

Three new nomenclatural combinations in the Crimean flora

Valentina V. Fateryga & Alexander V. Fateryga

Summary: New combinations are validated: *Jacobaea erucifolia* subsp. *grandidentata* (Ledeb.) V.V. Fateryga & Fateryga, comb. nov. (Asteraceae), *Bituminaria bituminosa* subsp. *pontica* (A.P. Khokhr.) V.V. Fateryga & Fateryga, comb. nov. (Fabaceae) and *Phlomis herba-venti* subsp. *taurica* (Hartwiss ex Bunge) V.V. Fateryga & Fateryga, comb. & stat. nov. (Lamiaceae).

Keywords: Asteraceae, Fabaceae, Lamiaceae, subspecies, taxonomy, comb. nov., Crimean flora

The Crimean Peninsula is one of the floristically most studied regions in Eastern Europe. However, several new records of vascular plants are made there every year. While the latest published calculation of the Crimean flora was 2573 species and subspecies (YENA 2018), at least 17 species were added and at least three species were excluded after that (FATERYGA & FATERYGA 2018, 2019; KECHAYKIN et al. 2018, 2020; RAAB-STRAUBE & RAUS 2019a, 2019b, 2020, 2021; FATERYGA et al. 2020). Besides the new records, several taxonomic and nomenclatural problems appear in the floristic studies, particularly within the subspecies rank (e.g. FATERYGA & FATERYGA 2019). In the present contribution, we validate three new combinations which are required for an updated list of the Crimean flora.

Asteraceae

Jacobaea erucifolia subsp. *grandidentata* (Ledeb.) V.V. Fateryga & Fateryga, **comb. nov.** ≡ *Senecio grandidentatus* Ledeb. 1845, Fl. Ross. (Ledeb.) 2: 636. ≡ *S. erucifolius* subsp. *grandidentatus* (Ledeb.) V.E. Avet. 1971, Biol. Zhurn. Armenii 24(11): 44, nom. inval. [Art. 41.5 of ICN (TURLAND et al. 2018)]. ≡ *Jacobaea grandidentata* Vasjukov in Raab-Straube & Raus, 2015, Willdenowia 45(3): 452.

Type. “in provinciis caucasicis [in insula Sara m. Caspii! (Kieseritzky pl. exs.)]” [Azerbaijan]. Holotype in LE (according to VASJUKOV 2015).

= *Senecio arenarius* M. Bieb. in Besser, 1822, Enum. Pl. [Besser]: 33, nom. inval. [Art. 36.1 of ICN (TURLAND et al. 2018)]. ≡ *S. arenarius* M. Bieb. ex Besser, 1823, Mém. Soc. Imp. Naturalistes Moscou 6: 212, nom. illeg. (homonym of *S. arenarius* Thunb. 1800, Prodr. Pl. Cap. 2: 158) [Art. 53.1 of ICN (TURLAND et al. 2018)]. ≡ *S. erucifolius* var. *arenarius* Schmalh. 1886, Fl. Yugo-Zapad. Rossii: 308. ≡ *S. erucifolius* subsp. *arenarius* Soó, 1969, Acta Bot. Acad. Sci. Hung. 15: 346, nom. inval. [Art. 41.5 of ICN (TURLAND et al. 2018)]. ≡ *Jacobaea arenaria* E. Wiebe, 2000, Turczaninowia, 3(4): 62, nom. inval. [Art. 41.5 of ICN (TURLAND et al. 2018)]. ≡ *J. erucifolia* subsp. *arenaria* B. Nord. & Greuter in Greuter & Raab-Straube, 2006, Willdenowia, 36(2): 712, nom. inval. [Art. 41.5 of ICN (TURLAND et al. 2018)].

Described from Ukraine (“Podoliae” according to BESSER 1823). Location of the type material is apparently unknown.

