

NOTES ON HAMPSHIRE ORCHIDS.

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Of all plants not grown for food there are probably none which have attracted more attention, or upon the collection and cultivation of which more money has been expended, than the large family of Orchidaceæ.

Our British species, although they cannot compare with many exotic kinds in the gorgeous colouring or the peculiar forms of their flowers, are nevertheless many of them beautiful plants, and are all extremely interesting from the wonderful adaptation of means to an end exhibited in their organs of fertilization. These have been well described in Mr. Darwin's classical work "On the Fertilization of Orchids," one of the most delightful works in this or any other branch of natural history ever published. As he observes, speaking of one species, the Pyramidal Orchis, in no other plants, or, indeed, in hardly any animal, can adaptations of one part to another and of the whole to other organized beings widely remote in the scale of nature be named more perfect than those presented by these plants; the end attained being, as he shows, the fertilization by insect agency of one plant by pollen brought from another. I do not propose to enter into the various contrivances by which this is ensured, or to describe the general morphology of the flowers, as it would be impossible to do this at all satisfactorily without free use of technical terms and of figures. This county, however, with its chalk downs and woodlands, its meadows and occasional boggy ground, affords opportunity for the study of all except the very rarest and the exclusively northern species, and I propose to give short descriptions of the species found in Hampshire, indicating where they may be found.

Malaxis paludosa, small Bog Orchis. This, which is the least of the British orchids, grows in bogs, generally on sphagnum or other mosses, the rootstock forming a small bulb like many of the exotic epiphytes. The leaves very frequently bear small bulbils on their upper edge, by which, in addition to the ordinary way by seed, the plant is reproduced. It flowers in August, bearing a slender spike of greenish yellow flowers. The whole plant, which is seldom more than four inches in height and often less, is very inconspicuous and not easy to find, though it probably occurs in most of our sphagnum bogs. I have found it very abundant some years close to Miller's Pond, near Southampton, and it has been found in several of the New Forest bogs.

Neottia Nidus-avis, the Bird's Nest Orchis, so called from its curiously matted roots, is common in most of our coppices, though it is apparently absent from the New Forest district. It is a singular plant of a dirty brown colour, resembling some of the broom-rapes. It is usually found in shady woods, especially under beech trees among the dead leaves, the dry woody stems and seed pods remaining undecayed for a year or two after flowering.

Listera ovata, the Common Tway-blade, is very common in woods and copses throughout the county. It is easily distinguished by its two large thick oval leaves and long slender spike of green flowers, in which the labellum or lip bears some resemblance to a little man.

Listera cordata, the Smaller Tway-blade, has also once been found in Hampshire, near Bournemouth, but is probably extinct. It is quite a northern species, and is a small copy of the last, with heart-shaped leaves and much smaller spike and flowers.

Spiranthes autumnalis, the Ladies' Tresses, grows on chalk downs and dry open pastures, and in those situations is not uncommon. In some years it is abundant on Twyford Down and St. Catherine's Hill, near Winchester, but is very uncertain in its appearance, being in some seasons very scarce in the same localities. It is a small plant, with ovate leaves and a spike of white flowers, which are arranged in a close spiral and are very sweet scented. It flowers late in summer.

Spiranthes aestivalis, the Summer Ladies' Tresses, is one of the rarest of British orchids, and only occurs in Hampshire and perhaps one locality in Worcestershire. It is found, in some years plentifully, in one or two bogs in the New Forest, near Lyndhurst, and differs from *S. autumnalis* in having longer narrower leaves, and a longer spiral spike of flowers, and is in flower a month earlier.

Cephalanthera ensifolia, Narrow-leaved White Helleborine, is also a rare plant, though much commoner than the last. It has narrow lance-shaped leaves, having a tendency to range themselves in two rows, and a spike of white flowers, and is a more slender and delicate-looking plant than the next. I have obtained specimens from Avington Park, Westbury near Westmeon, and Langrish near Petersfield, and it has been recorded from several other places in the county. Like so many other orchids, it appears to have a partiality for beech woods on chalk. Although it is by no means so common, in this part of the country at least, as the next species, its geographical distribution is much wider.

