VERONICA FILIFORMIS SM. IN THE BRITISH ISLES

By E. B. BANGERTER and D. H. KENT

INTRODUCTION

Turrill (1948) has stressed the need for recording the spread of *Veronica filiformis,* a well known rock-garden plant which has escaped and become established in many parts of Britain. In this paper we have attempted to outline its history and spread in the British Isles and elsewhere. A full list of all the British records known to us is also appended.

DESCRIPTION OF VERONICA FILIFORMIS

Smith (1791) in describing *Veronica filiformis* stated—"This plant is very like *V. hederifolia* in many respects, but is sufficiently distinguished from that species by its leaves being crenate and not five-lobed, the segments of its calyx lanceolate, not ovate, and by the very long filiform footstalks of its flowers". In fact the alleged similarity is not at all close, and *V. filiformis* is much more closely related to *V. persica* Poir., even Smith himself confusing the two species in his herbarium. Further complications are that the nomenclature of the two species has been much confused (see Lacaita, 1917, & Williams, 1904), and that *V. filiformis* DC. is a synonym of *V. persica,* while Don (1838) confuses *V. filiformis* Sm. with *V. polita* Fr.

V. filiformis differs from *V. persica* in the following characters:

	V. FILIFORMIS	V. PERSICA
habit	creeping slender perennial	straggling stouter annual
stems	shortly pubescent	pilose
pedicels	slender, up to 6-8 times longer than leaves	up to twice as long as leaves
leaves	broadly ovate, or almost reniform - orbicular, crenate, 5-10 mm. broad	triangular - ovate to oval, coarsely serrate, 10-30 mm. broad
calyx lobes	oblong obtuse, green	ovate, accrescent, becoming brown; strongly nerved
corolla	pale blue	bright blue
capsule	suborbicular with a long style	of 2 divaricate lobes compressed upwards and sharply keeled

	V. FILIFORMIS	V. PERSICA
seed	pale yellowish - brown, 1·5 × ·9 mm. (rarely produced)	medium brown, 2·1 × 1·5 mm. (freely produced)
habitat	streamsides, roadside banks, lawns and other grassy places	cultivated ground
flowering period	April-June	March-November

NATIVE HOME OF V. FILIFORMIS

V. filiformis is a rare plant with a very restricted range in the mountain areas of the Caucasus and Asia Minor, where it grows in woods, fields and pastures. Maps showing the known distribution of the species are given by Wulff (1914), Lehmann (1942 & 1954) and Thaler (1953).

METHODS OF REPRODUCTION

Lehmann (1944) records that even in its native habitats *V. filiformis* produces very little seed and spreads vegetatively. Beauverd (1927) writing on the plant in Switzerland states—"the flowering stem has alternate leaves and a solitary flower but becomes too heavy for the filiform main stem with opposite leaves; the latter is thus bent and where the nodes touch the soil it roots and gives off branches. After flowering the floriferous stem produces opposite leaves and becoming too heavy in its turn, trails the ground and gives off rootlets and branchlets. Thus the plant perennates. During the former operation the flowering stem straightens by heliotropism, and about 12-15 (rarely 29) flowers are developed, one per day. Although spreading by this sympodial method plants also produced fertile fruits (2-4 on each 12-20 flowers per inflorescence) and showed themselves capable of reproducing by seed". Warburg (1952) says "fruit not known in Britain", but we have seen material with capsules containing seed from Hampshire (coll. F. E. W. Venning) and W. Kent (coll. J. F. & P. C. Hall), now both in Hb. Mus. Brit. The proportion of fructiferous to non-fructiferous flowers was small. A solitary seed was also produced by material from E. Kent (coll. D. Long), also in Hb. Mus. Brit.

We have not seen *V. filiformis* seedlings in Britain, nor have we received reports of any: the spread in fact appears to be entirely vegetative. Lehmann (1944) writing on the plant in western Europe refers to its two characteristic features—extensive reproduction through runners and almost total lack of reproduction through seed. He mentions also that some authors have attributed the scarceness of seed formation to the plant's new environment and points out that this assumption is incorrect since even in its native habitat the plant forms few seeds. He

attributes this rare formation of seed to some connection between the plant's self-sterility and its rapid and extensive reproduction by runners, and gives details of experiments conducted with different clones of the species. These showed that when self-pollinated a plant formed no seed but when cross-pollinated many seeds were produced. The statement by Wolley-Dod (1937) that the "species spreads rapidly from seed in gardens . . . ." cannot be accepted as accurate. Hansen (1955), however, reports capsules and seedlings from Denmark.

Thaler (1951) writes at length on the morphology of the species and makes a comparison with *V. persica*.

European Records

Much has been written on *V. filiformis* in Europe since its discovery in France in 1893 until the present time. It is a pernicious weed in many parts of France, Switzerland, Germany and Austria, and in the interests of space these records have been condensed and are summarised below.

France. First recorded in 1893 at St-Menet and Camp-Major, Aubagne (Bouches-du-Rhône) under the wrong name—*V. acinifolia* L. (Roux, 1893; Thellung, 1912; Marnac & Reynier, 1910). Rouet, Marseilles, 1904 (Marnac & Reynier, 1910). Mayenne, 1923 (Touton & Courcelle, 1937). Abundant and spreading in Bouches-du-Rhône and Marseilles, 1924 (Blanc, 1924). Chapelle-au-Grain (Rocher, 1930). Samoens (Haute-Savoie), abundant, 1936; Rennes; Tours; Laval (Touton & Courcelle, 1937A). Many additional stations are given by Lehmann (1942) and Thaler (1953).

Belgium. Spreading with great rapidity in the suburbs of Brussels (Matagne, 1938).

Netherlands. Amsterdam; Limburg (Kloos, 1938).

Germany. First recorded from Munich in 1929 under the wrong name—*V. cymbalaria* Bod., apparently as an escape from the Botanic Garden. It spread rapidly in the area between 1931 and 1934, and in the years preceding and during the Second World War it was found in many other localities. Bornmüller (1941) and Lehmann (1942) give numerous stations, including Hamburg, Bonn, Darmstadt, Coburg, Tübingen, Jena, Dresden and Chemnitz.

Austria. Reported first as a garden pest in Graz in 1923, and in meadows in Carinthia in 1945. It has now spread and is a troublesome weed in many parts of the country (Thaler, 1953 and Widder, 1947).

Poland. Detected as an adventive, new to the Polish flora, in the East Carpathians in 1952 (Kornás & Kuc, 1954).

Switzerland. First noted as an established escape at Berne in 1913 (Lehmann, 1942). In 1927 it was discovered growing abundantly on the embankment of a newly made road at Geneva, and was erroneously claimed as a plant new to Europe (Beauverd, 1927). It

has since been found in many other places and numerous localities are given by Becherer (1938-56).

