

### STUDIES IN THE EQUITANT ONCIDIUMS III

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The monograph on Oncidiinae by Krazlin originally published in 1922 lists the following oncidiums as being native to Jamaica, O. berenyce (written berenice), O. pulchellum, O. tetrapetalum and O. triquetrum.

Krazlin used the crest on the labellum as a means of separating these Variegata oncids. However, he misplaced one other in the Oblongata group - O. prionoehilum, so there were fifteen known at that time. Today we have about double that number. In 1964 Withner and Jesup added another to the Jamaican group as O. gauntlettii.

Oncidiums have a crest on the labellum of the flower. The crest is probably the most reliable floral part to use in separating oncidium species whose flowers look similar. There are other characteristics that are useful but the crest is the best as it is not influenced by environment nor geographical distribution.

O. variegatum, the type species for this group, has the widest distribution in the West Indies and probably has the most varietal forms, yet in every case the crest is the same as the type species. The grooved upper projections of the crest turn downwards to give the effect of water-buffalo horns. O. variegatum does not exist in Jamaica.

There is considerable discussion as to whether the species O. berenyce exists. There are not plant or leaves preserved and the description of the flower with a partial sketch was all that was reported by Reichenbach in 1862. Others feel it is a natural hybrid. But in this article there is presented the description of the missing parts.

In the discussion to follow we shall leave out both O. triquetrum and O. gauntlettii for these two have only a slightly raised shiny area for a crest. These two do not seem to be closely associated in nature with the others. Man-made hybrids between them and the others have no resemblance to natural hybrids found in Jamaica.



In the hybrid complex that occurs in the somewhat triangular area between Alexandria, Claremont and Brown's Town in St. Ann Parish in Jamaica is found many forms of flowers that have characteristics not found in the three species O. berenyce, O. tetrapetalum and O. pulchellum. These characteristics are (1) a much dentated or fringed isthmus area, even as far as the edge of the lateral upper lobes, (2) many short points to the parts of the crest, (3) concave flowers, (4) dark purplish red flowers, and (5) heavy veination on the labellum in the darker purplish red flowers. Where did these characteristics come from?

About twenty five years ago I purchased many plants from a Honolulu orchid nursery. These plants had been imported from Jamaica. There were some plants easily recognizable as O. berenyce, O. pulchellum and O. tetrapetalum but among the others there were several different types that did not fit the description of these three species.

After flowering these and using them in breeding I did considerable photographing of their flowers and plants. These included closeup front and side views of the flowers to determine the makeup of the crests. All these plants were smaller in stature and in flower size and numbers than the plants later obtained.

Later among the many plants from St. Ann sent by Mr. George Hart of Kingston we found still another unusual species that quickly answered several of the questions on where the concave flower characteristics came from in the hybrid complex. A couple of years later while collecting in St. Ann I picked up another specimen of this odd colored concave flowered plant.

Going through the same photographic study of these species and hybrids, as before, the smaller plants and their peculiar crests gave most of the answers as to why the peculiar characteristics were in the hybrids. The result of this study has shown me the need to present the description of 3 species and to clearly determine and supply the additional data on O. berenyce.

The flower that agreed with the description of O. berenyce in Kranzlin's monograph also agreed completely with the sketch by Reichenbach. The names chosen for the others were the descriptive words for the most prominent parts of the flower or crest. All the plants were of the same general growth as the larger species in Jamaica but somewhat smaller, that is, they were tufted plants without rhizomes like in O. variegatum.



## ONCIDIUM CUNEILABIUM - Moir sp. nov.

Planta caespitosa, pseudobulbi nulli, folia flabelliforma, rhizoma nulli. Folia lanceolata, acuta, 6 - 8 cm longa vix 8 mm lata. Inflorescentia ex axilla foliorum. Sepalum dorsale oblongatum, acutum; lateralalia in synsepalum formantia, convexa, apice biapiculata, 1 cm longa vix 8 mm lata. Petala obovata, obtusa, margine undulata, 1 cm longa vix 8 mm lata, omnia pallide-rosea, bruneo maculata. Labellum trilobum, basis profunde cordatus, lobis lateralibus lineares, obtusa, divergentes vel leviter reflexi; lobum intermedium semilunatum; isthmus elongata, tubulosa; crista tuberculis 6, lata, laterales magnae profunde cuneatae, mediana minuta, bruneus maculata. Gynostemia alae magnae, lata, acuta, denticulata.

