

## **PRESS RELEASE – A Flora of Cornwall soon to be published**

Since 2007, a small group of dedicated volunteers has systematically surveyed the wild flowers found in every one kilometre square of Cornwall (3940 squares). This huge undertaking meant visiting as many habitats as possible in each of the seasons. The result is the most comprehensive and intensive survey every undertaken in Britain. Indeed, during this survey more than 1.4 million wild flower sightings were gathered and computerised (more than has been collected for the whole of Scotland in that period!), increasing the total number of plant records for Cornwall to 2.25 million.

Many exciting discoveries have been made in the course of this survey. In total 426 plants have been added to the Cornish tally. These are mostly alien plants and are mainly garden escapes, some of which are new to Britain as wild plants, such as Hook Sedge (*Carex uncinata*) which originates in New Zealand. Much more exciting was the discovery of two plants which were new to science: a hybrid willowherb between New Zealand Willowherb (*Epilobium brunnescens*) and Small-flowered Hairy Willowherb (*E. parviflorum*). Secondly, in the photograph below, is the hybrid between Fragrant Orchid (*Gymnadenia borealis*) and Southern Marsh-orchid (*Dactylorhiza praetermissa*) which was discovered, new to science, on the Lizard Peninsula in 2016.



A number of native plants have also been found in Cornwall for the first time. It is rare to find new native plants, so these are special discoveries. They include:

- Service-tree (*Sorbus domestica*). A single tree was discovered on the bank of the Camel Estuary in 2013. This is one of Britain's rarest native trees.
- Bog-sedge (*Carex limosa*) was found on Bodmin Moor in 2017. The nearest Bog-sedge colony to Bodmin Moor is Crymlyn Bog, Swansea. This very rare sedge is classified as being endangered of becoming extinct.
- Diaphanous Bladder-fern (*Cystopteris diaphana*) was discovered as a new to Britain in 2000. Before this all the *Cystopteris* fern plants in Cornwall were thought to be Brittle Bladder-fern (*C. fragilis*). It was then realised that the Cornish plants were a different species, which was previously unknown in Britain.
- Inland Club-rush (*Bolboschoenus laticarpus*) was discovered in 2004 at Porth Reservoir. This is another species which went unrecognised in Britain until in 2010 when it was realised that the inland form of Sea Club-rush (*Bolboschoenus maritimus*) was a completely different species. Since then this new species has been found at six sites across Cornwall.

- Sea Daffodil (*Pancratium maritimum*) was first noticed in the dunes at Marazion in 2006. It grows in north-west Brittany so seed may have crossed the Channel and reached Mount's Bay.
- Perennial Glasswort (*Sarcocornia perennis*) appeared at Carnsew Pool, Hayle Estuary in 2012.
- Long-spiked Glasswort (*Salicornia dolichostachya*) was first noted at Copperhouse Pool, Hayle in 2014. This and Perennial Glasswort may have arrived with wildfowl.
- A hybrid fern called *Polystichum x lesliei* was found at Tywardreath in 2001. This is the hybrid between the native Hard Shield-fern (*Polystichum setiferum*) and Western Sword-fern (*P. munitum*). This discovery has the distinction of being the first spontaneous hybrid between a naturalised alien and a native fern species ever to be found in the wild in Britain.
- The hybrid between Wavy St John's-wort (*Hypericum undulatum*) and Square-stemmed St John's-wort (*H. tetrapterum*) was discovered new to Britain in 2006.



