× *Pseudanthera breadalbanensis* McKean: A new intergeneric hybrid from Scotland

D. R. McKEAN

Royal Botanic Garden, Edinburgh

ABSTRACT

× **Pseudanthera breadalbanensis** McKean, **hybr. nov.**, a hybrid between *Platanthera chlorantha* (Custer) Reichb. and *Pseudorchis albida* (L.) A. & D. Löve, is described from Mid Perthshire, Scotland. It is the first hybrid to have been discovered between species of these two genera. Details of the morphology and the habitat of the plant are provided.

INTRODUCTION

On 17th July, 1980, a party led by Dr D. F. Chamberlain of the Royal Botanic Garden, Edinburgh, visited a Scottish Wildlife Trust site in Mid Perthshire and found four apparently hybrid orchid plants on a fairly species-rich hill pasture. Examination of the four plants *in situ* and subsequently of two individual flowers taken for closer study strongly indicated that they represented the products of hybridization between *Platanthera chlorantha* (Custer) Reichb. and *Pseudorchis albida* (L.) A. & D. Löve, both of which are present in the pasture. Accordingly they are described as a new hybrid taxon (Fig. 1, Plate 2).

DESCRIPTION AND HABITAT

× **PSEUDANTHERA** McKean (=*PLATANTHERA* Rich. X *PSEUDORCHIS* Séguier), **hybr. gen. nov.**

× **Pseudanthera breadalbanensis** McKean, **hybr. nov.** (*Platanthera chlorantha* (Custer) Reichb. × *Pseudorchis albida* (L.) A. & D. Löve).

Hybrida a *Pseudorchide albida* floribus paucioribus majoribus, anthera loculis divergentibus, inflorescentia longiori, foliis basalibus longioribus, a *Platanthera chlorantha* calare breviori labello trilobato, differt.

HOLOTYPUS: Mid Perthshire, v.c. 88, Scotland, 17/7/1981, D. F. Chamberlain *s.n.* (**E**).

Stems *c.* 30 cm, erect, glabrous. Basal leaves 2, oblanceolate-oblong; upper stem leaves 2, narrowly lanceolate, acute. Spike *c.* 6 cm, lax, about 15-flowered; floral bracts 10–17 mm, shorter than ovary. Flowers pure white; tepals 5–7×5–6 mm, forming a galea, lateral sepals 7–9×4–6 mm; labellum 8×4·5 mm, trilobed; spur *c.* 2 mm; rostellum 5×4 mm; anther cells convergent above but widely separated below.

Due to the rarity of this hybrid the type specimen consists of only a single flower in spirit and one mounted on cardboard; these are complemented, however, by colour photographs and drawings.

The hybrid is intermediate between its parents in several characters (Table 1), but is closer to *Platanthera chlorantha* in its tall, robust habit. The parental genera are obviously closely related, as are a number of genera of the tribe Habenarieae, and indeed *Pseudorchis albida* was placed in *Platanthera* by Lindley.

