

## Abstracts, ABSA Conference

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### Painted Honeyeaters - nomads or migrants?

Anthony Hunt<sup>1</sup> and Mark Clayton<sup>2</sup>

<sup>1</sup>16 Alderson Avenue, North Rocks NSW 2151 (origma2@aol.com)

<sup>2</sup>81 Maribymong Avenue, Kaleen, ACT 2617 (chollop7@bigpond.com)

A banding project was initiated in September 2017 at a small (~1 ha) patch of Weeping Myall *Acacia pendula* woodland heavily infested with Grey Mistletoe *Amyema quandang* just north-west of Ungarie (33.6415° S, 146.9747° E), central NSW. The site had been identified as a hotspot for Painted Honeyeaters *Grantiella picta*, which are a specialist frugivores that strongly favour the fruit of this mistletoe. The aim of the project was to study the ecology of this poorly known species (listed as Vulnerable), particularly the question of whether they return to the same site each year after their annual movement north (to inland Queensland) over winter. The study included colour marking of individual Painted Honeyeaters to increase the data return from banded individuals. To date, 19 banding trips have been made to the site, with 430 birds of 34 species being banded and 94 subsequent recaptures being made. Forty-five Painted Honeyeaters have been banded, with 7 recaptures plus 23 re-sightings of colour-marked individuals being made. Of the 39 Painted Honeyeaters banded in the first summer at the site (2017-18), six returned to the same location in the following summer (2018-19), suggesting that at least some degree of site fidelity is shown by this species. Our preliminary conclusion is that small patches of high-quality habitat, such as this site, constitute a very important resource for Painted Honeyeaters, which are present in substantial numbers and breed at the site, despite intense competition for the food resource from other frugivores, such as Mistletoebirds *Dicaeum hirundaceum*. We note that habitat patches like this one are thinly dispersed and are rarely subject to formal protection in National Parks and Nature Reserves. Obtaining a better understanding of how Painted Honeyeaters utilise such habitat patches across their entire annual range and identifying key patches for protection is critical to developing an effective conservation strategy for this iconic honeyeater species.

### A new digital tool for managing and analysing bird banding and other ornithological data

William E. Feeney<sup>1</sup>, Benjamin Bates<sup>2</sup>,  
Jonathan T. Coleman<sup>3</sup>

<sup>1</sup>Environmental Futures Research Institute, School of Environment and Science, Griffith University, Nathan QLD Australia (william.e.feeney@gmail.com)

<sup>2</sup>Brooke Digital, Brisbane QLD Australia

<sup>3</sup>South East Queensland Banding Group, Brisbane QLD Australia

The process of banding and recapturing birds generates a vast and valuable source of ecological data. Unfortunately, data collection, curation and storage protocols vary wildly both within and among countries, severely limiting the usefulness of these data for addressing research questions and informing conservation decisions. Here, we describe a digital tool that we have developed that is highly customisable, relational and which can be used by individual bird banders to safely store, explore and visualise their bird banding data. The quality of the summary data and data visualisations that we can produce depends entirely on the type and quality of data that is inputted into the system, providing a positive reinforcement mechanism that will help promote the collection of high-quality data that are consistent across banders. Ultimately, we hope that this tool will provide new capabilities for, and enhance the experience of, individual bird banders, as well as increase the quality, safety and useability of bird banding data both in Australia and overseas. More details of the digital tool can be obtained from the authors.

## The strategic importance of the Lower Hunter Valley woodlands

Mick Roderick

3 Alderson Street, Shortland, New South Wales 2307  
(mick.roderick@birdlife.org.au)

The woodlands of temperate south-eastern Australia are among the most endangered ecosystems in the country. This is because between 80-85% of them have been cleared, with much of the remaining 15-20% being highly fragmented and degraded, which severely diminishes their ability to provide habitat for obligate woodland bird species. The woodland bird assemblage that thrives in these temperate forests comprises a suite of species that are showing declines across the board, with up to 20% of them already being considered threatened.

The dry open forests of the Lower Hunter Valley (situated in the Cessnock LGA) are large remnants of lowland forests that were, perhaps ironically, retained to support the underground coal mines for which the area is well known. As a result, these large, intact remnants provide habitat for a large range of threatened and declining bird species, as well many other flora and fauna species. However, it is not just the fact that they are remnants in an over-cleared landscape that makes these forests so diverse and important. They are situated at the eastern extent of the broad, west-sweeping Hunter Valley, which itself is a haven for threatened woodland birds and has a very strong "western influence" in its biodiversity. This influence is derived from the Goulburn River catchment, which makes up 40% of the Hunter River catchment, due to there being a distinct gap in the Great Dividing Range at a very westerly longitude (e.g. Ulan is as far inland as Gunnedah).

This "western influence" stretches all the way to the Lower Hunter woodlands and in effect they are a large remnant containing habitats resembling those found on the western slopes of New South Wales, but all within 40km of the coast. Hence, not only are they very diverse and offer habitat for a range of threatened species, but they are also strategically important in the light of contemporary threats to woodland birds. As they are large, forested remnants with very minor fragmentation, they are largely Noisy Miner *Manorhina melanocephala*-free. Further, being close to the coast they potentially will be more resilient to the future impacts of climate change and associated severe droughts.

## Rufous Scrub-birds in the Gloucester Tops, New South Wales

Alan Stuart

81 Queens Road, New Lambton, NSW 2305  
(almarosa@bigpond.com)

A study of the Rufous Scrub-bird *Atrichornis rufescens* in the Gloucester Tops (32.0662° S, 151.6196° E) was initially focussed on monitoring the status of the population within an area known to be core habitat for the species, located at 1,100-1,300m altitude. The study now includes investigations into the behaviour of individual birds.

The density of territories within the core habitat was found to resemble that reported in a previous study in 1980-81, suggesting that the Gloucester Tops population is stable. However, birds are no longer recorded at altitudes below 1,000m where previously some territories were known to occur. When spring conditions were dry, many Rufous Scrub-birds ceased advertising their territories and hence might not have bred. After a major fire in 2010, it took six years for any Scrub-birds to reappear in the area which had been burnt, and an additional year before a male established a territory.

Automated recording units (ARUs) are being used to investigate daily and seasonal variability in the singing behaviour of male Rufous Scrub-birds. A rapid, semi-automated method for analysing the recordings has been developed. This new capability will allow suspected territories to be checked thoroughly for the presence of a singing male. Males have been found to sing all day in the breeding season, although with occasional and unpredictable breaks. Outside of the breeding season, the rate at which they sing decreases markedly. Some results from the study of Rufous Scrub-bird singing behaviour are presented. The size of the singing area of the male Scrub-bird was small, with birds being restricted to singing areas of 0.5-1.7 ha. It is not known whether this corresponds to the size of the bird's territory, as it is not yet possible to know the location of a Scrub-bird when it is not singing.

Initial results from a banding program are reported, including description of a method for catching male Rufous Scrub-birds in the breeding season. However, the method is less effective at other times of the year.

Other talks were given by:

Emily Mowat:

**A year with the Albatrosses on Macquarie Island**

Thomas Clarke:

**Shorebird Habitat Restoration in the Hunter Estuary**