PLANT NOTES

127/15. GERANIUM PURPUREUM Vill. In a recent account of *Geranium purpureum* (*Watsonia*, **3**, 163, 1955) reference is made to an erect plant I collected in 1930 "at Clymping (Middleton) between Littlehampton and Bognor at the station for the prostrate subsp. *forsteri*". Dr. Baker suggests that some of the specimens distributed give the impression of having grown upright in shade, but reference to my field notes made at the time the plant was gathered shows that this suggestion is hardly true.

I had the plants under observation for several years and in my notes described them as "erect, green, leaf segments flat" in contrast to "var." *forsteri* as "quite prostrate, very red, leaf segments curled". The erect plants I found first at Atherington, Clymping, where they grew at a higher level of the beach than *forsteri*. It was from here that I distributed the specimens seen by Dr. Baker and, as my note printed at the time (*Rep. Bot. Soc. & E.C.*, **9**, 511, 1931) indicates, the plants were all small. They grew with other shore plants on shingle rich in decaying vegetable matter. Specimens I collected on May 21, 1933, by a small headland near Elmer Farm, some ¾ mile to the west, were larger. They also grew near the top of the beach in decaying vegetable detritus. My field observations suggest that the erect plants were a form of *forsteri* but that a better water and food supply round the roots is more likely to be responsible for the habit than slight differences in shelter. The plants were not near any groynes. During the years I had these plants under observation sea defences were under construction which made major changes in the character of this coast. These changes are more likely to be responsible for the decrease in quantity of *forsteri* than the collection of seaweed by tractor. It would be interesting to know whether *forsteri* retains its prostrate habit in cultivation.—J. E. LOUSLEY.

155/14. TRIFOLIUM STRICTUM L. 52, Anglesey. 'Gathered on a wild uncultivated heath about 3 miles north of Aberffraw, Anglesea, nearly in the centre of the island, in abundance covering a space of 50 yards square and to all appearance undoubtedly indigenous'. W. F. Dickinson, June 1837. Ex Hb. Leighton, 1858, Hb. C. C. Babington, Hb. Univ. Cantab. See Griffith, J. E., *Flora of Anglesey and Caernarvonshire* (1895) 36, where Dr. Dickinson's find is reported but dismissed by the author who, having searched the area thoroughly in vain, finding *Trifolium arvense*, suggested that *T. strictum* had been reported in error for this species. This find was originally published in *Bot. Gazette*, **1**, (1849) 28, by Leighton who says that he has an undetermined specimen in his herbarium which was given to him by Mr. F. Dickinson in June 1837. On comparing the specimen with the plate of *T. strictum* recently

published he is in no doubt that his specimen is *T. strictum*. His final sentence is still valid. 'It may therefore be well to record this, that botanists may next season search the locality and confirm the above or otherwise'.—F. H. PERRING.

217/1(2). CALLITRICHE PLATYCARPA Kütz., 1831, *Monogr. Callitricharum Germ.*, in Reichenbach, H. G. L. *Iconogr. bot. pl. crit.*, **9**, 38. Common in Great Britain.

In his description of *C. platycarpa* Kützing states that it differs from *C. stagnalis* Scop. by having linear young leaves, linear stem leaves, and fruits a little smaller with the carpels less divergent. Schotsman (1954), in the Netherlands, records that *C. platycarpa* and *C. stagnalis* are two quite distinct species than can readily be separated from each other by cytological and morphological characters. Material of these two species collected in Britain, by the author of this note, during 1954 and 1955, supports Schotsman's observations. The two species can readily be separated when they have mature fruit, the mature fruit of *C. platycarpa* being as long as broad, normally 1·2 to 1·4 mm. × 1·2 to 1·4 mm., whereas the fruits of *C. stagnalis* are broader than long, normally 1·4 to 1·65 mm. × 1·3 to 1·55 mm., but there are exceptions which suggest that *C. platycarpa* may consist of two or more distinct entities. Cytological investigation of some 200 gatherings collected in Cheshire and North Wales has shown that *C. stagnalis* has $2n=10$, and *C. platycarpa* $2n=20$.