ITALY. Reported, as new to Italy, at Lecco near Neguccio in 1954 (Viola, 1954).

DENMARK. A pest in the garden belonging to the Royal Veterinary and Agricultural College in Copenhagen since at least 1917, and in Copenhagen Botanic Garden since 1920. Known as an "escape" from about 1947 and now established in about 100 localities (Hansen, 1955).

SWEDEN. Found at Södermanland Rönnige in 1931 (Thaler, 1953) and as a garden weed in the province of Västergötland in 1939 (Thaler, 1953). Marstrand-Island, 1944 (Fries, 1945).

NORWAY. Nordhagen (1940) records the plant as a garden escape at Bergen, while Lid (1950) reports it as a pest in lawns in the old park at Store Milde, Fana, first noticed in 1941. Lid (1952) gives Vardal, 1944, and Os, and Nordhagen (1954) reports it in a lawn in the park at Bogstad, Oslo, in 1951.

AMERICAN RECORDS

UNITED STATES. Muenscher (1949) records that in central New York the plant has overrun many lawns and presents a difficult control problem, and later (1955) reports that it is well established locally in the north eastern states.

THE INTRODUCTION OF VERONICA FILIFORMIS INTO BRITAIN

Paxton (1840) gives the date of the introduction of *V. filiformis* into Britain as 1780, but this possibly refers to *V. persica.* The earliest certain evidence of the cultivation of the plant in a British garden is to be found in *A Catalogue of the plants in the Royal Botanic Garden at Liverpool* (1808), p. 51, which briefly states that *V. filiformis,* 'long-stalked speedwell' is cultivated in that garden. Aiton (1810) makes no mention of the species, but Donn (1845) records it as growing in the Botanic Garden at Cambridge. The *Hand List of Herbaceous Plants cultivated in the Royal Botanic Gardens, Kew,* ed. 2 (1902) fails to mention the plant but it is given in the *Hand List of Rock Garden Plants cultivated in the Royal Botanic Gardens, Kew* (1925).

Although it will be seen that *V. filiformis* was firmly entrenched in various botanic gardens by the outbreak of the First World War, it had yet to become popular among rock garden enthusiasts. Farrer (1919) does not include it in his comprehensive work, but a correspondent writing in *Gardeners' Chronicle,* **65**, 297 (1919) states "Most books of reference and catalogues are silent on the subject of *V. filiformis*; a pretty speedwell which comes from Asia Minor which I grew first some fourteen or fifteen years ago . . . . *V. filiformis* is apparently quite hardy and will last for years with fair treatment but it must not be checked or overrun by other and stronger growing subjects". The miscon-

ception that the plant was easily overrun was revealed by Downes (1931) who wrote "For rapidly covering a rough bank or wall and for positions on the rock garden where it can be allowed to run *V. filiformis* is a dainty subject. Flowering in May and June, the small, pale blue flowers spread thickly over the dense mats of light green leaves, making a charming picture . . . . Its one fault, if it be a fault in so charming a subject is its rampant growth, the slender creeping stems spreading themselves over a large area in a single season and rooting freely to form new colonies". This provoked some correspondence in horticultural literature and began to reveal the true nature of the species, for Milne-Redhead (1932) stated—"This beautiful but rampant carpeter from Asia Minor has begun to play an annoying rôle in my garden here (Cheltenham). During 1928 I noticed two patches established in the turf of the lawn; these I pulled out and those that have appeared since have been treated similarly. In the mown turf it is a very close and firm creeper and is as hard to remove as the native *V. serpyllifolia*. This spring I see that it has increased and there are several small colonies all over the lawn. The "disease" is evidently very infectious and spreads rapidly in congenial surroundings. The subsoil here is Lower Lias". A further warning was given by "L.B.C." (1932) who wrote—"There are many keen gardeners who do not relish the appearance in their gardens of this little speedwell. Certainly *V. filiformis* should be ruthlessly attacked if seedlings appear in close proximity to some treasured alpine for the *Veronica* will sweep over everything in its path". Further confirmation of the danger of introducing the plant into the rock garden was afforded by Elliott (1935) who stated—"*Veronica filiformis* has got me into more trouble than any plant I have ever distributed. As far as I can remember I have always stated quite frankly, that it is a rampant trailer, or a lovely wandering weed . . . . and yet folk will go and plant it in the scree, or among their *Jankaeas*".

V. FILIFORMIS AS A BRITISH ADVENTIVE

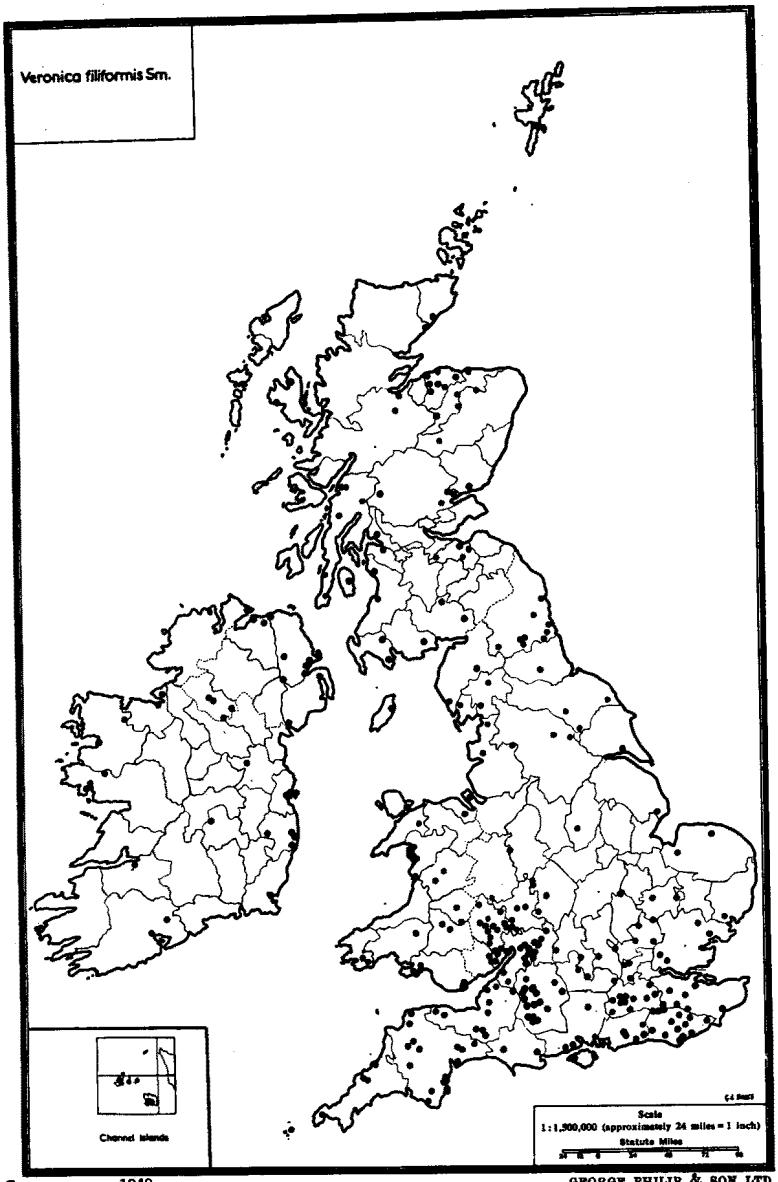
The earliest evidence of the occurrence of *V. filiformis* as an established garden escape appears to be a specimen collected by the river Ayr near Ayr in 1927. Two years later it was gathered on waste ground in Jersey, Channel Islands. Wolley-Dod (1937) states that "it was first observed as an escape in Sussex about 1930", while in 1932 it was found on waste ground at Jethou, Channel Islands. During the same year it was collected from Edinburgh, and was reported to be established near Freshwater, Isle of Wight. In 1933 it was noted as naturalised near gardens in Jersey, Guernsey and Sark, and on a roadside bank at Exmouth, S. Devon and Ockham, Surrey. It was reported also from Sidcot and Street, N. Somerset and Ballina, W. Mayo, the first evidence for Ireland. In 1935 it was seen at

