

## Mammal Surveys at Mount Napier State Park

Reto Zollinger

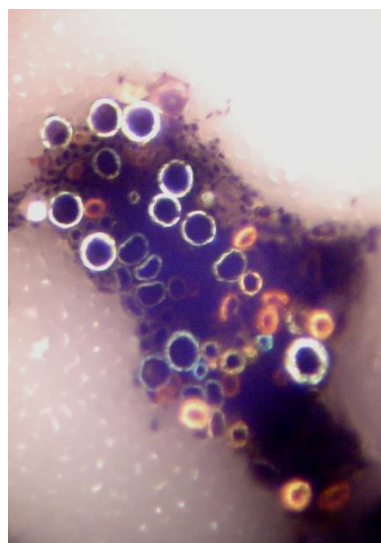
The need to undertake more mammal surveys inspired me to learn about the hair-trapping and identification technique as the subject of the final project for the Diploma in Natural Resource Management (2004).

Mount Napier was selected as the study area to see if the Brush-tailed Phascogale might still occur within the park since last spotted in the late 1970s by HFNC member Rod Bird (his study of the mammals of this area is presented in the published *Fauna, Flora and Natural History* reports).

One hundred and sixty-two hair traps were spread along 8 transect lines. Unfortunately they produced no evidence of the Brush-tailed Phascogale among the hair samples collected, but they did confirm an abundance of *Antechinus* species thriving among some sections of the woodland (See Table 2).

Species identified using hair analysis at Mount Napier in 2004  
(Mammal hair analysis: Reto Zollinger)

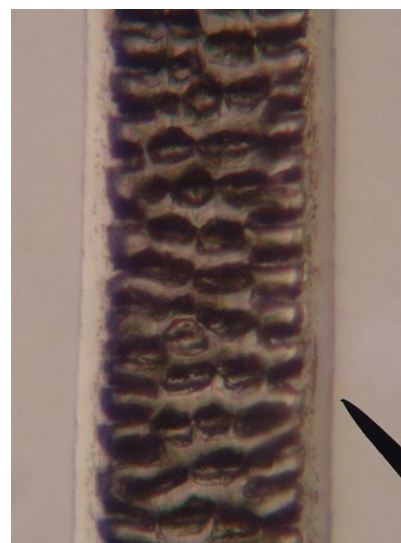
| Scientific name              | Common name             |
|------------------------------|-------------------------|
| <i>Antechinus agilis</i>     | Agile Antechinus        |
| <i>Antechinus swainsonii</i> | Dusky Antechinus        |
| <i>Trichosurus vulpecula</i> | Common Brushtail Possum |
| <i>Wallabia bicolor</i>      | Swamp Wallaby           |
| <i>Rattus lutreolus</i>      | Swamp Rat               |
| <i>Felis catus</i>           | Feral Cat               |



Cross section of hair



External scales of hair



Swamp Rat hair medulla

Clearly hair analysis is a useful non-invasive method to conduct low impact fauna surveys, and could in future years become more interesting as DNA analysis becomes more affordable, allowing for greater accuracy in species identification. It also expands our knowledge to the individual animal, and possibly gender, level. To undertake future hair-trapping activities HFNC purchased 50 specially designed hair funnels and produced another 50 home made hair tubes designed for use with arboreal mammal surveys.

There is an increasing need to collect scientific evidence to support proper land management practices and to help counter the ever more politically-driven land-management decisions. Government Departments are under increasing financial constraints and constant political pressure, consequently studies that should support informed land-management decisions are not being done. Small groups like the HFNC feel the need to fill this knowledge gap by conducting mammal surveys to support submissions on land management issues. However, this requires finance, enthusiasm and commitments of time.