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Habitat

Principle 1: structures are Monitored, not species

Principle 2: Nest Boxes and tree Hollows are a small subset of Habitat Structures. The Monitoring protocol should take all into account.

These two principles are important to establishing a robust protocol.

Designing a method with species in mind quickly leads to myopic information. For instance, nest boxes installed for ring-tail possums could be counted as a success or failure based on occupancy of that species. An uptake proportion might be calculated, such a metric could mean seriously different things based on how many boxes are occupied by Lorikeets, or Honeybees. Measuring occupancy of any kind is better but does not encourage awareness of non-use of structures. Consequently, it could be possible to [illegible] put effort into the completely wrong area: here be [illegible] rather than never, for instance. Each instance of non-use is important, for nest boxes are not static. Many fall down or break each year, and they start progressing to this point the moment they are made. Tree Hollows are a profoundly non-static habitat feature. From hollow-in dead trees are progressing through a lifecycle, from taller, sturdy-looking structures, to often skeletal stags, to stumps with a few loose rotting wood around them. Each phase is important as it is transitory. Birds and mammals use the hollows, but as it becomes older it might be ideal, as a day shelter for an owlet nightjar; or it's a lower branch in the trunk might make it amenable for a possum to quickly clamber into from the ground. Some Goannas seem to enjoy use both trees and ground level structures. I once saw a possum spectacularly sheltering underground in the stump of a dead Mallee. And of course microbats use all sorts of (pretty badly) tortuous wood structures.

Refocussing on the species that use nest boxes and tree hollows reminded me that just a short canoe identifiable habitat structure is worth looking at. If something has used it, it is a feasible part of a species niche. Possums like this monitoring protocol should accordingly be able to record the lifecycle of structures, but be guided by the ingenuity of wildlife.

Two high level ways of classifying an observation should be (1) species and (2) a logical class of structure to monitor.

~~Habitat structures~~ ~~Tree Hollow & Nest~~ Cavity class

A Nest box would be a logical class to look at. It would be best considered as part of a larger class probably the tree-Hollow type class. Other combinations are possible, such as considering all cavities that a bird breeds in as a class. Tree Hollows, clean cavity class; tree hollows, nest boxes, and cavities in cliff faces that would Tree Martins use. No system is perfect; the one just mentioned doesn't make sense for decrepit tree structures. Defining a nature is [illegible] and unwise, but some attempts to consider highest-level classification is necessary to be able to process unexpected observations; indeed, these are often the most interesting observations, and I think that keeping them as a novelty rather than real data is a dis-service to all involved.