

BORAGINACEAE

NOMENCLATORIAL NOTES ON *ECHIUM FRUTICOSUM* VAR. *MAJOR* AND VAR. *MINOR*

Echium fruticosum var. *major*

Echium fruticosum L. was first described in *Species plantarum* (Linnaeus 1753). Jacquin (1797: t. 34) provided an illustration and lengthy description of a plant identified by him as *Echium fruticosum*. Ker Gawler (1815) called into question Jacquin's application of the name, stating that, they '...certainly have some doubt whether that of Jacquin, admitted for a synonym... is of the same species. There the inflorescence terminates each branch in a simple continuous scattered axillary upright spike...' Similarly, Sims (1816), spurred on by Ker Gawler's comment, noted the considerable difference between the two contrasted entities mentioned above and delegated Jacquin's figure to his new variety *E. fruticosum* var. *major*. An examination of the Jacquin plate reveals what is currently known as *Lobostemon argenteus* (P.J.Bergius) H.Buek—diagnosed in part as distinctly separate from *L. fruticosus* by possessing an inflorescence that represents a pseudo-spike as opposed to a cyme. Original Jacquin material exists in the Naturhistorisches Museum, Vienna (W). The specimens W0007532 and W0007531 cannot be considered for typification because, although the former was collected by Banks and is accompanied by '*Echium fruticosum*' in Jacquin's hand in the left hand corner of the sheet and

the latter is a Scholl collection, also with '*Echium fruticosum*' in Jacquin's hand, both specimens represent what is currently known as *L. fruticosus* (L.) H.Buek and in no way resemble the plate, especially so in the absence of a spike-like inflorescence.

Jacquin based many new names on specimens collected from plants cultivated in botanical gardens such as Schönbrunn (D'Arcy 1970; Buys & Nordenstam 2007). That a cultivated plant was at hand is most probably evidenced by the illustration of a rooted plant. There is a Boos specimen at W (W0018220) which might be considered to be part of the original material. Franz Boos (1753–1832) called twice at the Cape, once while accompanying the official Austrian expedition to Mauritius, arriving in May 1786 and remaining there for nine months before proceeding to Mauritius in February 1787 (Neilreich 1855), and again on his return to Europe during the summer of January 1788, to arrive back in Vienna in July (Garside 1942; Gunn & Codd 1981). Specimen W0018220 is *L. argenteus*, but is accompanied by only '*Echium*' in Jacquin's hand in the left hand corner of the sheet, and on the accompanying label, 'Hb. Jacq. Cap. B. Sp. Boos' is written in an unidentified hand. On the reverse, too, 'Cap. B. Sp. Boos' is written in an unidentified hand. In the absence of a specific epithet in Jacquin's

hand on the specimen, we are of the opinion that there is no concrete evidence that this specimen is directly associated with Jacquin's concept of '*fruticosum*', although it is apparent from the extensive description, that Jacquin did have a specimen at hand. We therefore view Jacquin's illustration as a lectotype, thus placing *E. fruticosum* var. *major* in synonymy with what is currently known as *Lobostemon argenteus* (P.J.Bergius) H.Buek (Buys 2000).

Lehmann (1818) independently also recognizes a variety (β) *major*, identifying it with Thunberg's concept of *Echium fruticosum* L. (Thunberg 1794). The sheet in the Thunberg herbarium marked *E. fruticosum* by Thunberg (UPS-THUNB4098) consists of two different specimens. To the right is mounted what is currently known as *Lobostemon fruticosus*, to the left, a specimen corresponding to Lehmann's var. *major*. Typification of this illegitimate later homonym, by a specimen in MEL places it in synonymy with *L. montanus* H.Buek (Buys & Nordenstam 2009).

***Lobostemon argenteus* (P.J.Bergius) H.Buek**, in *Linnaea* 11: 133 (1837).

Echium fruticosum L. var. (α) *major* Sims: no. 1772 (1816). Lecto., here designated: [icon in] Jacquin, *Plantarum rariorum horti caesarei Schoenbrunnensis descriptiones et icones*, plate 34 (1797) non *Echium fruticosum* L. var. *major* Lehm. in *Plantae e familia Asperifoliarum nuciferae*: 421 (1818).

