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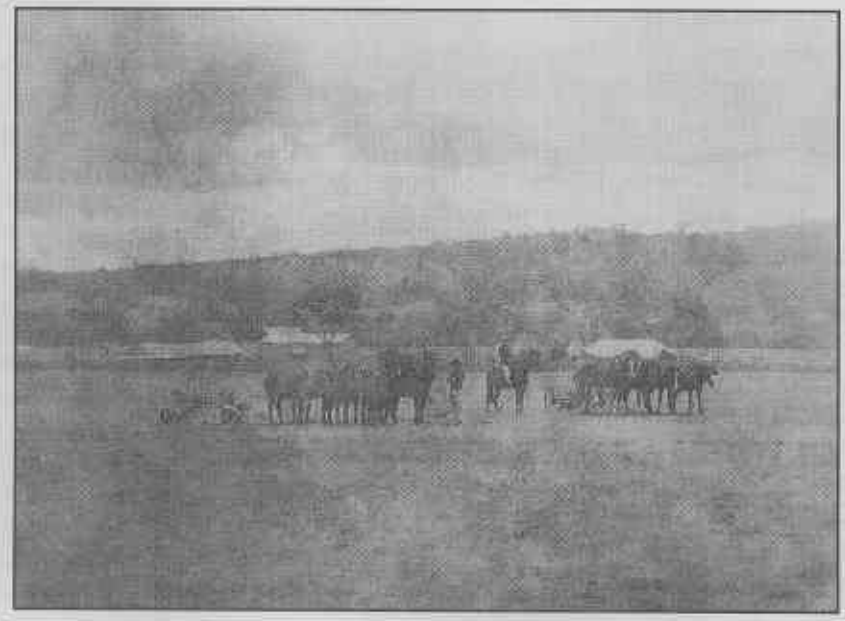
FARMTREE CORRIDORS AND DAMS BRINGING BIRDS BACK TO THE BARNYARD

by Jim Masters

A brief history of 'Glen Avon'



Glen Avon homestead area, circa 1890's. View to northeast., Avon River flows northwest beyond buildings. Charles Henry Wilkerson, then-owner, is mounted on the centre horse, with two teams pulling the newest innovations of the era, a multiple disk and moulbourd plough.
Photo courtesy of Jim Masters.

I have always loved nature, and since I have lived in this area, have always been interested in the intricate processes that occur along the Avon River. I also enjoy finding out about the local history of the area, as it gives one a much better picture of just where we are at in the scheme of things. Birds are of a particular attraction to me, and I have spent many years recording their habits and distribution throughout the central wheatbelt.

The homestead where I have lived for much of my life is situated about half a kilometre from the edge of the Avon River, and part of it was built in 1843 on one of the first land grants made here in 1832.

About the home by 1890 some 500 acres of natural York gum and jam woodland had been cleared for grazing and cropping, as were many of the flooded gums bordering the banks of the main creek feeding the Avon River. The banks of the Avon, however, would appear to have remained largely unaltered (apart from grazing), because of the constant threat of floods, by then well known. As a result this riverine vegetation still provides an important corridor for wildlife habitation and movement since the initial clearing.

As with many farms in the central wheatbelt, constant grazing pressures have meant that very little regrowth has occurred, and gradually the older vegetation has died off to leave many bare hillsides. Those original specimens that still remain consist of scattered ancient York gums with no understorey, although they still provide a corridor for bird movement, together with old flooded gums along some creeks.

My family moved to Glen Avon in 1917, where we still continue to farm sheep and crops. In difficult times during the 1930's I finished my schooling at Scotch College in Perth, and moved back to the farm to help my father. Growing up on the farm meant that I was to spend a lot of time outdoors learning about the environment, and in 1930 I decided to start recording the changes in the wildlife of the area, particularly that of bird populations along the Avon and around the cleared homestead. My parents had planted a variety of sugar gums and other plants around the homestead

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some ten years before I started recording changes, so by now there was quite a well established garden.

Between 1930 and 1945 I recorded some 84 different species of birds, about half of these being uncommon and occasional visitors while most of the others are resident species. Not a bad score considering I can remember only 26 species close to the homestead before 1930. However, during this period there was a massive rabbit plague, which did affect bird populations, not all adversely since raptors increased, until the virus myxomatosis virtually wiped the rabbits out by 1956. Even in areas of York gum and jam woodland totally protected from grazing by domestic animals, for at least thirty years few tree seedlings, particularly of acacias and sheoaks, were able to survive due to the thousands of rabbits. With much of the understorey shrubs also dying out, the population here of small 'bush' birds decreased enormously. In the period 1945 to 1960 however, 90 species (23 breeding here) were recorded about the homestead now enclosed by more tree planting.

Creation of the dams

During 1960 we were able to build a large farm dam, which with some fringing vegetation has become a regular visiting point for waterbirds. In 1978 a much shallower and smaller dam was built alongside the first, designed with the purpose of providing a safe nesting site for waterfowl. Initially used for irrigation, they are built close by to the river 'corridor'.