In Britain, before the publication of Hegelmaier's monograph of the genus in 1864, *C. stagnalis* was usually regarded as a mud form of *C. platycarpa*, but after this publication *C. platycarpa* soon lost species rank in Britain and during the past few decades it has been regarded as a linear-leaved form of *C. stagnalis*. Examination of British herbarium material has shown that the majority of records of *C. polymorpha* Lönnr., *C. palustris* L. (*C. verna* L.), and linear-leaved forms of *C. stagnalis*, can be referred to *C. platycarpa*, which appears to be common throughout Great Britain.

Distribution maps of all the British species of *Callitriche* are being prepared and material, preferably fresh, would be most gratefully received.—J. P. SAVIDGE.

REFERENCES.

HEGELMAIER, F., 1864, Monogr. d. Gattung Callitriche.
SCHOTSMAN, H. D., 1954, A taxonomic spectrum of the section Eu-Callitriche in the Netherlands, *Acta Bot. Neerl.*, **3**, 313-384.

463/4. LYSIMACHIA NUMMULARIA L. T. G. Tutin, in Clapham, Tutin & Warburg, *Flora of the British Isles* (1950), 806, says of *Lysimachia nummularia* 'fruit apparently never produced in Britain'. Ripe capsules were, however, found on this species at Spar Pools, Yate (v.c. 34, W. Glos.), on September 4, 1955. The plants were growing along the sides and bottom of a dry ditch which normally drains away surface water from strontium workings nearby. The flowering parts of the plants

were in full light, in a part of the ditch where there was almost no other vegetation (a few seedlings of *Juncus* and grass species only). The soil is a heavy clay.

In all, fourteen capsules with seeds were obtained. One was ripe already, the rest were ripened off at home, and seemed to be quite normal. In five of them, however, the seeds had shrivelled away in the pits in the placenta and in the others many of the seeds were shrunken or small. On other plants under observation capsules developed until they were about 2 mm. in diameter and then progressed no further. The naturally ripened capsule had ten ripe seeds and the rest from two to six seeds.

The calyx lobes, which exceeded the capsule, closed over the young capsule but later became patent or more or less reflexed, and remained green or pale brown (the calyx of unfertilized material withers and turns rusty red as soon as the flower fades).

The capsules were suborbicular, 2·2-3·5 mm., pale brown when ripe, with linear orange glands. The seeds were 1·0-1·5 mm., dark brown/black, trigonous (sometimes with two sides concave and one convex), densely warted with blunt, transparent warts, visible under lens at the angles.

I am indebted to Mr. N. Y. Sandwith for the description of Continental material by W. Ludi in Hegi, *Ill. Fl. Mittel-Europa*, **3**, 1854 (1927). It seems that the Yate capsules are smaller (Ludi gives 4-5 mm.), but the size of the seeds is similar.—G. W. Garlick.

465/1. Trientalis europaea L. This species was discovered in September 1955, very locally abundant in a boggy birch-alder wood in N.E. Suffolk. Its previously known range did not extend nearer to East Anglia than the north Yorkshire moors west of Scarborough and the north Yorkshire Pennines in Upper Wharfedale. Like *Goodyera repens* in Norfolk pine woods it may be a genuine native which has extended its range into suitable lowland habitats.—F. Rose.

513(2)/1. **Dichondra repens** J. R. & G. Forst., 1776, *Charact. Gen. Plant.*, 40, 1, W. Cornw.; on sandhills at Hayle, 1955, Mrs. J. Russell, Lt.-Col. J. Codrington and Miss M. McCallum Webster (May 19, in flower), Mrs. J. Russell (July 9, in fruit). This plant belongs to *Convolvulaceae*, although some authors have segregated it into a distinct family, *Dichondraceae*.

