

## Erratum to:

### DUNKEL F.G. (2019): The *Ranunculus auricomus* complex (Ranunculaceae) in Slovenia. — *Stapfia* **111**: 33–91.

In the recently published article of the *Ranunculus auricomus* complex of Slovenia, a determination key was erroneously omitted (DUNKEL 2019). Based on morphological and geographical characters, all hitherto 25 known species of Slovenia are treated. The key is only valid for species collected in Slovenia. In this complex, determination keys should be always used in combination with figures: here in DUNKEL 2019. For use, it is mandatory to be familiar with the special terminology and definitions (cataphyll, length of basal leaf, main, first, second and so forth lateral incision, degree of incision: lobed, cleft, divided, dissected, receptacle, carpellophore) (HÖRANDL & GUTERMANN 1998a, DUNKEL 2005, 2010).

Furthermore, instead of *Ranunculus lanceolifer*, *R. ljubjanicae* was depicted twice (Figs. 35 and 37). The correct Fig. 37 and the determination key to the species of Slovenia together with a prospect of the species are shown here.

**Key words:** *Ranunculus auricomus*, *Ranunculus cassubicus*, Slovenia, new species, taxonomy.

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DUNKEL F.G. (2019): The *Ranunculus auricomus* L. complex (Ranunculaceae) in Slovenia. — *Stapfia* **111**: 33–91.

HÖRANDL E. & GUTERMANN W. (1998a): Der *Ranunculus auricomus*-Komplex in Österreich. 1. Methodik; Gruppierung der mitteleuropäischen Sippen. — *Bot. Jahrb. Syst.* **120**: 1–44.

## PROSPECT OF THE SPECIES

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|---|--|--|
| <p><b>3.1. <i>Ranunculus cassubicus</i> collective group</b></p> <p>3.1.1. <i>Ranunculus cassubicifolius</i></p> <p>3.1.2. <i>Ranunculus braun-blanquetii</i></p> <p>3.1.3. <i>Ranunculus allemannii</i></p> <p><b>3.2. <i>Ranunculus auricomus</i> collective group</b></p> <p><b>3.2.a <i>Ranunculus pilisiensis</i> group</b></p> <p>3.2.1. <i>Ranunculus wraberi</i></p> <p><b>3.2.b <i>Ranunculus megacarpus</i> group</b></p> <p>3.2.2. <i>Ranunculus nemorosifolius</i></p> <p>3.2.3. <i>Ranunculus metlikaensis</i></p> | <p><b>3.2.c <i>Ranunculus argoviensis</i> group</b></p> <p>3.2.4. <i>Ranunculus poldinii</i></p> <p>3.2.5. <i>Ranunculus poldinioides</i></p> <p><b>3.2.d <i>Ranunculus notabilis</i> group</b></p> <p>3.2.6. <i>Ranunculus austroslovenicus</i></p> <p>3.2.7. <i>Ranunculus vinicae</i></p> <p>3.2.8. <i>Ranunculus glechomus</i></p> <p>3.2.9. <i>Ranunculus mediocompositus</i></p> <p>3.2.10. <i>Ranunculus subcarniolicus</i></p> <p>3.2.11. <i>Ranunculus notabilis</i></p> <p>3.2.12. <i>Ranunculus peracris</i></p> <p><b>3.2.e <i>Ranunculus schilleri</i> group</b></p> <p>3.2.13. <i>Ranunculus pospichalii</i></p> | <p><b>3.2.f <i>Ranunculus palaeoeuganeus</i> group</b></p> <p>3.2.14. <i>Ranunculus gortanii</i></p> <p>3.2.15. <i>Ranunculus plavensis</i></p> <p><b>3.2.g <i>Ranunculus phragmiteti</i> group</b></p> <p>3.2.16. <i>Ranunculus arcogoticus</i></p> <p>3.2.17. <i>Ranunculus finodivisus</i></p> <p>3.2.18. <i>Ranunculus perfissus</i></p> <p><b>3.2.h <i>Ranunculus indecorus</i> group</b></p> <p>3.2.19. <i>Ranunculus variabilis</i></p> <p>3.2.20. <i>Ranunculus labacensis</i></p> <p>3.2.21. <i>Ranunculus lubljanicae</i></p> <p>3.2.22. <i>Ranunculus lanceolifer</i></p> |
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## DETERMINATION KEY (FOR THE SPECIES OF SLOVENIA)

