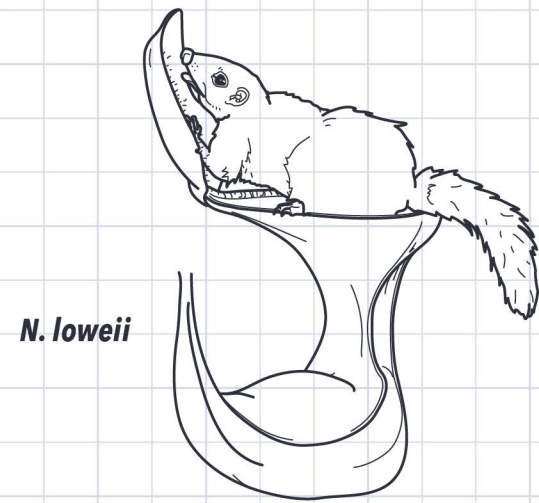
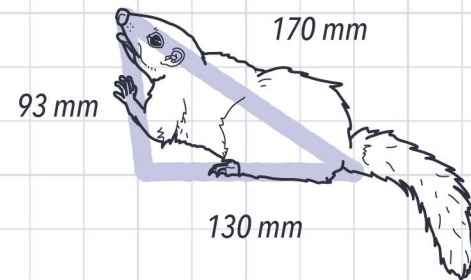


If you can't eat em, join em!

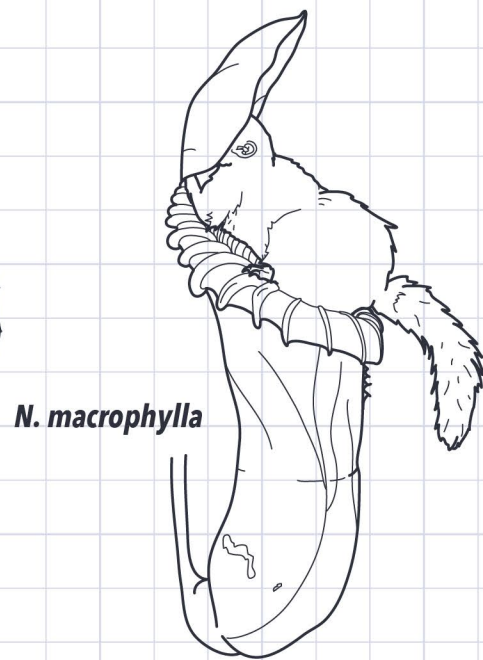
Not all *Nepenthes* are killers. Alright if something happened to die in their pitchers they wouldn't complain, but these "reformed" carnivores build close and sometimes long-term relationships with animals. While what *Nepenthes* offer animals varies from species to species, the payment they seek usually comes down to a regular supply of fresh manure.

Some crappy geometry

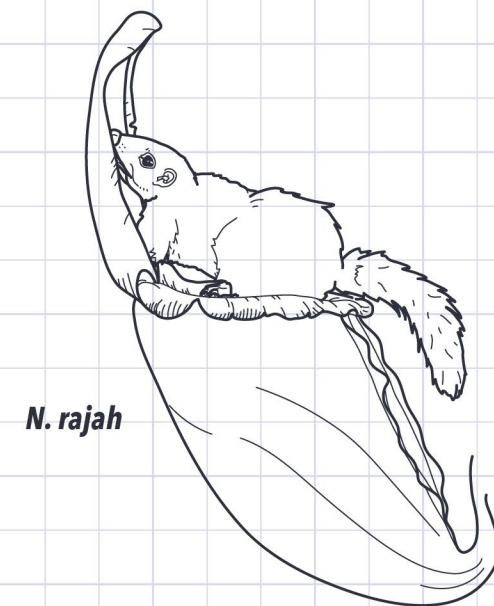
Working on the old adage "if you build it they will come," three different *Nepenthes* from Borneo have evolved traps to match the dimensions of the perfect treeshrew (*Tupaia montana*) toilet. All feature a sugary lid angled back for an easy access reward, which conveniently positions the shrew's backside right over the opening of the pitcher.



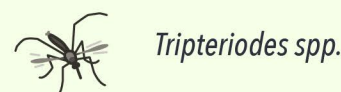
N. loweii



N. macrophylla



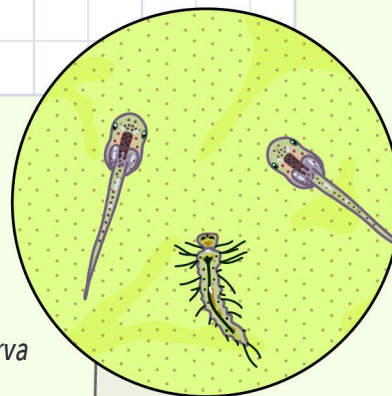
N. rajah



Tripteriodon spp.

Geosesarma perracae

Tadpole & Mosquito Larva

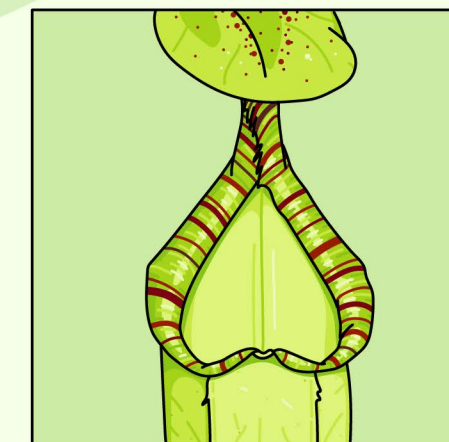


Microhyla borneensis

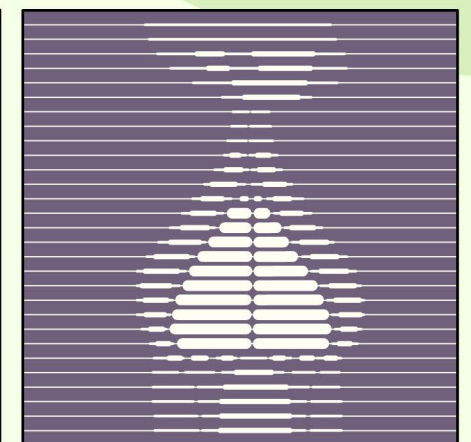


The loudest house on the block

The pitchers of *Nepenthes hemsleyana* have evolved to be sonic reflectors, bouncing sound off the elongated back wall of the pitcher opening. This enables bats (*Kerivoula hardwickii*) to easily locate the pitchers and roost within, paying the plant for its hospitality with guano. This interaction is the first recorded example of plants using sonic attraction for anything other than pollination.



Human View



Bat View

Pitchers contain multitudes

Not everything that takes a dip in the fluid of a pitcher becomes a *Nepenthes*'s next meal, creating tiny ecosystems containing anything from bacteria and yeast to insects and small vertebrates. A total of 59 different species have been found living within the pitchers of *Nepenthes ampullaria* (left), which uses these inhabitants to break down the leaf-litter it captures. Pitcher fluids vary widely between species of *Nepenthes*, with some close to water, some thick and viscous, and others as acidic as stomach acid. In this way, *Nepenthes* actively control what can live within their pitchers, cultivating communities which best support their own needs.