Wicklow, and was becoming established as an escape from cultivation in Cardigan, Wales. It was gathered also from Kingsley Common, N. Hants. In 1936 it was found by the roadside at Mold, Flint and at Lymington, S. Hants, and in 1937 on waste ground at Oxford, and on a grassy bank between Sligo and Ben Bulben. Evidence that the plant was spreading in Sussex was given by Wolley-Dod (1937) who listed seven known stations in the county.

During 1938 it was recorded from Painswick, E. Gloucester, banks of river Severn near Holt Fleet, Worcester, and Greencastle, E. Donegal. A second Oxford locality was noted in 1939, and in 1940 the plant was reported to be colonising lanesides at Farndon, Nottingham; it was noted also from waste ground at Bridge of Weir, Renfrew and in a woodland strip at Helensburgh, Dunbarton. In 1941 it was found far from houses between Winterbourne-Stoke and Yarnbury, S. Wilts, and on a roadside at High Wray, Westmorland. During 1942 it was seen on a grassy wayside at Gressingham, Lime Valley, W. Lancs and in a meadow at Ockley, Surrey. Further localities were also reported from S. Devon and Oxford. In 1944 it was found to be well established on the banks of the river Wye, both in W. Gloucester and Monmouth, and was also reported from waste ground at Perth.

During 1945 it was noted from the banks of the river Arun near Houghton Bridge, W. Sussex, Sketty Green and Limeslade, Glamorgan, and Barnstaple, N. Devon. In 1946 it was recorded in a stubble field at Colchester, N. Essex, colonising a newly-made road at Colwall, Hereford, on sand dunes at Strandhill, Sligo, on a river bank near Catton, N.E. York, near Reeth, Upper Swaledale, N.W. York, by a roadside at Rockcliffe, Kirkcudbright and by a streamside at Drumnadrochit, Easterness. New localities were also reported from E. Gloucester, Glamorgan and Ayr. During 1947 it was found established by a roadside at Tillbrook, Bedford, and near Craigs of Lundie, Forfar. Further localities were also recorded from S. Somerset, E. Gloucester, Glamorgan and Wicklow. In 1948 it was noted at Powerstock, Dorset, and Glen Mona, Isle of Man. During 1949 it was discovered on the banks of the river Pont near Ponteland, S. Northumberland, and on the golf-links at Howth, Dublin, and in 1950 was noticed on a footpath near Bembridge, Isle of Wight, on a grassy bank at Tunbridge Wells, W. Kent, in lanes about Llawhaden and Tenby, Pembroke, banks of the river Dibbin, Bromborough, Chester and river bank above Tanfield, N.W. York. Additional stations were also reported from Surrey, Oxford and E. Gloucester.

From 1951 records have come in from all parts of the British Isles in ever increasing numbers and it is clear that *V. filiformis* is now widely established and locally abundant in a variety of natural and artificial habitats. It is perhaps most widely naturalised on river and stream banks, but it is also widely



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Fig. 1. Distribution of *Veronica filiformis* Sm. as an established escape in the British Isles.

Outline by courtesy of Messrs. George Philip & Son Ltd.

established on lawns and in churchyards. In England it is probably most frequent in Gloucester, where Sprague (1948) and Salisbury (1953) have described its dominance over native vegetation, Monmouth, Worcester, Hereford, S. Devon and Sussex. In the London area it is, as yet uncommon, but is slowly spreading. In Wales it is locally common in Glamorgan and Cardigan, while in southern Scotland it also appears to be locally plentiful. In Ireland, Prof. D. A. Webb informs us that it is a very common lawn weed in gardens but is very slow to spread extensively elsewhere, usually being found on roadside banks near houses and on rubbish-heaps. It is as yet barely naturalised although admittedly so in many centres.

The known British and Irish vice-comital distribution of *V. filiformis* as an established escape (see Fig. 1) should read: 1-25, 27-30, 33-52, 54, 56, 58-79, 81-84, 88-90, 92-101, 104, 107, 109, 112. H.5, 7, 8, 16, 20, 21, 27, 28, 33-35, 38-40. S.

British and Irish Records

The following list gives all the records known to us, including details from herbarium specimens examined.* The following abbreviations are used:—Hb. British Museum (BM), Hb. University Cambridge (CGE), Hb. Royal Botanic Garden, Edinburgh (E), Hb. Mus. Leicester (LTR), Hb. Univ. Leicester (LEI), Hb. National Museum of Wales, Cardiff (NMW), Hb. Univ. Oxford (OXF), Hb. South London Botanical Institute (SL.BI), Hb. Trinity Coll., Dublin (TCD).

Channel Isles:

Guernsey: naturalised near gardens, *Chevalier*, 1933.

Jersey: bank at La Haule, 1929, *L. Arsène* (OXF). St Heliers, 1929, *L. Arsène* (OXF). Naturalised near gardens, *Chevalier*, 1933.

Jethou: waste ground, Jethou, 1932, *R. Meinertzhagen*, det. *E. B. Bangerter* (BM).

Sark: naturalised near gardens, *Chevalier*, 1933.

V.c. 1. W. Cornwall: established in a waste corner of Perranzabuloe Churchyard and lane outside, 1945, *F. Rilstone* (NMW). Garden weed, Lambourne Hill, 1945, *F. Rilstone* (Hb. E. C. Wallace). Hedgebank, Tremethick Cross, near Penzance, 1954, *R. C. L. Howitt.* Perranuthnoe Churchyard; Gulval Churchyard, abundant, 1955, *K. E. Bull.*

1b. Isles of Scilly: on a bank near a house, St. Mary's, 1955, *Mr. & Mrs. R. C. L. Howitt.*

2. E. Cornwall: wet field by river, Chapel Amble, near Wadebridge, 1954; old slate quarry 4 miles from Tintagel on the road to Camelford, 1955, *R. I. Sworder.*

*Additional records (and specimens) would be much appreciated, and should be sent to either of the authors.

