

RUMEX CUNEIFOLIUS AND A NEW HYBRID

By J. E. LOUSLEY.

In August 1952 I received from Dr. F. R. Elliston Wright specimens of a *Rumex* which he had collected from Braunton Burrows, N. Devon., v.-c. 4, where it grew in the colonies of *R. cuneifolius* Campd. The material was clearly of hybrid origin, with the species mentioned as one of the parents.

R. cuneifolius is a native of Peru, Bolivia, Chile, Argentine and Uruguay. It thus occurs over a wide area in South America and under a considerable range of climatic conditions. The varied habitats include dunes on both the east and west coasts. Plants which differ in being smaller and more slender in all their parts, and with the leaves often acuminate, are common on the coastal dunes of Chile and have been separated as var. *maricola* (Remy) Rech. f. (Rechinger, 1933).

In Britain *R. cuneifolius* has been established on maritime dunes at Phillack Towans, Cornwall; Braunton Burrows, N. Devon and at Kenfig, Glamorgan, since at least 1921, 1929 and 1925 respectively. In all three localities it persists, and in the last two it is still extending its range (Lousley, 1953). In 1913 there was a patch of about 20 square feet on dunes at Wallasey, Cheshire, but this appears to be now lost. It has also been found at various places near docks and to the list published in 1944 (Lousley, 1944, 580) should be added:—6, N. Somerset: Portishead Dock, 1933, H. J. Gibbons (Hb. Mus. Brit.). It has been found as an alien in U.S.A., and in Europe in Denmark (Rechinger, 1933, 23), and Holland (Heukels, 1933, 281). The British material shows some approach to var. *maricola* in having leaves often less obtuse than in the typical var. *cuneifolius* (cf. Rechinger, 1933, tab. 5) but I have seen none which agreed with Chilean specimens.

R. cuneifolius is well adapted to dune conditions. The woody rhizome extends at an average depth of 35 cm. and, at intervals, branches and produces aerial shoots. Lengths of rhizome of over a metre in length have been excavated. (Kenfig observations.) The plant is exposed above ground to a height of only 20-25 cm., and produces coriaceous leaves of a xeromorphic type. It can grow upwards through a considerable depth of blown sand. Its ecological requirements appear to be very similar to those of *Carex arenaria*, with which it is frequently associated. Although it sometimes grows with *Rumex crispus* L. var. *littoreus* Hardy, *R. rupestris* Le Gall, or *R. conglomeratus* Murray, it is less dependent on water available in the sand than these species. It differs from all native British docks in possessing a rhizome, and in the curious method of producing lower branches which overtop the earlier fruiting branches which is characteristic of the Section *Axillares*, to which it belongs.

The more important characters of *R. cuneifolius* are as follows:— Perennial, with a long creeping woody rhizome. Stems short (15-30 cm.), ascending or suberect, with coarse, leathery obovate leaves, which are crisped and finely crenate on the margins, and cuneate at the base. Panicles stout, very congested and almost without bracts, with a few short simple branches. Inner tepals 4-5 × 2.5-3 mm., ovate-deltoid, entire, all bearing a large elongated rather warty tubercle; pedicels short, thickened at the base of the perianth.

The hybrid found by Dr. F. R. Elliston Wright at Braunton, in colonies of this species, was immediately distinguished by its greater height (c. 35 cm.), more erect habit with much branched looser panicle, and general sterility. It grew "usually in a little clump of what looks like a dozen plants" which have increased from the parent by vegetative spread—thus resembling *R. cuneifolius* in the possession of a rhizome. *R. crispus* var. *littoreus* grew near in small quantity and Dr. Wright stated that *R. conglomeratus* was formerly growing in the same place.

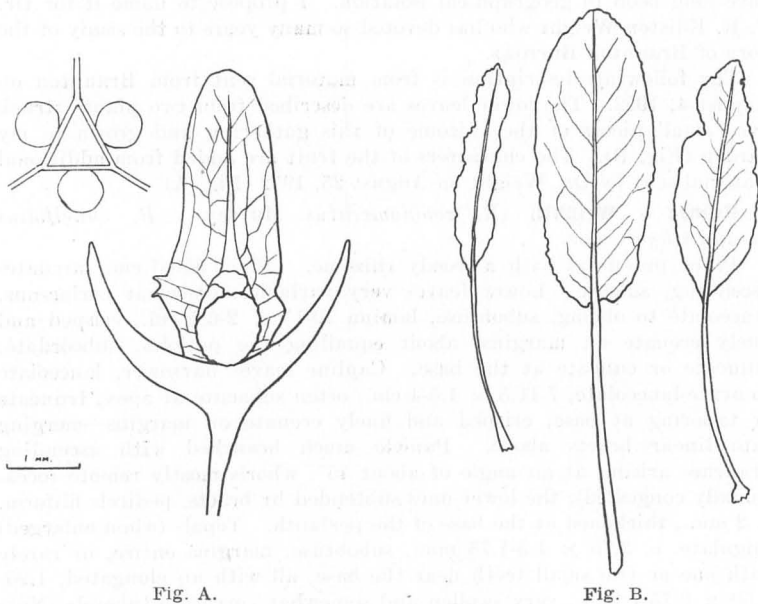


Fig. A. *R. × Wrightii*. Fructing perianth from Braunton Burrows, Aug. 25, 1952, with diagrammatic transverse section through the tubercles. × 10.

