

NATURAL HISTORY REPORTS

VASCULAR PLANT REPORT 2012

Plant distribution patterns are fascinating and ever-changing. In 2012, a remarkable array of species appeared on road verges in and around Taunton. It is easy to dismiss such records as 'casuals', but in fact the status of each is an interesting topic for consideration and these records, and others made in 2012, provide quite different examples of the dynamic nature of plant distributions in Britain.

Some roadside arrivals are evidently garden escapes, never having been native to Britain. The pretty blue-flowered *Cynoglossum amabile* (Chinese Hound's-tongue), found on a roadside verge near the new road bridge in Taunton, is one such species. It is native to China and has only previously been recorded in the wild once before in Britain, in Cardiganshire. The heavy seeds bear hooks to facilitate dispersal by animals; although they may conceivably have hitched a lift from a local garden, it seems more likely that they arrived with soil used to profile the new road verge, particularly since *Nigella damascena* (Love-in-a-Mist), a common garden plant, was growing nearby. Love-in-a-Mist also has relatively heavy seeds, which would not blow far in the wind, but unlike *Cynoglossum* they are very smooth, ruling out animal dispersal. However it arrived, the status of *C. amabile* is unquestionably alien.

New species appearing and surviving 'in the wild' often follow trends in horticulture, which may be a response to, or in anticipation of, climatic change. Young plants of *Cordyline australis* (Cabbage-palm) found as 'street weeds', again in Taunton, represent the first inland records for Somerset. This species was only recorded in the extreme south-west and on the Dorset coast until the 1970s, after which it started to appear at

coastal sites more widely. Since 2000, however, its range has expanded considerably, probably reflecting its increased use in horticulture. Like *C. amabile*, its status is clearly alien wherever it is found in the British Isles since, as a native, it is endemic to New Zealand.

Of considerably greater interest was the unexpected discovery of *Polygonum boreale* (Northern Knotgrass) on newly-created roadside banks adjoining car parks in Tangier/Castle Street, Taunton (Fig. 1). Over five hundred plants were counted, although sadly they were soon exterminated with weedkiller. This species is native to Britain, but restricted to lowland, mainly coastal sites in Scotland, with one former occurrence in England, in South Lancashire. It is an annual of disturbed ground, sandy beaches, coastal shingle and dunes. The appearance of this species in Taunton is intriguing: it has certainly not arrived of its own accord, for there is no local source of seed. It must therefore have got here either with imported soil (unlikely, since the soil would have had to have come all the way from Scotland) or as an 'impurity' of the grass-seed mixture used to landscape these banks. In Kirkcudbrightshire, *Polygonum boreale* was reported on two roadsides where road works had taken place; there, it was believed to have been introduced during reseeding of the verges (Stewart 1996). Although a native to Britain, this predominantly coastal species is clearly an introduction in Somerset.

The spread of native coastal species along motorways and major roads in England was first reported by Matthews and Davison (1976), and several species including *Cochlearia danica*



Fig. 1 Northern Knotgrass (*Polygonum boreale*)
on a roadside verge in Taunton
(Photo: Simon Leach)

(Danish Scurvy-grass), *Puccinellia distans* subsp. *distans* (Reflexed Saltmarsh-grass) and *Spergularia marina* (Lesser Sea-spurrey) are now well established on road verges in many parts of Somerset. The status of coastal species once they venture inland has been a subject of much debate. Scott (2003) is certain that coastal plants initially arrive on roadsides by carriage on vehicles, later spreading in the slipstreams of traffic flow, and therefore thinks it correct to treat these inland records as alien (or introduced), as was done by Preston *et al.* (2002) who mapped such species as 'native' on the coast but 'alien' along inland road verges. Yet, as pointed out by Leach (2003), other (non-coastal) species occurring on road verges are often unquestioningly assumed to be 'native', even though their mode of arrival is usually unknown and may have been as much the result of introduction by man as that of the (more obviously 'out of place') coastal species.