Medium small plant, tufted in growth, fan shaped, with no bulb nor rhizome. Leaves lancolate, acute, 6 - 8 cm long by 8 mm wide. Inflorescence from axil of the leaves, 6 - 8 cm long, few flowered. Dorsal sepal oblong, acute, 1 cm long by 6 mm wide; laterals forming a synsepal, convex, with two apices, 1 cm long by 8 mm wide. Petals obovate, obtuse with very small apex, margin undulated, 1 cm long by 8 mm wide in pale rose with brown spots. Lip trilobed, the base cordate to round, lateral lobes linear, obtuse and reflexed slightly backwards; lower lobe crescent shaped, only slightly undulated; isthmus long and tubular; crest in 6 parts, the lateral parts very large, wedge shaped in a vertical position, the upper middle projection small, the lower projections with two smaller ones and a larger center one in a complete sweep like the crest of a wave. The wings on the column are large, broad at the base and pointed at the top as if a wing in flight, toothed. Jamaica; locality unknown. Flowering in cultivation Honolulu 1948 Moir s.n.

The heavy wedge-shaped side lobes of the crest are vertical and very prominent, therefore the name O. cuneilabium.

## ONCIDIUM BERENYCE Rchb. f.

The next in order is O. berenyce but the description in Kranzlin is not complete. Here are the missing parts:-

Pseudobulbless, tufted growth shaped as a fan, with no rhizomes. Leaves lanceolate, acute, 6 - 10 cm long by 8 mm broad, curved outward after the mid distance to a sharp point, three sided leaves, purplish green color, upper side grooved. Inflorescence or scape up to 25 cm long, bearing several flowers.



It comes from Jamaica and is not twice as large as the present day O. variegatum flowers. It is not closely related to O. variegatum but much closer to O. cuneilabium described above, from which it differs mostly in a very different crest. The upper parts of the crest are straight, as they go out sidewise. Underneath these parts are 2 pearl-like projections and then below are three more projections to make a total of 7. The rest of the description in Kranzlin applies to this plant I have studied.

ONCIDIUM APICULATUM Moir sp. nov.

Planta caespitosa, pseudobulbi nulli, folia laxa flabelliforma, rhizoma nulli. Folia lanceolata, acuta, falcata, 4 - 6 cm longa vix 5 mm lata. Inflorescentia ex axilla foliarum, 6 - 8 cm alta, racemosa, flores 3 - 5. Sepalum dorsale, erectum, apiculatum, bruneus, 8 mm longa vix 5 mm lata, lateralia in synsepalum formantica. Petala oblanceolata, 8 mm longa vix 5 mm lata, alba, bruneo maculata. Labellum 1.5 cm longa vix 1 cm lata, lobis lateralis minuta; isthmus elongata, lata, profunde dentata, maculata; lobum intermedium semi-lunatum; crista profunde apiculata, lata.

Compact plant with few short slender falcate leaves, 4 - 6 cm long by 5 mm broad. Inflorescence short, 6 - 8 cm tall, flowers 3 - 5 in a raceme. Dorsal sepal erect, pointed, brown; laterals forming a synsepal. Petals oblanceolate, pointed, 8 mm long by 5 mm wide, white. Labellum 1.5 cm long by 1 cm broad, lateral lobes short, narrow and small; isthmus elongate, broad, heavily toothed or fringed; lower lobe crescent shaped; crest with upper two lobes long, horizontal, then tips turned down and very apiculate (giving name to this species); lower parts of crest also sharp pointed, short and turned upwards.

Jamaica; location unknown. Flowered in cultivation Honolulu 1949 Moir s.n.

Characteristics of this flower prominent in the hybrid complex in St. Ann Parish in which the fringed edge to the isthmus and the very sharp pointed parts to the crest are prominent.

ONCIDIUM CONCAVUM Moir, sp. nov.

