



Guidelines for the Development of Bird Habitat

User: Street Tree Planners

Why manage our streetscapes for birds?

All local governments in Australia are legally obliged to operate according to the principles of ecologically sustainable development (ESD). Three essential goals of ESD are to:

- maintain essential ecological processes and life-support systems;
- preserve genetic diversity;
- ensure the sustainable utilisation of species and ecosystems.

Birds are the most conspicuous animal species in urban environments, making them outstanding indicators of our performance in meeting obligations to sustainability. Unfortunately in most urban areas bird diversity continues to decline, indicating our continuing failure to maintain suitable habitat. Our small native birds such as the Red-browed Finch and Superb Fairy-wren are becoming less common, replaced by dominant and aggressive species. In NSW these include the Noisy Miner, Pied Currawong and the Rainbow Lorikeet, but other states may have a different mix.

Street plantings and suburban gardens have considerable potential to prevent further biodiversity loss at a local government scale, by enhancing the connectivity between bushland remnants and by providing habitat in their own right. The following guidelines summarise current knowledge on best practice methods of designing and managing a variety of urban habitats to prevent the further loss of biodiversity.



For more detailed guidelines for creating habitat for birds in the urban environment, please refer to the *Scientific Report* available at: www.birdsinbackyards.net/spaces/guidelines.cfm

How to manage streetscapes for birds

1. Assess the street and its current bird life and consider these questions:

- *What birds are found in and around the street?* Know which species you are trying to target, for example small birds or parrots. While initially you may only be encouraging birds that occur in the area, over the long term the habitat will be used by a greater diversity of birds. Simple 20-minute bird surveys along the streets in a suburb for at least a month preferably in spring to ascertain breeding use, should be completed prior to the commencement of remediation will give an idea of what birds are likely to use the street. Note that some birds are migratory and your streetscapes may be important habitat for them for a short period each year. The *Birds in Backyards* surveys are ideal for this. <http://www.birdsinbackyards.net/surveys/>. Talk to households in the immediate area and see what birds they see or ask them to fill in a survey. Not only can you collect valuable information but also spark public interest and enthusiasm for your proposed planting. Surveys should also continue through the planting period and after as well.
- *Are the streets connected to other patches of vegetation like bushland remnants or parks?* Increasing connectivity through corridors will allow birds to move between large patches of vegetation. Street vegetation provides such a system of corridors that may be important in moving birds within and through suburbs. Aim to do habitat restoration projects in streets that have the greatest potential to connect habitat patches
- *What is the current vegetation?* Examine the plant species already in place and note if and how birds use it.

2. What and How to Plant

Determining the types of birds you want to use the streetscape is influenced largely by the type of trees planted. Consider the following before deciding what to plant.

2.a. What do the birds require?

While the amount and type might vary greatly, all birds need food and water, shelter and a place to nest, whether that is a dense thicket, tall tree or hollow. Most of these requirements can be met by the availability of suitable vegetation. In most cases locally native vegetation is best for birds, however, exotic vegetation (usually in the shrub layer) can also be important and should not be automatically removed.



Because urban habitats are so fragmented, one site will not be large enough to provide all of the requirements that a bird will need. However, each patch is vital to the web of habitat that birds use. Therefore street plantings can play a vital role in moving birds between these patches.

2.b. What to plant – trees:

We recommend locally native vegetation be planted. This vegetation was traditionally used by birds in the area and is best suited to the conditions of the site. Many exotic trees provide little or no value to birds or in some instances (such as when Jacarandas are producing seed pods), may encourage more destructive birds like the Sulphur-Crested Cockatoo.

Trees that produce large seed pods or larger flowers will attract birds such as Sulphur-Crested Cockatoos, Galahs and Rainbow Lorikeets. These birds may become destructive, dropping seeds and, in some cases, small twigs, as they feed. This may be an issue for people walking underneath or for parked cars and also cause significant damage to the trees themselves. Similarly trees that produce berries are likely to attract birds that will drop these sticky fruits as well as their droppings underneath.

Streets where Eucalypts are the major or only canopy species are more likely to become dominated by an aggressive honeyeater, the Noisy Miner (along the east coast). These birds can then influence the rest of the bird community in the area by aggressively excluding smaller birds. Introducing other tree species as an alternative to, or in conjunction with Eucalypts can limit the influence of the Noisy Miner.

We therefore recommend that a variety of local native trees are planted along streetscapes rather than a single species. This will provide a variety of different food sources for a number of different birds without favouring the dominance of one or a few of them.



2.c. What to plant – under trees:

Utilising space that would not otherwise be occupied is a great way to provide habitat for birds. Many smaller birds require shrubs for food and shelter and many also forage on open grass. By planting a diverse range of locally native shrubs under and around street tree plantings and incorporating native grasses into the street, more birds can be encouraged to use it. Some areas of nature strip are used by pedestrians and height restrictions on vegetation are required for safety however, by carefully considering the layout of the streetscape, low lying shrubs and native grasses can be incorporated in some patches and scattered throughout the streetscape.

Bird Type	Food Source	Habitat Preference
Large Nectarivores (nectar feeders) Honeyeaters and some parrots e.g. Noisy Miners, Red and Little Wattlebirds, Rainbow and Scaly-breasted Lorikeets	<i>Banksia</i> , <i>Callistemon</i> (Bottlebrush), <i>Eucalyptus</i> , <i>Grevillea</i> , <i>Hakea</i> , <i>Melaleuca</i> (Paperbark)	Shrubs and trees for foraging, perching and nesting Some require hollows for nesting
Small Nectarivores Honeyeaters e.g. Eastern Spinebill, New Holland Honeyeater, Brown Honeyeater	<i>Banksia</i> , <i>Callistemon</i> (Bottlebrush), <i>Eucalyptus</i> , <i>Grevillea</i> , <i>Hakea</i> , <i>Melaleuca</i> (Paperbark), <i>Epacris</i> , <i>Correa</i>	Spend most time foraging and perching in shrubs but also use trees. Generally nest in dense shrubs
Granivores (Seed Eaters) Parrots, finches and pigeons e.g. Eastern Rosella, Pale-headed Rosella, Galah, Sulphur-Crested Cockatoo, Common Bronzewing, Red-Browed Finch, Double-Barred Finch, Chestnut-breasted Manikin	Trees and shrubs: <i>Acacia</i> (wattle), <i>Casuarina</i> (she-oak), <i>Leptospermum</i> (tea-tree) Grasses: <i>Lomandra</i> , <i>Themeda</i> , <i>Poa</i>	Utilise shrubs and trees for perching, nesting and foraging but also forage on mature grasses
Frugivores (fruit eaters) Pigeons and cuckoos e.g. Wonga Pigeon, Common Koel, Silveryeye, Satin Bowerbird	<i>Ficus</i> (figs), <i>Syzygium</i> (Lillipillies), <i>Eleocharpus</i> (Quandong)	Shrubs and trees important habitat
Insectivores e.g. Superb Fairy-wren, Eastern Yellow Robin, Spotted and Striated Pardalotes, Willie Wagtail	Insects and other invertebrates either on the bark and foliage of shrubs and trees or on the ground	Dense shrubs important for protection and nest sites as well as some open areas for foraging
Carnivores (Meat Eaters) e.g. All species of Currawongs, Laughing Kookaburra, Grey and Pied Butcherbirds, Powerful Owl, Black-shouldered Kite, Peregrine Falcon	Other birds, reptiles, frogs, mammals, invertebrates	Tall trees for perching, roosting and nesting. Some require hollows for nesting