In 2012 there were several interesting records of coastal plants growing inland on road verges. *Atriplex littoralis* (Grass-leaved Orache) was first recorded along roadsides by Scott and Davison (1982) in north-eastern England; this species was

found inland in Somerset for the first time in 2012, again on a newly-created verge in Tangier, Taunton. *Hordeum marinum* (Sea Barley) had been recorded on inland road verges in Kent by 1980 (Scott and Davison 1982), but inland occurrences elsewhere have been few and far between. Two records for *Hordeum marinum* alongside the M5 in 2012 represent the first occurrences of this species as a roadside halophyte in VC5, its only previous inland record in Somerset being after in 1998 when it was seen in VC6 near junction 23 of the M5 (Green 1998).

Carex arenaria (Sand Sedge), another largely coastal species, has been found inland in Somerset before, but not since 1993; this was also discovered in Taunton in 2012, not on a roadside but in an area of old sidings at Taunton railway station. This sedge does occur inland as a native in certain parts of Britain, for example Breckland, but also occasionally turns up as an 'alien' on railway clinker (Preston *et al.* 2002). All three inland Somerset records have been from railway sites.

Another exciting addition to the flora of VC5 (and perhaps) Somerset in 2012 was *Galium parisiense* (Wall Bedstraw). This dainty annual is Nationally Scarce and listed as 'Vulnerable' on the British Red Data List (Cheffings and Farrell 2005). It is principally a Mediterranean species, restricted in Britain to southern England and East Anglia. Intolerant of competition, it grows on walls and (often stony) bare ground. There have been three previous records in Somerset (near Bath and Wells), all of them dubious, so the appearance of thousands of plants on verges and bare ground near Taunton railway station is a significant record. How this species arrived in Taunton is unclear: it occurs here within the core 'native' range for the species but, as far as we know, there are no local sites from which seed might readily have spread, and Taunton lies roughly midway between widely separated strongholds in Hampshire and South Devon. One cannot rule out the possibility, of course, that it reached Taunton by train.

To assess the status of undoubted Somerset natives or archaeophytes when they turn up on new roadside sites can be equally problematic. Another species appearing on verges of the new link road between Tangier and Bridge Street in 2012 was *Euphorbia exigua* (Dwarf Spurge). This is a declining arable weed listed as Near Threatened by Cheffings and Farrell (2005)

and included in the forthcoming Somerset Rare Plant Register. It is recorded from a few places in the Taunton area, especially on the northern fringe of the Blackdowns in the vicinity of Corfe, Thurlbear and West Hatch; but how this roadside population arrived in the middle of Taunton is a mystery. Did it appear from a long-buried seed-bank, or could it have arrived with several other 'arable' species like *Stachys arvensis* (Field Woundwort) and *Kickxia elatine* (Fluellen) – and indeed *Polygonum boreale* – in imported soil or as a grass-seed contaminant?

For many species, of course, 'native' ranges are not static but shift through time: plants are opportunists and their distributions constantly change, often in response to man-made environmental changes. For others, however, there are few or no opportunities for expansion of range, particularly because of lack of suitable habitat, but maybe also due to poor reproductive or dispersal capacity or other factors; many of these are amongst our rarest native species in Somerset. The list of records for 2012 below includes several examples of such species.

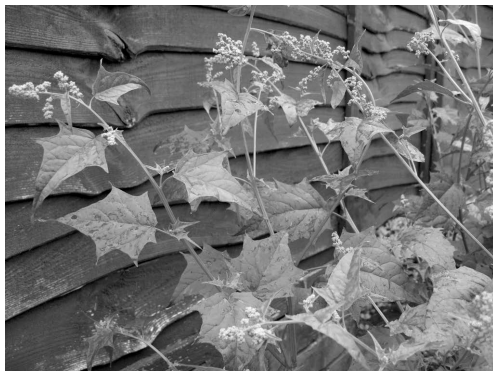


Fig. 2 *Chenopodium hybridum* (Maple-leaved Goosefoot), in a garden in Bath

Of particular note was the reappearance of *Sium latifolium* (Greater Water-parsnip) at West Moor, the first record for VC5 since 2003. This species is Endangered on the British Red Data List and has declined drastically in Somerset during the last ten years. The diminutive and Vulnerable *Myosurus minimus* (Mousetail) was found at a new site in VC6: its first record for this vice-county since 1987. *Chenopodium hybridum* (Maple-leaved Goosefoot), always a rare species