Echium fruticosum var. *minor*

Sims (1816) cites Ker Gawler's *The botanical register*: t. 39 (1815) under *Echium fruticosum* L. var. *minor*. The reference to t. 39 is an error for it represents *Ipomoea* L. and it is t. 36 instead that depicts a *Lobostemon*. Sims (1816) also alludes to being aware of a collection in the Banksian Herbarium made from a plant cultivated by Philip Miller in 1759 in the Chelsea garden. In BM there is a sheet with 'Hort Chels' in an unidentified hand on the reverse. The sheet has an undated watermark 'GR' included in it, a reference to George Rex (King George). This is likely a reference to George III who was on the throne from 1760–1820. The paper was presumably produced during that period which puts the specimen in the right time frame, but the specimen is not considered to be original material due to the absence of unswerving evidence that it is directly associated with Sims' concept of *E. fruticosum* var. *minor*. In the light of Sims' original material consisting of a specimen and the illustration, we view *The botanical register* plate as lectotype. This typification places *E. fruticosum* var. *minor* in synonymy with what is currently known as *Lobostemon fruticosus* (Buys 2000).

***Lobostemon fruticosus* (L.) H.Buek**, in *Linnaea* 11: 134 (1837).

Echium fruticosum L. var. (β) *minor* Sims : t. 1772 (1816). Lecto., here designated: [icon in] Ker Gawler, *The botanical register*: t. 39 (1815).

ACKNOWLEDGEMENTS

We thank the curators of the herbaria at the Natural History Museum, Vienna (W) and The Natural History Museum, London (BM) for allowing access to the mentioned specimens. Thanks in particular to Anton Igersheim (W) and John Hunnux (BM) for assistance. Our appreciation also to Dick Brummitt for commenting on an earlier draft.

REFERENCES

- BUFK, H. 1837. *Echia Capensia*. *Linnaea* 11: 129–149.
- BUYS, M.H. 2000. *Lobostemon*. In P. Goldblatt & J.C. Manning, Cape plants. A conspectus of the Cape flora of South Africa. *Strelitzia* 9: 375–377. National Botanical Institute, Cape Town and Missouri Botanical Garden, St. Louis.
- BUYS, M.H. & NORDENSTAM, B. 2007. Lectotypification of the basionym, *Echium glaucophyllum*. *Bothalia* 37: 25, 26.
- BUYS, M.H. & NORDENSTAM, B. 2009. Nomenclature and typification of J.G.C. Lehmann and H. Buek names in *Lobostemon* (Boraginaceae). *Taxon* 58: 627–637.
- D'ARCY, W.G. 1970. Jacquin names, some notes on their typification. *Taxon* 19: 554–560.
- GARSIDE, S. 1942. Baron Jacquin and the Schönbrunn gardens. *Journal of South African Botany* 8: 201–224.
- GUNN, M. & CODD, L.E. 1981. *Botanical exploration of southern Africa*. Balkema, Cape Town.
- JACQUIN, N.J. VON. 1797. *Plantarum rariorum horti caesarei Schoenbrunnensis descriptiones et icones*, vol. 1. Wappler, Vienna.
- KER GAWLER, J.B. 1815. *Echium fruticosum*. In S.T. Edwards, *The botanical register*, vol. 1: t. 36. Ridgeway, London.
- LEHMANN, J.G.C. 1818. *Echium. Plantae e familia Asperifoliarum nuciferae. Pars I & II*: 398–475. Dümmler, Berlin.
- LINNAEUS, C. 1753. *Species plantarum*. Salvius, Stockholm.
- NEILREICH, A. 1855. Geschichte der Botanik in Nieder-Oesterreich. *Verhandlungen des zoologisch-botanischen Vereins in Wien* 5: 23–76.
- SIMS, J. 1816. *Echium fruticosum* (B.) *minor*. Lesser shrubby Viper's-Bugloss. *Curtis's Botanical Magazine*: t. 1772. Sherwood, Neely & Jones, London.
- THUNBERG, C.P. 1794. *Prodromus plantarum capensium*. Edman, Uppsala.

M.H. BUYS* and B. NORDENSTAM**

* Compton Herbarium, South African National Biodiversity Institute, Kirstenbosch, Private Bag X7, 7735 Claremont and Department of Botany & Zoology, University of Stellenbosch, Private Bag XI, 7602 Matieland, Stellenbosch. Email: m.buys@sanbi.org.za.

** Department of Phanerogamic Botany, Swedish Museum of Natural History, P.O. Box 50007, SE-104 05 Stockholm, Sweden.
MS. received: 2009-09-04.