

ERICA

1. General

A useful account of identification of the native species in Britain and Ireland with illustrations is given in Turpin, P. G. (1990). *The Wild Heathers of the British Isles*. In: *A guide to some difficult plants*. Pp. 109-119. Wild Flower Society, London.

2. *Erica ciliaris* / *E. tetralix* / *E. × watsonii*

Erica tetralix and *Erica ciliaris* are easily distinguished, but hybridise freely and in many populations there is extensive introgression (Gay 1960, Chapman 1975).

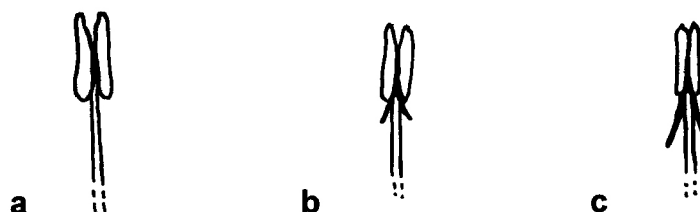
The hybrid *E. ciliaris* × *E. tetralix* = *E. × watsonii* Benth. shows a wide range of forms with characters intermediate between its parent species. The commonest form bears the characters of *E. ciliaris*, but with an inflorescence approaching that of *E. tetralix*. The best characters are the inflorescence, and the appendages on the anthers (Figs. a-c): in *E. ciliaris* these appendages are absent, in *E. tetralix* they are well developed (more than ½ the length of the anther), and in hybrids the appendage is present but in a much reduced form. The number of leaves in a whorl is not a reliable character.

E. ciliaris occurs on moist heathlands in Dorset where populations have spread since Bronze Age times. It is found in lesser amounts in Cornwall, Hampshire, Devon and W. Galway. Changes in distribution and abundance of populations in Dorset are described by Chapman & Rose (1994), and its overall ecology by Rose *et al.* (1996). The establishment of hybrids within populations is encouraged by heathland fires.

Plant Crib

	<i>Erica ciliaris</i> L.	<i>Erica tetralix</i> L.
Note		
1. Leaves	Broadly ovate (only twice as long as broad); midrib on lower side of leaf glabrous; usually 3 to a whorl	Linear-lanceolate (at least three times longer than broad); midrib on lower side of leaf pubescent; usually 4 to a whorl
Branches	Short, numerous, tending to be whorled under the current inflorescence	Few, long, not tending to be whorled, usually distant from the current inflorescence
Inflorescence	A unilateral raceme	An umbel
Corolla	Tubular-urceolate, 8-10 mm, ventricose, mouth oblique	Ovoid-urceolate, 6-8 mm, not ventricose, mouth may be slightly oblique
Anthers	Without appendages (note 1) (Fig. a); surface papillate	With appendages more than half-length of the anther (Fig. c); surface not papillate
Capsule	Glabrous	Pubescent

Character is intermediate when appendage is present but less than half of the length of the anther; (Fig. b).



Anthers showing appendages (a) *E. ciliaris*, (b) *E. × watsonii*, (c) *E. tetralix*.

- References** Chapman, S. B. (1975). *Journal of Ecology* **63**: 809-824.
 Chapman, S. B. & Rose, R. J. (1994). *Watsonia* **20**: 89-95.
 Gay, P. A. (1960). *New Phytologist* **59**: 218-226.
 Rose, R. J., Bannister, P. & Chapman, S. B. (1996). *Journal of Ecology* **84**: 617-628.

Author S. B. Chapman, November 1997.

Plant Crib

3. *Erica mackaiana* / *E. tetralix* / *E. × stuartii*

E. mackaiana and its hybrid with *E. tetralix* are of local occurrence on bogs in Galway, Donegal and Mayo, and can be distinguished using the Table below. *Erica mackaiana* prefers better-drained sites to *E. tetralix*, typically on old hand-cut turf banks, edges of ditches and lake edges. *E. × stuartii* is more widespread and closer in habitat preference to *E. tetralix* (e.g. wet bogs, flat lawns but not pools).

	<i>E. mackaiana</i> Bab.	<i>E. × stuartii</i> (Macfarl.) Mast.	<i>E. tetralix</i> L.
Branching pattern	Irregular	Intermediate	Branches few, usually distant from inflorescences
Internode length	All the same	Intermediate	Internodes immediately below inflorescences longer than those lower down on the stem
Stem leaves	Spreading	Narrow and erect	Appressed
Ovary	Glabrous	A few hairs on upper part of the ovary	Pubescent
Pollen	Partially fertile	Sterile	Fully fertile
Set seed	On very rare occasions	Fails	Regular

- References** Gay, P. A. (1957). Aspects of the phytogeography of some Lusitanian Ericaceae of the British Isles. Ph.D. thesis, University College, London.
- Glanville, E. (1957). *Erica mackaiana* and other Irish heaths. B. A. (Mod) thesis, Trinity College, Dublin.
- Van Doorslaer, L. (1990). The ecology of *Erica mackaiana* Bab. with reference to its conservation in Connemara (Ireland). Ph.D. thesis, University College, Galway.
- Webb, D. A. (1955). *Journal of Ecology* **43**: 319-330.

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