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WOODLANDS THROUGH A TREECREEPER'S EYES

Gary Luck



Woodland homes

If you see a reddish-brown bird hopping vertically up the trunk of a wandoo tree you can be pretty sure it is the Rufous Treecreeper. Australia has six species of treecreepers, but only the Rufous Treecreeper occurs in the south-west corner. In fact, the wheatbelt is probably the heart of its distribution. During the early to mid 1900's it was recorded as one of the most common bird species in the region. However, sadly, with the clearance of large tracts of woodland habitat its abundance has declined dramatically.

In the wheatbelt, wandoo (*Eucalyptus wandoo*) and salmon gum (*E. salmonophloia*) woodlands appear to be its favoured habitats. However, not just any woodland will do. The treecreeper can be very picky when it comes to selecting a home. First, it can't do without tree hollows. Hollows are used as night-time roosting sites, to hide from predators and, most importantly, as the perfect place to build a nest. Second, it likes large, old trees. In addition to containing lots of hollows, these trees have a large, textually rich surface area with many nooks and crannies that form suitable hiding places for a variety of invertebrates. This is the perfect smorgasbord for an invertebrate-eating, tree-creeping bird that can cling to the trunks of trees with its sharp claws and dig into the bark with its bill.

Third, the treecreeper favours areas with lots of deadwood and hollow logs on the ground. Hollow logs! Why would a bird need hollow logs? (Maybe it's Numbat envy??). Well, there is a logical explanation for this. Nestling treecreepers spend the first 28 days (or so) of their life in the tree hollow where the parents built the nest. When they eventually leave the hollow they are still quite weak and for the first few days are not very adept at flying or climbing trees. Not surprisingly, these young treecreepers spend most of their time on the ground. This is a dangerous place for an inexperienced bird. To escape trouble, the safest place to go is the nearest hollow log. Also, since much of their life so far has been spent in hollows, this is what is most familiar to them.

Food and finding it

These are just some of the important characteristics that make a woodland a home for treecreepers. Of course, one of the most important things of all is food. The Rufous Treecreeper eats a wide range on invertebrates including ants, spiders, butterflies and moths (and their larvae), termites, grasshoppers, and various beetles and bugs (to name a few). We don't know if it favours any particular group. On two occasions I have also seen it eating (or attempting to eat) small skinks. I guess it just views these as large invertebrates! Other researchers have observed it

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taking nectar from banksia flowers, but this is probably a rare event.

The treecreeper got its name because of its characteristic trait of hopping along the trunks and branches of trees looking for food. However, if you spend time watching these birds feed you might agree that this name can be a bit misleading. The Rufous "Treecreeper" spends a lot of its time foraging on the ground. This is especially true in

winter and spring when about 70% of its foraging time is spent pecking invertebrates off the soil surface, turning over leaf litter and even digging into soft soil with its bill in search of a tasty grub. Foraging on the ground is best done in open areas because it is easier to find food and treecreepers can keep an eye out for potential predators. This is probably one reason why the birds are very common in our open woodlands.

Social life

One of the most fascinating things about the Rufous Treecreeper is its social life. The treecreeper is a cooperative breeder. This means that, unlike most other birds in the world, more than just the breeding pair help to raise the young. A number of other animal species breed cooperatively, including humans. Treecreeper groups usually occupy a relatively small (about 2.5 ha), all-purpose territory that must provide the group with everything they need (e.g. food and nest sites). These territories are generally occupied year-round and some can be occupied by the same individuals for a number of years.

For the treecreeper, a cooperatively breeding group usually consists of Mum and Dad and their offspring from the previous breeding season (this is not always the case - sometimes birds from outside the immediate family help to form groups). Offspring will often stay with their parents on the home territory for a year (sometimes more) and help raise the following year's nestlings. It is usually males that do this, with most young females leaving the home territory within the first 12 months.

The offspring that stay are referred to as "helpers" because they help with a number of tasks. These include defending the territory from predators, helping to build the nest, and feeding the nestlings and fledglings. This help may be very important because breeding groups with more helpers at the nest raise more young than smaller groups. In this way, helpers improve the likelihood that at least some of their genes are passed on to the next generation because they share genes with the nestlings they help. This is very important if breeding



Typical woodland with dead wood and hollow logs favoured by treecreepers. Photo: Gary Luck.

positions are hard to come by and genes can't be passed on directly by reproducing yourself.

What is even more amazing about the treecreeper is that birds from neighbouring territories sometimes help to feed the nestlings in adjacent territories. We are not sure why this happens. It could be that birds in neighbouring territories are related (e.g. aunts or uncles of the nestlings they feed). It could also be a way

for neighbours to get access to the resources of adjacent territories. For example, "let me have some of the food in your territory and I will help you feed your nestlings." The motive for this type of help will be a fascinating area for future research.

Conservation of treecreepers

If you've got a nice patch of wandoo or salmon gum woodland on your property with lots of large, old trees with hollows, piles of deadwood and an open ground layer you might just have treecreepers as well. I have found them in patches as small as 5-10 ha, but it is likely they only occur here if there are much larger patches nearby (e.g. 100-500 ha) or lots of patches close together (so birds can move from one patch to the other). To help keep our woodlands suitable homes for treecreepers and a number of other woodland birds there are a few practical things you can do.

1. Keep sheep and cattle out. Excess grazing can limit the recruitment of saplings and compact the soil.
2. Control weeds to keep at least some areas open.
3. Leave piles of deadwood and hollows logs on the ground. These are so important to our native animals for protection and as potential places to find food. As deadwood breaks down, it also returns nutrients to the soil.

If you are worried that your woodland patches don't have enough hollow-bearing trees you could try experimenting with nest boxes. I am not sure how the treecreepers would take to this, but I would love to find out and I have some ideas about what might be a suitable nest-box design. If anybody is interested in this my contact details are below.

Gary Luck, Centre for Conservation Biology
Stanford University, 371 Serra Mall
Stanford, CA, 94305-5020, USA
email: garyluck@stanford.edu

My work on treecreepers was completed during my PhD at Edith Cowan University, Department of Environmental Management.