# South Africa: Tree plantations' impacts on bird populations

In South Africa, more than 1.5 million hectares of managed alien, monoculture tree plantations have been established, and currently more than 130 square km of new plantations are being established annually. Another 1.65 million hectares of alien invader plants exist, mostly eucalyptus, pine and wattle trees.

South Africa's rural people have felt dramatically the impacts of the plantation industry, ranging from evictions of communities to make way for plantations, to unemployment and less available water resources, less available soils and less free access to local plant and animal resources which provide food, medicine, fodder, fuel, building materials and many other goods.

But not only people suffer from forestry. Also birds do. With more than 80% of South Africa’s natural grassland
destroyed by tree plantations, John McAllister writes the following:

South Africa (including South Africa, Lesotho and Swaziland) has been blessed with 40 or so endemic bird species. Twelve of these are endemic to the Grassland Biome, while nine of those are listed as globally threatened or near threatened by BirdLife International. Rudd’s Lark is the only species occurring in South Africa to be listed as Critically Threatened on a global scale.

All the endemic grassland birds listed above occur in the high altitude, moist grassland of the eastern escarpment. These grasslands have been listed as an Endemic Bird Area by BirdLife International, i.e. an area containing at least two species whose global distribution falls within an area smaller than 50 000 km2. Other threatened birds that occur in this area include Blue Swallow, Blue Crane, Wattled Crane --all listed as globally threatened-- and Grey Crowned Crane which is now listed as Nationally Threatened.

Most South African tree plantations have been planted in what were formerly high altitude, moist grasslands containing all or many of the species mentioned above. This has had a devastating effect on the bird life of these areas. A glance at the distribution maps in the Southern African Bird Atlas and any field guide to southern African birds for Rudd’s Lark, for example, indicates how the range of this species has become fragmented. Blue Swallows, often cited as proof of the Timber Industry’s concern for the environment, is now down to between 40 and 50 pairs left breeding in South Africa --less than 10% of the original population. The near extinction of this species in South Africa has been laid almost solely at the door of the Timber Industry.

A study using Southern African Bird Atlas Data, illustrated the effect that tree plantations had on these species in particular and bird life in general. The grassland birds themselves became locally extinct in heavily planted areas. Even in relatively lightly planted areas there was a negative impact on bird diversity in general.

Unpublished data collected in the grasslands of southern Mpumalanga indicates that the diversity of bird species in the near pristine grasslands around Wakkerstroom is around 170 species/km2. As

one nears the intensely farmed areas around Amersfoort (mainly maize farming) the bird diversity drops to around 120 species/km2. In the areas around Panbult which have been heavily planted to trees the density drops to around 90 species/km2. Perhaps more significantly the composition of the bird communities changes from one dominated by larks, pipits and cisticolas to one dominated by doves and canaries.

The above information clearly shows that plantation forestry in South Africa is having a major impact on the country's rich biodiversity, resulting from the substitution of native grasslands with tree crops. Although this article focuses on birds, the impacts are much more far reaching, including threats to most grassland-related flora and fauna --in a country where grasslands are one of the most important ecosystems. South African corporations are not "planting forests" --as they like to portray themselves-- they are destroying the country's biodiversity, highly dependent on its native grasslands.