

## CERASTIUM LIGUSTICUM AND C. DOMINICI IN TURKEY

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**ABSTRACT.** It is shown that the record given in *Flora of Turkey* for *Cerastium ligusticum* Viv. refers to the subsequently described *C. dominici* Favarger. The essentially Italian *C. ligusticum* does, however, occur on the Black Sea coast of N Turkey as an introduced alien. Additional Turkish records are given for *C. brachypetalum* Pers.

The following short note deals with the occurrence in Turkey of three species of *Cerastium*: *C. ligusticum* Viv., *C. dominici* Favarger and *C. brachypetalum* Pers.

### *Cerastium ligusticum* and *C. dominici*

*C. ligusticum* was indicated in the *Flora of Turkey* by Cullen (283, 1966) from the south-west of Turkey (Muğla, distr. Marmaris, Yarimadasi, 300 m). It was said that it occurred "on serpentine and perhaps elsewhere". In a later paper (Favarger 1976), the present author described a new species, *C. dominici* Favarger, based on a sheet collected by Mme M. Tissot-Daguette (also from the province of Muğla) on Göz Tepe, growing on serpentine at 2000 m. This species, related to *C. fragillimum* Boiss., would, following the key in the *Flora of Turkey*, run down to *C. ligusticum* Viv. We have therefore considered whether the plant from Yarimadasi mentioned by Cullen as *C. ligusticum* is that species or in fact the same as *C. dominici*, particularly since the latter grows on serpentine in the same province.

With the co-operation of Dr Davis and the Royal Botanic Garden Edinburgh, I have been able to study the relevant specimen of '*C. ligusticum*' (Davis 41278), and another *Cerastium* collected by Davis & O. Polunin (D. 25374) from between Marmaris and Emecik, on serpentine, at 350 m. The latter specimen was determined by Cullen in 1964 as '*C. aff. ligusticum* Viv.'. It also bears in Dr W. Möschl's hand a determinavit slip saying '*Cerastium* (species mihi ignota) non *C. armeniacum* Gren. non *C. ramosissimum* Boiss. non *C. ruderale* M.B. non *C. fragillimum* Boiss., Rev. no. 10142, 3 vi 1959'.

It remains to add that Davis himself had doubts on the allocation of the two exsiccatae to *C. ligusticum*. In a letter to the author (27 i 1976) he wrote 'I must say that they don't look very like European *C. ligusticum* (or *C. campanulatum*?) in the herbarium, and seem to need further study. Perhaps a serpentine endemic?'. The examination of both sheets makes it clear that both are in fact *C. dominici*. Davis 25374 is without fruit and seeds but the habit of the plant, the shape of the leaves, the abundance of glandular hairs, and above all the large size of the petals (exceptional for an annual *Cerastium*) leave no doubt. The field note reads 'plant very viscid, annual'. It is unfortunate that I have not been able to examine the seeds which would have made the determination even more certain.

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Davis 41278 has ripe capsules and seeds. The latter show the very characteristic ornamentation of *C. dominici*, the marginal verrucae being up to 0.09 mm. The largest diameter of the seeds (including the verrucae) varies around the 1 mm size, whereas in *C. ligusticum* it does not exceed 0.5 mm. One can note some slight differences in comparison with the original specimens of *C. dominici* (Tissot-Daguette 21674): fruiting peduncles appreciably longer in D. 41278 and the nervation on the capsule less conspicuous. However, the differences are insufficient to give the Yarimadasi plant varietal status, at least until we know better what the range of variation of *C. dominici* is. Our conclusion also confirms Davis's supposition that the Yarimadasi plant is a serpentine endemic, a suggestion which we proposed for *C. dominici* (Favarger 1976) without having sufficient proof, since we only had the sheet from Göz Tepe at our disposal. The species has a wide altitudinal range, from 300 to 2000 m, but appears to be clearly linked with serpentine.

Does, therefore, *C. ligusticum* exist at all in Anatolia? In the *Flora of Turkey*, Cullen expressed some doubt on the allocation of a specimen collected by Tchihatcheff (as *C. campanulatum* Viv., Tchihatcheff 71) from Samsun in N Anatolia. Through the kindness of Prof. Miège at Geneva, I have been able to examine this gathering. The specimen, without any doubt, is *C. ligusticum* Viv. The herbarium specimen bears a determinavit slip written by Möschl 'C. campanulatum Viv. f. *typicum* Möschl. 13 xi 1951'.

In his revision of the *C. campanulatum* Viv. group (Möschl, 1949), the Austrian author mentions the Samsun locality. Certainly one can ask whether it is possible that a species which essentially has an Italian distribution can occur at such an isolated locality on the shores of the Black Sea. I am inclined to believe that the seeds of this *Cerastium* were accidentally transported by Genoese or Venetian ships of commerce. In the same way but in reverse, Contandriopoulos (1962) has interpreted the isolated occurrence in Corsica of *Cerastium comatum* Desv., a species of the eastern Mediterranean; or the odyssey of *Alyssum corsicum* Duby, which from Anatolia has come ashore near Bastia (Corsica). Möschl (1949) attributes the N African, Swiss and German localities of *C. campanulatum* to immigration during historical times. It seems that we are dealing with a species with a certain propensity to become adventive.