3. S. DEVON: roadside bank, Exmouth, 1933, *H. S. Thompson* (Hb. Lousley). Torquay, 1944, *Rev. T. Stephenson, Rep. Bot. Soc. & E.C.*, **13**, 305. Hedgerows, Yelverton, 1944, *C. West* (Hb. Lousley). Gidleigh, spreading on roadside banks, *W. Keble Martin, Rep. & Trans. Devon. Assocn.*, **83**, 485. Weed in Jenny Wren's Tea Garden, Knowle, 1953, *J. Nesbit* (BM). Abundant on grass verge and roadside by Paignton goods station; not far from Berry Head Hotel, Brixham; Ashburton Churchyard; outskirts of Galmpton, *K. E. Bull, Proc. B.S.B.I.*, **1**, 176. Lane side near Loughwood Farm, Kilmington, 1954, *J. P. M. Brenan* (K). Near Kingsbridge, in hedgerows and by roadsides, 1955, *S. M. Walters*. Membury and Stockland districts, spreading along sides of streams into places remote from habitation, 1955, *T. J. Wahan*.
4. N. DEVON: Barnstaple, two stations, *F. A. Brokenshire*, det. at *Kew, Rep. & Trans. Devon. Assocn.*, **77**, 58. Belstone and South Tawton Quarries, *O. Greig, Rep. & Trans. Devon. Assocn.* **84**, 257. Gooseford and Paynes Bridge, *O. Greig, Rep. & Trans. Devon. Assocn.*, **85**, 181. Parracombe, 1950, *T. G. Collett*. Among rubble field corner above Pixie Lane, Braunton, 1954, *K. E. Bull*.
5. S. SOMERSET: weed in kitchen garden, Newton Farm, Bicknoller, 1932, *T. A. Sprague* (K). Hedgebank, Edgcott, 1947, *C. T. Amherst*, det. *A. J. Wilmott* (BM). Verge of lane at edge of wood, Angersleigh, 1955, *O. M. Hallam*. Grassy bank at roadside, opposite houses, N. of Dunkery Beacon, 1956, *Mr. & Mrs. Hallam, J. F. & P. C. Hall*. Fivehead; West Sedgemoor, 1956, *Miss D. E. de Vesian*.
6. N. SOMERSET: Sidcot, 1933, *H. S. Thompson* (K). Friends' Burial Ground, Street, 1933, *H. S. Thompson* (K). Wootton, near Street, 1946, *V. S. Summerhayes* (K). Abundant weed in nurseries, Baltensborough, 1948, *J. Markham* (K). Roadside, Priston, *Mrs. E. M. Bell*; Glastonbury Abbey ruins, *C. I. & N. Y. Sandwith, Proc. Bristol Nats. Soc.*, **28**, 172. Main Bristol to Bridgwater road at Axbridge, 1954; *R. C. L. Howitt*. On uncut grass strip in front of Drewa's House, Saltford, near Bath; banks of Kennet-Avon Canal at Bathwick, and below Limpley Stoke, 1956; in a ditch at Bathampton since 1946, *Miss A. L. Miller*, teste *D. McClintock*. Bank of Kennet-Avon Canal, near Limpley Stoke, 1956, *Miss J. D. Miller*, comm. *D. McClintock*.
7. N. WILTS: in grassland near Great Chalfield, in great quantity; meadow S. of Corsham; roadside near Neston, in fair quantity, 1951, *Wilts. Arch. & N.H. Mag.*, **54**, 341. Chippenham, *T. G. Collett, Wilts. Arch. & N.H. Mag.*, **55**, 62. Garden weed, Melksham; roadside bank, Bow-

den, 1950, *T. G. Collett.* Stream bank near Rowde, in quantity; roadside near Liddington; river bank near Ramsbury, in good quantity, *J. D. Grose.*

8. S. WILTS: between Winterbourne Stoke and Yarnbury, far from houses, 1941, *B. Welch* (BM). Grassy lane near Clyffe Hall, 1950, *Wilts. Arch. & N.H. Mag.*, **53**, 77. Little Cheverell, *Mrs. M. E. Nurse, Wilts. Arch. & N.H. Mag.*, **55**, 62. Devizes, *R. Sandell, Wilts. Arch. & N.H. Mag.*, **55**, 62. Roadside N. of Dinton, in great quantity, 1954, *Mrs. I. M. Grose, Wilts. Arch. & N.H. Mag.*, **57**, 37. Roadside, Widbrook; roadside by Round Wood, one small patch; Upavon; river bank, Upton Lovell, in good quantity; river bank, Boyton, in fair quantity; *J. D. Grose.* Lane verge near Salisbury, 1954; *R. W. David.*

9. DORSET: garden escape, Powerstock, 1948, *C. D. Chase, Proc. Dorset. N.H. & Antiq. F.C.*, **75**, 161. Roadside bank, Wimborne, 1954, *R. A. Graham* (Hb. Graham).

10. ISLE OF WIGHT: Middleton, near Freshwater, 1932, *E. & H. Drabble* (BM). Footpath near Bembridge, *J. Ounsted, Watsonia*, **2**, 48.

11. S. HANTS: near Lymington, 1936, *S. A. Taylor* (LTR). Garden weed, Butts Ash, near Hythe, 1953, *F. E. W. Venning* (BM). Thoroughly established, and in fine flower on Pennington Common, 1954, *J. E. Lousley* (BM, Hb. Lousley). Garden pest, New Milton, 1954, *T. G. Collett.* Garden pest, Southsea, 1956, *Miss D. W. Fawdry.* Denmead; Hambledon, 1950, *A. W. Westrup.*

12. N. HANTS: garden outcast, edge of Kingsley Common, 1935, *P. M. Hall, N. D. Simpson & E. C. Wallace* (BM, SLBI, Hb. Lousley & Hb. Wallace).

