

## Mammal Survey in the Grampians National Park

The Hamilton Field Naturalists Club has experience and extensive knowledge in conducting small mammal surveys, particularly to support cases such as the formation of State and National Parks. Mount Napier and Mount Eccles are prime examples where intensive fauna and flora surveys were conducted in the 1970s by HFNC members to support the case to protect these significant remnants.

Small mammals are often overlooked: they often have nocturnal behaviours, are sometimes very secretive and difficult to see. Despite their physical appearance, small native fauna and flora are enormously important in balancing the environment and providing a healthy diversity. The absence of small fauna and flora in an ecosystem often indicate a disturbed ecological balance and a declining ecosystem health.

Small mammal surveys can involve the live trapping of animals; collection of animal hair and scats; monitoring of artificial nest boxes; recording of fresh tracks, markings and sightings; and spot lighting. Some of the equipment used by HFNC are 'Elliot' traps (small aluminium box traps) used to live-capture small mammals and 'Harp' traps (upright frames strung with fishing lines and collection bag at base used to capture bats). 'Hair tubes' (funnel shaped or round tube containing a space for smelly bait and a sticky glue tape along the upper inner surface of the device that will collect loose mammal hair).



Hair trapping is a low impact survey technique that enables traps to remain in location for several weeks before collection.

Collected hair is analysed using a light-microscope to determine shape and structure of the medulla (central portion), the cuticle scales (outer layer) and cross section of hair. As each animal has a unique hair structure the hair samples can then be matched to a specific animal species by using an identification key.



**Grampians Hair-tube sampling March 1998.**  
Diane Luhrs and Rod Bird inspect the trap tapes for hair and replace the bait.



**Bat -trapping** – Yvonne Ingeme and Tim Jackson inspect the harp net.