It is a small, softly pubescent plant with creeping stems, rooting at the nodes; leaves alternate, reniform or roundish-reniform, long-petioled, their blades 4-7 mm. long, 3-7 mm. broad, entire, rounded or retuse at the apex; flowers small, solitary, greenish-white, on bractless peduncles which are shorter than the petioles; calyx silky, 2-3 mm. long, of 5 distinct or nearly distinct, cuneate or cuneate-obovate sepals; corolla rotate or broadly campanulate, 5-lobed, more or less equalling the calyx; stamens 5, shorter than the corolla, with purplish anthers; pistils 2, distinct or nearly so, silky; styles 2; capsules 2 together, utricle-

like, subtended by the persistent calyx, usually indehiscent, with 1 or 2 seeds; seeds about 1 mm., nearly orbicular, brown.

This species is a cosmopolitan weed in the tropics and warm temperate and temperate regions of the world.—J. RUSSELL.

511. CALYSTEGIA. British material of *Calystegia*, as was first pointed out by J. E. Lousley (1948), is referable for the most part to two taxa, which have been treated as distinct species by most Continental authorities—*C. sepium* (L.) R. Br. and the larger-flowered *C. sylvestris* (Willd.) Roem. & Schult., with the characteristically inflated 'calyx' of bracteoles. The latter plant, apparently introduced into British gardens early in the nineteenth century (Loudon (1830) gives 1815 as the date of introduction) is now widespread throughout the British Isles, though often more or less obviously an escape from cultivation. In lowland England, at least, it is generally quite distinct from *C. sepium*; thus, in Cambs. (v.c. 29) it occurs almost exclusively in hedgerows near houses, whilst *C. sepium* occurs both in these localities and in native fen habitats also. Intermediates do, however, not infrequently occur; these may possess varying combinations of the characters of the two species, and might reasonably be presumed to be of hybrid origin.

Typical *C. sepium* and *C. sylvestris* are white-flowered, though pink forms otherwise referable to one or other of these species undoubtedly occur. Investigation of pink-flowered Calystegias in Britain has, however, shown that the commonest plant is referable to neither species, but is clearly *Calystegia dahurica* (Herbert) G. Don (*Convolvulus dahuricus* Herbert in Sims (1825, *Bot. Mag.*, **53**, t. 2609). This plant differs not only in its characteristic deep pink flower colour, but also in showing a varying degree of hairiness on stem, petiole, pedicel and even leaf under-surface, a varying development of a repand margin to the pedicel-ridges, and a characteristic narrow leaf-shape and rather thick texture. Further, its flowers are typically intermediate in size and bracteole shape between *C. sepium* and *C. sylvestris*. Indeed, the combination of characters shown is such that *C. dahurica* is more clearly distinct from *C. sepium* and *C. sylvestris* than these are from each other.

The origin of *C. dahurica* is apparently to be traced to the St. Petersburg botanic garden, whence the seed was sent by Baron Fischer. The taxonomic relationships of the plant to *C. sepium* and allied taxa are as yet very imperfectly investigated; it seems probable that *C. dahurica* represents a possible hybrid product of the strongly hairy, pink-flowered E. Asiatic *C. pellita* (Ledeb.) G. Don and *C. sepium*, but further investigations are needed on this point.

Another question as yet unsolved is the relationship of '*Convolvulus Sepium* (β) *americanus*' of *Bot. Mag.*, **19-20**, t. 732 to the three pink-flowered forms here mentioned. It seems possible that at least one other pink-flowered plant was introduced into British gardens from N. America in the early nineteenth century, and that this may still be detectable.

Hylander (1949) has considered the taxonomy and nomenclature of the pink-flowered Calystegias in Scandinavia. It would seem that the plant introduced into Swedish gardens and generally known as 'var. *americanus*' is distinct from a larger-flowered plant which Hylander accepts as the pink form of *C. sylvestris*; it is tempting to suppose that Hylander's 'var. *americanus*' plants are at least in part referable to *C. dahurica*, especially as he comments on the hairiness of some of the material.