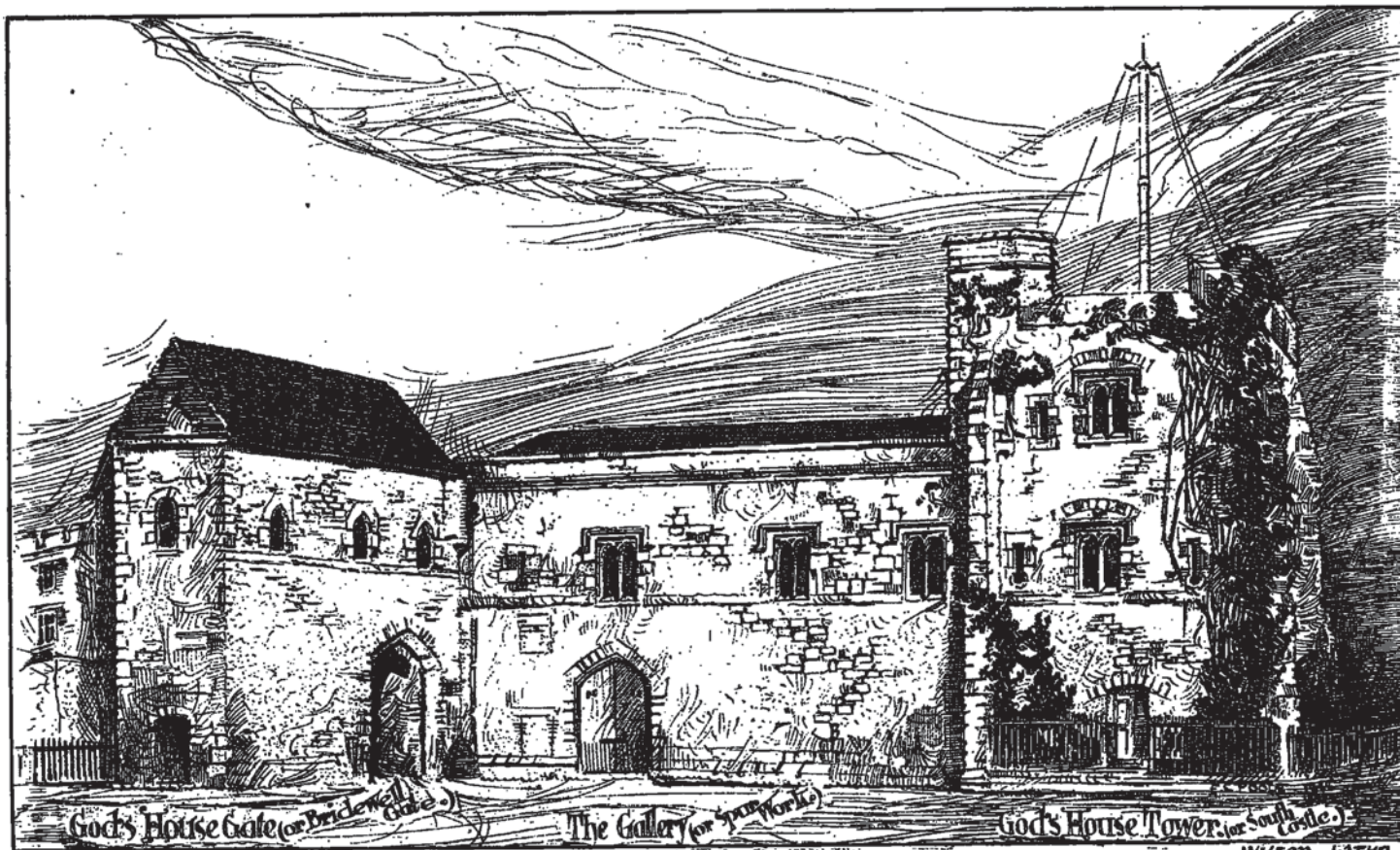
Cephalanthera grandiflora, Large White Helleborine. This beautiful plant is common in most of the woods round Winchester and in the rest of the county, except the New Forest district, from which both this and the last species are absent. It is a fine plant often two feet in height, and with many stems springing from the same mass of roots. It has large oval leaves and cream coloured flowers in a loose spike. The flowers do not open wide, and somewhat resemble small tuberoses in bud.

Epipactis latifolia, Broad-leaved Helleborine. This also is not uncommon in woods about Winchester, and is generally distributed over the county, occurring near Brockenhurst and in one or two other localities in the New Forest. The typical plant has large broadly oval, sometimes almost circular, leaves, mostly arranged regularly and closely together about the middle of the stems. In some forms, varying in the direction of the next, the leaves are ovate-lanceolate, especially the upper ones. The flowers are green, generally tinged with purple, and are arranged in a long one-sided spike.

Epipactis media is often very hard to distinguish from the last. The leaves in the typical plant are narrower, only the lowest ovate and gradually becoming narrower upward, the upper linear-lanceolate. The flowers are similar to the last with a slight difference in the lip, which is larger and more triangular. It does not appear to be so common as the last, and the only specimen I can with any degree of confidence refer to this species I have obtained from Hursley and Selborne. It is recorded however on good authority from Brockenhurst and near Andover.

