

Notes

THREE MORE NEW COMBINATIONS IN THE BRITISH FLORA

Three further new combinations are required for the forthcoming third edition of *New Flora of the British Isles*.

1. *Poterium* L.

It has been shown that the earliest epithet at subspecific level for the introduced subspecies of *Sanguisorba minor* Scop., until recently known as subsp. *muricata* (Gremli) Briq., is *balearica*, and the combination *S. minor* subsp. *balearica* (Bourg. ex Nyman) Muñoz Garm. & C Navarro is available. However, molecular data indicate that the genus *Poterium* L. should now be re-segregated from *Sanguisorba* L., and the required combination under the latter genus appears to be unpublished:

Poterium sanguisorba* L. subsp. *balearicum
(Bourg. ex Nyman) Stace, **comb. nov.**

BASIONYM: *Poterium spachianum* Coss. subsp. *balearicum* Bourg. ex Nyman, *Consp. Fl. Eur.* 1: 240 (1878)

SYNONYMS: *Sanguisorba minor* Scop. subsp. *balearica* (Bourg. ex Nyman) Muñoz Garm. & C Navarro, in Castrov., *Fl. Iberica* 6: 386 (1998)

S. minor subsp. *muricata* (Gremli) Briq., *Prodr. Fl. Corse* 2(1): 209 (1913)

S. minor subsp. *polygama* (Waldst. & Kit.) Cout., *Fl. Portugal* 296 (1913)

Poterium sanguisorba subsp. *muricatum* (Gremli) Bonnier & Layens, *Tabl. Syn. Pl. Vasc. France* 102 (1894)

2. *Malva* L.

Molecular data have shown that *Malva* L. and *Lavatera* L. are artificial genera based on a single character (fusion of epicalyx segments), and that their species form an interlocking mass

rather than two separate groups. The amalgamation of the two genera is preferable to the recognition of several groups of species as separate genera, when, confusingly, *Malva moschata* L. would fall into *Lavatera*, and *Lavatera cretica* L. into *Malva*. Combinations in *Malva* exist for all our species of *Lavatera*, except for the garden hybrid between *M. olbia* and *M. thuringiaca*:

***Malva olbia* (L.) Alef. (*Lavatera olbia* L.) × *Malva thuringiaca* (L.) Vis. (*Lavatera thuringiaca* L.)**

= ***Malva* × *clementii* (Cheek) Stace, **comb. nov.****

BASIONYM: *Lavatera* × *clementii* Cheek, *Kew Bull.* 55: 1013 (2000)

3. *Elytrigia* Desv.

The variants of *E. repens* (L.) Desv. ex Nevski and *E. atherica* (Link) Kerguélen with awned lemmas are best recognised at the level of forma. The combination *E. repens* f. *aristata* (Schum.) Beetle exists for the former; a new combination is needed for the latter:

Elytrigia atherica* Kerguélen forma *setigera
(Dumort.) Stace, **comb. nov.**

BASIONYM: *Agropyron littorale* Dumort. var. *setigerum* Dumort., *Obs. Gram. Fl. Belg.* 97 (1824)

SYNONYM: *Elymus pycnanthus* (Godr.) Melderis var. *setigerus* (Dumort.) Melderis

ACKNOWLEDGMENT

I am grateful to Christopher Davis for advice on the nomenclature of *Malva* and *Lavatera*.

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VALIDATION OF NAMES FOR NEW AVON GORGE *SORBUS* (ROSACEAE) TAXA

I am embarrassed to find that under section 8.2 of the International Code of Botanical Nomenclature (Greuter *et al.* 2000), the five new *Sorbus* names I published for the Avon Gorge (Rich *et al.* 2009) are invalid as more than one gathering was cited for each holotype. The names are republished below with corrected citation of their holotypes.

Sorbus* × *avonensis T. Rich, **hybr. nov.** (*Sorbus aria* (L.) Crantz × *S. porrigentiformis* E. F. Warb.).

HOLOTYPUS: St Vincent's Rocks South, Avon Gorge, v.c. 34 West Gloucestershire, England, ST/565.730, 19 September 2007, T. C. G. Rich & L. Houston (NMW, accession number V.2007.1.132).

