

THE DACTYLORHIZA CONFUSION

Possible causes and approaches.

Following the contribution in the last issue of **Pollinia** by Stuart Dunlop (Vol. 12, Issue 1, October 2013) I am prompted into the following observations on *Dactylorhiza* and some of the difficulties in their identification.

Most readers of this newsletter are very familiar with the fact that confident identification of native *Dactylorhiza* is difficult. This is often due to the ‘hybrid factor’. When species cross-pollinate with one another they create offspring that combine their distinguishing characters, making decisions on identification difficult. There is no single approach to this problem but the presence of great variability and possible parents in close proximity can bolster the identification of a ‘possible hybrid’ population.

A second difficulty that arises in identification is the over acceptance of this hybridisation. It can be that when clear identification does not come quickly enough, we choose the option and call ‘hybrid’. The variability within species of orchid is contrary to our general view and expectation of what constitutes a species. It is often the case that we expect species to fall into our descriptions giving no recognition to the advances in our understanding of evolution and that it is our concepts that need realignment.

A third difficulty is that certain Irish orchids do not keep to the characters and habitats of their British and European representatives. For as complete as possible an understanding of a species it is necessary to examine how it manifests itself in different parts of its range. Excluding the limited and costly Ireland’s Wild Orchids, prior to 2008, interested amateurs had to rely on British and mainland European publications for information on Irish orchids. These publications documented traits and habitats that did not necessarily reflect those of every Irish orchid population. A prime example is one of the orchids that featured in the above-mentioned issue of *Pollinia*, the Hebridean sub-species of the common spotted-orchid.

In the last issue Stuart Dunlop wrote of an odd, possible hybrid among the otherwise ‘pure’ population of Northern marsh-orchid in the dunes close to Donegal International Airport. The accompanying image is not of a possible hybrid but *Dactylorhiza fuchsii* subsp. *hebridensis* (Hebridean sub-species of the common spotted-orchid). It is sometimes referred to as the Hebridean spotted-orchid, a more compact name that I will use from now on in this note.

The Hebridean spotted-orchid grows on machair in Scotland and Ireland. Anne and Simon Harrap in *Orchids of Britain and Ireland* – a field and site guide say the

Hebridean spotted-orchid is “small and stocky” and that the “spike is often pyramidal or conical and densely packed” and that “the upper stem usually washed purple and the leaves heavily spotted”. Tom Curtis and Robert Thompson agree with that description adding that it is “rarely unspotted”. My own observations of this Hebridean spotted-orchid in Co. Donegal (roadside grassland and Cruit Island population) and Mayo (roadside grassland habitats) shows that spotting can be present but is usually absent. This trait was previously noted by Derek Turner-Ettlinger and has again been noted in Sayers and Sex. In all of the below referenced publications images of Irish plants showing leaves, both painted and photographed, show plants with unspotted leaves.

Less strength is now given to the presence or absence of spotting on the leaves of *Dactylorhiza* species as an indication of taxonomic rank. However it will be many years before this is reflected in publications that we use to assist us in the field and for reference.

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Curtis & Thompson, 2009, *The Orchids of Ireland*, National Museums Northern Ireland, Holywood, Co. Down

Harrap & Harrap, 2005, *Orchids of Britain and Ireland – a field and site guide*, A&C Black Publishing, London

Sayers & Sex, 2008, *Ireland’s Wild Orchids – a field guide*, privately published, Portmarnock, Co. Dublin

Sex & Sayers, 2002, *Ireland’s Wild Orchids*, privately published, Portmarnock, Co. Dublin

Turner-Ettlinger D.M. 1997 *Notes on British and Irish Orchids*, privately published, Dorking, Surrey

Turner-Ettlinger D.M. 1998 *Illustrations of British and Irish Orchids*, privately published, Dorking, Surrey





Dactylorhiza fuchsii subsp. *hebridensis*



NEW ONLINE VIDEO

There is a new Orchid Ark film on endangered orchids made in collaboration with Barry Natusch, Professor in Media Studies, Nihon University, Tokyo:

<http://www.youtube.com/watch?v=EhFVv9EdsTk>

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