ABSTRACT

Acavus phoenix is an endemic terrestrial arboreal snail. Studies conducted on this snail species are very few, especially on feeding behaviour and food preference. In animal population biology, food plays a major role. It determines the distribution and abundance as well as the survival of the species. As there is not enough studies conducted on food and feeding habits of *Acavus phoenix*, this research was designed to provide a complete account on feeding behaviour and food preference of *Acavus phoenix* in the natural habitat and also under laboratory conditions.

In this study a home garden was selected as the field and observations were made on a daily basis, in the night and early mornings during which the snails emerge from their resting state, and become highly active. In the laboratory, chosen group of adult snails were used to identify their food preference. They were presented with freely available food items which were selected on predetermined criteria. A single food item was presented at a time, and it was followed by a 24hr starvation period before presenting the next food item. Finally the preference was rated using the Acceptability index.

These snails were found to be herbivores except for rare occasions where they fed on non-herbivorous food. In the natural habitat they mainly fed ion lichens, algae and fungi which grew on the tree bark. Laboratory conditions showed they preferred soft and succulent food over thick and dry food. They ate by scraping the food surface.

They have interesting behaviour patterns with regarding to feeding. In the natural habitat, their secretion patterns on the tree trunk surface were always almost on the same path, indicating that the snails took the same route every day feeding on the same area . In the laboratory it was observed that there were different techniques of manipulating the food. There are different frequencies of eating as well as different patterns in food consumption.