ISOTYPI: **BM, CGE**. Validating description in *Watsonia* 27: 218. 2009.

Sorbus* × *houstoniae T. Rich, **hybr. nov.** (*Sorbus aria* (L.) Crantz × *S. bristoliensis* Wilm.).

HOLOTYPUS: rocks Stokeleigh Camp, v.c. 6 North Somerset, England, ST/561.732, 31 October 2004, T. C. G. Rich, A. Robertson & L. Houston (NMW, accession number V.2004.26.276).

Validating description in *Watsonia* 27: 220. 2009.

Sorbus leighensis T. Rich, **sp. nov.**

HOLOTYPUS: Quarry 4, Leigh Woods, v.c. 6 North Somerset, England, ST/561.739, 19

September 2007, T. C. G. Rich & L. Houston (NMW accession number V.2007.1.180).

ISOTYPI: **BM, CGE**.

Validating description in *Watsonia* 27: 222–221. 2009.

Sorbus* × *robertsonii T. Rich, **hybr. nov.** (*Sorbus aria* (L.) Crantz × *S. eminens* E. F. Warb.).

HOLOTYPUS: Great Fault, Avon Gorge, Bristol, v.c. 34 West Gloucestershire, England, ST/564.733, 19 September 2007, T. C. G. Rich & L. Houston (NMW, accession number V.2007.1.175).

ISOTYPI: **BM, CGE, OXF**.

Validating description in *Watsonia* 27: 224–225. 2009.

Sorbus* × *proctoriana T. Rich, **hybr. nov.** (*Sorbus aucuparia* L. × *S. scalaris* Koehne).

HOLOTYPUS: Top edge of Quarry 2, Leigh Woods, v.c. 6 North Somerset, England, ST/557.743, 19 September 2007, T. C. G. Rich & L. Houston (NMW, accession number V.2007.1.125).

ISOTYPI: **BM, CGE, E, LIV, OXF**.

Validating description in *Watsonia* 27: 226. 2009.

ACKNOWLEDGMENTS

I would like to thank Katherine Challis, Clive Stace and John McNeill for nomenclatural advice.

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REINSTATEMENT OF THE NAME *DACTYLORHIZA KERRYENSIS* (WILMOTT)
P. F. HUNT & SUMMERH. FOR THE WESTERN MARSH ORCHID,
AND A NEW VARIETAL COMBINATION

Recent research has revealed that the taxon formerly known in Britain and Ireland as *Dactylorhiza majalis* is distinct from Continental populations of that species (Delforge *et al.* 1991), and further, that its former subspecies do not all belong to a single species (Delforge 2000; Foley & Clarke 2005; Bateman 2006).

Until recently, plants in Ireland and in North Uist had been classified under *Dactylorhiza majalis* subsp. *occidentalis* and all other populations were referred to subsp. *cambrensis* (Stace 1997). Recent work has argued that this last is better treated as a variety of *D. purpurella* (Foley & Clarke 2005; Bateman 2006), and that the North Uist plants are a species of hybrid origin, *D. ebudensis* (Wiefelspütz ex R.M. Bateman & Denholm) P. Delforge (Delforge 2000). This means that the Irish plants are referable to an endemic species for Ireland, which has been erroneously called *Dactylorhiza occidentalis* (Pugsley) P. Delforge (Delforge *et al.* 1991; Foley & Clarke 2005; Bateman 2006).

Whilst the broader taxonomy has been resolved for the present, the nomenclature of the species has become confused. The first description of the taxon was by Pugsley (1935), who described *Orchis majalis* var. *occidentalis*. The following year Wilmott (1936) published *Orchis kerryensis*, a species lacking spots on its leaves. Under the International Code of Botanical Nomenclature, names only have priority at the same rank (McNeil *et al.*; Art. 11.2). Pugsley's 1935 variety is therefore to be regarded as a synonym, as is the combination *Dactylorhiza occidentalis* published in 1991, and *Dactylorhiza kerryensis* should be adopted. Given that the combination *Dactylorhiza occidentalis* dates from 1991, and has not been extensively adopted into British or Irish literature, there is little cause for inconvenience with adopting the correct name.