in Somerset, appeared in a new location in Bath: its first record for Somerset since 2003 (Fig. 2). *Isolepis cernua* (Slender Club-rush), rare in both VC5 and VC6, turned up at a new site in North Somerset. The Nationally Scarce grass, *Poa bulbosa* (Bulbous Meadow-grass) was discovered in abundance on Sand Point: the first record for the Weston-super-Mare area since 1856. *Poa infirma* (Early Meadow-grass), a species which has expanded its range dramatically in the last few years, was found at a new location. These (and others) are valuable additions to the records to be included in the county Rare Plant Register, a detailed inventory of the county's rare, scarce and threatened vascular plants. Progress on this project continues steadily, under the auspices of the vice-county recorders and the Somerset Rare Plants Group (see below for contact details).

Unless stated otherwise, records included in this report were made in 2012 and fall into one of the following categories:

- A taxon recorded for the first time in the wild in Somerset (Watsonian vice-counties 5 (South Somerset) and 6 (North Somerset)), ie a *new county record*
- A taxon recorded for the first time in the wild in one of the vice-counties, either VC5 or VC6, ie a *new vice-county record*
- Other records of particular interest, for example second or third vice-county records, species re-found after a long absence, or newly discovered populations of nationally rare or threatened species.

Within each category, records are listed alphabetically by 'taxon', which may be a species, microspecies, subspecies, variety or cultivar. Both native and introduced species are included, with more recently introduced taxa ('neophytes') to Great Britain being distinguished by an asterisk before the name. Nomenclature follows Stace (2010) for all taxa included in that work. The vice-county is given for each record; the boundary between VC5 and VC6 follows the River Parrett/River Yeo/A303.

The names of contributors not printed in full are abbreviated as follows: Helena Crouch (HJC); Dave Green (DEG); Simon Leach (SJL); Clive Lovatt (CML); Stephen Parker (SJP); Fred Rumsey (FJR); Alan Silverside (AJS); Margaret Webster (MAW); Bristol Naturalists' Society (BNS); Somerset Rare Plants Group (SRPG).

New county records

Asplenium trichomanes subsp. *pachyrachis* – Wembdon (ST28903793), 20 Mar 2010, few plants on inner face of churchyard wall near signboard, HJC & FJR, VC5.

**Crinum x powellii* (*C. bulbispermum x moorei*) – Portishead (ST450750), 25 Oct, few plants on spoil heap by derelict barns to southeast of Nightingale Valley SSSI, HJC & FJR, VC6.

**Cynoglossum amabile* (Chinese Hound's-tongue) – Taunton (ST22492473), 27 Sep, seven plants in newly-sown patch of grass adjoining new bridge over the Tone, near south end of Greenbrook Terrace, SJL (det. HJC & SJL), VC5. Presumably arrived in imported topsoil. *Nigella damascena* (Love-in-a-mist) and *Poterium sanguisorba* subsp. *balearicum* (Fodder Burnet) nearby.

Euphrasia nemorosa x confusa (a hybrid Eyebright) – The Perch, Cheddar (ST45335575), 19 Jul 2011, few plants in short turf, HJC (det. AJS), VC6. Specimen in Herb HJC.

**Geranium palmatum* – Dunster Station (SS99614473), 22 Jul, 15 plants self-sown between the railway tracks, between platform and engine shed, HJC, VC5.

**Mimulus x hybridus* – Wells (ST54954583), 29 Jun, one plant in flower on pavement of Sadler Street, HJC, VC6.

Polygonum boreale (Northern Knotgrass) – Taunton (ST22432458 to ST22382459, and ST22312459), 3 May, 500+ plants in bare soil on newly-sown grass bank, on the widened section of Castle Street adjoining car park, SJL, VC5 (Fig. 1). Only the second record of this northern species in England, presumably arriving here in imported topsoil or as grass-seed contaminant. Unfortunately, all plants killed in late May when verge was treated with herbicide, but specimens retained.

