

Animal Associates of Carnivorous Plants

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Among CP enthusiasts there seems to be a continuing interest in learning just what these plants' limitations are regarding the capture of non-insect prey. Since my move to Florida, I have established my CP collection outside. I have discovered that a frequent victim of *Nepenthes* and *Sarracenia* is the garden snail. Among the *Sarracenia*, *S. purpurea* is by far the most successful in trapping snails, with *S. × catesbei* a distant second. I have examined *S. purpurea* pitchers with as many as two dozen shells. *S. alata* and *S. rubra* manage to trap a few specimens, but the flat spiral shells are often too large to allow the animal to be caught, and a few inevitably jam the pitcher's mouth. The large erect species, such as *S. flava* and *S. leucophylla*, attract very few snails, perhaps because of their height. Interestingly, *S. psittacina* and hybrids of *S. psittacina* and *S. purpurea* do not appear to attract snails.

Nepenthes also trap these animals with the number of shells found in traps inversely proportionate to the distance of the pitcher from the ground. There are apparently some differences between species in their ability to attract snails, with *N. khasiana* being particularly successful, although the differences are not completely clear.

On the negative side, the condition favorable for snails is too wet for healthy CP growth. Additionally, the snails are capable of damaging CP. I have seen emerging *Sarracenia* traps damaged, even though the snails alone do not appear

capable of killing the plants. *Nepenthes*, on the other hand, do not suffer damage to the new leaves. In the case of *Nepenthes*, the undersides of the lid, the inner side of the pitcher below the peristome, and the peristome are eaten.

Besides snails, I have also had the opportunity to observe how tree frogs relate to CP. These small frogs are generally about 2-3 cm long and are thus small enough to conceivably be trapped by the larger species of *Sarracenia* and *Nepenthes*. A large number of these frogs live in and around the sphagnum in my CP plantings. Surprisingly, I have also found them living in *Sarracenia* pitchers. The first frogs were found in *S. × catesbaei* and the older dried pitchers of *S. leucophylla*. I assumed they would avoid the newer traps of the upright species. In the fall, however, I found them in newly opened pitchers of *S. leucophylla* and *S. flava*. They spend a large part of the day in these pitchers, and retreat down the pitcher tube when threatened. I do not know the extent to which they take advantage of insect prey attracted by the pitchers. They are most active at dusk and during the night when they migrate toward light sources. These frogs also live among my *Nepenthes*, and I eventually discovered that they utilize *Nepenthes* pitchers in much the same way.

As a final note, I recently discovered that at least one frog survived a week of 15 degree nights in December by taking refuge in a *N. alata* pitcher.

ICPS Membership Directory

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