Planta caespitosa. Pseudobulbi nulli, folia laxa flabelliforma, rhizoma nulli. Folia lanceolata, acuta, carnosae, laevis, purpurea, falcata, 4 - 8 cm longa vix



1 cm lata. Inflorescentia ex axilla foliorum, 6 - 8 cm alta, racemosa, flores 3-5, sepalum dorsale concavum, apiculatum, 1 cm longa ad 3 mm lata; lateralialia in synsepalum formantia, 9 mm longa, 4 mm lata. Petala oblanceolata, acuta, ad 9 mm longa, 5 mm lata, concava. Labellum quadrilobum, venosum, rubro-purpureum, concavum, 1.8 cm longa vix 1.5 lata, isthmia 8 mm lata; cristae minutae, 5.

Plant medium size, with few leaves, in fan shape, no pseudobulbs nor rhizome. Leaves light greenish purple in color, falcate, 4 - 6 cm long and 1 cm broad at middle, lanceolate, acute. Inflorescence 4 to 6 cm long, with 3 - 5 flowers in raceme. Dorsal sepal concave and apiculate, 1 cm long by 3 mm broad. Petals oblong lanceolate, acute, 8 mm long, 4 mm broad, concave as well as thrust forward as dorsal sepal. Labellum divided into four almost equal lobes, heavily veined in darker reddish purple (the color of entire flower), entire labellum heavily concave; isthmus narrow and lobes quickly flaring outward; crest projections 5, small, rounded and compressed.

Jamaica: 1500 - 2000 feet elevation, St. Ann Parish, near Claremont, first collected 1955 by Mr. George Hart, second time in 1958 by Moir. Its characteristics found very dominant in hybrid complex in St. Ann Parish. Flowered in cultivation Honolulu 1954 Moir s.n.

ONCIDIUM x HARTII Moir nat. hybr. nov.

(O. pulchellum Hook x O. concavum Moir)

Habitu inter parentiis intermedium, inflorescentia 8 ad 15 cm racemos, floris concavum, venosum.

Plant intermediate between parents, also in leaves and colors. Characteristics, except flowers, like a smaller edition of O. pulchellum, however the flowers are very dark rose, concave, intermediate in size between parents, heavily veined in darker red, crest more like that of O. pulchellum, but pale pink.

Jamaica: St. Ann Parish, near Claremont. Flowered Honolulu 1954. Moir s.n. Verification made by crossing O. pulchellum and O. concavum. Characteristics from O. concavum are dominant in all subsequent hybridizing. This attractive natural hybrid is named for Mr. George Hart, of Kingston, Jamaica.

In addition to those described above are plants of the same stature as O. tetrapetalum and O. pulchellum



which have 7 rounded and blunt tipped projections to the crest, just as in the description of O. berenyce, but decidedly different in their size and arrangement. This has not been clearly placed in the alliance. O. tetrapetalum and O. pulchellum have only 5 projections to the crest and all are more or less blunt tipped.

In the present day hybrid mixture in St. Ann Parish, the species described above show their characteristics. O. x hartii has also bred with the others and the deep purple flowers that are somewhat concave or with labellum at a 4 o'clock angle to the top portion show its characteristics and its parental species O. concavum.

But just how O. apiculatum with pointed crest parts and fringed isthmus got into this hybrid complex is more of a mystery. However, the largest dark hybrids have very pointed crest parts and many of them bear 8 or more sharp projections, while an occasional one has a fringed isthmus or even a fringed upper lobe to the labellum.

In this hybrid complex are the three other named hybrids described in the article in the Phytologia Vol. 15, No. 1: 3 - 12 (June 1967). This article is a supplementary article to that one. Although these species are very difficult to find or may even now be extinct the descriptions are necessary to understand the hybrid complex. Most of those described are not attractive, nor would they be easily noticed by a collector but they have left their mark. I have had this data for many years but have only now published it, so that everyone can understand the complexity of the hybrid swarm. There are still many pure forms of O. pulchellum and O. tetrapetalum in Jamaica. An easy test to determine whether these are pure is to hybridize them with O. triquetrum and note the characteristics of the offspring. The first cross I made between a pure O. pulchellum and O. triquetrum gave a distinct pattern not found in the subsequent crosses using what looked like O. pulchellum in darker colors. The "blood" of O. concavum rises to the surface in the dished flowers and heavy veinations. These are the most prominent flowers today in the plants sold as O. pulchellum.



Moir, W H . 1968. "Studies in the equitant *Oncidiums*. III." *Phytologia* 17(6), 429–434.

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