13. W. SUSSEX: bank of river Arun near Houghton Bridge, *N. Y. Sandwith, Rep. Bot. Soc. & E.C.*, **13**, 63. Abundant by the river Arun near Houghton towards Arundel Park, *E. C. Wallace, Watsonia* **1**, 255. Near Amberley, bank near river Arun, S. of Houghton, 1953, *B. Welch* (BM). Streamside near Poynings Church, for 100 yards or more, and large patches in nearby meadows; covering most of East Preston Churchyard, 1953, *K. E. Bull.* Waste ground, Bosham, 1953, *T. G. Collett.* Waste ground W. of river Adur, Shoreham; footpath, W. side of river Arun, North Stoke; roadside E. of Lancing College, 1956, *D. Philcox.* Roadsides and turfy slopes to lake, Chatergrove, near Bolney, 1956, *R. C. Palmer.*

14. E. SUSSEX: near Fairwarp, *E. D. Morgan*; under a wall at Ratton, *Mrs. Horrill*; in three places near Mayfield; Crowborough; Blackham, *E. D. Morgan* (*Wolley-Dod*

1937). Lewes, *Miss K. Pickard, Rep. Bot. Soc. & E.C.*, **10**, 28. In three places about Alfriston, 1938, *J. E. Lousley* (BM, Hb. Lousley & Hb. Wallace). Railway embankment near Robertsbridge; East Dene Churchyard; St Leonards, 1949, *R. Doggett* in litt. to *Kew*. Kingston-by-Lewes Churchyard, 1951; Horselunges, Hellingly, roadside and lawns, 1953; Iford Churchyard, below Lewes, covering nearly all the available turf, 1951; roadside for some distance near Tanyard Farm, Buxted; by stream, Cuttinglye Wood, East Grinstead, 1953; by New Place, Willingdon, and in Jordans Lane, Willingdon, 1954; Hellingly station yard, 1954; Buckhurst Lane, Wadhurst, 1955; St Peter's Churchyard, Eastbourne, 1955, *K. E. Bull*. Haywards Heath, 1953, *Miss M. Songhurst* (BM). Hawkenbury Cemetery, Tunbridge Wells, *K. E. Bull, Proc. B.S.B.I.*, **1**, 59. Stream side, Maresfield, 1956, *D. E. Allen & D. P. Young*.

15. E. KENT: garden weed, Denton, near Canterbury, 1953, *Miss D. Long* (BM). Among bushes on grassy road verge, Seabrook, 1955, *F. Rose, J. F. & P. C. Hall*.

16. W. KENT: grassy bank, Bishop's Down, Tunbridge Wells, 1950-53; abundant in turf, St Paul's Churchyard, Rusthall, 1950-53; Bull's Hollow, Rusthall, 1951, *K. E. Bull, Proc. B.S.B.I.*, **1**, 176. Otford, 1953, *N. L. Kimmins* (BM). Holt Wood, Aylesford, 1953, *C. West* (Hb. Lousley). Hildenborough, 1956, *D. McClintock*. Grassy roadside at edge of Boarzell Wood, S. of Flimwell, 1956, *J. F. & P. C. Hall* (BM).

17. SURREY: roadside bank, Ockham, 1933, *A. H. Carter* (Hb. Lousley). Meadow by stream S. of Ockley, 1942, *N. Y. Sandwith & E. C. Wallace* (Hb. Wallace). Headley, 1947, *E. F. Warburg* (LEI). Meadow by backwater of river Wey near Ockham Court, Ripley, 1949, *J. P. M. Brenan & N. Y. Sandwith* (K). Banks of river Wey, Elstead, 1950, *O. V. Polunin* (BM). Reigate Heath, 1952, *R. A. Boniface*; 1953, *B. Welch* (BM). Bookham Common, 1953, *E. B. Bangerter* (BM). The Glade, Fetcham, 1953, *A. H. Norkett* (BM). By River Mole, Norbury Park, 1953, *J. F. & P. C. Hall* (BM). Rubbish-tip, Leatherhead, 1953, *London Natural History Society Excursion*. Roadside, Marden Park, 1954, *P. Greenfield*. Grassy patch near Chelsham bus garage, 1956, *London Natural History Society Excursion*. Rapidly increasing in Sanderstead New Churchyard, 1956, *D. P. Young*. Banks of river Wey below Tilford in quantity, 1954, *E. Milne-Redhead*. Garden pest, Ewshott, Farnham, 1956, *Miss V. M. Leather*.

18. ESSEX: Ramsden Heath, 1955, *S. T. Jermyn* (BM). Ditch banks, Margaretting, Ingatestone, 1955, *T. H. C. Bartrop*. Garden pest, Leigh, 1955-56, *S. T. Jermyn*.

19. N. ESSEX: in stubble fields near Mile End, Colchester, *J. A. Whellan, Rep. Bot. Soc. & E.C.*, **13**, 305. Pest of gardens and lawns, Harlow, 1951-56, *H. Mace*. Halstead area, 1950, *D. E. Allen*.

20. HERTS: waste ground, Welwyn Garden City, 1952, *Miss H. D. Garside* (BM). Near Tring railway station, 1953, *G. Rance* (BM). Abundant in a disused garden and spreading outside, Watersplace, near Ware, 1955; roadside, Kelshall, near Therfield, 1955; by gamekeeper's cottage in grass, Wain Wood, near Preston, Hitchin, 1956; *J. G. Dony*.

21. MIDDLESEX: weed on tennis courts, Hounslow, 1942, *H. Banks*. Garden pest, Harrow, *G. H. Lockett*, det. *N. Polunin* (OXF). Road bank, Northwood, 1952, *R. A. Graham*. Canal path near Jack's Lock, Harefield, 1955, *B. Welch*. Garden pest, Battle of Britain House, Northwood, 1955, *B. P. Pickess*. Garden and lawn pest, Ruislip, 1956, *F. E. Wrighton*.

22. BERKS: garden path, Kennington, 1943, *C. E. Hubbard* (K). Windsor Great Park, 1950, *E. Milne-Redhead & R. A. Graham*. By the river Thames, Little Wittenham Wood, 1956, *R. C. Palmer*.

23. OXFORD: waste ground, Manor Road, Oxford, 1937; Jackdaw Lane, 1939, *J. P. M. Brenan, Rep. Bot. Soc. & E.C.*, **12**, 795. Garden weed, Yardley Lodge, Oxford, 1943, *C. E. Hubbard* (K). Bank of river Thames, Binsey, 1944, *C. E. Hubbard* (K). Persistent garden weed, St Margaret's Road, Oxford, 1948, *A. P. Conolly*, comm. *T. G. Tutin, Watsonia*, **2**, 48. Garden weed, Staverton Road, Oxford, 1954, *M. Fisher* (BM). Thames bank between Goring and Pangbourne, 1954, *P. C. Hall* (BM). Garden weed, Bampton, and in the cemetery, *Dr. Davey*, comm. *P. G. Beak, Proc. B.S.B.I.*, **2**, 110. Roadside bank, Burford, 1952-56; garden weed, Chinnor, 1954-56, *R. S. R. Fitter*.

24. BUCKS: garden pest, High Wycombe, 1955, *E. C. Badcock* (BM). Bank near Radnage Church, 1954, *R. S. R. Fitter, Middle-Thames Nat.*, **8**, 23. Pest of lawns, Beconscot Village, Beaconsfield, 1956, *T. G. Collett*.

