**2­\_3-5 Oncidiinae**

**RESOURCES**:

# Books & Journals

* Moir & Moir. *Breeding Variegata Oncidiums.*
* Bockemuhl. *Odontoglossum: A monograph and iconography.*
* Miller. *The Odontoglossum Compendium*. (collection of articles from Odontoglossum Alliance newsletters).
* Moir & Moir. *Variegata Oncidiums.*
* Koniger. *Oncidium: a monograph*. Vol I-III (selected species descriptions).
* Supplement to *Orchids. The Oncidium alliance*. 2019.
* Dalstrom, Higgins and Deburghgraeve. *The Odontoglossum Story*. 2020.

# Articles: (Note: articles published before genera names changed can be confusing. If you are looking for hybrids or awards, try just putting in the species or grex name in OrchidPro and leave out the genus. At some point, hopefully the additions of synonyms will be helpful. For example, *Rodrumnia* Phyllis—a cross containing *Tolumnia* and *Rodriguezia* is called *Rodricidium* in an article by Grove in 1984).

* “Odonts—the classic orchids”. Nash. Judges Forum. Judging tab. aos.org.
* *Oncidiinae. Supplement* to *Orchids.* October2019.
* “Miltoniopsis”. Rosenfeld. *Orchids*. October 2019.
* “Genus of the Month: Miltonia”. Mirenda. *Orchids*. October 2019.
* “Genus of the Month: Brassia”. Mirenda. *Orchids*. January 2018.
* “Genus of the Month: Cyrtochilum”. Mirenda. *Orchid.* March 2018.
* “Genus of the Month: Rhynchostele”. Mirenda. *Orchids.* March 2018.
* “Genus of the Month: Cuitlauzina”. Mirenda. *Orchids.* June 2018.
* “Genus of the Month: Macroclinium”. Mirenda. *Orchids.* July 2018.
* “Genus of the Month: Trichocentrum”. Mirenda. *Orchids*. November 2017.
* “Judging intergeneric oncidiinae”. Drozda. Judges Forum. Awards & Judging tab. aos.org.
* “Judging Miltoniopsis”. Etheridge. Judges Forum. Awards & Judging tab. aos.org.
* “Judging Equitant Oncidiums”. Jesup. Judges Forum. Awards & Judging tab. aos.org.
* “Judges Corner: Judging Miltoniopsis”. Whelan. *Orchids*. June 2021.
* “Nomenclature Notes: Chase with Hermans.” *Orchids*. 09-2022.
* [“Untangling Two Oncidium hybrids: Excellens and Harvengtense” Deburghgraeve”.](http://www.orchidsaustralia.com.au) *[Orchid Review](http://www.orchidsaustralia.com.au)*[. June 2012.](http://www.orchidsaustralia.com.au)
* ‘The Odontoglossum Alliance Revisited (hybridizing). Easton. *Australian Orchid Review*. Nov. 2019.
* Numerous articles by Mirenda on Oncidiums in *Orchids*.
* “Oncidium fuscatum (and hybrids) part 1”. Allen-Ikeson. *Orchids*. September 2016.
* “Oncidium fuscatum (and hybrids) part 2”. Allen-Ikeson. *Orchids*. October 2016.
* “Rhynchostele”. Dank and Beckendorff. *Orchids*. September 2014.
* “Miltoniopsis: Historical perspective”. Rosenfeld. *Orchids*. August 2014.
* “Equitants today: the hybridizers behind contemporary hybrids”. Cole. *Orchids*. July 2012.
* “Oncidiinae nomenclature”. Chase et al. *Orchids*. April 2009.
* “Odontoglossum cirrhosum: species and hybrids”. Rohrl. *Orchids*. October 2007.
* “Oncidium leucochilum: species and hybrids”. Rohrl. *Orchids*. July 2007.
