

**Trapping the *Achatina fulica* in
Barbados and beyond: An assessment
of trap design effectiveness and
potential**

By: Brenna Coleman, William Dreyer
and Forrest MacDonald.

Introduction

The *Achatina fulica* is a land gastropod native to Eastern Africa. This species was brought to Barbados around 2000, and has now been on the island for approximately 12 years.

The Giant African Snail poses a threat not only to agricultur

and building these traps were: to design
and build at least 2 trap models

ground. Once inverted, the entrances face the ground and are in close proximity to the pole that snails would climb in order to reach the bucket. The lining bag, in this case, is upside down. The bottom of the bag is held in place by a clamp system. The bag will be lined with molasses for bait.

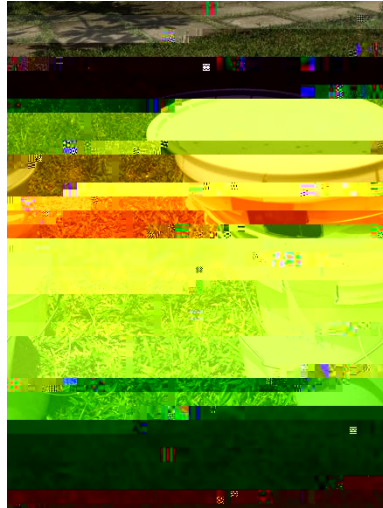
Prototype 2

Prototype 2 is a simpler design. It is a two-part trap. The bottom (collector) section is simply a five-gallon bucket, while the top (cover) is a top section of another five-gallon bucket that sits flush on top of the collector. The cover section has three entry points with one-way doors. Directly below these doors on the inside surface are plastic strips hanging downward that act as a sort of one-way speed bump. Once inside, snails will be able to climb downward into the collector, but the plastic strips will discourage any snail climbing upward. The plastic bag liner is simply attached to the cover section and placed inside as the cover is placed on top of the collector.

Testing and Results

We performed controlled testing on both prototypes. We used two different tests: one in which snails were placed around the traps and then observed and one where they were left in snail pens to

see whether or not the snails would go into the traps over a 3 day period. Our testing taught us that our doors are not the most effective, and that our trap designs are flawed. Our inability to test earlier in the project due to low availability of snails means that there was no time to make large modifications to our design. We were able to un-invert prototype 1 and snails did eventually go into the trap, though whether or not they could get out is debatable. The issue with snails escaping is that the door was no longer flush with the opening so it was more like an open hole.



Conclusions and Recommendations

The idea of traps is certainly a viable way to deal with the snails, as we learned this summer when we were able to construct traps and deploy them, though ours certainly had their problems. The design was flawed but the actual construction, transport and deployment of the traps are relatively simple, making this idea an interesting one to continue to pursue in the future. We recommend that future projects either consider the design of an effective one-way door or design a trap that involves no doors, as both our SURMHFW DQG 3URYHQFKHU HW had problems with doors.

Acknowledgements

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and input were invaluable. Dr. Angela

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