- |      |  |                                   |
|------|--|-----------------------------------|
| 1    | cataphylls present, receptacle pilose, carpellophores short . . . . .  | 2                                 |
| 1*   | cataphylls absent, receptacle glabrous or pilose, basal leaves mostly divided . . . . .  | 5                                 |
| 2    | blade of basal leaves undivided, main incision <20% . . . . .  | 3                                 |
| 2*   | blade of basal leaves cleft to divided, main incision >30%, Nanos . . . . .  | 3.2.1 <i>R. wraberi</i>           |
| 3    | base of the blade wide-angled to truncated, (100)120–180°, leaf edge narrowly crenate-serrated or serrated . . . . .   | 3.1.3 <i>R. allemannii</i>        |
| 3*   | base of the blade narrow-angled to V-shaped, 20–100°(130°), leaf edge mostly widely crenate-serrated . . . . .   | 4                                 |
| 4    | undermost cauline leaf at least six times as long as wide, blade of basal leaves 20–50 mm long . . . . .   | 3.1.2. <i>R. braun-blanquetii</i> |
| 4*   | undermost cauline leaf at most 4.5 times as long as wide, leaves of big size, 30–100 mm long, robust plants . . . . .  | 3.1.1. <i>R. cassubicifolius</i>  |
| 5(1) | flowers always complete, i.e. regularly 5 petals, fruits only with well developed achenes (diploid sexual species) . . . . .   | 6                                 |
| 5*   | at least some flowers incomplete, i.e. less than 5 petals, fruits with badly developed, i.e. small, infertile achenes . . . . .  | 12                                |
| 6    | final (and initial) leaves undivided (or main incision up to 40%) . . . . .  | 7                                 |
| 6*   | final leaves at least with main incision $\geq 5$ . . . . .  | 10                                |
| 7    | base of final leaves (mostly) wide-angled (90)110–160°, basal leaf cycle heterophyllous, spring leaves with main incisions up to 100%. . . . .                                       | 3.2.11 <i>R. notabilis</i>        |
| 7*   | blade of initial and final leaves narrow-angled to V-formed (20–90(100))° . . . . .  | 8                                 |
| 8    | leaf edge irregularly serrated, basal leaf cycle heterophyllous, Vinica . . . . .  | 3.2.7. <i>R. vinicae</i>          |
| 8*   | leaf edge crenate to widely crenate-serrated . . . . .   | 9                                 |
| 9    | small plants with homophyllous leaf cycle, middle lobe often spatulate, Grosuplje . . . . .  | 3.2.8 <i>R. glechomus</i>         |
| 9*   | slim plants with heterophyllous leaf cycle, final and initial leaves undivided, spring leaves divided to dissected by main incision (90–100%), middle segment often stalked. . . . . | 3.2.6. <i>R. austroslovenicus</i> |