* “Cyrtochilum micranthum”. Zelenko. *Orchids*. January 2007.
* “Miltoniopsis vexillaria (varieties)”. Manzur Macias. *Orchids*. January 2005.
* “The Genus Cischweinfia”. Christensen. *Orchids*. February 2003.
* “Oncidium (Tolumnia) Golden Sunset”. Aldrich. *Orchids*. June 2001.
* “Miltoniopsis hybridizing in Hawaii”. Komoda. *Orchids*. March 2001.
* “Hooded Oncidiums (now called Caucaea)”. Christensen. *Orchids*. October 2000.
* “Trichocentrum”. Pupulin. *Orchids*. March 2000.
* “The Genus Psychopsis”. Braem et al. *Orchids*. June 1998.
* “Colmanara Wildcatt”. Hardy. *Orchids*. August 1998.
* “Spectacular Cyrtochilums”. Liebman. *Orchids*. January 1998.
* “New Horizons: trends in odontoglossum and Odontioda hybridizing”. Gettel. *Orchids*. January 1997.
* “Hybridizing Miltoniopsis at EYOF”. Moon. *AOS Bulletin*. June 1994.
* “Oncidiinae intergenerics”. Carpenter. *AOS Bulletin*. January 1994.
* “Holcoglossum”. Christensen. *AOS Bulletin*. December 1995.
* “Odontoglossum: alba forms at EYOF”. Ahring. *AOS Bulletin*. April 1992.
* “The perfect Odontoglossum hybrid”. Perlite. *Orchid Digest*. Oct- Dec 2011.
* “Maui bred Miltoniopsis: a personal journey”. Komoda. *Orchid Digest*. Oct-Dec 2011.
* “Cyrtochilum hybridizing”. Liebman. *Orchid Digest*. Oct-Dec 2011.
* “Breeding with the King (Onc. macranthum))”. Carpenter. *AOS Bulletin*. Dec 1985.
* “A trio of Trichopilias”. Christenson & Klikunas. *Orchid Digest*. Jan-Feb 2004.
* “Rodriguezias and their hybrids”. Grove. *AOS Bulletin*. 1984 December.
* “Cochlioda (Oncidium) noezliana and its contribution in breeding Odontiodas (aka former Odontoglossum x Cochioloda)”. Long. *Proceedings of the 14th World Orchid Conference*. 1993.
* “New vistas in Odontoglossum breeding”. Moon. *Proceedings of the 14th World Orchid Conference*. 1993.
* “The Brazilian Miltonias and their intergeneric hybrids”. Carpenter. *Proceedings of the 14th World Orchid Conference*. 1993.
* “Contemporary Miltoniopsis hybridizing”. Liebman. *Proceedings of the 11th World Orchid Conference*. 1984.
* “Temperature tolerant Oncidiinae intergeneric hybrids”. Carpenter. *Proceedings of the 12th World Orchid Conference*. 1987.
* “Modern Miltonia hybrids”. Liebman. *Proceedings of the 13th World Orchid Conference*. 1990.
* “Why Odontoglossum crispum (Onc. Alexandrae) is the diamond of British Odontoglossum hybridising”. Moon. *Proceedings of the 13th World Orchid Conference*. 1990.
* “Colour expectation in breeding odontoglossums”. Thomas and Thomas. *Proceedings of the 13th World Orchid Conference*. 1990.
* “Brassia Intergeneric Hybrids”. Fitch. *Orchids*. May 2004.
* “Using Xanthic Yellows to Non-xanthic Ends”. Pettit. Odontoalliance.org Archives for Feb. 1993.
* “Orchids in Art: Oncidium sotoanum” (ornithorhycum). Zelenko. *Orchids*. Dec. 2016.
* “Odontoglossum and its near relatives – a family affair” (includes info on albas). Bilton. *Orchid Review.* Jan-Feb 1997.
* “Vulstekeara Cambria – the true story”. Andrew. *Orchid Review.* Jan-Feb. 1999.

