la Ville de Genève. Reproduced with permission.

During the present study, original material collected by Noton was traced at G-DC (G00322874) and K (K00118253), and material collected by Wight at K (K000899003, K001118253) and E (E00385832, E00385833), all of which agree with the protologue and specimen labels. The specimen preserved at G-DC (G00322874) bears De Candolle's annotation "62 *Gnaphalium notonianum* Wall., Nilghiry". Wallich's Compositae specimens frequently bear dual numbering, comprising Wallich catalogue numbers and De Candolle's Compositae numbers, as Wallich's material was studied by De Candolle (Wallich, 1831; Candolle & Radcliffe-Smith, 1981; Krieger, 2023). The specimen G00322874 bears compositae No. 62, which corresponds to Wallich Cat. No. 2952 of Noton's collection and agrees with the protologue. Accordingly, specimen G00322874 (G-DC) is designated here as the lectotype, and the duplicate specimen at K (K00118253) is treated as isolectotype. The remaining specimens collected by Wight (E00385832, E00385833, K000899003, K001118253, G00322872) represent residual syntypes.

***Helichrysum buddleioides* DC.** in Wight, Contr. Bot. India 20. 1834. *Lectotype* (designated here): INDIA, **Tamil Nadu**, Nilgiris [Neelgherry], s.d., R. Wight s.n., Wallich cat. 2932/42 (G-DC G00471276) digital image!). *Residual syntypes*: INDIA, **Tamil Nadu**, Nilgiris [Neelgherry], s.d., R. Wight s.n., Wight Cat. 1465 (NY [NY00179173] digital image!; K [K000978209, K000978210, K001129382] digital images!; P [P02454449] digital image!; E [E00417435, E00417434] digital images!; G [G00402543] digital image!). **Fig. 2**

Notes: De Candolle (1834) described *Helichrysum buddleioides*, based on the gathering by R. Wight listed in Wight Catalogue 1465 and Wall Catalogue 2932/42 from "Neelgherry" (Nilgiris), India. During the study, we could trace nine specimens of Wight's collection from different herbaria. Out of these, one at G-DC (G00471276) is with Wallich cat no. 2932/42 and all other specimens are with

the Wight cat. No. 1465, which includes one at G (G00402543), one at NY (NY00179173), three at K (K000978209, K000978210, K001129382), one at P (P02454449) and two at E (E00417435, E00417434). Of these, the specimen collected by Wight, preserved at G-DC that bears De Candolle's Compositae no. 42, which corresponds to the Wallich Catalogue, is being chosen as the lectotype as it agrees with the protologue. All other sheets with Wight's catalogue no. 1465 constitute the residual syntypes.

Pseudognaphalium hypoleucum (DC.) Hilliard & B.L.Burt, Bot. J. Linn. Soc. 82(3): 205. 1981. *Gnaphalium hypoleucum* DC. in Wight, Contr. Bot. India 20. 1834. *Lectotype* (designated here): INDIA, **Tamil Nadu**, Nilgiris [Neelgherry], *s.d.*, R. Wight *s.n.*, Wight Cat. No. 1468 (K [K000978269] digital image!); *isolecto* (G-DC [G00316666, G00316032, G00316034] digital images!; NY [NY00169540] digital image!; K [K000978268] digital image!);

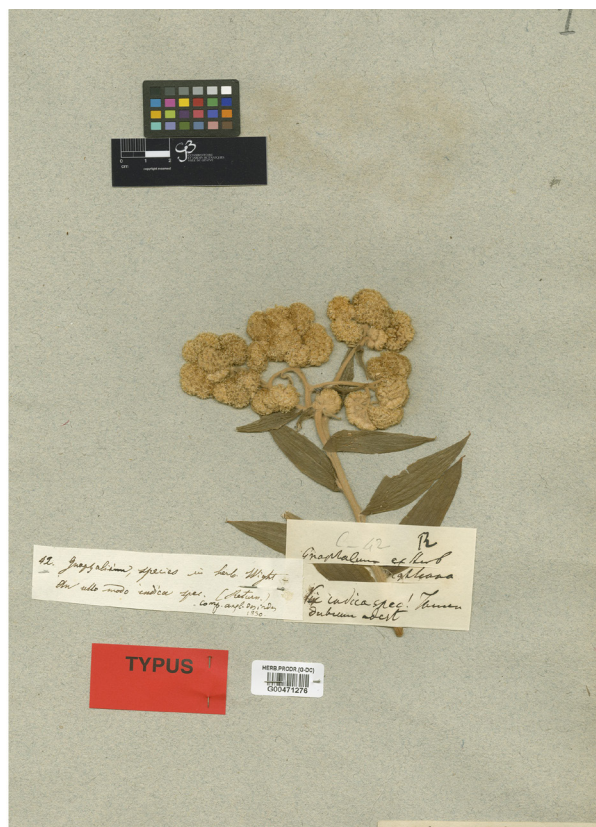


Fig. 2. Lectotype of *Helichrysum buddleioides* DC. (G-DC [G00471276]). © Conservatoire et Jardin botaniques de la Ville de Genève. Reproduced with permission.

P [P00704684] digital image!; E [E00385959, E00385960] digital images!; BR [BR5318766] digital image!).

Fig. 3

Notes: De Candolle (1834) described *Gnaphalium hypoleucum* based on material collected by R. Wight from "Neelgherry" (= Nilgiris) distributed under Wight Cat. No. 1468, representing a single gathering. Hilliard & Burt (1981), while making the combination *Pseudognaphalium hypoleucum*, cited Wight 1468 from Nilgiri Hills, India, as the type. But, multiple sheets of this gathering are preserved in several herbaria, including G-DC (G00316032, G00316034, G00316666), K (K000978268, K000978269), E (E00385959, E00385960), P (P00704684), NY (NY00169540) and BR (BR5318766). Two specimens preserved at K (K000978268 and K000978269), bearing Wight's catalogue number 1468, are likely to have been available to De Candolle during preparation of the protologue. Additional specimens at G-DC were received in 1834, the same year in which



Fig. 3. Lectotype of *Pseudognaphalium hypoleucum* (DC.) Hilliard & B.L.Burt (K [K000978269]). © The Board of Trustees of the RBG, Kew. Reproduced with permission.

Wight's Contributions to the Botany of India, containing the protologue, was published. De Candolle (1838) subsequently cited *G. hypoleucum* with the annotation "v.s. in h. Wight," indicating that he examined material preserved in Wight's herbarium. Among the available duplicates of Wight 1468, the specimen K000978269 is well preserved and best corresponds with the protologue, and is therefore designated here as the lectotype. The remaining specimens of the same gathering are treated as isolectotypes.

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