10	at least two, often three (to five) basal leaves with a stalked middle lobe. . . . .	3.2.12 <i>R. peracris</i>
10*	only one (or none, rarely two) basal leaf with a stalked middle lobe . . . . .	11
11	base of initial and spring leaves narrow-angled (10–50°), main incision of spring leaves 100% . . . . .	3.2.9 <i>R. mediocompositus</i>
11*	base of basal leaves V-formed to wide-angled (60)90–150(180)°, leaf cycle homophyllous, basal leaves tripartite with deep main incisions. . . . .	3.2.10 <i>R. subcarniolicus</i>
12(5)	all basal leaves undivided (or with a main incision of at most 35%), basal leaf cycle of four leaves, segments of cauline leaves broadly lanceolate, Škocjan . . . . .	3.2.13 <i>R. pospichalii</i>
12*	at least one leaf divided by a main incision >90% . . . . .	13
13	number of segments of lowermost cauline leaf 5, middle segment with concave edge, tapering in a stalk, petals 12–15 mm long, receptacle glabrous, western edge of Slovenia around Nova Gorica ( <i>R. palaeoeuganeus</i> group) . . . . .	14
13*	number of segments of lowermost cauline leaf (5)7–9, middle segment with convex, straight or slightly concave edge, receptacle glabrous or pilose . . . . .	15
14	base of basal leaves wide-angled (rarely V-formed), (90)110–150(180)°, main incision of final leaves 10–50% . . . . .	3.2.15 <i>R. plavensis</i>
14*	base of basal leaves narrow-angled to V-formed, middle segment of spring leaves often stalked, main incision of final leaves 50–80% . . . . .	3.2.14 <i>R. gortanii</i>
15	middle segments deeply incised, at least on middle segment of spring leaves tricleft with incision >50%, Postojna . . . . .	16
15*	middle segments not deeply incised, incision <30% . . . . .	17
16	blades of basal leaves strongly divided, fourth to seventh basal leaf with fourth and fifth lateral incision, base narrow- to wide-angled, receptacle glabrous. . . . .	3.2.18 <i>R. perfissus</i>
16*	blades of basal leaves divided, but fourth to seventh leaf only with first, second or third lateral incision, base V-formed, receptacle scarcely pilose . . . . .	3.2.16 <i>R. arcogoticus</i>
17(15)	leaf edge of all basal leaves conspicuously irregularly crenate-serrated to serrated, middle segments of spring leaves with (9)11–13(15) teeth . . . . .	18
17*	leaf edge of all basal leaves rather regularly crenate-serrated, middle segments of spring leaves with 0–7(0) teeth (if more, see 3.2.18 <i>R. perfissus</i> ) . . . . .	19
18	basal leaves at least partly with closed aperture, middle lobe broadly deltoid to spatulate, receptacle glabrous, Nova Gorica. . . . .	3.2.4 <i>R. poldinii</i>
18*	basal leaves (at least partly) with wide-angled aperture, middle lobe deltoid, receptacle glabrous to sparsely pilose, around Ljubljana . . . . .	3.2.5 <i>R. poldinioides</i>
19(17)	segments of lowermost cauline leaf with (1)2–8 teeth, lanceolate to narrowly deltoid, plants of parks and deciduous forests, petals 10–14 mm . . . . .	20
19*	segments of lowermost cauline leaf untoothed, (in <i>R. ljubjanicae</i> occasionally with one tooth), ± linear, plants at meadows and in alder forests, petals (5)6–10(12) mm . . . . .	21
20	final leaves: aperture narrow-angled (30–80°), strongly irregularly crenate-serrated to serrated, receptacle glabrous, Slovenian-Croatian border. . . . .	3.2.3 <i>R. metlikaensis</i>
20*	final leaves: aperture V-shaped to wide-angled (90–135°), receptacle pilose, Ljubljana . . . . .	3.2.2 <i>R. nemorosifolius</i>
21(19)	receptacle pilose . . . . .	22
21*	receptacle glabrous . . . . .	24
22	blade of final leaves with 3–4 lateral incisions, more divided than the spring leaves, receptacle large, 3.5–4.5 mm long with short carpellophores, Pomurska . . . . .	3.2.17 <i>R. fnodivisus</i>
22*	blade of final leaves with 0–1 lateral incision, less divided than the spring leaves . . . . .	23
23	middle segments narrowly deltoid, in some leaves undivided and untoothed, narrowly lanceolate (and stalked), main incision up to 100% . . . . .	3.2.22 <i>R. lanceolifer</i>
23*	middle segments deltoid, sometimes broadly lanceolate with ≥1 tooth, never stalked, main incision <94% . . . . .	3.2.19 <i>R. variabilis</i>
24(21)	final leaves: base wide-angled, lateral segment undivided, carpellophores 0.4–0.75 mm . . . . .	3.2.20 <i>R. labacensis</i>
24*	final leaves: base V-formed, lateral segment with first to second lateral incision, carpellophores 0.3–0.5 mm . . . . .	3.2.21 <i>R. ljubjanicae</i>



Fig. 37: Holotype and isotypes of *Ranunculus lanceolifer* (LJU).





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