

A RUSSIAN *ALCHEMILLA* IN SOUTH SCOTLAND

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Whilst botanising in south Scotland in 1956 M.E.B. found a few small colonies of an unfamiliar species of the *Alchemilla vulgaris* aggregate at two points about half a mile apart near Bowhill, west of Selkirk (v.c. 79). A return visit in August 1957 showed that the plant was abundant in dense stands by paths and roads of the Bowhill estate (National Grid ref. 36/4227).

The plant did not correspond to any of the known Scandinavian or central European species, but reference to the *Flora U.R.S.S.* indicated that it probably belonged to the section *Nemorales* of Juzepczuk, in particular *A. tythantha* Juz. Meanwhile herbarium material sent to Professor W. Rothmaler had been identified by him as "the remarkable *A. multiflora* Buser ex Rothm., native country unknown, which I observed cultivated in Germany, Austria and Switzerland" (*in litt.*). The Selkirk plant certainly agreed well with plants of *A. multiflora* in the Cambridge Botanic Garden grown from seed supplied earlier by Rothmaler. Obviously the question arose, was there any connection between *A. tythantha* Juz. and *A. multiflora* Bus. ex Rothm.? Further investigation revealed that they were in fact synonyms, as is explained on the herbarium sheets of the former distributed by Juzepczuk (first seen by S.M.W. in the herbarium at Vienna and now available in the British Museum (Natural History)); and the Selkirk plants were found to agree well with the distributed material of *A. tythantha* Juz.

The history of the name *A. multiflora* is an interesting one. Buser knew the plant in the Botanical Garden at Vienna, where it was in cultivation in 1887; there is material determined as *A. multiflora* by Buser in both the University Herbarium and the Natural History Museum at Vienna. Rothmaler had seen this material, and also knew the plant in cultivation at the Berlin Botanic Garden, and on this basis published the name as *A. multiflora* Buser ex Rothm. (1939) with a description and a note on what was known of its history. The native home of the plant was unknown to Rothmaler, though Buser had indicated that it might have come from the Crimea. This was confirmed by Juzepczuk, who recognised the cultivated plant as being the same as his *A. tythantha*, an endemic of the Crimea which he described and published in 1933.

As the most readily available description of *A. tythantha* is in Russian (Komarov, 1941), a description of the wild British material follows (see plate 17).

Plant medium-sized, 20–50 cm. Lower part of inflorescence and petioles densely clothed with spreading, usually *slightly deflexed hairs*, upper branches, pedicels and flowers glabrous. Leaves round, with narrow basal sinus (c. 10°–40° (90°)), *densely hairy on both sides*, late summer leaves less hairy but not glabrous; lobes usually 9, rounded, sometimes straight-sided; teeth acute, porrect; cauline leaves rather large. Flowers yellow-green, *small*. (1.5–2.5 (–3) mm. diam.).

The plant is easily recognised by the combination of very hairy leaves and very small flowers, together with the almost invariable presence of some *downwardly-directed hairs* among the dense spreading pubescence of stem and petiole.

Herbarium material is deposited in the herbarium at the University of Durham, Durham, and at the Botany School, Cambridge.

In the Bowhill area *A. tythantha* is common along the roads and paths through the

woods immediately around the house. These woods contain many conifers, but the *Alchemilla* localities are not heavily shaded, and in some places the plants are in open rough grassland. A few stands grow amongst roadside trees and shrubs just south of the bridge over the R. Yarrow. The species forms dense stands resembling *A. xanthochlora* Rothm. and *A. acutiloba* Bus. The following associated species were recorded in a metre quadrat containing *A. tyttantha* by a road in a mixed oak-elm wood west of Bowhill. Figures are Domin scale (1-10) abundance - cover estimates

<i>Dactylis glomerata</i>	7	<i>Ranunculus repens</i>	1
<i>Alchemilla xanthochlora</i>	4	<i>Filipendula ulmaria</i>	1
<i>Phleum pratense</i>	2	<i>Plantago major</i>	1
<i>Heracleum sphondylium</i>	2	<i>Rumex conglomeratus</i>	1
<i>Geranium sylvaticum</i>	1	<i>Agrostis tenuis</i>	1

(1 = less than 4% cover, rare; 2 = less than 4% cover, scattered; 4 = 4%—10% cover; 7 = 34%—50% cover.)

More recently (1959) the species was found on another estate near Duns (v.c. 81), also in South Scotland, but no details of the record are available.