Epipactis violacea. This has been confounded with *E. purpurea*, but is, I believe, perfectly distinct. The true *E. purpurea* described by Smith and figured in "English Botany," is, I believe, merely a variety or form of the last, and although there is often considerable difficulty in discriminating between *E. latifolia* and *E. media*, I do not think that any botanist seeing either of those species and *E. violacea* growing together would have any doubt as to their being quite distinct. Mr. Townsend gives an excellent description of this species in his "Flora of Hampshire," and sums up the more obvious differences thus:—"The leaves are shorter and much narrower than those of *E. latifolia*, are not amplexicaul, nor sheathing, nor sub-perfoliate, nor are they shiny beneath as in that plant, nor so plicate. They are also more irregularly placed on the stem and are more erect. The flowers are twice the size" (not always) "of those of *E. latifolia*, and the whole plant is deeply tinged with purple." There are often a great many stems from the same root, which is not the case with the other species. The flowers are in a long dense spike with long bracts, and are of a greenish purple colour. I have only seen this species growing at Selborne, where it occurs in some plenty in the rough bushy ground above the Hanger. *E. latifolia* may be found under the trees on the way up, so that the two may readily be compared on the spot. The Rev. J. Vaughan has shown me fine specimens from Thedden, near Alton. Mr. Townsend records it also from Kingsclere and Highclere, but says it is rare in both localities.

Epipactis palustris, Marsh Helleborine. This very pretty plant grows in wet meadows, and is by no means common,



God's House Gate (or Bridewell Gate.)

The Gallery (or Jail House.)

God's House Tower (or South Castle.)

Hants Field Club 1889

Wilson Litho

BRIDEWELL GATE AND SOUTH CASTLE SOUTHAMPTON

though where it does occur it is generally in some plenty. This is the case near Mottisfont and Longparish, also at Sowley, near Lymington, and near Fordingbridge. It used to grow plentifully too at Otterbourne, near Winchester, and is still found there occasionally, but many of the old localities have been destroyed by drainage. The leaves in this species are long lanceolate, the flowers, few in a loose spike, are large, white, faintly tinged with purple.

Orchis hircina, the Lizard Orchis, has once been recorded as found on the chalk near St. Mary Bourne. It is exceedingly rare, but there is no reason why it should not occur in Hants. It is found in bushy chalk hills in Kent and Surrey, and also in Suffolk. The flowers are very singular with a very long twisted lip, purplish white, and spotted at the base.

Orchis pyramidalis, the Pyramidal Orchis, is easily distinguished by its close dense pyramidal head of bright crimson purple flowers. It grows on chalk downs and dry pastures, and is common about Winchester, Petersfield, Highclere, and Kingsclere, but is rare elsewhere in the county, and does not occur at all in the south-west or New Forest district. I have found specimens with perfectly white flowers once or twice at Crabwood, near Winchester.

Orchis ustulata, Scorched Orchis, so called from its burnt or singed appearance, owing to the dark colour of the flower buds, is a smaller plant with a dense spike of whitish flowers with purple tops. It grows in similar situations to the last, but is more rare. I have found it, but very sparingly, on most of the downs round Winchester, and near Micheldever, and it has been recorded from most of the other chalk districts.

Orchis Morio, the Green-winged Meadow Orchis, is one of the commonest, nearly everywhere in meadows and pastures. It is very variable in size and colour, but may always be distinguished by the sepals which form a sort of helmet or hood, and have distinct green veins.

Orchis mascula, Early Purple Orchis, Shakespeare's "Long Purples," is also very common. It is the earliest flowering orchid, blossoming in May, and bearing long spikes and bright purple flowers. It grows in woods and shady places, as well as in meadows, and occurs occasionally with white flowers.

Orchis incarnata, Marsh Orchis. This is an exceedingly variable species, growing in wet meadows. It is not uncommon, and is, I think, more common than the next species, with which it is often confounded. It has erect leaves, generally unspotted, and flowers in a dense cylindrical spike. The leaves are gradually narrowed from a broad base, and have a little sort of hood at the tip. In the genuine species of Linnæus the flowers are flesh-coloured with a faint tinge of yellow, especially on first opening. This is perfectly distinct and cannot be mistaken for any other British species. It is very uncommon, and has been found only at Bransbury, near Andover, in the meadows above and below Winchester, and near Hern station in the New Forest. There are, however, endless varieties with purple flowers which are common about Winchester, and probably elsewhere. Reichenbach, the great authority on Orchidaceæ, figures and describes fourteen different varieties which he arranges under two "cohorts," *incarnata veræ* and *sub-latifolia*; he also describes under *O. latifolia* numerous varieties in four "cohorts," *latifolia veræ*, *sub-incarnata*, *sub-sambucina*, and *sub-maculata*. The two species thus evidently vary each in the direction of each other, and also in the direction of *O. maculata*, and it is often impossible to determine with any certainty to which species a particular plant is to be referred.

