VACCINIUM

1. Vaccinium oxycoccos / V. microcarpum

The widespread cranberry in the British Isles is V. oxycoccos L. which is tetraploid (2n = 48). Plants with smaller, usually solitary, deeply coloured flowers, glabrous pedicels, elliptic fruits and short, triangular leaf blades which are widest near the base have been given specific rank as V. microcarpum (Turcz. ex Rupr.) Schmalh. and have been recorded from many sites in central and north-eastern Scotland.

Recently, similar plants have been found in two sites in Northumberland (Swan 1993) which tend to be drier than those typical for V. oxycoccos. Unpublished investigations by R. Marsden and A. J. Richards show that these are diploid, but they can only otherwise be reliably distinguished from V. oxycoccos by shorter stomatal length (less than 14.3 µm). At these sites, and a few others in Northumberland, plants with relatively infertile pollen (less than 45% of tetrads regular) are considered to be triploids, but these cannot otherwise be distinguished with certainty from V. oxycoccos.

Apart from stomatal length and chromosome number, no single character was found to safely separate diploids from V. oxycoccos in Northumberland, although a combination of four characters could do so:
   i) anther length less than 2.8 mm;
   ii) filament glabrous or nearly so;
   iii) petal length less than 4.5 mm;
   iv) pedicel glabrous, or nearly so.

We expect plants with four of these character states together to be diploid, and this can be confirmed by the stomatal length.

In our experience, V. ‘microcarpum’ is not well differentiated morphologically from V. oxycoccos, a conclusion with which Ravanko (1990) agrees, and we do not consider it warrants a specific rank. However, it seems that no combinations of this taxon have yet been published at a lower rank. For the time being please record as V. microcarpum and collect vouchers of intermediate plants.

References

Author

2. Vaccinium uliginosum subsp. microphyllum

It is possible that the northern V. uliginosum L. subsp. microphyllum Lange could be present in Shetland or mainland Scotland (McAllister & Stewart 1989). The subspecies can be distinguished as follows (*Flora Europaea* 3: 13):

**Subsp. uliginosum**: Stems to 75(-100) cm, erect; leaves 10-25(-35) mm; pedicels as long as corolla; lobes of corolla revolute; 2n=48.

**Subsp. microphyllum**: Stems to 15 cm, procumbent to decumbent; leaves 6-15 mm; pedicels 1-3, much shorter than corolla; lobes of corolla scarcely revolute; 2n=24.
Small-leaved, prostrate, strongly rhizomatous plants should be collected from hillside and ridges for H. McAllister (wrap young rhizomes in damp moss).


### 3. *Vaccinium × intermedium (V. myrtillus × V. vitis-idaea)*

<table>
<thead>
<tr>
<th></th>
<th><em>V. myrtillus</em> L.</th>
<th><em>V. × intermedium</em> Ruthe</th>
<th><em>V. vitis-idaea</em> L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem</td>
<td>Green, strongly ridged, ± flexuous, glabrous</td>
<td>Green, slightly ridged or angled; sparsely hairy</td>
<td>Brown below, green above, not ridged, ± straight; hairy</td>
</tr>
<tr>
<td>Leaves</td>
<td>Deciduous, leaf fall annual; thin, green translucent, ovate to elliptic; apex acute; base slightly cordate; margins flat, toothed</td>
<td>Semi-deciduous, leaf fall 2-3 years, intermediate in most characters</td>
<td>Evergreen, leaf fall 4-5 years; tough, thick, dark green, obovate to elliptic; apex emarginate; base rounded to cuneate; margins inrolled, ± entire to weakly toothed</td>
</tr>
<tr>
<td>Bracts</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bracteoles</td>
<td>Absent</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Flowers</td>
<td>1(-2) in leaf axils; globose, dark pink; filaments glabrous</td>
<td>(1-)2-3(-4) in leaf axils; urceolate, pale pink; filaments puberulent</td>
<td>6-10(-12) in terminal racemes; campanulate, whitish-pink; filaments pubescent</td>
</tr>
<tr>
<td>Fruit</td>
<td>Bluish-purplish-black with glaucous bloom, regularly produced</td>
<td>Reddish black or purple, rarely produced</td>
<td>Red, sporadically produced</td>
</tr>
</tbody>
</table>

This hybrid has been found mainly in the Midlands / Pennines and N Scotland, but it would be worthwhile looking for it in moorland areas elsewhere. It is obviously intermediate between the parents in many features and shows some hybrid vigour, some patches spreading at the expense of the parent species (Ritchie 1955a, b). Its habitats seem almost always to have been recently disturbed by man - banks of cut peat, edges of ditches, cart-tracks, moorland paths, old gun-sites, etc.

A good time to look for it is late in the season when leaves of *V. myrtillus* have dropped, or in spring when the new flush of leaves is occurring in both species - it differs from both in timing.