**Sea Daffodil**

In addition to those important finds, nine plants, which were thought to be extinct in Cornwall have been rediscovered. These are Broad-fruited Cornsalad (*Valerianella rimosa*) last seen in 1954; Oak Fern (*Gymnocarpium dryopteris*) last reported in 1930; Beech Fern (*Phegopteris connectilis*) last recorded in 1930; Dense-flowered Fumitory (*Fumaria densiflora*) last seen in 1921; Corn Buttercup (*Ranunculus arvensis*) - the first record since 1974; Stag's-horn Clubmoss (*Lycopodium clavatum*) last reported in 1920; Blunt-flowered Rush (*Juncus subnodulosus*) last seen in 1879; Sand Crocus (*Romulea columnae*) and Perennial Centaury (*Centaureum portense*). Sand crocus was found growing on the clifftop near Polruan in 1879 and 1881 and despite repeated searches was not seen again until 2002 at another site on the cliffs near Polruan. The only other site for this extremely rare, distant relative of the garden crocus, is at Dawlish Warren, in South Devon. Perennial Centaury was thought to have become extinct in 1962. It was rediscovered at the same site, near Porthgwarra, in 2010, causing much excitement, as the only other British population is in Pembrokeshire.



**Bog-sedge**



**Sand Crocus**



**Perennial Centaury**

Remarkably no native plants are known to have become extinct in Cornwall since 1982, whereas, in other parts of Britain, such as Cambridgeshire, an average extinction rate of one species every two years has been calculated.

Perhaps surprisingly 63 endemic plants have been found growing in Cornwall. These are plants that have a global distribution restricted to the British Isles. They include Cornish Rampion-fumitory (*Fumaria occidentalis*) which is only found in Cornwall and the Isles of Scilly, and Logan's Sea-lavender (*Limonium loganicum*) which only grows near Logan's Rock, near Porthgwarra.



