**2\_3-11 Catasetinae**

# **RESOURCES**:

# Books & Journals

* Holst, et al. *The World of Catasetums*. book
* Carr. *Cycnoches. Species and Hybrids. Supplement* to *Orchids*. 2012

# Articles

* ”The Catasetinae – Part 1: The Cat’s Meow: New Developments in Breeding and Growing Catasetums” Clarke. *Orchids.* June 2019
* “The Catasetinae – Part 2: Clowesetums – Breeding Clowesias with Catasetums” Clarke. *Orchids*. August 2019.
* “The Catasetinae – Part 3: Breeding with Goblins”. Clarke. *Orchids*. October 2019.
* “The Catasetinae – Part 4: Cycnoches warszewiczii and its influences on breeding”. Clarke. *Orchids*. December 2019
* “Phylogenetic relationships in *Mormodes* (Orchidaceae, Cymbidieae, Catasetinae) inferred from nuclear and plastid DNA sequences and morphology” Salazar, et al. *Phytotaxia*. 2016. 231(1)
* “Genus of the Month: Galeandra” Mirenda. *Orchids.* October 2018.
* “Spotted Catasetinae” Clarke. *Spots and Stripes* Supplementto *Orchids*. October 2020
* “What’s in a name: the hybrid genus Fredclarkeara” Clarke. *Orchids.* May 2020
* “There be dragons: fantastic new Catamodes hybrids” Clarke. *Orchids.* February 2020
* “Catasetinae: Growing and Judging”. Clarke. *Hybridizers* Supplementto *Orchids*. October 2022
* “Breeding Catasetinae: Catasetum, Cycnoches, Mormodes, Clowesia”. Clarke. *Orchid Digest* 80(4) 2016
* “Clowesia and its hybrids”. Coghill-Behrends. *Orchids.* December1920-1933*.*
* “Magnificent Mini-catasetums: Catasetum denticulatum and its hybrids *“.* Clarke. *Orchids*. November 2014.
* “Cynoches, Mormodes, Catasetums: a review of recent trends: Clarke. *19th World Orchid Conference.* 2008

Webinars

* “Catasetums: Growing & Loving”. (species & hybrids). 10-2014

**RESEARCH QUESTIONS**:

* **General**:
* Currently, there is no specific judging criteria for Catasetinae in Section 7.1 of the Handbook. In the *Hybridizers’ Supplement* to *Orchids* in 2022, Fred Clarke outlines criteria based on what is written for *Cattleya*. Provide the outline and any modifications to it that you think are appropriate. Please put your modifications in italics.
* This group produces both male and female flowers that may differ dramatically for a number of factors such as color, form, floriferousness, etc. Discuss. Would you apply the same criteria to both? Why does *OrchidPro* write the following quality award this way: *Cycnoches cooperi* (Female flowers) “Orchid Eros” AM/AOS. Why is it important to note that the award is to a plant displaying female flowers.
* Discuss scoring inflorescences in this group including floriferousness and habit and arrangement. Include examples of excellent inflorescences in terms of habit and arrangement and faults that may be found in others. What does resupinate/nonresupinate mean? How do parents from both types when crossed affect their hybrids?
* Define dentate, denticulate, fimbriate, saccate, cordate, and callus. Find two cryptic quality award descriptions for a *Catasetum* and rewrite them using the photos to help you describe form and anything else that is missing.
* ***Catasetum***
* Discuss these species and what you would expect for a quality award: *pileatum, tenebrosum, lucis, saccatum, sanguineum, expansum, denticulatum* and *tigrinum*. What quality award point scale would you commonly use?
* How has each of the previously listed *Catasetum* species influence intrageneric hybrids?
* How has each of the previously listed *Catasetum* species influenced intergeneric hybrids with *Clowesia*?
* Discuss awards and the influence of these classic hybrids on breeding lines: Orchidglade, Susan Fuchs, Penang and John C. Burchett. These two newer hybrids are garnering awards: Melana Davidson and Louise Clarke. What influence do you think these two hybrids could have on future breeding lines?
* ***Clowesia***
* Discuss these species and what you would expect for a quality award: *russelliana, warczewitzii,* and *rosea*. What quality award point scale would you commonly use? What do the latter two species, in particular, in terms of segment width, floriferousness and the lip, have that is advantageous for awards and their offspring?
* What impact have the hybrids Grace Dunn and Rebecca Northen had?
* What is a *Clowesetum*? What characteristics are they known for producing?
* ***Cycnoches***
* Discuss these species and what you would expect for a quality award: *warszewiczii, chlorochilon, pentadactylon, cooperi, lehmannii, herrenhusanum,* and *barthiorum*. What quality award point scale would you commonly use?
* Each of these has at least one hybrid with a number of awards. What is the highest award of each and what has each inherited from each parent? Why were they so awardable. (Hint: in *OrchidPro*, use Hybrid Search and put in just the one genus and species name and leave the other blank. This will give you a list of hybrids and how many awards.
* Discuss the success of the hybrid Jean E. Monnier? Why do you think this hybrid so appealed to judges? Perhaps intergenerics such as *Cycnodes* Jumbo Puff (*Cycnoches* × *Mormodes*), Taiwan Gold and Wine Delight are the answer. Discuss the pros and cons of this line of breeding including their F1s.
* For newer awards, what characteristics should be showing improvement in both the species and hybrids?
* ***Mormodes***
* Discuss these species and what you would expect for a quality award: *revolution, badia, rosea, sinuate, warszewiczii, ignea* and *hookeri.* What quality award point scale would you commonly use?
* The standard for many genera that is strived for, rightly or mistakenly, is that the flowers should be flat, round and full. Since *Mormodes* species do not fit this formula, what scale would you use for judging? Make the case for judging an apples-against-apples judging comparison? How would you weight other characteristics in overall impact? Although the flowers may not fit the full, round and flat model or even be symmetrical, how important is it that they are consistent on the inflorescence?
* For the previously mentioned species, what does each give or not pass on to its hybrids. How can a species not receive many awards but its hybrids can? How have hybridizers tried to blend favorable characteristics for improvement? Is this even more salient for intergenerics such as the cross of *Mormodes* and *Cycnoches* species or hybrids?
* Interesting hybrids are coming from the genus *Catamodes*. Discuss the influence of the more recent hybrids, Dragon’s Tail and Darkonium. Black Magic is an older hybrid that received an FCC. What is there about this hybrid that made it FCC-worthy? Would it receive an FCC today—why or why not—compare it to Darkonium ‘Dark Beauty” FCC/AOS?
* **Mini-catasetums**
* How would you define a *Catasetum* species or hybrid as mini. What species contribute to this breeding. Name a few significant hybrids and their awards. How does the flower quality and size compare to standard-sized plants.
* **Intergeneric genera**
* *Fredclarkara*. Sometimes hybridizers hit the jacket. Such has been the case with *Fredclarkeara*. What genera are in involved? After Dark is the most famous in this group with numerous awards. Look at the awards and discuss which you feel are the best in terms of form or color or offer interesting variety in the color. What other hybrids in this genus do you feel could have a significant influence on awards in the future?
* Other multi-generic hybrid genera besides *Fredclarkeara* have not been so successful; e.g., *Monnierara* and *Georgecarrara*. Do you think there is potential in these genera and how might that be accomplished?