### Webinars

* “Judging the Oncidiinae”. Midgett. 09-2018 <https://attendee.gotowebinar.com/recording/5582170350237146632>
* “Odontoglossum: the lost genus”. Etheridge. 11-2015
* “Judging Odontoglossums”. Etheridge. 03-2022
* “Cyrtochilum, A Little Gem”. Ee. 07-21
* “Judging Miltoniopsis”. Whelan. 01-2022 <https://attendee.gotowebinar.com/recording/7423327886501769729>

Websites:

* <http://www.odontalliance.org/> has both an index to article titles and all issues are available and free

**RESEARCH QUESTIONS**:

Oncidiums

* In the large realignment of names in 2007, some changes were met with relief. One such change was for the former *Miltonia warscewiczii*. What is the new name and what is this species known for in its hybrids? What are the most significant F1s and F2s for this species. What are the most recent trends in breeding and what would you expect? Why do you think crosses with ‘odontoglossum-type’ hybrids are often an improvement over both parents: what has each provided in color and form?
* Other species were simply confused. One such species commonly grown as *Oncidium ornithorhynchum* (actually a rare species) should correctly be identified as ‘what’ for the commonly grown species (hint: look at the grandparents of Sharry Baby)? What is its best-known F1 in terms of both awards, hybrids and popularity with growers? What are both this species and the F1s best known for? What are its two most significant hybrids in terms of both awards and their hybrids? What impact have they made?
* *Oncidium noezlianum* is another species who was transferred to *Oncidium.* What was the genus that it was best known as prior to this transfer. Many of its successful F1s and F2s were made prior to 1925 before the AOS award system was functional. It makes it a bit more difficult to assess its hybrids. Using more recent hybrids and their awards, try to assess its contribution to hybrids in terms of color and form. Provide examples and why they are significant.
* *Oncidium leucochilum* is not a large or flashy species generally, but its flat form, floriferousness, substance and especially texture has been an asset to hybrids. Species sometimes produce some nice hybrids in the first generation but significant parents go on to have successful F2s and F3s or are a stepping stone to F3s. What are the two or three most significant hybrids of *leucochilum* that have accomplished this? Discuss why they were successful with examples.
* *Oncidium maculatum* is another *Oncidium* species that has a number of awards (why do you think that occurred?). Its two most significant hybrids are *Oncidium* Illustre and *Oncidium* Roger Cole from two very different species. What characteristics could they have inherited from *maculatum* that made these two successful?
* *Oncidium tigrinum* has a large number of awards and hybrids. If the species was presented to you at the judging table, what improved or different features would you need to give an award to it? What segment is it best known for improving in hybrids. Provide examples.

‘Odontoglossum-type’ oncidiums

* In 2007, many of the names for species in the Oncidiinae were realigned to another genus. What is the current name for *Odontoglossum crispum*? Why did both the species and the genus name change? Because there was such a furor over moving *Odontoglossum* species to *Oncidium* (and the subsequent changes to hybrid genera), the term ‘odontoglossum-type’ oncidiums refers to what sort of idealized form? Add ruffles and spots and you get a mental image of what people consider to be an odontoglossum-type hybrids. Note the traditional quality point scale for judging called Odontoglossum is based on these form characteristics. Discuss this species and its influence on hybrids.
* What are the most significant species in this group and what do they pass on to their hybrids?
* What species is/are involved in yellow breeding? What is the difference between a xanthic and non-xanthic yellow? What is meant by ‘pure color’ as used by the English and Australians?
* *Oncidium nobile* was called *Odontoglossum nobile* prior to the taxonomy changes in 2007. What was it called before *nobile*? What are the two significant, previous names for *Oncidium spectatissimum*?
* What are the most significant species in this group besides those two mentioned previously and what do they pass on to their hybrids? Crosses with odontoglossum-type hybrids and stellate *Oncidium* species/hybrids provide a good model of how this type can improve what features in the stellate flowers (look at form, floriferousness and size), yet be open to interesting colors and changes in substance and texture. Be specific in your analysis.
* This group commonly has ruffled petals that can also have points or ‘teeth’ on the ruffles. What species does this come from? Should this be considered a fault or ‘just what the species does’ with itself and its hybrids?
* Would the lip rolling under, asymmetrical patterning, muddy patterning, or a single inflorescence on a mature plant with numerous growths be considered faults and, if so, are they scoreable?
* Like *Tolumnia*, flowers on the same, odontoglossum-type plant may vary in markings and color at the same time or from one year to another. Since this is a characteristic of the species involved, would you consider this a fault? Explain and give examples.
* When describing the background color of the sepals and petals, should you look at the color on the back of the flower or in the center of the front of the flower? Hint: what you see first is what you get!
* What would your image of an ‘ideal’ flower from this group be described as?

*Miltonia*

* *Miltonia moreliana* was once considered a variety of *Miltonia spectabilis*. This created a problem because many hybrids were made as *spectabilis* and the two species were bred together but all called *spectabilis*. To further the grief, hybrids with other species as a grandparent can look like *spectabilis* or *moreliana* but the pedicel is frequently *longer* than the typically short one of these two species. Another hint that this is occurring is more than one flower per inflorescence commonly occurring on the plant with sometimes three flowers on an inflorescence. . .What are the differences between *spectabilis* and *moreliana*? Why is the latter a better parent? What are the most important features in judging them, be specific?
* Briefly describe *Miltonia regnellii*, *clowesii*, *flavescens*, and *candida*? Since these species tend to be more stellate, how would you judge them? Look at previous awards to each and suggest what improvement might be needed for future awards to be granted. What do each contribute to their hybrids?

