Leaf my neighbourhood alone! Will densification destroy Perth’s urban forest?

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Urban vegetation contributes to a range of ecosystem services including the enhancement of health and wellbeing, amelioration of urban heat islands, filtration of storm water and air pollution, and the provision of habitat for species diversity. Urban vegetation also generates economic benefits through reduced energy costs and increases property values in our green leafy suburbs. However, with a trend toward a more compact and dense urban form, less space is available for planting on private land and it is becoming important to understand the reasons for this through an analysis of the historic drivers of the extent and variability of urban vegetation on both public and private land.

We approached the question of increasing densification and its relation to greening by identifying the drivers of canopy cover across Perth’s residential neighbourhoods and examine the extent to which these drivers are associated with variability in tree cover. Using high resolution digital aerial imagery acquired as part of CSIRO’s Urban Monitor Program we i) quantified the distribution of tree canopy on private and public land within Perth’s residential neighbourhoods, ii) examined the complex, non-linear interactions between different components of urban form and tree canopy across public and private land with the specific aim of developing models capable of predicting tree canopy under a range of future land-use scenarios using machine learning models (Random Forests), and iii) development scenarios to test how current planning policy could impact on the quantum and distribution of vegetation in Perth’s leafy suburbs into the future.

Bush-stone Curlew Reintroduction to Metropolitan Perth

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The Perth Zoo in collaboration with Caversham Wildlife Park and Whiteman Park has successfully reintroduced Bush Stone-curlews into metropolitan Perth. Thirty birds have been released into Whiteman Park during 2013-2018. Dispersing birds have also been reported from several locations around the Perth metropolitan area during past five years. Most of those have been single records from five different birds, but one bird has proven the greatest of travellers having been seen at no fewer than seven locations and has now completed a circuit of the inner metropolitan area before returning to an earlier haunt. Sightings of dispersing birds and breeding birds reported by members of the public are received by email, i-Phone (with good quality pictures showing coloured leg bands), and from the Australian Bird and Bat Banding office. The resident flock of more than 10 birds provides great viewing for the citizens visiting Whiteman Park who love the ‘Road Runners’ when they see them strolling around on the grassed picnic area. To date only two birds have been confirmed dead, one having been taken by a goshawk and the other was euthanised after sustaining leg injuries. Breeding and successful fledging of nestlings has been reported every year since 2014. This species provides a case study for how locally extinct fauna species can be reintroduced into suitable habitat within the Perth metropolitan area.
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Editor: Dr Lucy Commander