25. E. SUFFOLK: near Belstead Lodge and Gusford Hall, 1952, *Trans. Suffolk Nats. Soc.*, **8**, 191.

27. E. NORFOLK: near Bungay, Ditchingham, garden weed, 1953, *Miss M. Brown* (BM). Abundant at Calthorpe, near Stalham, 1956, *T. G. Tutin*.

28. W. NORFOLK: garden escape from High House, Westacre; in the paving of the cemetery at Upwell, 1955, *E. L. Swann.*

29. CAMBRIDGE: persistent garden weed, Storey's Way, Cambridge, 1948, *T. G. Tutin, Watsonia*, **2**, 48. Playing fields, St. John's College, Cambridge, 1952, *D. A. Hopwood & S. M. Walters* (CGE). Rough grass in grounds of Kirtling Towers, 1952, *S. M. Walters* (CGE).

30. BEDFORD: established by roadside, Tillbrook, 1947, *J. G. Dony* (BM). Garden pest, Luton Hoo, *Dony*, 1953.

33. E. GLOUCESTER: by roadside, Painswick, 1938, *E. R. Roberts* (CGE). Garden escape, well established in turf in 1941, and increasing, Lower Hilcot; Elkstone, *T. A. Sprague*; Cirencester; Rendcomb, *Airy Shaw*; village green, Hucclecote (*Riddelsdell, Hedley & Price*, 1948). Garden at "Royal William", Cranham, 1946, *I. Evans* (*Riddelsdell, Hedley & Price*, 1948). Cheltenham, *T. A. Sprague, Watsonia*, **1**, 255. Near Queen's Wood, Prestbury; sandpits, Sandy Lane, Leckhampton, 1947, *C. C. Townsend*, det. *A. J. Wilmott, Watsonia* **1**, 255. Meadow by lane leading to Dowdeswell Reservoir to Rossleigh Manor, *Watsonia*, **2**, 347. Allotments near Bourton-on-the-Water School; streamside near Cranham Church; Nethercote, Bourton-on-the-Water; Lower Slaughter Churchyard; near Hatherley Park, Cheltenham, 1950, *K. E. Bull.* Pest in lawn near Cranham, 1953, *M. J. Mulligan* (BM). Brimscombe, 1953, *C. C. Townsend, Chelt. & Dist. Nat. Soc. J.*, **1954**, 5.

34. W. GLOUCESTER: well established on banks of the Wye between Redbrook and Bigsweir; below rapids, Symonds Yat, 1944, *Charles* (*Riddelsdell, Hedley & Price*, 1948). Abundant all along the Wye banks from Symonds Yat station to the track to Braceland, *C. C. Townsend, Watsonia*, **2**, 347. Below Symonds Yat, on Gloucester side of the Wye, in masses in hedgebanks, 1953, *Mrs. D. Aston* (BM). Grassy slope near Arbutus Drive, Blaize Castle, Henbury, with *V. chamaedrys*; completely covering a large lawn at Clifton House Hotel, Clifton, 1951, *K. E. Bull.* Hedgerow, Portway Lane, Old Sodbury, and cart track, Bangel Wood, Kilcot, *G. W. Garlick, Proc. Bristol Nats. Soc.*, **28**, 309. By the Frome at the foot of Bury Hill, Winterbourne, *G. W. Garlick, Proc. Bristol Nats. Soc.*, **29**, 104.

35. MONMOUTH: banks of river Wye, Hadnock near Monmouth, 1944, *R. Lewis* (BM, NMW). Bank of river Wye under Penallt, 1944, *R. Lewis* (NMW). Bank of river Wye between Bigsweir and Whitebrook, 1944, *S. G. Charles*

(NMW). Along the Wye Valley on a disused road, 1953, *Mrs. D. Aston* (BM).

36. HEREFORD: new road, Colwall, becoming established as a weed, 1946, *F. M. Day* (BM). Banks of river Wye from Bredwardine Bridge to Farnhope, 1949; open wood, Longworth Hall, 1950; roadside, King's Acre, Hereford, 1950, *Mrs. L. E. Whitehead.* Roadside, Vowchurch, 1950, *H. Blundstone.* Roadside, Ridge Hill, 1951, *Mrs. L. E. Whitehead.* Bank of river Monnow, Pandy, 1951, *K. Johnston.* Roadside, Ewyas Harold, 1951, *M. Porter.* Roadside, Mordiford, 1952; old garden, Whitbourne, 1952, *I. Muller.* River bank and open wood, Downton Gorge, 1953, *Mrs. L. E. Whitehead.* Bearswood Common, 1953, *F. M. Day.* Nieuport House and roadside, Almeley, 1956, *A. Melderis.* Road bank near Leominster, *Miss C. M. Goodman.*

37. WORCESTER: naturalised on the banks of the river Severn north of Leachford Ferry near Holt Fleet, 1938, *W. H. Hardaker* (OXF). In quantity on the bank of the river Severn behind Shrawley Wood, near Droitwich, *C. E. Andrews & C. C. Townsend, Proc. B.S.B.I.*, **1**, 59. Kempsey; Ombersley Churchyard; Malvern; Malvern Wells, *Hardaker*, 1954. Grass verge of a rough unmade road leading to Castlemorton Common, 1955, *M. H. Cocke*, det. *R. C. L. Burges.* In profusion over at least 100 yards outside Birtsmorton Church, *C. C. Townsend, Watsonia*, **2**, 347.

38. WARWICK: Rough Hill Wood, near Studley, 1953, *C. C. Townsend, Proc. B.S.B.I.*, **1**, 176. Locally abundant on roadside, Turners Green, 1953; garden weed, Solihull, 1952; locally abundant as a garden weed, Knowle, and in an adjoining meadow, 1955, *R. C. Readett.* Roadside and banks, Haslor, near Alcester, *Miss C. M. Goodman.*

39. STAFFORD: canal side near Sutton, Forton, 1955, *E. S. Edees.*

40. SALOP: garden weed, Church Stretton, 1941, *M. Gepp.* Garden pest, Shrewsbury, 1956, *T. G. Collett.* Ludlow, 1955, *Miss C. M. Goodman.*

41. GLAMORGAN: grassy verge by Sketty Green, 1945, *J. A. Webb* (NMW). Caswell, Gower, 1954, *J. A. Webb* (NMW). Over the cliffs at Limeslade, Gower, 1945, *J. A. Webb* (NMW). Roadside, Nottage, 1947, *E. M. Thomas* (NMW). Mumbles Cemetery, *J. A. Webb*; an increasing garden weed, Cogan, etc., *E. Vachell, Rep. Bot. Soc. & E.C.*, **13**, 305. Bank of river Ely, St. Georges; pest of lawns, Cardiff, 1955, *A. E. Wade.* Streamside, Ilston Cwm, abundant, 1956, *J. A. Webb* (NMW). Southgate, 1956, *J. A. Webb* (NMW).