Bateman and Denholm (1983) recognised two varieties of this taxon in Ireland, namely var. *occidentalis* with spotted leaves, and var. *kerryensis* with unspotted leaves. Baumann & Künkele (1988) made the correct combination, under *Dactylorhiza kerryensis*, but at the rank of subspecies: Whilst the two varieties are

distinctive, the leaf spotting and flower colour is variable, and the two forms are occasionally found in mixed populations. Varietal rank, however, seems justifiable. The full nomenclature is laid out below.

Dactylorhiza kerryensis (Wilmott) P. F. Hunt & Summerh., *Watsonia* 6: 131 (1965).

BASIONYM: *Orchis kerryensis* Wilmott, *Proceedings of the Linnean Society of London* 148, 126 (1936).

SYNONYMS: *Dactylorhiza kerryensis* (Wilmott) Verm., *Studies on Dactylorchids* 67 (1947). *Orchis occidentalis* (Pugsley) Wilmott subsp. *kerryensis* (Wilmott) A. R. Clapham, in A. R. Clapham, T. G. Tutin & E. F. Warburg, *Flora of the British Isles*, p.1321 (1952).

Dactylorhiza majalis (Rchb.) P. F. Hunt & Summerh. var. *kerryensis* (Wilmott) R. M. Bateman & Denholm, *Watsonia*, 14: 368 (1983).

Dactylorhiza comosa (Scop.) P. D. Sell subsp. *occidentalis* (Pugsley) P. D. Sell forma *kerryensis* (Wilmott) P. D. Sell, in P. D. Sell & G. Murrell, *Flora of Great Britain & Ireland*. 5: 365 (1996).

Dactylorhiza occidentalis (Pugsley) P. Delforge var. *kerryensis* (Wilmott) R. M. Bateman & Denholm, *Watsonia* 27: 247 (2009).

HOLOTYPE: Ireland, Co. Kerry, v.c. H1, near Dingle, 23 June 1934, A. J. Wilmott (BM).

Dactylorhiza kerryensis (Wilmott) P. F. Hunt & Summerh. var. ***occidentalis*** (Pugsley) Jebb, **comb. nov.**

BASIONYM: *Orchis majalis* Rchb. var. *occidentalis* Pugsley, *Journal of the Linnean Society of London. Botany* 49: 586 (1935).

SYNONYMS: *Orchis occidentalis* (Pugsley) Wilmott, Report, *Botanical Exchange Club of the British Isles*, 11: 458, 551 (1938).

Dactylorhiza occidentalis (Pugsley) Verm., *Studies on Dactylorchids*, 67 (1947).

Dactylorhiza latifolia (L.) Rothm. subsp. *occidentalis* (Pugsley) Soó, *Nomina Novis Generis Dactylorhiza* 5 (1962).

Dactylorhiza majalis (Rchb.) P. F. Hunt & Summerh subsp. *occidentalis* (Pugsley) P. D. Sell, *Acta Facultatis Rerum Naturalium Universitatis Comenianae. Botanica. Bratislava*. **14**: 19 (1968).

Dactylorhiza majalis (Rchb.) P. F. Hunt & Summerh. subsp. *occidentalis* (Pugsley) E. Nelson, *Monographie und Ikonographie der Orchidaceen-Gattungen Dactylorhiza*, **90** (1976).

Dactylorhiza majalis (Rchb.) P. F. Hunt & Summerh. var. *occidentalis* (Pugsley) R. M. Bateman & Denholm, *Watsonia*, **14**: 368 (1983).

Dactylorhiza kerryensis (Wilmott) P. F. Hunt & Summerh. subsp. *occidentalis* (Pugsley) H. Baumann & Künkele, *Mitteilungsblatt, Arbeitskreis Heimische Orchideen Baden-Württemberg*, **20**(3): 629 (1988).

Dactylorhiza occidentalis (Pugsley) P. Delforge, *Naturalistes Belges*, **72**(3): 100 (1991).

Dactylorhiza comosa (Scop.) P. D. Sell subsp. *occidentalis* (Pugsley) P. D. Sell forma *occidentalis* (Pugsley) P. D. Sell, in P. D. Sell & G. Murrell, *Flora of Great Britain & Ireland*, **5**: 351 (1996).

HOLOTYPUS: Ireland, Co. Clare, v.c. H9, Lisdoonvarna, 16–20 May 1935, *H. W. Pugsley 514* (BM).