Remarks. This taxon merits the subspecies rank (CHATER & WALTERS 1976; GREUTER 2006+) and it is also considered a subspecies of *Jacobaea erucifolia* (L.) G. Gaertn., B. Mey. & Scherb. in the latest list of the Crimean flora (YENA 2012, as *J. erucifolia* subsp. *arenaria*, nom. inval.). Any valid combination of this subspecies in the genus *Jacobaea* Mill. has not been hitherto published (VASJUKOV 2015; MOSYAKIN 2018). *Jacobaea erucifolia* subsp. *grandidentata* differs from *J. erucifolia* subsp. *erucifolia* by tomentosely pubescent and less deeply dissected leaves.

Fabaceae

Bituminaria bituminosa* subsp. *pontica (A.P. Khokhr.) V.V. Fateryga & Fateryga, **comb. nov.** $\equiv$ *Psoralea pontica* A.P. Khokhr. 1997, Byull. Glavn. Bot. Sada (Moscow) 175: 52. $\equiv$ *P. bituminosa* subsp. *pontica* (A.P. Khokhr.) Zernov, 2000, Rast. Severo-Zapad. Zakavkaz'ya (Pl. Transcaucas. Bor.-Occ.): 70.

Type. “Grusinskaja SSR, Svanetia inferiora, vicinia urbis Zugdidi, fodina calcare, 4.VIII.1994. E.E. Gogina” [Georgia]. Holotype and isotypes in MHA (according to the protologue).

Remarks. Some authors split *Bituminaria bituminosa* (L.) C.H. Stirt. into up to 10 different species (e.g. BOGDANOVIĆ et al. 2020). On the other hand, a recent phylogeographic study (GARCÍA-VERDUGO et al. 2021) suggests treating all of them as rather a single species. Plants known from the Caucasus and the Crimea are different enough to recognize them as a separate subspecies but not as a species. A nomenclatural combination of this subspecies in the genus *Bituminaria* Heist. ex Fabr. has not been hitherto published. *Bituminaria palaestina* (Bassi) Brullo, C. Brullo, Miniss., Salmeri & Giusso, known from Levant and recently recognized as a full species (BRULLO et al. 2016), is possibly conspecific with *B. bituminosa* subsp. *pontica* (ZERNOV 2006), but this supposed synonymy needs further confirmation. Both *B. bituminosa* subsp. *pontica* and *B. palaestina* differ from *B. bituminosa* subsp. *bituminosa* by the upper cauline leaves which are of the same shape as the lower ones, i.e. they have ovate leaflets (versus ovate leaflets in the lower leaves and linear leaflets in the upper ones in *B. bituminosa* subsp. *bituminosa*).

Lamiaceae

Phlomis herba-venti* subsp. *taurica (Hartwiss ex Bunge) V.V. Fateryga & Fateryga, **comb. & stat. nov.** $\equiv$ *Phlomis taurica* Hartwiss ex Bunge, 1873, Mém. Acad. Imp. Sci. St.-Pétersbourg, Sér. 7. 21: 77, in obs.

Described from the Crimea (“taurica”). The type material is probably lost (KRYTSKA 2013).

Remarks. This taxon was not accepted in the latest list of the Crimean flora, but treated there as a synonym of *Phlomis herba-venti* subsp. *pungens* (Willd.) Maire ex DeFilipps (YENA 2012). On the other hand, differences between these two taxa are clear enough to recognize them even as two different species, although with some intermediate forms (ZEFIROV 1966). They are apparently distributed in the Crimea allopatrically (*P. herba-venti* subsp. *pungens* mostly in the plain part, *P. herba-venti* subsp. *taurica* in the mountains) and therefore can be considered as subspecies sensu MAYR (1974). *Phlomis majkopensis* (Novopokr.) Grossh. described from the North Caucasus is sometimes treated as a synonym of *P. herba-venti* subsp. *taurica* (ZERNOV 2006), but this synonymy needs further verification. *Phlomis herba-venti* subsp. *taurica* can be distinguished from *P. herba-venti* subsp. *pungens* mainly by broader leaves and the calyx which is widened towards the opening (versus rather tubular in *P. herba-venti* subsp. *pungens*).

Acknowledgements

The reported study was a part of the State research project No. 121032300023-7 of the A. O. Kovalevsky Institute of Biology of the Southern Seas of RAS.