42. BRECON: laneside near house, Abergwesyn, 1956, *P. C. & J. F. Hall.* Llangammarch Wells, 1956, *Mr. & Mrs. R. C. L. Howitt.* Abundant by streamside near Three Cocks Inn, near Talgarth, 1956, *R. A. Graham & R. M. Harley.*
43. RADNOR: bank of river Wye near Boughrood, 1956, *P. C. & J. F. Hall.* Pen-y-bont, 1956, *Mr. & Mrs. R. C. L. Howitt.*
44. CARMARTHEN: Rhandirmwyn, 1952, *I. M. Vaughan* (NMW).
45. PEMBROKE: lanes about Llawhaden; Narberth Road, Tenby, *Rees*, 1950.
46. CARDIGAN: becoming established rather frequently as an escape from cultivation, 1935, *Wade*, 1952.
47. MONTGOMERY: near Meifod, 1955, *Cambridge Bot. School Exped.* Roadside near Congregational Chapel, Carno, 1956, *I. A. Williams* (BM).
48. MERIONETH: Barmouth, 1951, *R. Lumley-Jones* (BM). Roadsides near Bron Meiron, Arthog, 1951, *P. M. Benoit* (NMW). Path on south bank of river Sgethin just below Talybont Bridge; grassy places near the end of the road to the sea from Llanddwywe Church; rubbish-tip between Llanbedr village and Talwrnbâch Halt; Dolgelly, 1955, *P. M. Benoit.*
49. CAERNARVON: Capel Curig, 1950, *Miss D. E. de Vesian.*
50. DENBIGH: rapidly spreading in the county . . . . and in places becoming dominant, *Savidge*, 1954.
51. FLINT: by roadside, Llanferres, near Mold, 1936, *J. A. Whellan* (K). Rapidly spreading in the county . . . . and in places becoming dominant, *Savidge*, 1954. Extensive patches at Loggerheads and near Nant Alyn, *J. P. Savidge, Proc. Liverpool Nats. F.C.*, **1955**, 5.
52. ANGLESEY: Menai Bridge area, 1950, *ex. B.S.B.I. Maps Scheme.*
53. S. LINCOLN: garden weed, Old Hall, Stragglethorpe, 1954, *R. C. L. Howitt.*
54. N. LINCOLN: pest in lawn, Boston, 1951; roadside, Reverly Bridge, near Boston, 1956; pest of lawns, Willoughton, 1956; Tealby, near Market Drayton, 1956, *Miss E. J. Gibbons.*
56. NOTTINGHAM: garden weed and colonising lanesides, Farndon, 1940; Orston, 1953, *R. C. L. Howitt.*
58. CHESTER: banks of river Dibbin, Bromborough, *Savidge*, 1954.
59. S. LANCASTER: pathsides and grassland, Downham, 1951, *M. R. Tomlinson.*
60. W. LANCASTER: grassy wayside in lane near Gressingham, Lime Valley, 1942, *J. N. Frankland, Rep. Bot. Soc. & E.C.*, **12**, 498. Grassland on edge of Haugh Wood, near Ribchester, 1953, *M. R. Tomlinson.*

61. S.E. YORK: Riplingham Road, Hull, *Mrs. Grewe*, per *Miss F. E. Crackles*, *The Nat.*, **1957**, 28.
62. N.E. YORK: river bank about a mile below Catton village, 1946, *C. M. Rob* (NMW & OXF). Lastingham, *H. B. Willoughby Smith*, *Rep Bot. Soc. & E.C.*, **13**, 305. Hackness, 1947, *H. Rowntree* (*Walsh & Rimington*, 1953).
63. S.W. YORK: grassland, edge of stream, Waddington, 1956, *M. R. Tomlinson*.
64. MID W. YORK: river bank above Tanfield, *C. M. Rob*, *The Nat.*, **1955**, 28.
65. N.W. YORK: well established near Reeth in Upper Swaledale, *C. M. Rob*, *Rep. Bot. Soc. & E.C.*, **13**, 365.
66. DURHAM: in a dense mat along the Wear near Eastgate, *J. W. Heslop-Harrison*, *The Vasculum* (*Substitute*), **39**, 18.
67. S. NORTHUMBERLAND: banks of the Pont near Ponteland, *J. W. Heslop-Harrison*, *Watsonia*, **2**, 48. Near Haltwhistle; Riding Mill; Wylam, *J. W. Heslop-Harrison*, *The Vasculum* (*Substitute*), **38**, 24. Holywell Dene, *L. Hunt*, *The Vasculum* (*Substitute*), **39**, 10. A large patch along the roadside between Apperley Dene Farm and Wheelbirks, *J. W. Heslop-Harrison*, *The Vasculum* (*Substitute*), **36**, 16. Roadside, Stocksfield, 1955, *W. B. H. Sowerby* (BM).
68. CHEVIOTLAND: Rothbury, *J. W. Heslop-Harrison*, *The Vasculum* (*Substitute*), **38**, 24. Alnwick, 1955, *W. S. Craster*.
69. WESTMORLAND: roadside in High Wray village, 1951—had increased somewhat by 1948, *T. G. Tutin*, *Watsonia*, **1**, 255. Near Appleby, 1953, *Mrs. J. Dalton* (BM). Levens, near Kendal, 1955, *Miss E. Bradshaw* (BM).
70. CUMBERLAND: garden and roadside weed, Holmrook, 1953, *Miss P. Bewlay* (BM). Near Salkeld, 1953, *Mrs. J. Dalton*.
71. ISLE OF MAN: plentiful by the entrance to Glen Mona, 1948, *J. A. Whellan*, *Rep. Bot. Soc. & E.C.*, **13**, 305.
72. DUMFRIES: plentiful on river bank, Tarron Lodge, Langholm, 1955, *G. Watt*. Moffat area, 1950, *ex B.S.B.I. Maps Scheme*.
73. KIRKCUDBRIGHT: roadside, Rockcliffe, 1946, *R. Mackechnie* (BM, Hb. Lousley & Hb. Wallace).
74. WIGTOWN: near Newton Stewart, 1955, *Miss D. E. de Vesian* (BM). Garliestown, 1955, *R. C. L. Howitt*.
75. AYR: waste ground by river Ayr, 1927, *R. Mackechnie* (Hb. Wallace). Roadside, West Kilbride, 1946, *R. Mackechnie* (Hb. Lousley & Hb. Wallace). Sunny places on roadsides, becoming frequent, *Lee*, 1953.
76. RENFREW: among building rubbish, Bridge of Weir, 1940, *W. Rennie* (K).
77. LANARK: sunny places on roadsides, becoming frequent, *Lee*, 1953.

