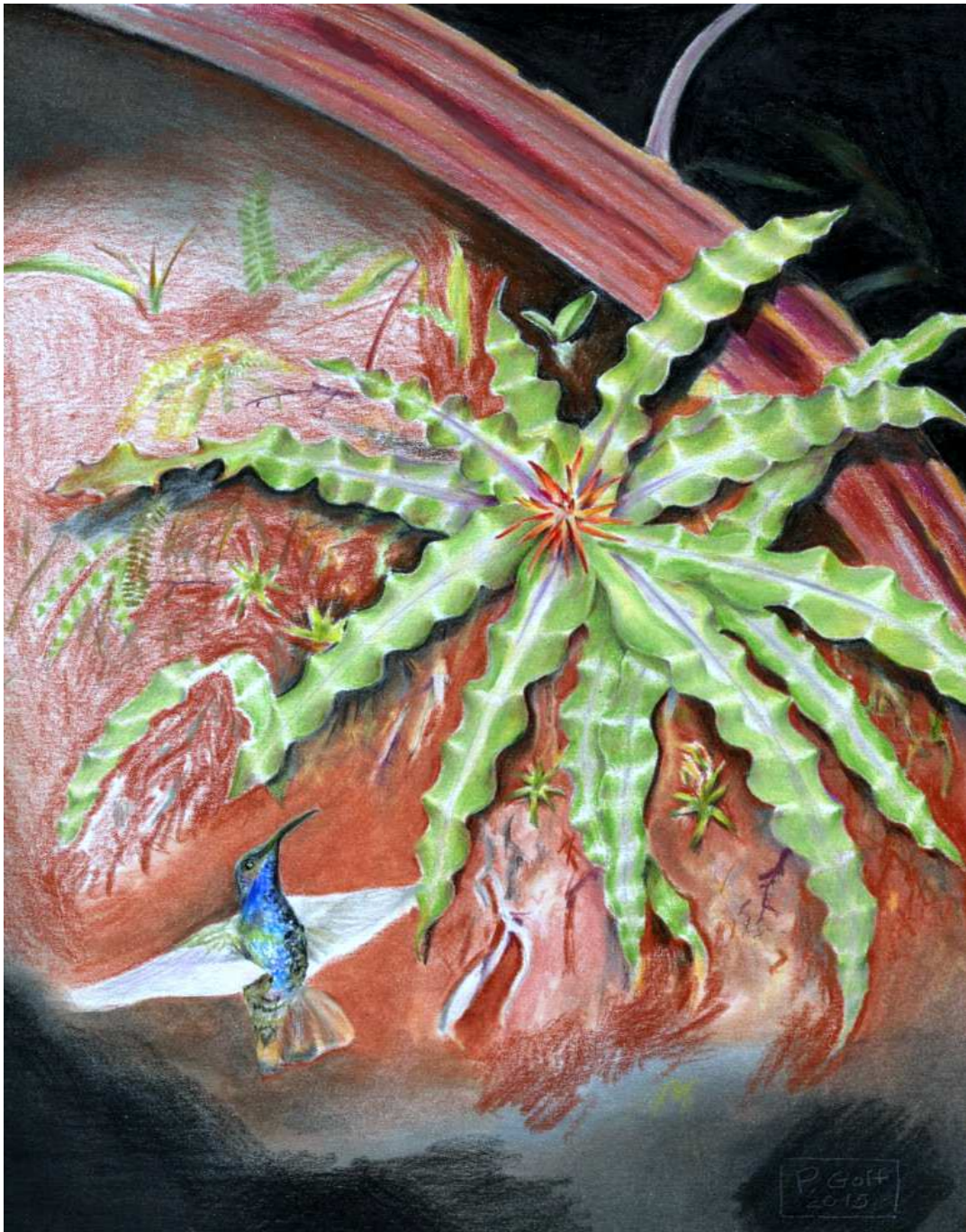


SEMBS

SOUTHEAST MICHIGAN BROMELIAD SOCIETY

AFFILIATE OF BROMELIAD SOCIETY INTERNATIONAL

JANUARY – FEBRUARY 2015



In Search of a blooming bromeliad in Venezuela -- no luck here.

2015 DUES ARE DUE

**\$12 for individual memberships,
\$15 for two or more memberships at one address,
\$5 for associate membership (75 mi. from Detroit).**

Dues may be paid at the meeting or sent to the treasurer.

Make the check out to SEMBS and mail to: **SEMBS, PO Box 80472, Rochester, MI 48308**

Members who joined in 2014 are considered paid up for 2015.



The leaf buds on the trees are swelling, the days are noticeably longer, the weatherman promises that the temperatures are going to surge into the upper 30's in the next few days. So spring must be on its way.

Our first meeting of the new year will be Sunday, March 22nd at English Gardens, Royal Oak, where we will mount a display of bromeliads not commonly sold at local nurseries. We urge members to bring plants to help us demonstrate to the public that the bromeliad family has much more to offer than the beautiful guzmanias and vrieseas available locally. Further details in the March / April newsletter.