ACKNOWLEDGMENTS

I am grateful to Dr David Middleton and Professor Clive Stace for reading and commenting on an earlier version of this note.

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A NEW NOTHOSPECIES IN *SYMPHYTUM* L. (BORAGINACEAE)

INTRODUCTION

This note describes and formally names a new nothospecies in *Symphytum* L., its putative parents being *Symphytum asperum* Lepech. and *S. orientale* L. This taxon was first recorded from Intwood, East Norfolk v.c. 27, England, in 1999 by R. M. Leaney. There appears to be

no record in the literature of *Symphytum asperum* × *S. orientale*, whether occurring naturally or as a result of experimental or horticultural crossing. Therefore an epithet is assigned in order that this taxon may receive full treatment in the forthcoming third edition of the *New Flora of the British Isles* (Stace 1997).

DISTRIBUTION & ORIGIN

This new taxon occurs in two metapopulations at eight localities in East Norfolk, with one metapopulation at three sites between 2 and 20 km south and south-east of Norwich, and the other over five sites between 17 and 25 km north-west of Norwich. The largest colonies at Intwood and Sustead cover around 150 m² with scattered seedlings extending over a further 50 m radius. Plants in all colonies are constant in morphological characters. The two metapopulations, represented by plants from the colonies at Intwood and Sustead, have the same chromosome number. This taxon is believed to originate from a horticultural selection, which has subsequently naturalised.

DESCRIPTION

The description below is based on fresh material. For corolla and calyx measurements, 20 flowers were measured by one author (R.M.L.) from the Intwood colony and 20 from the Sustead colony.

Symphytum × **norvicense** R. M. Leaney & C. L. O'Reilly **hybrida nova** (Boraginaceae) (putative parentage *Symphytum asperum* Lepech. $2n = 32 \times S. orientale$ L. $2n = 32$, ?64) Norfolk Comfrey

Herba perennis robusta, erecta vel decumbens, 50–150 cm alta, radice palari obliqua. Caulis senescentes decumbentes saepe longiores quam 200 cm. Folia mediocriter viridia vel leviter griseiviridia, infra pallidiora, mollia vel aliquantum setosa, alis 1–7 mm sed non decurrentibus petiolata. Folia basalia anguste ovata vel late lanceolata, ad apicem leviter cuspidata subacuta vel acuta, ad basin truncata vel subcordata, ubi perhiemantia saepe valde cordata vel ad basin auriculata; folia caulina superiora late ovata, ad apicem acuta vel acuminata, ad basin truncata vel rotundata. Caulis indumentum ex setis longis crassis pilisque brevibus tenuibus uncinatis constans, in caule supero setis brevioribus sparsioribus rigidioribus curvatis subuncinatis, saepe basi bulbosa. Costae in laminae pagina abaxiali indumentum caulis superi indumento simile, sed setas basi bulbosa manifestius praebens. Calycis tubi indumentum ex setis latis curvatis uncinatis basi bulbosa numerosis, pilis brevibus tenuibus uncinatis abundantibus intermixtis, lorumque indumentum ex setis longioribus

tenuioribus non uncinatis. Inflorescentia et calyx et corolla sicut typice in *Symphyto* L. sed differentiis his peculiaribus: Calyx in gemma 6.8–9.0 mm longus. Calyx sub anthesi separatus complanatus 7.1–10.4 mm longus, ad $2/5-1/2(-3/5)$, plerumque paene ad dimidium, dissectus. Calycis lobi magis minusve triangulares (non linearioblongi), ad apicem acuti vel subacuti. Flos gemmis roseirubris corollaque variabiliter colorata, primo alba azureo purpureove diluto maculata vel striata, sub anthesi caerulescenti sed adhuc saepiuscule zonas albas saepeque strias longitudinales purpureas et/vel in lobis maculas praebenti. Corolla separata complanata 17.4–23.3 mm longa, quam calyx circiter duplo longior. Corollae squamae anguste triangulares, inclusae. Stamina quam corollae squamae breviora, filamentis antheras nonnunquam aequantibus vel plerumque excedentibus. Stylus multum exsertus. Nuculae 3.9–4.1 mm longae, curvatae, mediocriter brunneae, minute tuberculatae obscureque porcatae. Planta fertilis et seminibus propagata. Floret mense Maio usque ad Julium. $2n = 48$.