Fig. B. *R. × Wrightii*. Lower leaves from plants grown from rhizome of gathering of Aug. 4, 1952; the middle leaf characteristic, the others selected to show variation. Drawn from living material, November 29, 1952. × 4.

When I received the first specimens gathered on August 4, I thought they might be the hybrid with *R. crispus*. This hybrid has been described by Rechinger from Bolivia and Argentina under the name *R. × mirabilis* (Rechinger, 1933, 48). In those countries *R. cuneifolius* is native, while *R. crispus* is an introduction from Eurasia. The Braunton material agreed with much of Rechinger's description, but I was puzzled by the long panicle branches and the shape of the bases of the leaf-blades, which could hardly have come from either parent. On August 25, Dr. Wright sent more mature material. In this, as in the earlier gathering, most of the tepals had shrivelled with little or no enlargement but a few, here and there, had developed sufficiently. These were oblong in outline and showed that the broader fruited *crispus* could hardly have entered into the hybrid. The characters of the fruit, and those already mentioned, were entirely consistent with a cross between *R. conglomeratus* and *R. cuneifolius*. This hybrid is apparently new to science, but it is not unlikely to occur in South America, where *R. conglomeratus*, like *R. crispus*, is a common alien. The new hybrid, like *R. × mirabilis*, has arisen between species which have long been in geographical isolation. I propose to name it for Dr. F. R. Elliston Wright who has devoted so many years to the study of the flora of Braunton Burrows.

The following description is from material sent from Braunton on August 4, 1952. The lower leaves are described from two plants struck from small pieces of the rhizome of this gathering and grown in my garden (Fig. B). The characters of the fruit are added from additional material sent by Dr. Wright on August 25, 1952 (Fig. A).

Rumex × Wrightii (*R. conglomeratus* Murray × *R. cuneifolius* Campd.) *hybr. nov.*

Plant perennial with a woody rhizome. Stem 35-40 cm., arcuate-ascending, sulcate. Lower leaves very variable, somewhat coriaceous, lanceolate to oblong, subobtuse, lamina 10-15 × 2-6.5 cm., crisped and finely crenate on margins, about equalling the petioles, subcordate, truncate or cuneate at the base. Cauline leaves narrower, lanceolate to ovate-lanceolate, 7-11.5 × 1.5-4 cm., often subacute at apex, truncate or tapering at base, crisped and finely crenate on margins—merging into linear bracts above. Panicle much branched with ascending branches arising at an angle of about 45°, whorls mostly remote (occasionally congested), the lower ones subtended by bracts, pedicels filiform, c. 2 mm., thickened at the base of the perianth. Tepals (when enlarged) lingulate, c. 3.75 × 1.5-1.75 mm., subobtuse, margins entire, or rarely with one or two small teeth near the base, all with an elongated, 1.25-1.50 × 0.75-1 mm., very swollen and somewhat verrucose tubercle. Nuts abortive.

Type in Herb. Lousley, Ref. 520804. Braunton Burrows, N. Devon, Aug. 4, 1952, *F. R. Elliston Wright*.

Planta perennis, rhizomate lignoso. Caulis arcuato-adscendens, sulcatus. Folia inferiora valde variabilia, aliquid coriacea, lanceolata vel oblonga, subobtusa; lamina 10-15 cm. longa et 2-6.5 cm. lata, petiol-

um subaequans, margine crispata necnon leviter crenata, basi subcordata, truncata vel cuneata; folia caulina angustiora, lanceolata vel ovato-lanceolata, 7-11.5 cm. longa, 1.5-4 cm. lata, apice saepe subacuta, basi truncata vel angustata, margine crispata et leviter crenata, in bracteas lineares superne transeuntia. Panicula ramosissima, ramulis ascendentibus sub angulo c. 45° exorientibus, verticillis plerumque remotis (nonnunquam congestis), inferioribus bracteatis; pedicelli filiformes, c. 2 mm. longi, basi perianthii incrassati. Tepala (accreta) linguata, 3.75 mm. longa et 1.5-1.75 mm. lata, subobtusata, margine integra vel raro basin versus 1-2-denticulata; omnia tuberculo elongato 1.25-1.5 mm. longo et 0.75-1 mm. lato tumidissimo aliquid verrucoso, praedita. Nuculi abortivi.

The influence of *R. cuneifolius* is clear from the presence of a rhizome and the coriaceous leaves, and that of *R. conglomeratus* in the base of the leaves being often subcordate or truncate and frequently asymmetrical, in the panicle having long branches with remote whorls subtended by bracts below, and in the linguulate outline of the fruiting tepals.

Material has been deposited at the British Museum (Natural History) and the Royal Botanic Gardens, Kew. I would like to record my thanks to Mr. J. P. M. Brenan for kindly preparing the Latin translation of the diagnosis and to Dr. K. H. Rechinger for confirming that he is not aware of publication of a hybrid of the parentage stated and that he has not seen herbarium specimens of this hybrid. The living and dried material on which this account is based was exhibited at the Society's Exhibition Meeting of 29th November 1952.

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