The persistence of *C. dahurica* as a cottage garden hedge plant and garden outcast is a tribute to its vigorous powers of vegetative spreading, which may, however, be more limited than those of its relative *C. sylvestris*. Limited field observations suggest that whereas the native *C. sepium* sets good seed quite freely, *C. sylvestris* may be less fertile, and *C. dahurica* rarely ripens its capsules at all. It would be interesting to have further information on this point, which is obviously relevant to the question of hybridisation.—S. M. Walters & D. A. Webb.

REFERENCES.

HYLANDER, N., 1949, *Botaniska Notiser*, **1949**, 148.
LOUDON, J. C., 1830, *Hortus Britannicus*, 64.
LOUSLEY, J. E., 1948, *Rep. Bot. Soc. & E.C.*, **13**, 265.

718/16b. Juncus tenuis var. **anthelatus** Wieg., 1900, *Bull. Torr. Bot. Club*, **27**, 523. 24, Bucks.; abundant in a gravel pit close to Denham Golf-club railway platform, 1955, London Natural History Society Excursion, det. N. Y. Sandwith. Plant taller and stiffer (5-9 dm. high); leaves broader; sheaths numerous and loose, often causing the base of the stem to appear stout. Inflorescence large, open and diffuse (5-15 cm. long); flowers scattered and smaller (2·5-3·5 mm.): capsule not over three fourths the length of the perianth, round-ovate, shining. Native of the U.S.A.—D. H. Kent.

747/3. Eriophorum gracile Roth. *Eriophorum gracile* Roth is undoubtedly one of the rarer British plants, for although there are acceptable records in the literature for seven vice-counties, it has been extinct in one of these (v.c. 65) for many years, and the basis for one other (v.c. 32) rests on a single specimen. Moreover, even where twentieth century records exist (v.cc. 5, 9, 11, 12 and 17) the information suggests that nowhere does the plant occur in any abundance. The discovery of an entirely new locality in an area from which the *Eriophorum* has never been recorded is therefore a matter of some interest and importance. This discovery was made by Mr. G. H. Rocke in the Broads area of East Norfolk (v.c. 27) in July 1955. Mr. Rocke, who does not wish to publish more precisely the locality because the plant is only in small quantity, has provided a voucher specimen (now in Hb. Univ. Cantab.) and some notes on which the following description of the habitat is based.

The *Eriophorum* was growing in a mixed fen community, not in *Sphagnum* as in its other described localities (though *Sphagnum*

occurred nearby about 25 yards away). Nine or ten flowering spikes were noted, growing singly and separated by a yard or two from each other. The associated species included:—*Briza media* L., *Caltha palustris* L., *Carex appropinquata* Schumach., *Epipactis palustris* (L.) Crantz, *Eriophorum angustifolium* Honck., *Galium uliginosum* L., *Hypericum tetrapterum* Fr., *Juncus subnodulosus* Schrank, *Lychnis flos-cuculi* L., *Lythrum salicaria* L., *Phragmites communis* Trin., *Salix cinerea* L. agg., *Thelypteris palustris* Schott, and *Valeriana dioica* L.

Although the *Eriophorum* is not in any sense a critical species it could be quite easily overlooked, especially when growing with its common and variable relative, *E. angustifolium* Honck. Its diagnostic features include:

(a) roughly-hairy peduncles (*E. angustifolium* has glabrous peduncles)
(b) short, obtuse-tipped leaves (*E. angustifolium* has longer leaves with long triquetrous points)
(c) ovate, rather blunt glumes without scarious margin (*E. angustifolium* has lanceolate acuminate glumes with a broad scarious margin)

E. latifolium Hoppe, which also has hairy peduncles, differs in being tufted, not rhizomatous, and in having broader, flat leaves.