*Miltoniopsis*

* What is the mask, the waterfall? Is the background color behind the waterfall always the same color to the edge of the lip?
* *Miltoniopsis roezlii*, *vexillaria*, and *phalaenopsis* are the most significant species. Describe each and what features would allow additional awards to them? What would you consider a fault, if any, for each of these?
  + *What are the significant hybrids? Bert Fields, Hajime Ono, Jean Carlson, Lennart Carl Gottling, Rouge, Pearl Ono, and Martin Orenstein are some of the most significant complex hybrids. Describe why each has had such a big influence on Miltoniopsis breeding lines. What do you see as future directions for breeding?*

*Brassia* (and the former *Ada*)

* Many intergenerics with *Brassia* had their genus names changed in the great realignment of genera c. 2007. With this group, it is rather confusing. Many *Degarmoara* became *Aliceara*, while hybrids containing the new *Gomesa* that were moved from *Oncidium* (and *Miltonia*) are now *Gombrasstonia* and those containing *Cyrtochilum* and *Miltonia* became *Cyrtobrassonia*. What genera are in a *Bratonia*? An *Aliceara*? These are just a few of the changes. Hint: when looking up a name on a plant tag, just put in the grex name, rather than genus as many vendors still use the Sanders names.
  + What was *Brassia arcuigera* previously known as?
  + Discuss the characteristics and breeding characteristics of the following species: *verrucosa*, *arcuigera*, *gireoudiana*, *keiliana*, *caudata*, and *aurantiaca* (formerly *Ada*).
  + For *Brassia* and more so than some genera, habit and arrangement are paramount in hybrids. What are some of the faults that you might encounter? Can you suggest any species that contribute to each specific fault? What species would you use to correct such faults in hybrids and why?
  + *Brassia* Rex and Edvah Loo have what species in common. These two hybrids were highly awarded and by also significant parents themselves. Give a few examples and explain their importance.
  + *Brassia* Memoria Bert Field is another famous *Brassia* hybrid that has a different color palette from the light green, yellow green or pale yellow from most *Brassia* species. What species produced this color? Does the color carry on to the hybrids?
  + *Brassia glumacea* and *keiliana* also impart colors beyond light green/yellow green or pale yellow and this color can influence their hybrids. What genus were these in before *Brassia*. Discuss their use in hybridization?
  + *Brassia* can produce interesting results in intergenerics with other *Oncidinae* genera (sometimes multiple ones at the same time). What effect has *Miltonia* had on hybrids involving *Brassia*, e.g., Olmec, Royal Robe; *Oncidium*, e.g., Jet Setter, Guilded Urchin, Pagan Lovesong; *Rhynchostele*, e.g., Gordon Dillon, Peggy Mobley (if you like spots, you will love this hybrid!!!), Summit?

*Rhynchostele*

* *Rhynchostele bictoniense*, *rossi*, *ureskinneri,* and *cordata* are the most significant species in this genus for a combination of their awards and their hybrids. All were once in what genus? All have had genera changes and three have had changes to the spelling of the species. What were the previous names? (You need to know this when you get tags on plants at judging and in doing research.)
* What features make each awardable?
* What have each contributed to hybrids? Give examples and describe why they do or do not support your views on the contributions.

*Gomesa*

* This is another genus that has played musical chairs with species. *Gomesa varicosa*, *imperatorius-maximilia , forbesii*, and *marshalliana* are the most significant species. All were moved to *Gomesa* from what genus? What were the original species’ names? What does each provide to its offspring that makes each a desirable parent?

*Cyrtochilum*

* *Cyrtochilum micranthum* and *edwardii* are the most significant species for a combination of awards and hybrids. Discuss each and its contribution. Have they produced F1s of award quality and if so, how? Are there any significant F2s.
* Other species such as *retusa* have had few significant hybrids but excelled in the occasional one such as Roger Cole. What others could you say the same about and why?

*Tolumnia* (equitants)

* What are the five most important species and what have they provided to their offspring?
* The five most awarded hybrids are: Golden Sunset, Memoria Ralph Yagi, Robsan, Tom Wilson and Jairak Rainbow. What do all of them have in common in terms of the quality of their color?
* How important is floriferousness in awarding *Tolumnias*? And size?
* What deficiencies in color would you fault a hybrid?
* Is windowing (extra space between the dorsal sepal and the petals) a problem with some hybrids. If so, provide a few examples of this fault.
* What other species could introduce interesting features or improvements into hybrids? Provide examples.

*Psychopsis*

* What are the most significant species for this genus? What aspects should you consider while judging them? At first glance, the intrageneric hybrids are rather similar. What improvements do you think could be made by such breeding or not?
* How do you tell *papilio* apart from *krameriana* or their similar hybrids?

*Comparettia*

* *Comparettia speciosa* is a charming species. What improvement would be needed for future awards in form, color or floriferousness?
* What features are frequently dominant in its hybrids?

*Trichocentrum*

* Discuss the following species, what makes them valuable for awards and for their hybrids and what they pass on to them: *lanceanum*, *splendidum*, *luridum*, *carthagenense*, and *cebolleta*. Be sure to look at color, markings, form and floriferousness.
* *Trichocentrum haematochilum* is little used but charming species that has a few hybrids. If you were a hybridizer, what might you cross this species to?