**Spiraea x pseudosalicifolia* (Confused Bridewort = *S. salicifolia x douglasii*) – Bridgwater (ST29893771), 28 Oct, one plant by sea wall, SRPG, VC5. First record for Somerset, but may have been under-recorded due to confusion with similar taxa.

New vice-county records

**Bergenia x schmidtii* (*B. crassifolia x ciliata*) – Portishead (ST450750), 25 Oct, many plants on

spoil heap by derelict barns to SE of Nightingale Valley SSSI, HJC & FJR, VC6.

**Cynosurus echinatus* (Rough Dog's-tail) – Milverton Bypass (ST12122646), Jun, in roadside woodland, R.G. Corns, VC5.

Galium parisiense (Wall Bedstraw) – Taunton (ST228253 to ST229254), 12 Jun, c.1800 plants in barish waste ground, grass verges and roadsides on south side of railway station, SJL, VC5. Further patches were found nearby in the next few weeks. Three records for VC6 have all been considered dubious so this is the first confirmed record for Somerset.

**Lemna turionifera* (Red Duckweed) – Moorlinch SSSI (ST393352), 8 Aug, abundant in ditch to north of and perpendicular to Shapwick Right Rhyne, HJC & Judith Weightman (conf. Richard V. Lansdown), VC6. Later found in six other ditches at Moorlinch SSSI.

**Telekia speciosa* (Yellow Oxeye) – Bathampton (ST78366496, ST78326502), 15 Jul, large patch both sides of towpath, HJC, VC6.

Other interesting Somerset records

Anagallis arvensis subsp. *foemina* (Blue Pimpernel) – near Stoke St Mary (ST25302195), 3 Oct, at least three plants in arable field margin SE of Broughton Farm, Cath Shelswell, VC5. A new site for this Nationally Scarce taxon, found in only two areas of VC5.

Atriplex littoralis (Grass-leaved Orache) – Taunton (ST22252457), 11 Jul, a single plant on newly seeded grassy roadside bank, opposite side entrance to Tesco car park at Tangier, SJL, VC5. First inland record in Somerset.

Brachypodium rupestre (Tor-grass) – Wavering Down (ST40875553), 30 Jun, BNS (det. Mark A.R. Kitchen) and Cross Plain (ST4155), 23 Aug, Maggie Brain, MAW & Jim Webster, VC6. First records for Somerset of this taxon, but formerly recorded as *B. pinnatum*.

Carex arenaria (Sand Sedge) – Taunton (ST226254), 2 Jul, old railway sidings area on south side of station, SJL, VC5. First inland record in Somerset since publication of Atlas Flora of Somerset.

Carex extensa (Long-bracted Sedge) – Pill saltmarsh (ST51877685), 26 Aug, in small inlet amongst Sea Couch and (ST51807691), large patch 7m x 7m, SRPG, VC6. New 10km record for species scarce in VC6.

