

AFTER the 1983 Ash Wednesday fires, a survey of Victorian beaches between Lorne and Torquay (40 km) found fiftyfive species of dead birds; Rosellas and Red Wattlebirds had the highest mortalities. The 2014 bushfires killed the last group of endangered Mallee Emu-wrens in South Australia. They weigh 6g and could not outfly

"As the terrific blast of fire swept along, birds could be seen rising from the ground or leaving the trees in front of it only to be

overpowered by the dense smoke and rising scorching heat. In all cases the birds fell exhausted into the flames"

Hood, J.B. (1941). 'Birds and Bushfires' South Australian Ornithologist 15, 125–127

the roaring speed of the bushfires. There is a bold plan to restore them to SA from Vic. Many more bold bird-restoration plans will be needed after this unprecedented 2019/20 fire season. The present bushfires are exterminating many bird communities, mainly bushland and grassland birds.

Australia has vast tracts of flammable ecosystems. Fire destroys ecosystem structures, removing the grasses, shrub-layer, mid-layer and canopy foliage. Bird species most strongly impacted by bushfires are those closely associated with habitat structure. Post fire, as the denuded burnt ecosystems recover and floristic structure returns, birds return when appropriate habitats are formed.

Bird Succession: Immediately post fire there is abundant open-ground habitat and the ground-feeding insectivores (Pipits), granivores (Red-browed Finch) and carnivores (Grey Butcherbird) invade. These species dominate for about 3 years until the flora sprout and grow. From 3 to 20 years post fire, young-vegetation habitats dominate and this favours some shrub and midstory nectarivores, frugivores and foliage-gleaning insectivores (Brown Thornbill, Golden Whistler, Grey Fantail). During the 20 – 60 years post fire the climax vegetation stabilises and some small hollow nesting birds, honeyeaters, some raptors, trunk gleaning and canopy foliage insectivores and frugivores —return. Large hollow-dependent species (Powerful Owls) are absent until trees become sufficiently old to form suitable hollows. Depending upon the bird and tree species, this may be between 100 and 250 years post-fire.

This summer's fierce bushfires have initiated predictable plant succession and bird succession sequences that will play out for the next 250 years; unless reset by another bushfire! Distressingly, the next bushfire is predicted to be not many years ahead and even more fierce!

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