Photographing Pleurothallis Species for Research Purposes

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Pleurothallis species are generally described using the morphological species concept, which characterizes species by distinctive morphological features. Most species of *Pleurothallis* are identified primarily by the characteristics of the labellum (lip). For this reason, clear, detailed photos of the lip are critically important to determine the identity of a species.

Dorsal Surface

The dorsal surface of the lip of *Pleurothallis* species can easily be compared to the face of a human being. Like a human's face, the dorsal surface exhibits the majority of defining characteristics, such as shape, size, and any special features, which include dimples, warts, lines, wrinkles, and even freckles (spots) that can distinguish one species from another.



Fig 1. The dorsal surface of three species of *Pleurothallis*. Left to right: *P. dilemma* has a large, defined glenion which possibly produces nectar; the "warty" lip of *P. calogramma* has a distinctive fold in the center; *P. convexa* has a distinctive three-lobed apex.



Fig 3. Two species commonly mistaken for each other: Left, *P. conicostigma* and right, *P. epiglottis*. The dorsal surface of the lip distinguishes the two species.

Profile (Side)

The profile (side) of the lip may reveal additional characteristics that help distinguish species from one another.



Fig 5. P. giraffa's elongated, "giraffe-like" column, for which it gets its name, isn't obvious until it's viewed from the side.



Fig 6. The dorsal surface of the lips of *P. anthrax* (left) and *P. odobeniceps* (right) look practically the same. However, when viewed from the side, the uncinate basal lobes of *P. odobeniceps* (bottom right) form two 'hooks" that distinguish it from *P. anthrax* (bottom left)