

The Food Preference of the Invasive Giant Apple Snail, *Pomacea maculata*

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The giant apple snail, *Pomacea maculata*, is an invasive species that affects local waterways and those as far as East Asia. Attempts, ranging from trapping to molluscicides, have been made to rid ecosystems of this highly invasive species. This experiment was conducted so that the preferred food of *P. maculata* could be found and potentially used in traps. It was hypothesized that *P. maculata* would not show a statistically significant preference for any food introduced, and that everything provided within the tank would be consumed at equivalent rates as measured by finding percent changes in mass of each type of food. After being given a week to acclimate to their new environment, the snails were placed in groups of five into choice chambers containing freeze-dried white shrimp (*Litopenaeus setiformis*), hydrilla (*Hydrilla verticillata*), water hyacinth (*Eichhornia crassipes*) and watermelon rinds (*Citrullus lanatus*). The white shrimp, hydrilla, watermelon and the water hyacinth were observed to have an overall change in mass of 8.3%, 34.7%, 17.4% and 3.5% respectively. These results propose that the hydrilla is the favorite food of the snails, followed by watermelon, then the shrimp and finally the hyacinth. *P. maculata* has the potential to overwhelm the fragile ecosystems that it affects. It is interesting to note that the preferred food of an invasive snail is also invasive. This research will help scientists working to halt the expansion of this detrimental, invasive species in a safe and sustainable way.