*C. brachypetalum* Pers. subsp. *roeseri* (Boiss. & Heldr.) Nyman

To the localities for this species which are given in the *Flora of Turkey* (p. 83, 1967) and those published by Huber-Morath (1973) may be added the following:

B3 Afyon: slopes of Sultan Da., near Çay, 1600 m, 27 vi 1975, *Welter & Hébert* (NEU). C3 Isparta: slopes of Davros Da., below Eğridir, on granite rocks, 1810 m, 21 vi 1975, *Welter & Hébert* (NEU).

#### REFERENCES

- CONTANDRIOPOULOS, J. (1962). *Recherches sur la flore endémique de la Corse et sur ses origines*. 354 pp. Thesis. University of Montpellier.  
 CULLEN, J. (1967). *Cerastium* in Davis, P. H., ed., *Flora of Turkey* 2:73-85.

- FAVARGER, C. (1976). Un nouveau *Cerastium* de Turquie: *Cerastium dominici* spec. nov. *Bull. Soc. Neuchâtel Sc. Nat.* 99:81-86; Nouveau nombre chromosomique de base pour le genre *Cerastium* L. et phénomènes endomitotiques chez *Cerastium dominici* Favarger. *l.c.* 87-92.
- HUBER-MORATH, A. (1973). Ergänzungen zur Flora der Türkei. *Verhandl. Naturf. Ges. Basel* 83:193-318.
- MÖSCHL, W. (1949). *Cerastium campanulatum* Viviani und ähnliche Arten. *Portugaliae Acta Biol. (B)*: 235-299.

## BOOK REVIEW

*Compositae Terrae Natalis*. It is fitting that this volume\* should have made its appearance soon after the New Year for it was at this season, to be exact on Christmas Day, 480 years ago that Vasco da Gama sailed into the bay where Durban now is and named the land beyond Terra Natalis. That is history: what is news is that we now have an impressive account of the Natal Compositae and a well-wrought piece of work it is both in presentation and treatment.

The production is by a photo-litho technique but whereas other examples of this style have been cramped and difficult to use, this is well-spaced so that species names stand out and the relevant parts of the treatment (synonymy, description, etc.) are nicely divided off from each other and easy on the eye.

Taxonomic arrangement follows the traditional Benthamian scheme although the sequence of genera is that of Dalla Torre & Harms. There are two keys (indented and lead by numbers) to the 113 genera: the first 12 tribes (including the *Helenieae*) being catered for at the front of the volume, the thirteenth, the *Lactuceae*, is dealt with, almost as a distinct family, near the back. There is also a separate key to tribes and, of course, each genus, other than those that are monotypic, has a key to species of which there are in all about 640. The keys use contrasting characters that are well chosen to bring forth correct determinations though more alternative characters could have been inserted to cope with, for example, an inadequacy of flowers.

The author has been particularly adept at capturing within the space of 8-12 lines a concise pen-picture of the species, yet the language employed throughout is easily readable and uncluttered with the technical jargon of yesteryear. This easy turn of phrase, however, must not obscure the fact that very exacting preparation has gone into these descriptions particularly the 123 species of *Helichrysum* in which it must be no exaggeration to state that the constituent flowers of hundreds of capitula must have been counted to enable the author to write for a particular species "Flowers 231-407, (0-)-7-13 female, 224-403 hermaphrodite".

The conversational style, readable though it is, may have been used excessively in this work, which has been produced with an eye to economy, witness the photo-litho technique, and synonymy has been cut down with this end in view. I refer particularly to the notes that follow the descriptions discussing distribution, habitat, flowering time and variation. Is it necessary with every species to spell out that it grows at about so many "metres above sea level"? Careful pruning could have halved the number of words devoted to these purposes without loss of information.

The 25 line drawings, all but one of them of full page size, are of excellent quality. The first three illustrate the forms that corollas, anthers and styles can take, three others are of leaf shapes in difficult genera like *Cineraria* and *Taraxacum* and the remainder depict all or part of a plant with dissections and details of related species around it. The maps on the end-papers show Natal surrounded by the neighbouring territories, those to the north and west at the front of the volume; those to the south at the back. These may be fine for showing the distribution of a species outside Natal but are often insufficient to indicate locality, even in wide terms e.g. "Umzinto distr.", of those within its borders.

\* *Compositae in Natal* by O. M. Hilliard. University of Natal Press, P.O. Box 375, 3200 Pietermaritzburg, South Africa, 1977, 659 pp., 25 figs + 2 maps. Price R. 24.00.