**Cornish Rampion-fumitory**

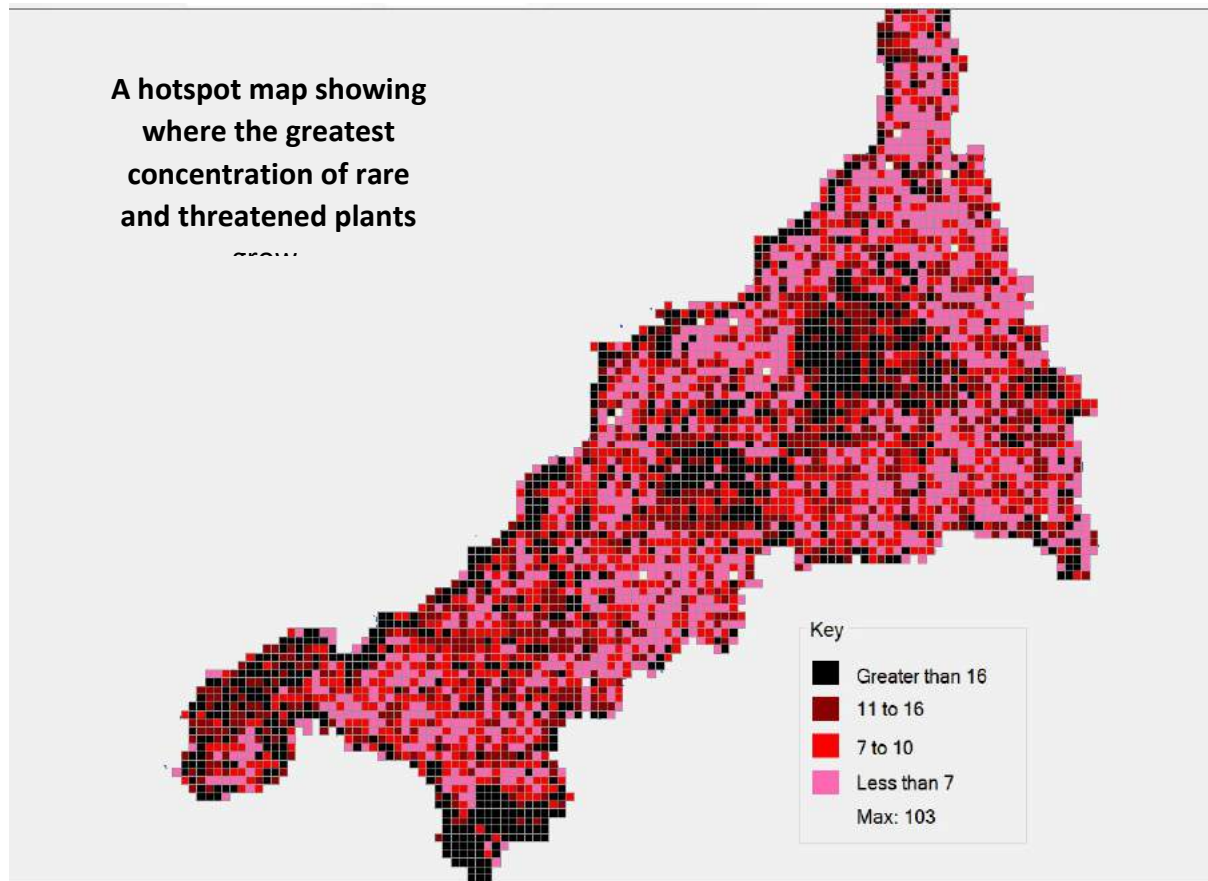


**Logan's Sea-lavender**

Another important facet of Cornwall is the large number of plants that are designated as Red Data Book. These are the rarest and most threatened plants. It can be seen on the hotspot map below that there are

very few one kilometre squares in Cornwall without any Red Data Book Plants. The same map clearly highlights The Lizard, Bodmin Moor, West Penwith, the China Clay District and the north coast as especially important areas for rare plants. The Lizard Peninsula is especially important as 141 Red Data Book plants have been recorded there, which amounts to 53% of the total for Cornwall.

The second map plots the hectares (100m<sup>2</sup> blocks of land) where Red Data Book plants have been recorded. This picks out the same areas as being of special importance but at a finer resolution. Thus, it can be seen that the two large dune systems - Hayle to Godrevy and Penhale Dunes, Perranporth – have exceptional concentrations of rare and threatened plants.