References

- BESSER W. S. J. G. VON. (1823): Aperçu de la géographie physique de Volhynie et de Podolie. – Mém. Soc. Imp. Naturalistes Moscou **6**: 185–212.
- BOGDANOVIĆ S., BRULLO C., BRULLO S., CAMBRIA S. & GIUSSO DEL GALDO G. (2020): *Psoralea bituminosa* var. *atropurpurea* (Psoraleaceae, Fabaceae) from Morocco recognised as a distinct species in *Bituminaria*. – Phytotaxa **451**(3): 195–205. <https://doi.org/10.11646/phytotaxa.451.3.2>
- BRULLO S., BRULLO C., MINISSALE P., SALMERI C. & GIUSSO DEL GALDO G. (2016): Taxonomic investigations on *Psoralea palaestina* (Fabaceae), a critical species of Mediterranean flora. – Phytotaxa **266**(2): 61–79. <https://doi.org/10.11646/phytotaxa.266.2.1>
- CHATER A. O. & WALTERS S. M. (1976): *Senecio* L. – In: TUTIN T. G., HEYWOOD V. H., BURGESS N. A., MOORE D. M., VALENTINE D. H., WALTERS S. M. & WEBB D. A. [eds]: Flora Europaea **4**: 191–205. – Cambridge: Cambridge University Press.
- FATERYGA A. V., FATERYGA V. V., SOKOLOVA I. V., SVIRIN S. A., YENA A. V. & YEVSEYENKOV P. E. (2020): Is *Holosteum glutinosum* (M. Bieb.) Fisch. et C. A. Mey. (Caryophyllaceae: Alsinoideae) just a subtaxon of *H. umbellatum* L. or a distinct species? – Turczaninowia **23**(4): 50–64. <https://doi.org/10.14258/turczaninowia.23.4.5>
- FATERYGA V. V. & FATERYGA A. V. (2018): New records of rare and little-known species of angiosperm plants in the flora of the Crimea. – Acta Biol. Sibirica **4**(4): 108–113. <https://doi.org/10.14258/abs.v4.i4.4883> [In Russian]
- FATERYGA V. V. & FATERYGA A. V. (2019): Additions to the vascular plant flora of the Karadag State Nature Reserve (Crimea). – Nat. Conserv. Res. **4**(2): 67–82. <https://doi.org/10.24189/ncr.2019.017> [In Russian]
- GARCÍA-VERDUGO C., MAIRAL M., TAMAKI I. & MSANDA F. (2021): Phylogeography at the crossroad: Pleistocene range expansion throughout the Mediterranean and back-colonization from the Canary Islands in the legume *Bituminaria bituminosa*. – J. Biogeogr. **48**(7): 1622–1634. <https://doi.org/10.1111/jbi.14100>
- GREUTER W. (2006+): Compositae (pro parte majore). – In: GREUTER W. & RAAB-STRAUPE E. VON [eds]: Compositae. Euro+Med PlantBase – the information resource for Euro-Mediterranean plant diversity. – Berlin: Botanic Garden and Botanical Museum Berlin-Dahlem. <http://ww2.bgbm.org/EuroPlusMed/> [accessed 27 May 2021]
- KECHAYKIN A. A., SHMAKOV A. I., SKAPTSOV M. V., ERMAKOV N. B. & KORZHENEVSKY V. V. (2018): Additions to the flora of Crimean Peninsula. – Turczaninowia **21**(4): 5–8. <https://doi.org/10.14258/turczaninowia.21.4.1> [In Russian]
- KECHAYKIN A. A., SKAPTSOV M. V., BATKIN A. A., TIMUKHIN I. N., TUNIYEV B. S., KORZHENEVSKY V. V., ZAYKOV V. F. & SHMAKOV A. I. (2020): New species of the genus *Asplenium* L. (Aspleniaceae) for the flora of Europe and Russia. – Turczaninowia **23**(4): 5–9. <https://doi.org/10.14258/turczaninowia.23.4.1> [In Russian]
- KRYTSKA L. I. (2013): Typification of vascular plant species described from Ukraine: genera *Phlomis* L., *Salvia* L., *Satureja* L., *Ziziphora* L. (Lamiaceae). – Ukrayins'k. Bot. Zhurn. **70**(6): 732–736. [In Ukrainian]
- MAYR E. (1974): Populations, species, and evolution. – Moscow: Mir. [In Russian]
- MOSYAKIN S. L. (2018 [“2017”]): “*Senecio ucranicus*” Besser (1822) versus *Senecio ucranicus* Hodálková (1999) and *Jacobaea borysthenica* (Asteraceae): a nomenclatural clarification. – Novosti Sist. Vyssh. Rast. **48**: 126–130. <https://doi.org/10.31111/novitates/2017.48.126>