- Chenopodium hybridum*** (Maple-leaved Goosefoot) – Bath (ST76186613), 24 Aug, one huge plant in newly created garden border in Ringswell Gardens, HJC & Rob D. Randall, VC6 (Fig. 2). First record for VC6 since publication of the Atlas Flora of Somerset. Found by the garden owner.
- Cirsium* x *forsteri*** (*C. dissectum* x *palustre*) – Moorlinch SSSI (ST38853551), 20 Jun, one plant with *C. dissectum*, SJP, VC6. Only third recent record for Somerset.
- **Cordylina australis*** (Cabbage-palm) – Taunton (ST233247), 8 Nov, one well-established young plant on kerbside at south end of St Augustine Street, growing with a varied selection of street weeds including abundant *Polypogon viridis* (Water Bent), and 15 Nov, a second plant nearby at the base of a lamp-post in Duke Street, SJL, VC5. Second record for VC5 and first since publication of Atlas Flora of Somerset.
- **Cuscuta campestris*** (Yellow Dodder) – Dunster (SS99144381), 22 Jul, many patches parasitic on sunflowers outside The Luttrell Arms, High Street, HJC, VC5. Second record for VC5. Also Shepton Mallet (ST63014339), 30 Sept, many patches smothering Antirrhinum plants beneath Niger feeder in garden, Sheila & John Brown, VC6. Second record for VC6. [Note that the record formerly believed to be the first for Somerset and VC6, at Windmill Hill, Bristol, was actually just within VC34; thus the first record for VC6 and Somerset was made in 2003, in a garden in Frome, where it is still present.]
- Dryopteris cambrensis*** (Narrow Male-fern) – East Water Valley (SS897430), 4 Jun 2011, several plants together on north side of path leading along north side of stream, British Pteridological Society, VC5. Third record for VC5.
- Dryopteris* x *complexa*** (*D. filix-mas* x *D. affinis sensu stricto*) – Biddle Combe (ST569479), 8 Mar, few large plants on bank above path, just south of where wall meets stream, HJC & FJR, (conf. FJR) VC6. Second record for VC6.
- Epipactis phyllanthes*** (Green-flowered Helleborine) – Clarken Coombe (ST54477129), 15 Jul, under beech trees between path and wall, Steve Preddy, VC6. Third record for species in VC6. Initially thought to be *E. leptochila* but revisited on 5 Aug and redetermined as *E. phyllanthes*. Seen by Richard Mielcarek on 6 Aug and identified by him as var. *vectensis*. Plants photographed here in 1985 and recorded as *E. leptochila* are now also believed to be *E. phyllanthes*.
- **Festuca brevipila*** (Hard Fescue) – Bath (ST74316531), 28 Jul, one clump on pavement in Marlborough Gardens, HJC, VC6. Third record for VC6.
- Filago vulgaris*** (Common Cudweed) – Emborough Quarries (ST61975045), 19 Jul, 100+ plants in flower on damp gravel on quarry floor, HJC & DEG, VC6. New 10km record for this Near Threatened species.
- Gastridium ventricosum*** (Nit-grass) – Uphill (ST31655810), 18 Aug, 30 plants in open ground (cattle tracks), SJP, VC6. New 10km record for this Nationally Scarce species.
- Hordeum marinum*** (Sea Barley) – West Buckland (ST1620), 16 Jul, abundant along fringe of slip road for about 5m, plus single patch close to where slip road to M5 joins main carriageway; also Taunton Services (ST1920), 16 Jul, single patch on central reservation of M5, SJL, VC5. Specimens gathered from first site and conf. as the native subsp. *marinum*. First and second inland records for VC5.
- **Hydrocotyle ranunculoides*** (Floating Pennywort) – Portbury Wharf (ST47017626 to ST47387671), 23 Aug, rafts in the Portbury Rhyne and on the banks, Nick Bertrand, VC6. Fourth site for VC6 and first record for this 10km square.
- **Hypericum hircinum*** (Stinking Tutsan) – Newton St Loe (ST706648), 3 Aug 2011, single plant on roadside, DEG (det. N.K.B. Robson), VC6. Also Pill saltmarsh (ST51707692), 26 Aug, one large shrub between pylon and fence, SRPG, VC6. First and second records for VC6 since 1905.
- **Impatiens capensis*** (Orange Balsam) – Claverton (ST78376494), 15 Jul, few plants in flower on canal bank by towpath east of Bathampton, HJC, VC6. First record for Somerset since publication of the Atlas Flora of Somerset.
- Isolepis cernua*** (Slender Club-rush) – Walton-in-Gordano (ST42227395), 26 Jul, hundreds of clumps in wet flush beside footpath leading through field to southeast of coast path, HJC & FJR, VC6. Fourth site for VC6.
- Myosurus minimus*** (Mousetail) – King's Sedgemoor (ST40643330), 11 May, c. 200 plants