*78. PEEBLES: grassy bank near houses, West Linton, *Miss E. P. Beattie.*

*79. SELKIRK: grassy bank, Yair, *Miss E. P. Beattie.*

*81. BERWICK: Cambridge, *Mrs. M. L. Murray.*

*82. HADDINGTON: grassy bank, near Saltoun; grassy bank, Tyninghame, *Miss E. P. Beattie.*

83. EDINBURGH: Edinburgh, 1932, *H. A. Webber* (BM). Roadside, Fettes Avenue, Edinburgh, 1952, *P. S. Green* (E); since eradicated by Corporation weeding operations, *B. L. Burtt.* Grassy verge outside church, Crichton Castle, 1956, *D. McClintock.* W. Calder & Roslin areas, 1950, *ex B.S.B.I. Maps Scheme.*

*84. LINLITHGOW: grassy bank, Bathgate, *Miss E. P. Beattie.*

88. MID PERTH.: waste ground, Perth, 1944, *M. S. Campbell & A. J. Wilmott* (BM). Roadside, Killin, 1945, *R. Mackechnie* (Hb. Lousley & Hb. Wallace). Cemetery at St. Kattan's Chapel, Aberuthven; S. bank of river Tay near Elcho Castle, *A. W. Robson, Proc. B.S.B.I.*, 1, 59.

*89. E. PERTH: grassy bank, Blairgowrie, *Miss E. P. Beattie.*

90. FORFAR: Ardgarter Farm, near Craigs of Lundie, 1947, *A. H. G. Alston* (BM).

91. KINCARDINE: abundant garden weed, Glenbervie, 1953, *J. C. Gardiner.*

92. S. ABERDEEN: Braemar area, 1950, *ex B.S.B.I. Maps Scheme.*

93. N. ABERDEEN: Inverkeithny area, *Miss M. McCallum Webster.*

94. BANFF: wet ground by a drain mouth, Tomintoul, opposite Woodhill, 1954, *W. J. Hopkins.* Bridgend, Drummuir Castle and Portknockie areas, *Miss M. McCallum Webster.*

95. ELGIN: Dunphail, Forres, Findhorn, Dallas, Burghead, Rothes and Fochabers areas, *Miss M. McCallum Webster.*

96. EASTERNESS: streamside, Drumnadrochit, S.W. of Inverness, 1946, *A. J. Wilmott & M. S. Campbell.*

*97. WESTERNESS: meadow, Morar, 1957, *Miss M. McCallum Webster.*

98. ARGYLL: roadside in Kilchrenan village, 1952, *E. C. Wallace & K. N. G. MacLeay* (Hb. Wallace). Portnacroish and Invercreran areas, 1950, *ex B.S.B.I. Maps Scheme.*

99. DUNBARTON: woodland strip, Helensburgh, 1940, *W. Rennie* (K).

100. CLYDE ISLES: grassy verge near the pier, Brodick, Arran, 1954, *G. C. Lewarne.*

101. KINTYRE: sunny places on roadside, becoming frequent, *Lee*, 1953. Kilkerran Quarry, near Campbeltown, 1956; banks of Killean burn, W. Kintyre, 1956, *M. H. Cunningham*, det. *E. C. Wallace.*

*Records so marked were received too late for inclusion on the map.

104. N. EBUDES: rough ground outside the kirkyard, Uig, Skye, 1954, *Miss M. McCallum Webster* (BM).

107. E. SUTHERLAND: Helmsdale area, *Miss M. McCallum Webster.*

109. CAITHNESS: roadside, Dunbeath, 1956, *Miss M. McCallum Webster* (BM).

112. ZETLAND: naturalised by Tingwall Churchyard, 1956, *W. Scott*, det. *J. E. Lousley.*

H.5. E. CORK: Foaty Island and Belvelly near Cork, 1955, *Miss C. E. Longfield.* Abundant in a pasture along the bank of the river Blackwater about a mile E. of Fermoy, 1956, *D. A. Webb.*

H.7. S. TIPPERARY: Thurles, *D. A. Webb.*

H.8. LIMERICK: Pallaskenry, *D. A. Webb.*

H.16. W. GALWAY: field at Gorteen Bay, W. of Roundstone (near a house), *J. Ounsted, Watsonia*, **2**, 203. Naturalised alongside the road to the pier, Oughterard, 1952, *R. B. Drummond* (K). East end of Ballynahinch Lough, 1956, *D. A. Webb.*

H.20. WICKLOW: garden pest at the rectory, Wicklow, spreading into grazing land, 1935; margin of a hayfield between Rathsaltagh and the Greese river, near Colbinstown, 1947, *Brunker*, 1950. Grange Con; Woodenbridge; Rathnew, *J. P. Brunker.*

H.21. DUBLIN: near the club-house, St. Finian's golf-links, Howth, *S. M. Sockett Foster*, det. *E. F. Warburg* (OXF). Shady roadside bank, Monkstown, *D. A. Webb* (TCD).

H.22. MEATH: garden pest, Pilton House, Drogheda, 1956; The Grove, Balroth, 1956, *D. McClintock.*

H.27. W. MAYO: roadside bank, Ballina, 1933, *C. Pearson* (TCD). Westport, *R. L. Praeger.*

H.28. SLIGO: grassy bank between Sligo and Ben Bulben, 1937, *W. H. Hardaker* (OXF). Sand dunes, Strandhill, *Faris* (*Praeger*, 1946).

H.31. LOUTH: garden pest at Killiney House, Drogheda and Red House, Ardee, 1956, *D. McClintock.*

H.33. FERMANAGH: Laragh Ballinamallard, escaped garden weed, 1953, *Mrs. G. Burkitt & S. M. Walters* (CGE). Lisnarrick; Aghalane, *R. D. Meikle, E. N. Carrothers & J. McK. Moon.* Wayside near Inver Lough, 1956, *J. McK. Moon.*

H.34. E. DONEGAL: field by the Fort, Greencastle, *Brenan & Simpson*, 1938.

H.35. W. DONEGAL: shore of Lough Kinney, 1955, *B.S.B.I. Field Meeting.*

H.36. TYRONE: garden weed, Tynan Abbey, 1956, *D. McClintock.*

H.38. DOWN: hedgebanks and waste ground near the shore, Rostrevor, 1952, *J. McK. Moon*. Weed in Slieve Donard Nurseries, Newcastle, 1956; Ards Airport, 1956, *D. McClintock*.

H.39. ANTRIM: ditches and golf course, Carrickfergus, 1940; ditches and golf courses at Greenisland, Portrush and Antrim, 1956; waste ground and meadows, Belfast, 1956, *J. McK. Moon*. Basaltic pavements by shore of Lough Neagh, Shane's Castle, 1956, *J. McK. Moon & D. McClintock*. Garden weed, Rathmore, Green Island and Red Hall, Ballycarry, 1956, *D. McClintock*.

H.40. DERRY: waste ground near shore and golf links, Castlerock; sand dunes, Magilligan, 1956, *J. McK. Moon*.

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