Sowerby (1870) has an excellent illustration of *E. gracile*, drawn from material from the now extinct Whitemoor locality in Surrey (cf. Garry (1904)). Townsend (1904) gives a very good description, based on New Forest specimens, and Beeby (1885) describes the habit of growth in *Sphagnum* in a Surrey station.—S. M. Walters.

REFERENCES.

BEEBY, W. H., 1885, *J. Bot.* **23**, 311.
GARRY, F. N., 1904, Notes on the drawings for 'English Botany', suppl. *J. Bot.*, **42**.
SYME, J. T. B. (Ed.), 1870, *Sowerby's English Botany*, *vol.* **10**, 74. (*English Botany, Supplement*, t. 2886.)
TOWNSEND, F., 1904, *Flora of Hampshire*, Ed. 2, 645.

767/1. Hierochloe odorata (L.) Beauv. As one of the members of the Galloway Meeting this summer which recorded *Hierochloe odorata* on the Kirkcudbright shore I was interested to discover whether or not this was a new locality. The evidence is that it is not but it also happens that there are at least two known localities in the Stewartry.

The earliest record is apparently from the shore near Rerrick in 25/74 and was first published, so I am informed by Dr. H. Milne-Redhead, in the *Transactions of the Dumfries and Galloway Antiquarian Society*, **1900-01**. In the botanical notes for 1899 J. McAndrew says "In conclusion I may refer to the excellent discovery last summer of *Hierochloe* on the Rerrick Shore." This would be the same locality to which Druce refers in the *Annals of Scottish Natural History*, **1911**, 74, where he writes 'Still exists in small quantity on the Kirkcudbright Coast', as there is a specimen in the Herbarium at Cam-

bridge so labelled collected in 1910 and another in Oxford University Herbarium dated May 1910 and labelled by Druce 'The Heughs, Rerrick'.

This is not the locality discovered this summer. The second locality is further west and may have been first discovered by C. Waterfall who has a specimen in the Herbarium at Oxford labelled 'between Gatehouse and Creetown, 1927'. Such a description would fit our locality and is probably the same as that found by Dr. G. Taylor a few years ago.

Therefore in 1955 it is true to say that *Hierochloe* 'still exists in small quantity on the Kirkcudbright coast' but this need not refer only to the locality Druce had in mind; whether the plant is still at Rerrick is uncertain.—F. H. PERRING.

788/1. LAGURUS OVATUS L. S., Jersey. Ex Hb. W. H. White, Ex Hb. Soc. Bot. Lond., Jan. 1838, Hb. Univ. Cantab. G. C. Druce (*J. Bot.*, **31**, 22 (1893)) reports that he discovered a good patch of *Lagurus* growing on the sands at St. Ouen's Bay in 1877 but subsequently ascertained that the seed had been intentionally sown there the previous year. If the label on the Hb. Univ. Cantab. specimen is to be relied upon it suggests either that the species had been introduced to Jersey many years earlier than had been realised or that *Lagurus* was originally a native which may or may not have become extinct before being introduced artificially.—F. H. PERRING.

840/1. TAXUS BACCATA L. 15, E. Kent; chalky slope, Gorham Wood, Bicknor, 1953, among normal yews one bush occurred with unusually short foliage 7-11 mm. long. This bush, found by the writer in company with Messrs. E. Milne-Redhead, N. Y. Sandwith, V. S. Summerhayes and P. Taylor, was 3 metres high with patent branches, and gave the impression of being a chance mutant from the normal yews around.

Various yews with shorter foliage than normal are in cultivation but none of these seems to match our plant exactly. The nearest appears to be what Rehder, *Bibl. Cult. Trees and Shrubs*, **3** (1949) calls *T. baccata* f. *adpressa* (Carr.) Beisn., *Syst. Eintheil. Conif.*, 23 (1887) (*T. adpressa* Carr. in *Rev. Hort.*, **1855**, 95. This differs from the normal yew not only in its foliage but also apparently in its denser branching.—J. P. M. BRENAN.