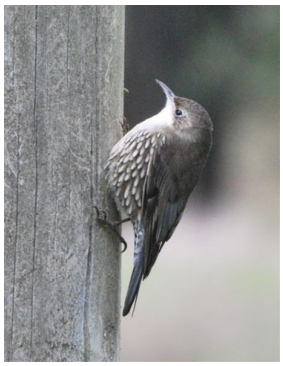
Mammal Survey Group of Victoria
NEWSLETTER

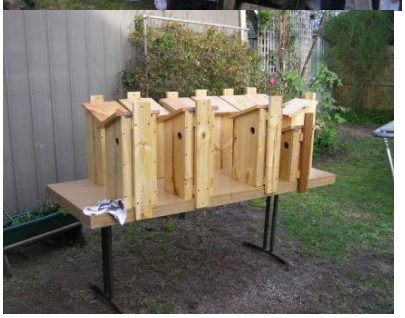
August 2008

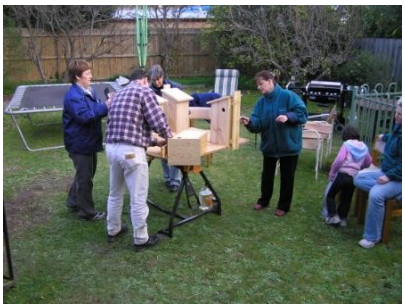
Next Meeting – October 21st
See you at Arthur and Jess Howard's house, at 8 pm. Come and view the Poynton's Kimberly photos.

Last Camp - August 16th-17th Aireys Inlet


White Throated Treecreeper

We first visited this private property in December '06 in the height of the drought and bushfires in central Gippsland. This time it was a moist weekend and we appreciated the luxury of the small house and pot-bellied stove. Unfortunately as in 2006, ground trapping drew a blank. Spotlighting and day sightings saw Swamp Wallaby and Grey Roos but spotlighting was halted by rain. Brush-tail possums were present at least in the in the roof and bats could also be heard twittering there. This area of bush is diverse and in good condition but presumably drought has reduced its fauna. We will revisit this area again in a year or so.





Working Bee - July 13th
A pleasant social occasion saw the covers on all traps more securely attached and the construction of 11 new nest boxes. Many thanks to the organizers and caterers.

Next Camp:
September 13th -14th - Tallarook
This will be a revisit of an area we have surveyed several times in the past, hopefully to get some indication of how fauna is faring after drought. In general we have found a decline in drier areas but wetter habitats have been unaffected. Tallarook is somewhat intermediate.


Welcome Swallow

Future camps

October 4th - 5th	Mt Ida/Crosbie nest boxes
November 1st - 4th	Mt Elizabeth Flora and Fauna Reserve
Dec 26th - Jan 1st	possibly Genoa

Aireys Inlet Birds
by Max Campbell

Social Circle
Congratulations to Paul on his 40th birthday. Most of us are somewhat older!

\MEETINGS: 2ND or 3RD Tuesday of Feb, April, June, August, October .
ENQUIRIES: c/- Arthur Howard, ph. 9481 4196
WEBSITE: http://home.vicnet.net.au/~msgv

Howard's Way:

ANCIENT SURVIVORS

After seeing the reproduction photo of the scorpion by Max Campbell in the June newsletter, I thought the furred animals can miss out this time, and I will write about this primitive animal that is not often seen. Its ancestors have been present on earth for some 450 million years making them among the oldest forms of land animals. There are 600species throughout the world. Scorpion remains have been found in fossil deposits dating to the Silurian era 135million years ago and yet they have changed little in form since then.

Because there has been little research on scorpions the actual life span of most species is not known, it is estimated that their life span is about 25-30years. They belong to the same order of creatures as spiders, but unlike that enormously diverse group they have developed few species. In Australia only 29 species have been recorded, and one or two are believed to have been accidentally introduced from India. Scorpions are nocturnal creatures, finding shelter during the day in the relative cool of underground holes or undersides of rocks, coming out at night to hunt and feed. This enables them to evade detection by their predators, such as birds, centipedes, lizards and rodents. They are long-lived and this attribute along with their small brood size suggests that they have few natural enemies.

Scorpions are predators, actively hunting prey such as small arthropods and insects. They have up to 20 eyes depending on the species, but have poor vision, so they locate their food by use of sensory hairs on their claws. They can also pick up ground and air-borne vibrations over considerable distances. Using their pincers to catch prey, and depending on the size of their claws they will then either crush the prey, or inject it with fast acting neurotoxic venom. Scorpion venom is optimized for action on arthropods therefore it is relatively harmless to humans; it is much like getting a bee-sting with a little pain and local swelling but soon wears off. Muscular control over the venom gland in the tail-tip regulates the amount of poison injected with each sting. Since this is usually small and the strength of the scorpion in driving its spine through human skin is limited, it is therefore considered they are not a danger to humans in Australia. There is evidence to suggest that scorpions can regulate how much venom is injected with each sting. Using striated muscles in the stinger, they have two types of venom, a translucent weaker venom designed to stun only, and an opaque, more potent venom designed to kill heavier threats. This is likely because it is expensive in terms of energy for a scorpion to replenish its venom supply once it is exhausted.

Most scorpions live in temperate or tropical areas with the larger species being found in the tropical rainforests, but many live in the desert areas where some of the most dangerous can be found. The most aggressive and dangerous ones occur in Africa and Mexico. Between these two countries they amass over 2000 recorded deaths each year from scorpion-stings; their scorpions carry a much more toxic sting. One giant in North Africa that's called the "Sierra Leone death stalker," is 300millimeters in length and is big compared to our southern species that are scarcely one-tenth that size.

There has only been one person recorded that was thought to have died after being stung by a scorpion in Australia, and that was a child over 40years ago. Whereas bites from other insects and snakes Australia wide are 5600 people bitten by snakes annually, of which only 10percent require hospitalization and antivenom treatment with a similar number of people hospitalized from red-backed spider bites each year. Over half of these bites occurred on the feet and whether it is red-backed spiders, scorpions or some other biting insect that is the threat, it is always worth shaking out footwear that is stored outdoors. Scorpions and spiders are closely allied, but differ in many ways, even to the production of up to 30 live young scorpions, contrasting to masses of eggs laid in a silken sac by the female spider. Scorpions at birth are miniatures of their mother, white in coloring until the first skin moults; she then carries them on her back for about two weeks until they are old enough to be independent and capable of hunting their own food. It is not uncommon for a female to kill and eat the male immediately after mating with him, in typical Black Widow spider fashion.

There are two interesting scorpion species that occur in the Australian deserts; they hunt exclusively trap door spiders. Their presence was scarcely known until Dr Barbara York-Main found them during her wonderful detailed study on ground-dwelling spiders. No doubt many other fascinating species will be found and their biology studied here as it is in other parts of the world. Already we know that scorpions can live without food for months, can survive for at least three weeks stored at zero degrees Celsius and tolerate over 200 times the atomic radiation lethal to human beings.

ARTHUR HOWARD