

NOTES ON TWO ALIEN VULPIAS IN BRITAIN

Townsend (1959) first reported the presence in Britain of *Vulpia australis* (Steudel) Blom, an alien from South America. This addition to the British list was based on a gathering by C. W. Bannister and C. C. Townsend in 1955 from the docks at Sharpness, W. Gloucs., v.c. 34, of which we have seen material in K and herb. J. E. Lousley. Townsend appears to have identified *V. australis* by comparing his specimens with material so-determined in K, where there are several sheets from South America of plants agreeing with the Sharpness specimen and labelled *V. australis* (in particular by the American agrostologist A. S. Hitchcock). Such plants do not, however, agree with the original description nor with the type-specimen of this species.

V. australis (Steudel) Blom is based on *Festuca australis* [Nees ex] Steudel, which was in turn based on *Festuca tenella* var. α Nees, non Willd. The description given by Nees (1829) mentions few characters which one could use to separate the closely related species in the section *Vulpia* of the genus *Vulpia*, but he described the lower glume as half as long as the lowest lemma on the same side, and the upper glume as about as long as the lowest lemma on the same side. Taken in their strict application these features agree very closely with those of *V. bromoides* (L.) S. F. Gray, but less so with those of other related species or with those of the Sharpness specimen. The only specimen cited by Nees was collected by Sellow at Montevideo and seen by Nees in B. No such specimen exists at B now, but a duplicate of it, sent from B in 1840 (after Nees' publication), is at K. It is clearly *V. megalura* (Nutt.) Rydb., a taxon to which Nees' description does not strictly apply, and quite different from the Sharpness plant. The true identity of *V. australis* as understood by Nees is thus uncertain, and will be discussed by us more fully in a later paper.

The Sharpness specimen is a typical representative of the plant generally known as *V. hybrida* (Brot.) Pau or *V. broteri* Boiss. & Reut., a western Mediterranean species which is widely naturalized in South America, and Townsend's (1959) description gives a good idea of the differences between it and *V. bromoides*. Several other British specimens, mostly wool-alien, have been identified as *V. australis* since 1959, and the name has been used in the literature (e.g. Lousley 1961). All specimens we have seen so-labelled have been referable to *V. broteri*, or (presumably representing mis-identifications) to *V. bromoides*, *V. myuros* (L.) C. C. Gmel. or *V. megalura*, all of which occur as aliens in South America. We have seen material of *V. broteri* from Scilly, v.c. 1a; N. Hants., v.c. 12; W. Kent, v.c. 16; Beds., v.c. 30; and W. Gloucs., v.c. 34.

The correct name for *V. broteri* (*V. hybrida*) is, however, *Vulpia muralis* (Kunth) Nees, a combination based on *Festuca muralis* Kunth, which was in turn based by Kunth on his own earlier concept of *F. myuros* L. (*V. myuros*) as it occurred in South America, but which he came to believe was a distinct species. There is an isotype of *F. muralis* (from garden walls, Quito, Ecuador) in BM, and it is a perfect match for the European *V. broteri*. The name *F. muralis* was published in 1822 and easily predates *V. broteri* or *V. hybrida*.

Vulpia megalura, the second subject of this note, has been known as a wool-alien species in Britain for many years. It was described (as *Festuca megalura* Nutt.) from Californian material, and it is very widespread in both North and South America. Nevertheless it is scattered throughout the European and North African range of *V. myuros*, to which it is very closely related, in places where it is most unlikely to have been introduced (in contrast to its casual status in Britain), and we are convinced that it was introduced to America from the Mediterranean region. The same conclusion has been recently reached by Lonard & Gould (1974).

V. megalura differs from *V. myuros* only in its lemmas, which are ciliate distally. Such variation is found in several species of *Vulpia*, and we fully agree with Lonard & Gould (1974) that the two taxa are conspecific. Lonard & Gould included *V. megalura* in *V. myuros* var. *hirsuta* Hackel. However, we consider that the rank of forma is more appropriate, and the combination *V. myuros* f. *hirsuta* (Hackel) Blom already exists (Blom 1934). But the basionym *V. myuros* β *hirsuta* Hackel referred to a Portuguese plant with dorsally hairy (not marginally ciliate) lemmas (Hackel 1880). Plants of this sort are also scattered throughout the range of *V. myuros*, and we consider them to represent a distinct forma.

Therefore we wish to make a new combination for plants previously known as *V. megalura*:

Vulpia myuros (L.) C. C. Gmel. f. *megalura* (Nutt.) Stace & Cotton, comb. et stat. nov.

Festuca megalura Nutt., J. Acad. Nat. Sci. Philadelphia, 2(1): 188 (1847)

It is interesting to note that these two plants, *V. muralis* and *V. myuros* f. *megalura*, are both

Mediterranean taxa which have become naturalized in America, were both first named in America, and have both been re-introduced into Europe as wool-aliens from America.

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