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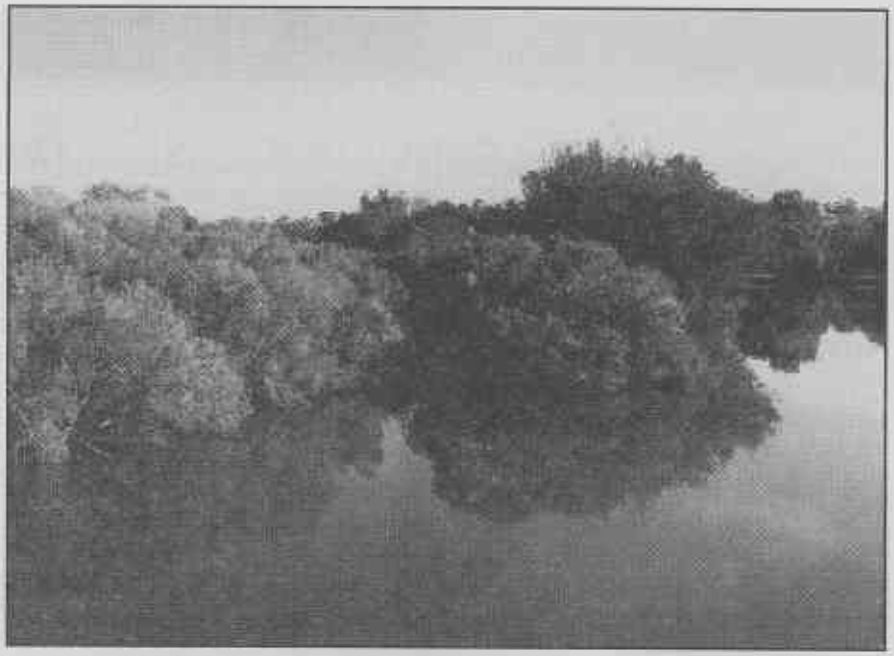
These dams are known as semi-turkey nest dams. Banks are pushed up around an old swamp bed, and in this way it is not necessary to lower the original bottom layer. As the bottom layer is already adapted to holding water, and is at a natural water outflow level, a bottom drainpipe is installed.

For the amount of earth moved to build them, the amount of water held is up to twelve times greater than an excavated dam high up the slopes of a farm hill. Seepage occurs to some extent through the dam walls and bottom. These dams are filled by weir diversion from the main farm creek, thus avoiding flood and silt damage.

We used three major tree species found along the Avon in our area (flooded gum, freshwater paperbark and salt sheoak) to vegetate the dam, attempting to mimic nature in our approach to growing them. Seeding branches were cut from mature trees bordering the river, and dragged by tractor into and about the new dam bed in autumn. Here seed then dried and matured before the winter rains. Following this, we allowed the area to be completely inundated with water (as would naturally happen at this site during winter months). As water level fell in spring seedlings started to emerge. Then next winter we controlled the water level by use of the control gates of intake weirs so the young plants could attain a height above that of the winter water depths, after which we allowed nature to take its course and inundate them to full dam level.

As is well known in the area, the clearing of the high laterite wandoo forests here over the 1960's has led to increased salinity in the creeks on Glen Avon, which has created a few problems with the dams. Surprisingly though, the increase in salinity levels does not appear to have affected the wildlife to any great extent, which suggests to me that brackish water is quite acceptable to our wetland wildlife and that many seem to be well adapted to it. In fact, I have noticed at least two species of shellfish that have moved into our area, for it seems such 'estuarine' conditions favour them as well as some waterbirds.



View of the shallow paperbark swamp. Such ephemeral conditions, as demonstrated by this wetland, are favoured by breeding waterbirds when much shrub cover is provided. Photo by Jim Masters

Between 1978 and 1980 we decided to create an extensive corridor between the homestead and the dams, using hundreds of tree and shrub seedlings. A second corridor was planted between the homestead and a stand of old York gums about one kilometre from the river. This has linked the river and dams with the homestead revegetation and, further away from the river, with creekline vegetation and ridgeline woodlands, using appropriate fencing to control the stock from grazing during development.

Since 1960 up to date we have had 147 species come here and 51 nest, most only occasionally, though about 20 breed regularly.

Maintaining bird populations

I am certain this success of bringing birds back to a formerly bare part of the farm has been due to the careful linkage via tree corridors of the Avon River frontage with a number of natural regrowth stands throughout the farm. The woodland birds use the corridors to move across the farm, while the waterbirds use the dams as extra habitat, and protection from disturbance by boating activity in the river. Best of all it has brought back many 'bush' birds right to the home garden birdbath, where 43 have been noted using it. Quite a few of these, particularly the honeyeaters (11 species), have their more usual habitats existing many kilometers to the east or west of Glen Avon. Almost certainly they come here along now often quite sparse corridors about the Avon Valley.

Conclusion

The history of this very old farm's wildlife makes it obvious however that much more regenerated woodland areas are needed to restore fauna populations to that which existed here sixty years ago. We still have a great diversity of the fauna but much of it in a precarious state. As this story of the birds here indicates, there are ways to bring quite a lot of it back, even to your home and barnyard.

Jim Masters is a farmer/naturalist and nationally known authority on birds.