Orchis latifolia, Broad-leafed Marsh Orchis. This in its typical form is quite distinct from the last. The leaves are not so erect, are softer, and are broadest about the middle, and the top is flat; they are generally spotted. It is usually in flower in June, before the last. The flowers are purple in a dense spike. It is found in most of our wet meadows, and is one of the few orchids common in the New Forest district.

Orchis maculata, Spotted Orchis, is common in meadows and copses all over the county. It is about a foot high, with spotted leaves, flowers pale purple, spotted and streaked with darker colour, in an oblong spike.

Aceras anthropophora, the Man Orchis, has been recorded in one or two localities in North Hants, and may possibly occur in dry chalk woods about Kingsclere, but is evidently very rare if it exists at all in this county. It has greenish flowers in a long spike.

Ophrys apifera, the Bee Orchis, can scarcely be called common, though in some localities it is in some seasons very abundant. It is, however, like many other species, very uncertain in its appearance, being plentiful in one season in places where in other years it is scarcely to be found. It is so suggestive of its own name that it is hardly necessary to describe it. The lip which forms the body of the "Bee" is of a velvety brown, variegated with yellow; the sepals which form the wings are of a light lilac colour. The whole plant is from eight to twelve inches in height, and bears generally four or five flowers. It is found on most of the downs round Winchester, and in other districts on the chalk.

Ophrys aranifera, the Spider Orchis, is somewhat like the last, but is a smaller plant, and the sepals instead of being lilac are green, and the lip deep brown with lighter marking. It is very rare in Hampshire and has only once been recorded—from Bullington, near Andover.

Ophrys muscifera, the Fly Orchis, is well named, the flower bearing a singular resemblance to a fly. It is rather a rare plant, and confined to the chalk, where it occurs in damp woods and pastures. I have found it plentifully at Farley Wood and Ashley Hanger, near Winchester, also near Micheldever, and it has also been found in the Andover, Highclere, Basingstoke, Selborne and Petersfield districts.

Herninium Monorchis, the Musk Orchis, is a slender inconspicuous plant about eight inches high, with small greenish flowers, very sweet smelling. It is very rare, but has been found on chalk downs near Hurstbourne; Wheely Down, near Warnford; Bordean Hill, Petersfield; and at Marndell, near Basingstoke.

Gymnadenia Conopsea, the Fragrant Orchis, grows in water meadows and on high downs. It bears a long cylindrical spike of rose-purple flowers, with long spurs, and is very sweet scented. It occurs fairly plentifully in all parts of the county except the New Forest district, but like most other species specially affects the chalk. I have found it plentifully both in the water meadows and on the highest downs above Winchester, and once or twice a very pretty white variety.

Habenaria viridis, Frog Orchis. This is a small inconspicuous plant about six inches or less in height, and with green

flowers tinged with brown, and not at all resembling a frog. It is rare, but occurs on most of the downs about Winchester, also at Hurstbourne, Micheldever, Warnford, Herriard, Kempshott and Kingsclere. Several specimens were found on Beacon Hill, near Highclere, on the visit of the Club to that locality in July, 1885.

Habenaria bifolia, the Butterfly Orchis, is as unlike a butterfly as the last species is unlike a frog. It has generally two rather large elliptical leaves and a loose spike of white flowers. It is a very elegant plant and a great ornament to many of the woods about Winchester, and is generally distributed throughout the county, though it is nowhere very common.

Habenaria chlorantha is very much like the last, and is by some botanists considered merely a variety. It is usually a stouter plant with larger flowers and thicker spurs, which are generally more inclined downwards; but the most marked distinction is in the anther cells which in the last species are parallel, and in this widely distant at the base and approaching at the tops. There are various other minor and not very obvious distinctions. Mr. Darwin, after writing on these, remarks:—"I cannot doubt that the Larger and Lesser Butterfly Orchids are distinct species marked by close external resemblances." This species does not seem so widely distributed as the last, but is equally common in the woods about Winchester, and is found also at Hurstbourne, Selborne, Basingstoke, Binstead, Alton, &c.

The above are, as far as I am aware, all the orchids which have been found in Hants. Of 43 species belonging to 17 genera of *Orchidaceæ* found in Britain, 29 species of 11 genera are recorded from this county. Of the other species some have only been found in one or two localities in Kent and Surrey, one only in Herefordshire, and others are confined to the northern counties.