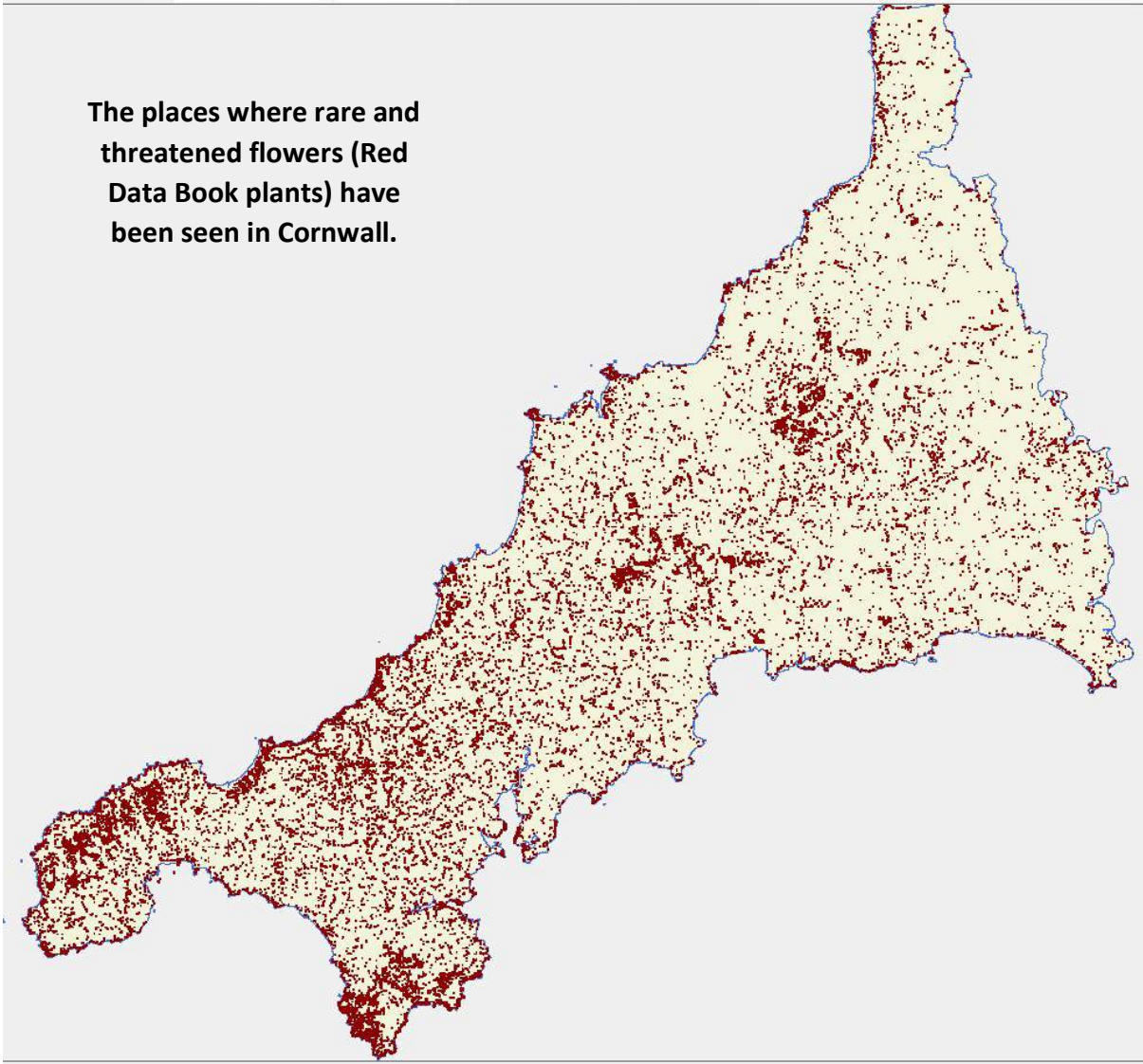


Cornwall is a special place which attracts legions of visitors from Easter to September who come to experience an exotic land with spectacular unspoilt scenery. It is a land, where the place names belong to a different language, with its own culture and traditions. A land where the Cornish have fashioned a unique rural countryside with sizeable expanses of semi-natural moorland and heathland, enmeshed by a cloth of Cornish Hedges and open treeless vistas. A frequent cry is how lucky we are to have so much wildlife habitat and such a rich and diverse environment to live in. Sadly, such first impressions are deceiving. This 'unspoilt' land has been inexorably declining for decades both in the amount of wildlife habitat available and overall biodiversity. By analysing the data collected during this survey and comparing it with historic records, the losses for Cornwall have been computed as:

- At least half of the native and archaeophyte plants (plants introduced before the year 1500) were more widespread before 2000.
- A minimum of 40% of Cornwall has lost 90% of its flora in the last 50 years.

Clearly, Cornwall has not been immune from the immense changes that have been badly degrading the biodiversity of the rest of lowland Britain.

**The places where rare and threatened flowers (Red Data Book plants) have been seen in Cornwall.**



This *Flora of Cornwall* is a 550-page, full colour, hardback book (slightly larger than A4), which covers 3018 flowering plants and ferns and includes over 1200 distribution maps and more than 1700 photographs. Sections include the effects of climate, geology, soils, topography, mining, quarrying and agriculture. There is also information on vegetation history, key habitats, botanical regions, recording history, losses and gains, and rare and/or threatened plants. It also includes a chapter dealing with drift seeds (disseminules) written by Paul Gainey, and the extensive bramble section is written by Keith Spurgin. This tome can be obtained at the pre-publication price of £40 by sending a cheque to Colin French to 12 Seton Gardens, Weeth Road, Camborne, Cornwall, TR14 7JS or by obtaining BACS details from [whealagar4@gmail.com](mailto:whealagar4@gmail.com).

**Dr Colin French BSc PhD.**

**West Cornwall Recorder for the Botanical Society for Britain and Ireland.**