SEMBS, the newsletter of the Southeast Michigan Bromeliad Society, appears bimonthly for the purpose of disseminating information about bromeliads and about Society activities. Editor: Penrith Goff. Material published in the newsletter may be reproduced for non-commercial purposes without the express permission of the editor. It is requested SEMBS be credited as the source and that any changes from the original be noted as such. Photo files of illustrations are usually available upon request

Spiders That Like Bromeliads/Bromeliads That Like Spiders by Jerry Krulik,

(reprinted from *PUP TALK* (Saddleback Valley Bromeliad Society)14(1) p.5-8, January, 2006).

Which of the above comments is more true? Actually, they are both equally true, since I will write about an example of a mutual symbiotic association. Two similar ways of life are parasitism and commensalism. For example, a parasite takes from its host, giving nothing in return or even killing its host. Examples might be tapeworms or the flu virus. A commensal association is one in which one partner benefits, while the other partner does not benefit or at least is not harmed. Examples would be bromeliads and orchids living on the bark of a tree; the epiphytes have a nice place to live, without harming the tree.

Symbiosis is an association between organisms, in which both partners benefit. An example is the sea anemone-clownfish association. The sea anemone keeps away predators with its stinging tentacles, and the clown fish keeps it free of parasites. The spider-bromeliad relationship is a symbiotic association. Both species benefit from this way of living. In fact, the spider prefers to live only on certain species of bromeliads.

This is a strange relationship, to be sure. Spiders are carnivores. They don't eat plants; they use them to hold their webs, or to serve as their hunting ground. The biological literature is NOT filled with examples of spiders being restricted to one or a few species of plants. In fact, this first article described the first (but it turns out, not the only) bromeliad-spider love fest.

Many of the most common spiders are the web spiders. These spin their traps to catch their prey, while waiting passively. I consider them to be almost the equivalent of predatory cows, needing little intelligence to sit and wait. Another group is the tarantulas. These large spiders search out prey, but are typically ambush predators (but more later on these). Another large group are the jumping spiders or Salticidae (this comes from a Latin word meaning jumping, not salt). These often brightly-colored spiders are the wolves of the spider kingdom, and some common types are called wolf spiders and hunting spiders. They are active hunters, using their sight to focus on prey, and their speed to catch them, like wolves. I have watched many jumping spiders and find them intelligent and fascinating. Once in my Chicago greenhouse, I noticed a common zebra-striped small jumping spider on top of a cactus. As I worked, I saw a large fly lazily doing the rounds. As it came within a few inches of the cactus, I watched the spider watching the fly—jumping spiders usually have 8 eyes, 4 in front, and the others arranged to allow them to see in all directions at once! Suddenly the spider jumped into the air, caught the fly, and dropped back on the cactus with its prey larger than itself. Another time I was resting against a fence in Taiwan, waiting for some equipment to start. I watched a fair-sized jumping spider with a metallic green pattern walking along the fence top. Suddenly a fly landed on the horizontal fence beam, about 6 inches from the spider. It saw the fly and immediately stopped, then moved slowly to the edge of the beam while the fly rested. I watched it carefully move out of sight of the fly, then race down the beam exactly to where the fly was sitting, and immediately race up and over the edge. Unfortunately, it missed the fly, but the intelligence and activity it showed was startling in such a tiny animal. Most jumping spiders are less than one inch long. The University of Kentucky has a good web page on these animals:
<http://www.uky.edu/Ag/CritterFiles/casefile/spiders/jumping/jumping.html> .

So, given that these spiders are such active hunters, why would they want to stick with some bromeliad? When we think of bromeliads, most of us think of flowers and leaves. Both can be beautiful and large, or sometimes small and insignificant. Fruits, except for pineapples, are not of

great interest. Occasionally we think on the next level, about how many bromeliads are tank plants, with water-holding reservoirs in their leaf bases. This leads to thoughts of frogs, mosquitoes, water mites, and other normal inhabitants of the water in those leaf bases. If anyone goes even more deeply into things, usually it involves pests of bromeliads. Fortunately bromeliads are pretty immune to most common garden pests, except sometimes mealy bug, scale, and aphids. While many types of beetles attack the body of bromeliads in Central and South America, none seem to have become established in cultivation here.

Some ecological researchers have now found that some types of jumping spiders like certain bromeliads to the exclusion of other plants. One spider, *Psecas chapoda*, is pretty much restricted to one species of bromeliad, *Bromelia balansae*. This is very unusual, to say the least. Very few spiders are associated with any type of plant, unlike insects, since spiders are all carnivorous. Plants usually figure only as a convenient support for webs or hiding and hunting places for spiders. (2, 3)



Bromelia balansae, coloring up prior to blooming



Psecas chapoda on back of *B. balansae* leaf

Here is *Psecas chapoda*, with its pretty red abdomen with a white racing stripe. It looks built for speed.





Memories of Hawaii - The Foliage Vrieseas Paul Wingert's Photos

Foliage vrieseas are vrieseas grown for their spectacular leaves rather than for their inflorescences.