Robust, erect or decumbent perennial herb 50–150 cm tall with an oblique taproot. Decumbent senescent stems often exceeding 200 cm in length. Leaves mid green to slightly grey-green, paler beneath, soft or somewhat bristly to the touch, petiolate, with wings 1–7 mm but not decurrent. Basal leaves narrowly ovate to widely lanceolate, with slightly cuspidate subacute to acute apex and truncate to subcordate base, when overwintering often strongly cordate to auriculate-based; upper cauline leaves broadly ovate, with acute to acuminate apex and truncate to rounded base. Indumentum of stem of long, thick bristles and short, fine, uncinata hairs, with bristles on upper stem becoming shorter, sparser, stiffer, curved and subuncinate, often with bulbous base. Indumentum of midrib of abaxial surface of lamina similar to that of upper stem, but with bulbous-based bristles more pronounced. Indumentum of calyx tube of numerous broad, curved, uncinata, bulbous-based bristles intermixed with abundant short, fine, uncinata hairs, and of calyx-lobes of longer, finer, non-uncinate bristles. Inflorescence, calyx and corolla as typically found in *Symphytum* L. but with the key differences comprising: Calyx in bud 6.8–9.0 mm long. Detached, flattened calyx at anthesis 7.1–10.4 mm long, dissected to $2/5-1/2(-3/5)$, usually almost to half-way.

Calyx-lobes more or less triangular (not linear-oblong), with acute to subacute apices. Flower with pink-red buds and a variably coloured corolla, at first white blotched or streaked with pale blue or purple, becoming sky blue at anthesis but still often with white zones and frequently with purple longitudinal striations and/or corolla-lobe blotches. Detached, flattened corolla 17.4–23.3 mm long and about twice as long as calyx. Corolla scales narrowly triangular, included. Stamens shorter than corolla-scales, with filaments sometimes equalling or usually exceeding anthers. Style strongly exserted. Nutlets 3.9–4.1 mm long, curved, mid-brown, minutely tuberculate and obscurely ridged. Fertile and spreading by seed. Flowers May to July. $2n = 48$.

Colour photographs of plants from the Sustead colony can be seen on *BSBI News* 105 cover and front piece. The epithet is derived from *Norvicum*, the Latinized name for the city of Norwich.

HOLOTYPE: Roadside verge at Intwood, East Norfolk, v.c. 27, TG/1971.0414, 2 June 2006, R. M. Leaney Accession No. 2007.368.5 (NWH).

DISCUSSION

The Norfolk comfrey is referable to Section *Caerulea* Buckn. (Bucknell 1913; Sandbrick *et al.* 1990), but is distinguished from all other taxa in this Section, including *Symphytum savvalense* Kurtto (Sell & Murrell 2009), by

the combination of the indumentum type, the typically under half-dissected relatively large calyx, the shape of the calyx-lobes, corolla colour and size, and the strongly exserted style. The following morphological characters of the Norfolk Comfrey suggest intermediacy between a taxon of Section *Caerulea* and *S. orientale*: the soft indumentum with numerous uncinata hairs; the broadly ovate upper cauline leaves with truncate to rounded bases; the large half-dissected calyx; and the white coloration in the developing corolla. The chromosome number of $2n = 48$ suggests *S. asperum* ($2n = 32$) rather than a cytotype of *S. × uplandicum* as the other parent taxon. Either parent with $2n = 32$ may have produced unreduced gametes, or one parent may have been *S. orientale* with $2n = 64$, as unpublished results have shown $2n = 62, 63$ for *S. orientale*, which may represent a miscount of $2n = 64$ (T. W. J. Gadella, pers. comm., 2009). Resynthesis of the Norfolk Comfrey by experimental crossing of putative parent species should resolve this issue, with results expected in 2010, and allow publication of a full account of this plant.

ACKNOWLEDGMENTS

The authors would like to acknowledge the advice and contributions from Theo Gadella, Martin Godfrey, John Bailey, and Clive Stace. Philip Oswald provided the Latin translation of the description and Eric Clement provided valuable comments on the manuscript.

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