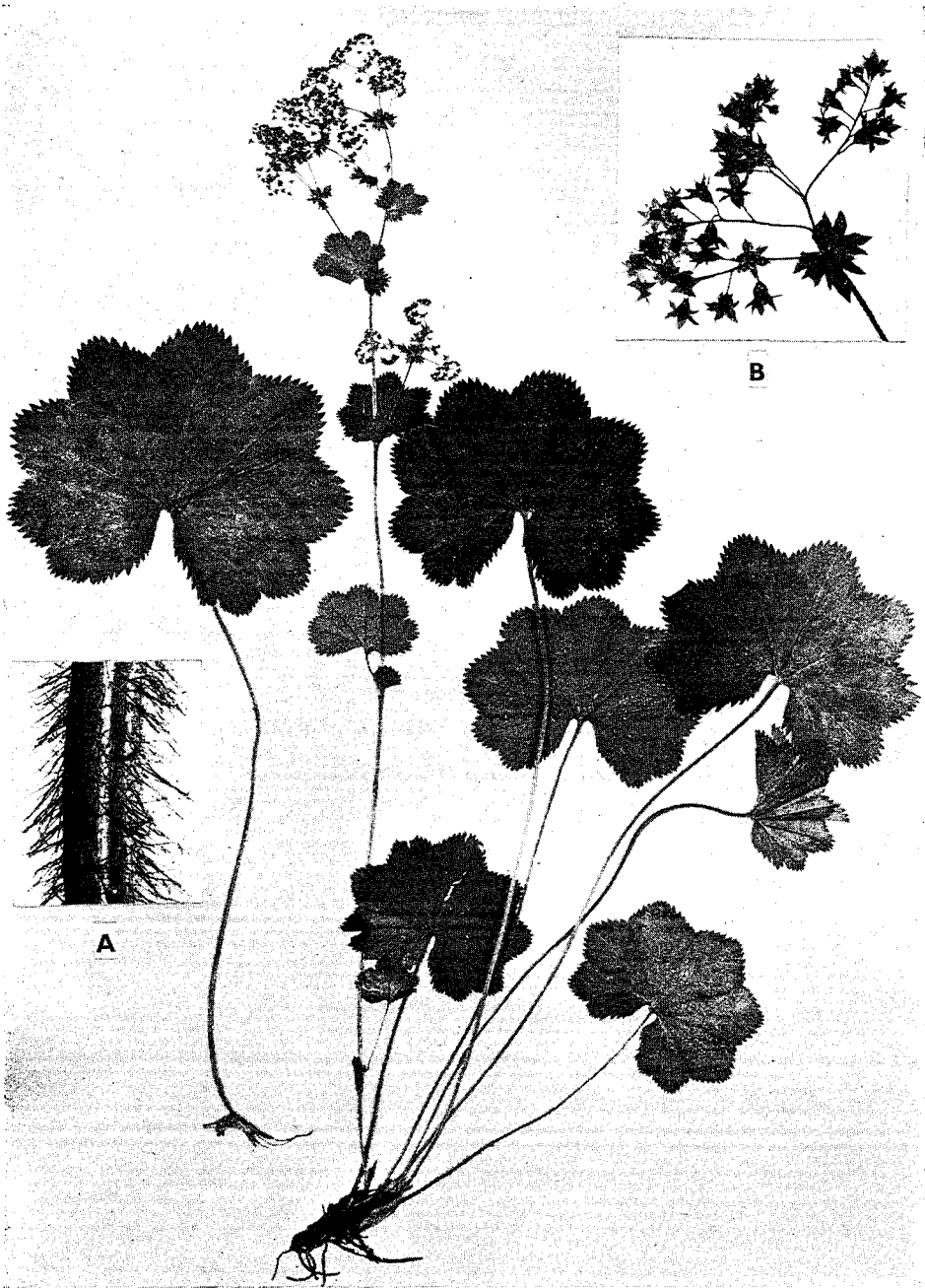
The origin and history of the plant in Scotland is uncertain. The head-gardener at Bowhill had no record of the plant in cultivation in the garden. Among the '*Alchemilla vulgaris*' material in cultivation at the Royal Botanic Garden, Edinburgh, is a plant which is referable to *A. tyttantha*. The cultivated material shows slight differences from the Selkirk plant, but these could be due to environmental modification, and an origin via the Edinburgh Botanic Garden seems very plausible.

It is probable that the plant is more widespread in Britain, and it should be looked for. A tour of the large estates in south Scotland may produce a novel and interesting distribution map!

REFERENCES

- JUZEPCZUK, S., 1933, *Act. Inst. Bot. Acad. Sc. U.R.S.S.*, ser. 1, fasc. 1, 123.
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PLATE 17.



Alchemilla tythantha Juz. whole plant, and unattached leaf from a larger plant ($\times \frac{1}{2}$) A. part of petiole ($\times 5$),
B. part of inflorescence ($\times 2$). Bowhill, Selkirk, 1957.