- covering 2m² in gateway on First Sedgemoor Drove, SJP & Simon Clarke, VC6. Third site for VC6 and first record since publication of Atlas Flora of Somerset.
- Ophrys apifera* var. *chlorantha*** (Bee Orchid variety) – Knighton (ST188454), 2 Jun, six plants by coast path, Anne & Eleanor Rivers, VC5. First record for VC5, although apparently known here for some years.
- ****Pistia stratiotes*** (Water-lettuce) – Ashwick (SS8830), 12 May, in ponds, Caroline Giddens, VC5. First record for West Somerset, greatly extending known range of this aquatic alien.
- Poa bulbosa*** (Bulbous Meadow-grass) – Sand Point (ST320659 to 324660), 6 May, c.600 plants on rocky slope above path along ridge, SRPG, VC6. First record for this 10km square since reported at Weston-super-Mare by St. Brody in 1856, that record considered to be an error in the floras of Murray and White.
- Poa infirma*** (Early Meadow-grass) – Sedgemoor Services (ST3552), 21 Apr, along edge of treed-up area and especially dense covering the root of a tree at edge, CML, VC6. Fifth record for VC6.
- Polypogon monspeliensis*** (Annual Beard-grass) – Taunton (ST22702483), 30 Jun, nine plants on edge of riverside between Town Bridge and the Brewhouse carpark, SJL, VC5. First record of this Nationally Scarce species in this 10km square since seen by W. Watson at Firepool, Taunton in 1935, and fourth record for VC5 since publication of the Atlas Flora of Somerset. Also Pill (ST51807688), 26 Aug, three small clumps at edge of wet gravelly track behind saltmarsh, SRPG, VC6. New 10km square and second record for VC6 since publication of the Atlas Flora of Somerset.
- ****Potentilla recta*** (Sulphur Cinquefoil) – Taunton (ST203259), 5 Jul, waste ground outside Somerset Heritage Centre, SJL, VC5. First record for Somerset since publication of the Atlas Flora of Somerset.
- Ranunculus sardous*** (Hairy Buttercup) – Ham Green (ST529756), 20 Sept 2008, few on disturbed mound of soil in amenity grassland to west of cottages at The Green, MAW, VC6. First record for VC6 since publication of the Atlas Flora of Somerset. Found on SRPG walk in 2008 but identification uncertain. Small plant taken into cultivation and positively identified the following year.

- Rumex crispus* subsp. *uliginosus*** (Curled Dock) – Pill (ST5177), 26 Aug, on salt marsh, SRPG (det. CML), VC6. First record for this 10km square since 1999. Reported in 'Bristol Botany in 2006' from Uphill (ST3158), a single plant on the banks of a muddy creek, CML, VC6. New 10km record for this Nationally Scarce subspecies.
- Sium latifolium*** (Greater Water-parsnip) – West Moor SSSI (ST419213), 3 Sep, 12 clumps in ditch to north of Sharpham Drove and 16 clumps on the bank to east of ditch, HJC & Colin Leppard, VC5. First record for West Moor and VC5 since 2003.
- Trifolium subterraneum*** (Subterranean Clover) – Cleeve (ST45536531, ST45596528, ST45606527 and ST45616526), 18 Jun, scattered in grass, by footpath along southwest side of rocky field, HJC & MAW, VC6. First record for this VC6 Rare plant at this site since 1984.
- Ulmus x vegeta*** (Huntington Elm) – Leigh Woods (ST55817457), 16 Sep, one tree by towpath, BNS (det. FJR), VC6. First post-2000 record for Somerset.
- ****Zantedeschia aethiopica*** (Altar-lily) – Portishead (ST450750), 25 Oct, few plants on spoil heap by derelict barns to southeast of Nightingale Valley SSSI, HJC & FJR, VC6. Third record for VC6 and Somerset.

The BSBI vice-county recorders in Somerset are: Stephen Parker and Simon Leach in VC5, and Helena Crouch and Rob Randall in VC6. There is also an active recording group, the Somerset Rare Plants Group (SRPG), which holds an annual programme of field meetings, winter talks and identification workshops. Further information on the SRPG and the list of species included in the Somerset Rare Plant Register can be found on the SRPG website at www.somersetrareplantsgroup.org.uk.

We would be delighted to receive records for possible inclusion in future reports; these should be submitted to one of the 'receiving recorders', as follows:

VC5 – Stephen Parker, [REDACTED]

VC6 – Helena Crouch, [REDACTED]

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HELENA J. CROUCH