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The Linnaean material of two species of the genus *Lotus* in the collection Hortus Cliffortianus

ANNA CHRTKOVÁ-ŽERTOVÁ ¹⁾

(Mit 2 Textabbildungen)

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The species of the genus *Lotus* L. mostly belong to the very variable taxa showing series of different forms in nature. The lack of type material has made the precise identification of the names very difficult, and, in some cases, impossible.

The authentic material of LINNAEUS is very valuable. It is deposited in the herbarium of the Linnaean Society in London (LINN). The collection includes most of the taxa described by this author, some of them are, however, fragmentary or represented by more specimens. Besides that, there are many important documents, especially to his work "Hortus Cliffortianus" (1737), in the collections of the British Museum of Natural History in London (BM). Some of them are also quoted in his later work "Species Plantarum" (1753).

This collection contains altogether six species of the genus *Lotus* (sensu stricto, i. e. without genera *Tetragonolobus*, *Bonjeania* and *Dorycnium*), and two other plants denominated only by a phrase of lower value and being without the later Linnaean binomial name.

The sheets of this collection bear the numbers and indications of pages of the book "Hortus Cliffortianus" (1737), and are provided with the polynoms, which are, with one exception (confer below!), quoted both in this book and in the work "Species Plantarum" (1753). However, all of them are given in both works on the second place as synonyms, quotations from former authors. They are, therefore, not the polynoms created by LINNAEUS himself.

This study is dealing with the species *Lotus peregrinus* and with two other specimens belonging to the species *L. uliginosus* SCHKUHR described subsequently. Other specimens of this collection belong to the species *L. edulis*, *L. angustissimus*, *L. ornithopodioides*, *L. creticus* and *L. jacobaeus*, which will be the subject of another study.

¹⁾ Botanical Institute, Czechoslovak Academy of Sciences, Průhonice near Prague.

L. peregrinus L.

3. p. 372. "*Lotus siliquis geminis peregrina*. Boerh.". This phrase agrees with quotation in the book an is also mentioned in "Species Plantarum" (1753). The quotation from BOERHAVE (1710, p. 156, no. 10) is identical with that on the sheet. This author does not give other polynoms. LINNAEUS describes this species (1737) by his own polynom "*Lotus leguminibus saepius binatis linearibus compressis nutantibus*", which, with slight modification, takes over also in his later work (1753): "*Lotus leguminibus subbinatis linearibus compressis nutantibus*", where also the first work is quoted. From the noticed characteristics the conclusion results that he meant the species *L. peregrinus*. Its identity is indicated also by the epithet "peregrina" as well as the quoted distribution "In Europa australi". HEYN (1966) considers the plant in BM to be a type specimen. However, the sheet contains the parts of two plants belonging to two different species, namely the upper part of the plant belonging to the species *L. peregrinus*, and the upper part of one branch and one inflorescence belonging to the species *L. ornithopodioides*. (Fig. 1 a, b). This part is placed in the right-hand half of the sheet (Fig. 1 b). The species *L. ornithopodioides* is, however, typified by another plant of the same collection (Hortus Cliffortianus). It differs in longer and thinner peduncles of the inflorescence and small, widely triangulate to cordate leaflets of the lower pair of the leaf. Therefore, it is necessary to designate the plant belonging to the species *L. peregrinus* as a lectotype. In the collection LINN this species is not represented.

Description of the plant of the species *L. peregrinus* (the left part of the sheet) (Fig. 1a): Stems thick, erect spreadingly hairy; leaflets obovate to widely oblanceolate, at the top abruptly pointed or blunt, erect spreadingly hairy, the terminal leaflet mostly with a longer petiole; peduncles of the inflorescence short, thick, mostly 4–12(–17) mm long; calyx campanulate, \pm 5 mm long, erect or obliquely spreadingly hairy, calyx teeth narrowly triangular, abruptly tapering in the upper half, \pm as long as or only a little longer than the calyx tube; legumes brownish, appressed loosely long-hairy, 22–38 mm \times 2,5 mm large, the longest legume with 23 seeds.

This nominate variety is distributed in the Eastern Mediterranean. HEYN (1966) distinguishes another variety, var. *carmelii* BOISS., having longer and thinner peduncles of the inflorescence, larger legumes and dark seeds.

L. uliginosus SCHKUHR

The two specimens belonging to this species are of great interest.

The first one is labelled as "*Lotus pentaphyllos flore majore luteo splendente*". This phrase is not to be found in the book "Hortus Cliffortianus", however, it is mentioned in "Species Plantarum" (1753) as β of the species *L. corniculata*. BAUHIN is quoted there by LINNAEUS. BAUHIN (1671) mentions the polynom separately, under number III. with two other epithets, quoted from the former authors "Meliloti majoris quarta species, Trag." and "Trifoli-



Fig. 1a. *L. peregrinus* L. „*Lotus siliquis geminis peregrina*“ (BM). Fig. 1b. *L. ornithopodioides* L.

um corniculatum tertium, Dod.”. This quotation is without the word “tertium” in LINNAEUS (1753, p. 776). On the sheet in BM there has been added the determination “*corniculatus*” by an unknown author.

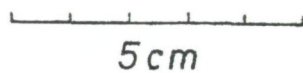


Fig. 2. *L. uliginosus* SCHKUHR „Lotus pentaphyllos flore majore luteo splendente“ (BM).

The sheet consists of the upper branching part of a plant and one fragment of another stem. (Fig. 2).

Description: Stems glabrous; leaflets obovate, ciliate along the margin, brownish green above, glaucous beneath; the peduncles of the inflorescence 11 and 12 cm long; flowers 10–12 mm long, calyx campanulate, \pm 5 mm long, calyx teeth narrowly triangulate, in the upper half awl-shaped, the upper pair separated by an acute sinus if young, \pm as long as the calyx tube.

The second sheet is labelled as "*Lotus pentaphyllus siliquosis luteis*". Later, a word "siliquosus" has been added by an unknown author. This polynom in its full wording is quoted neither in "Hortus Cliffortianus" nor in the later "Species Plantarum".

No binomial has been created for these two polynoms by LINNAEUS; thus, at that time, they have not been validly published. Both the plants belong to the much later described species (1796) *L. uliginosus* SCHKUHR, more exactly to its typical variety, characterized by glabrous stems and glabrous leaflets, ciliate only along the margin, as opposed to var. *villosus* LAMOTTE, which is hairy.

Summary

The collection of "Hortus Cliffortianus" preserved in the British Museum of Natural History in London (BM) includes several type specimens of Linnaean species and other important document material explaining some of his polynoms, the relation of which to some well defined taxa has not yet been quite clear.

In this contribution there are treated the species *L. peregrinus* and two sheets belonging to the species *L. uliginosus* SCHKUHR.

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Autor(en)/Author(s): Chrtková-Zertova [Chrtkova] Anna

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