- 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. & SMITH G.F. [eds] (2018): International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. – *Regnum Vegetabile* **159**. – Glashütten: Koeltz Botanical Books. <https://doi.org/10.12705/Code.2018>
- RAAB-STRAUBE E. VON & RAUS T. [eds] (2019a): Euro+Med-Checklist Notulae, 10 [Notulae ad floram euro-mediterraneam pertinentes No. 39]. – *Willdenowia* **49**(1): 95–115. <https://doi.org/10.3372/wi.49.49111>
- RAAB-STRAUBE E. VON & RAUS T. [eds] (2019b): Euro+Med-Checklist Notulae, 11 [Notulae ad floram euro-mediterraneam pertinentes No. 40]. – *Willdenowia* **49**(3): 421–445. <https://doi.org/10.3372/wi.49.49312>
- RAAB-STRAUBE E. VON & RAUS T. [eds] (2020): Euro+Med-Checklist Notulae, 12 [Notulae ad floram euro-mediterraneam pertinentes No. 41]. – *Willdenowia* **50**(2): 305–341. <https://doi.org/10.3372/wi.50.50214>
- RAAB-STRAUBE E. VON & RAUS T. [eds] (2021): Euro+Med-Checklist Notulae, 13 [Notulae ad floram euro-mediterraneam pertinentes No. 42]. – *Willdenowia* **51**(1): 141–168. <https://doi.org/10.3372/wi.51.51112>
- VASJUKOV V.M. (2015): *Jacobaea grandidentata* (Ledeb.) Vasjukov. – In: RAAB-STRAUBE E. VON & RAUS T. [eds]: Euro+Med-Checklist Notulae, 5 [Notulae ad floram euro-mediterraneam pertinentes 34]. – *Willdenowia* **45**(3): 452. <https://doi.org/10.3372/wi.45.45312>
- YENA A.V. (2012): Spontaneous flora of the Crimean Peninsula. – Simferopol: N. Orianda. [In Russian]
- YENA A.V. (2018): Flora of Crimea 9.2. – In: Botanika v sovremennom mire [Botany in the modern world] **1**: 125–127. – Makhachkala: Alef. [In Russian]
- ZEFIROV B.M. (1966): Labiatae Juss. – In: WULFF E. W.: Flora taurica **3**(2): 69–238. – Moscow: Kolos. [In Russian]
- ZERNOV A.S. (2006): Flora Severo-Zapadnogo Kavkaza [Flora of the North-Western Caucasus]. – Moscow: KMK Scientific Press Ltd. [In Russian]

Address of the authors:

Valentina V. Fateryga

Alexander V. Fateryga (corresponding author) *

T.I. Vyazemsky Karadag Scientific Station – Nature Reserve of RAS

Branch of A. O. Kovalevsky Institute of Biology of the Southern Seas of RAS

Nauki str. 24, Kurortnoye

298188 Feodosiya, Russia

E-mail: valentina_vt@mail.ru

fater_84@list.ru *

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Wulfenia](#)

Jahr/Year: 2021

Band/Volume: [28](#)

Autor(en)/Author(s): Fateryga Valentina V., Fateryga Alexander V.

Artikel/Article: [Three new nomenclatural combinations in the Crimean flora 223-226](#)