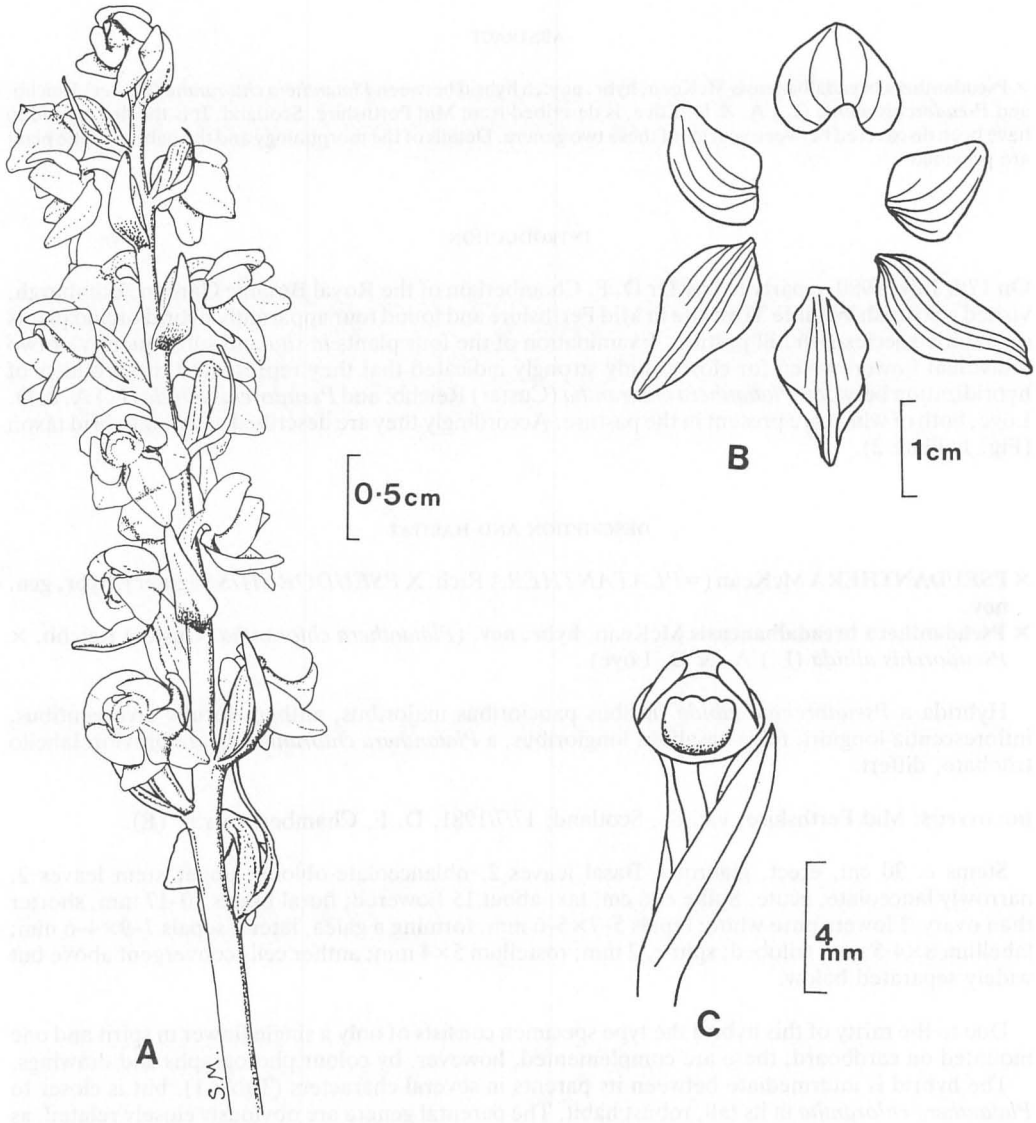

FIGURE 1. × *Pseudanthera breadalbanensis* McKean. A, flower spike; B, flower; C, column.

TABLE 1. CHARACTERS OF *PSEUDORCHIS ALBIDA*, *PLATANTHERA CHLORANTHA* AND THEIR HYBRID

	Pseudorchis albida	× *Pseudanthera breadalbanensis*	*Platanthera chlorantha*
Height	12–30(−40) cm	25–30 cm	20–40 cm
Basal leaves	narrowly lanceolate, obtuse	oblanceolate-oblong, obtuse	oblanceolate-oblong, obtuse
Spike	dense, *c.* 50-flowered	lax, *c.* 15-flowered	lax, *c.* 20-flowered
Flower length	2–3 mm	*c.* 14 mm	*c.* 20 mm
Labellum	trilobed	trilobed	linear-oblong
Spur entrance	not visible	not visible	clearly visible
Anther cells	minute	large, convergent above	large, convergent above

Along with the four hybrid plants were found both putative parents. *Platanthera chlorantha* was present in hundreds, and there was a colony, as well as scattered individual plants, of *Pseudorchis albida*. Among the other more interesting plants growing in quantity were *Meum athamanticum*, *Gymnadenia conopsea* and *Dactylorhiza maculata* subsp. *ericetorum*. Birch, roses and brambles were also well represented.

A site with so many plants of *Platanthera chlorantha* as well as several specimens of *Pseudorchis albida* must be very rare in Britain. If we add to this the fact that the ground has been disturbed by tree-felling then this could well be the ideal habitat for hybrid orchids of this parentage to occur. The unique character of the site may explain why this hybrid has hitherto been unknown.

The locality of the site has not been specified exactly for reasons of protection; it would be appreciated if those knowing its whereabouts exercise discretion in communicating the information. The site is managed by the Scottish Wildlife Trust and their permission should be sought before any visit is planned. At present the site is not under threat and should continue to support this interesting colony of plants.

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A B

PLATE 2. × *Pseudanthera breadalbanensis* McKean. A, whole plant; B, close-up of part of spike.

PLATE 1. *Epipactis youngiana* in the type locality on the occasion of its discovery, 29/7/1976. A leaf has been removed.