

XXVI. *Observations on the Genus Teesdalia; in a Letter to Robert Brown, Esq. F.R.S. Libr. L. Soc. By Sir James Edward Smith, M.D. F.R.S. P.L.S.*

Read March 15, 1814.

DEAR SIR,

I OBSERVE with pleasure in the new edition of Mr. Aiton's *Hortus Kewensis*, which you have so greatly enriched, that you have dedicated a genus to the memory of the late Mr. Robert Teesdale, F.L.S., whose merits are well known to the Linnean Society. I became acquainted with this worthy man at Matlock in 1788. Two botanists could not long be in that delightful spot without finding each other out; and our friendship continued, without interruption, till Mr. Teesdale's death, December 25, 1804. He was an accurate and experienced observer, liberal in communicating that knowledge, which it was the happiness of his life to possess.

YOUR TEESDALIA interests me also on another account. The *Iberis nudicaulis* of Linnæus, on which it is founded, one of our Norfolk rarities, has always appeared to me very different in habit from the rest of the genus, to which botanists have referred it. Nevertheless, the over-ruling character of the irregular corolla seemed of such authority, that it has hitherto been allowed, not only to confine this plant to a genus, with which it has scarcely any thing else in common; but to separate it from another plant, to which it is most intimately allied. I allude to the *Lepidium*

nudicaule of Linnæus, which you have not mentioned, but on whose botanical history I beg leave to offer a few remarks.

This little herb was first announced by the accurate Magnol, in his *Botanicum Monspeliense*, p. 187, by the name of *Nasturtium minimum vernal, foliis tantùm circa radicem*. It is said to grow at the entrance of the celebrated *bois de Gramont*, flowering in the early spring. The short description of this author, which contains nothing to my present purpose, is accompanied by an engraving, rude indeed, but so exquisitely characteristic that it may put to the blush many a laboured and expensive plate.

Sauvages, in his *Methodus Foliorum*, 228 and 281, mentions this plant as a *Lepidium*, expressly saying, in the page last quoted, that the petals are equal.

Linnæus cites both these authors, and no others, in *Sp. Pl.*, ed. i. 643, where he has the plant in question as

LEPIDIUM nudicaule, scapo nudo simplicissimo, floribus tetrandris.

His short description subjoined is accurate and appropriate. "*Folia radicalia multa, linearia, apice pinnatifida vel dentata. Siliiculæ emarginatæ. Petala æqualia. Stamina 4.*" Such descriptions in his works, where no authority is cited, are always made from his own observation, and I have no doubt but this was so. Authentic specimens from Montpellier, with the name, as well as the number, three, in pencil and in ink, referring to the *Sp. Pl.*, leave no doubt of the plant intended. I have also received others from the same country, which, till I was led to investigate the subject, I confess were referred to *Iberis nudicaulis*, so precisely do these two plants resemble each other. Mr. Curtis has fallen into the same error, in citing Magnol's synonym for *Iberis nudicaulis*, in his *Fl. Londinensis*; nor does he seem to have perceived that it was already quoted by Linnæus for *Lepidium nudicaule*.

Gerard, in his *Fl. Galloprovincialis*, 347, has the plant of Magnol,
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by the name of *Nasturtium foliis pinnatifidis, caule nudo, floribus tetrandris*. Under this he refers to the *Lepidium nudicaule* and *Iberis nudicaulis* of Linnæus, as if they were the very same thing, without any remark or explanation, or even the slightest distinction of either as a variety.

In *Sp. Pl. ed. ii.* 898, Linnæus repeats all he had before said of this *Lepidium*, subjoining a reference to Lœfling's *Iter Hispanicum*, 155, and the addition of Spain after Montpellier, as the native countries of the plant. He has added, in manuscript, "*foliis pinnatifidis*" to the specific character, and a note of inquiry, "whether Gerard meant to consider this *Lepidium* as the same with *Iberis nudicaulis*?" The latter stands in its proper place, p. 907, with its own synonyms, to which *Flo. Danica, t.* 323, is added in manuscript; but there is no hint of any resemblance or affinity to the *Lepidium nudicaule*. In his *Iter Oelandicum*, 139, occurs a very full Latin description of this *Iberis*, with the precise and important information that "the two outer petals are twice or thrice as large as the others, and the stamens are six." In both editions of *Systema Vegetabilium* Linnæus has inserted a note, expressly declaring the *Lepidium nudicaule* to be distinct from the *Iberis nudicaulis*; so that nothing can be more certain than his uniform opinion on the subject.

Lœfling's description, in the place above mentioned, cannot be exceeded for fullness and accuracy. After detailing the characters of the other parts, he adds,

"*Petala quatuor, cruciformia, æqualia, patentia. Ungues lineares, sensim aucti in laminam obtusam, calyce longiorem. Filamenta quatuor (desunt ambo minora), ad latus planum germinis, erecta, ad basin a parte interiore aucta glandulâ compressâ, latâ, depressiusculâ, albâ,*" &c. &c.

I have examined, by means of boiling water, a specimen from the South of France, and find it answer in every particular to this description.

description. In vain, however, have I sought for any character, or for the slightest difference in the appearance of any other part of the plants, between the *Lepidium* and *Iberis* in question. The latter seems confined to the more northern parts of Europe, the former to the south. Both grow in dry gravelly situations, flowering in the spring. The *Iberis* is never found to vary with us, in the proportion of its petals, or number of its stamens, each of which last has its own scale-like appendage, which could not escape the accuracy of Mr. Sowerby, in making his drawing for *English Botany*, the only work, I believe, in which these appendages, in the *Iberis*, have been mentioned, till you happily fixed on them as a part of the character of your *Teesdalia*. They are indeed shown in Mr. Curtis's plate, *Fl. Lond. fasc. vi. t. 42*, but totally neglected in the description.

The *Lepidium* in question seems to be unknown in our gardens. It is much to be wished that we might have an opportunity of cultivating and examining so curious a plant. We might then be able to determine whether its characters were constant. In the mean while I think we must presume it to be a distinct species from the *Iberis*, though I am satisfied, beyond all doubt, that they must belong to one genus. I therefore concur with you in leaving the irregularity of the petals out of the generic character, which may, in that case, be thus expressed.

TEESDALIA.

Silicula emarginata, obcordata, loculis dispermis.

Filamenta basi intus squamigera.

The species will be :

1. *T. nudicaulis*, petalis inæqualibus.

Iberis nudicaulis. Linn.

2. *T. regularis*, petalis æqualibus, floribus tetrandris.

Lepidium nudicaule. Linn.

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Although the specific name *nudicaulis* is applicable to both, I would retain it for our English species ; not only to avoid needless changes, and to preserve an association familiar to most botanists, but especially on account of the uncertainty (which I cannot presume I have quite dissipated) whether there be really more than one species. The figure in the *Flora Danica* rather favours this uncertainty. Though that figure can, surely, only represent the *Iberis nudicaulis*, the petals are made nearly equal, and the stamens in one, or perhaps two, flowers, are shown to be only four. In another they seem to be six. The petals are too sharp, as well as too small, for our *Teesdalia nudicaulis*, but the petals of my *T. regularis* are likewise obtuse. The scales, or appendages, are erroneously placed on the external side of each filament, or rather on four of them only. In our English *Teesdalia* they certainly stand on the inner side, just above the base, of every one of the six filaments, though smaller on the two opposite ones than on the rest. The faithful Læfning describes them as so situated on the four stamens of what I call *Teesdalia regularis*.

I beg the favour of you to lay this communication before the Linnean Society ;

And remain,

With great regard, &c.

Norwich,
March 12, 1814.

J. E. SMITH.