



Hunter Bird Observers Club

Affiliated with BirdLife Australia

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Field Studies and Data Management: 2014 Summary Report

For convenience, the 2014 HBOC Field Studies program and the status of Data Management by HBOC in 2014 are discussed separately in this report. In practice, the two are intimately connected; no field studies program has any significant value unless the data from it are appropriately managed (including storage, analysis and dissemination of results).

FIELD STUDIES

A feature of HBOC's Field Studies program is the high degree of collaboration with other conservation-minded organisations – such as the Kooragang Wetlands Rehabilitation Project, The Hunter Wetlands Centre Australia, Office of Environment and Heritage (OEH) offices in Newcastle, Nelson Bay and Gloucester, Department of Primary Industries (Crown Lands) and BirdLife Australia. Individual Club members often receive similar strong support from relevant organisations when conducting their regular surveys.

i) Important Bird Areas

HBOC is responsible for the monitoring programs for six Important Bird Areas (IBAs) in the Hunter Region: Hunter Estuary IBA, Lake Macquarie IBA, Lower Hunter Valley IBA, Barrington Tops and Gloucester Tops IBA, Mudgee-Wollar IBA (that part of it lying within the Hunter Region), and Greater Blue Mountains IBA (that part of it lying within the Hunter Region). The seventh IBA in our Region – Cabbage Tree Island and Boondelbah Island IBA – is monitored by OEH as part of their Gould's Petrel Recovery Project.

IBA monitoring was a significant component of HBOC's Field Studies program in 2014, and will continue to be so in future years. However, resource constraints mean that the monitoring efforts have to be prioritised; it is a fact of life that there is only a small core group within the Club that are willing or able to dedicate any time to conducting surveys. The Field Studies team is always looking for members to assist with these monitoring projects.

Hunter Estuary IBA

Highlights from this IBA in 2014 were:

- Many thousands of Sharp-tailed Sandpipers (an IBA trigger species) in the Estuary in January-March and then again from spring onwards. Most although not all records were from Tomago Wetlands and Hexham Swamp, and sometimes Stockton Sandspit. (Tomago Wetlands is not part of the IBA but it adjoins it; HBOC's survey results for Tomago may justify a future extension to the IBA boundary). The numbers represent considerably more than 2% of the total population.
- During the same periods, there were corresponding increases in the utilisation of Hexham Swamp by many other small to medium shorebird species. For some of those species, for example Curlew Sandpiper, the total numbers in the Estuary increased

compared to recent years – albeit only by modest amounts but their declines at least temporarily were reversed. Several rare and vagrant birds (such as Buff-breasted and Broad-billed Sandpiper) also put in appearances.

- Australasian Bitterns (an IBA trigger species) were recorded at Hexham Swamp several times during the year.
- Around 1,000 Chestnut Teal (IBA trigger species) were in the Estuary in January and ~5,000 Red-necked Avocets (IBA trigger species) in the latter half of the year.

The regular monthly surveys of the shorebirds and other waterbirds in the Hunter Estuary continued, with more than 20 members and visitors participating in at least one survey during 2014. In 2014, simultaneous surveying of Hexham Swamp commenced, involving a sixth survey team (note that the simultaneous surveying of Tomago Wetlands commenced in 2013). This reflects the growing importance of both Tomago Wetlands and Hexham Swamp for shorebirds, now that tidal inundations have become regular there once again.

In early 2014, several HBOC members continued surveys of the area of Ash Island burnt by a wildfire in January 2012 with the survey effort eased somewhat when the 3rd year of effort commenced (in March 2014). Bird populations of the burnt survey sites now differ little from those of mature salt marsh; however of interest was the presence of good numbers of King Quail during much of early 2014 and also the return of Eastern Grass Owls to roost in the area.

Pambalong NR is another part of the IBA, with Latham's Snipe being the trigger species for its listing. A methodology for surveying there for Latham's Snipe is well established; the 2014 survey (in December) found no birds (however, a total of 59 birds were found at other lower Hunter locations).

The final part of the Hunter Estuary IBA is the Hunter Wetlands Centre (Australia) (HWCA) land at Shortland. Some individual Club members conduct regular surveys there, with the results summarised in the annual Bird Reports, and so currently there are no plans to undertake monitoring for shorebirds and general waterbirds as a formal HBOC activity. However, in July and December 2014, HBOC members assisted HWCA staff to carry out nest counts for Australian White Ibis and the four egret species. Although none of those species were triggers for the IBA nomination, the nest count data are considered to provide valuable insights about the health of the IBA; also, the annual counts have been carried out for more than a decade, and thus are forming an increasingly valuable database.

Barrington Tops and Gloucester Tops IBA

The trigger species for the IBA was the Rufous Scrub-bird (with another 5 supporting species). Prior to 2010, HBOC possessed almost no information about Rufous Scrub-bird distribution within the IBA and had no insights into how a systematic monitoring program for the species could be undertaken. Filling those gaps was a major success of the HBOC Field Studies program in 2010, and HBOC became the lead organisation for a monitoring program that was also used in the four other IBA's for Rufous Scrub-bird in NSW and Queensland.

In 2014, our focus was to confirm the Rufous Scrub-bird territories previously identified including to monitor closely at territories which appeared to have been unoccupied in 2012 and 2013, when drought conditions prevailed in spring. Intensive Rufous Scrub-bird surveys were conducted by 6-8 surveyors during each of two 3-day visits to Gloucester Tops habitat in September and October 2014. In non-drought conditions, there was a heartening increase

noted in the number of confirmed territories compared with the poor results of 2012 and 2013. The surveyors also record all other species, with data then sent to the BLA Atlas.

Analysis and dissemination of results is an essential component of field studies. In this respect publication of a paper in Australian Field Ornithology in June 2014 comparing the monitoring results for Rufous Scrub-birds at the extremities of the species' range over the period 2010-2012 was a milestone accomplishment. This peer reviewed publication was instrumental in mounting a successful case for listing the Rufous Scrub-bird as Endangered under the EPBC Act.

Greater Blue Mountains IBA

Within the Hunter Region, this IBA comprises parts of Yengo NP and Wollemi NP. The trigger species for the overall IBA is the Yellow-faced Honeyeater (on migration), but locally, the Rockwarbler is the most important of the 6 supporting species for the IBA listing). Prior to 2010, HBOC had very little involvement with this IBA. The initial challenge was to identify where Rockwarblers occur, and then to develop an appropriate monitoring protocol that allows any changes in their abundance or distribution to be flagged. In 2010-11, we identified several Rockwarbler territories; however, we have had little opportunity for follow up. It is an aspiration for the Field Studies program to achieve a more systematic approach to the monitoring program for this IBA including its data capture/data management aspects.

Lake Macquarie IBA, Lower Hunter Valley IBA and Mudgee-Wollar IBA

The trigger species for all 3 of these IBAs are Regent Honeyeater and Swift Parrot (with Diamond Firetail also a trigger in the Mudgee-Wollar IBA). The areas with suitable habitat for these species are targeted by birdwatchers as part of the BirdLife Australia (BLA) Regent Honeyeater and Swift Parrot surveys in May and August each year, with an emphasis on searching for the trigger species. Many HBOC members use the opportunity to record all other species, with data provided to BLA. In 2014, BirdLife Australia commenced regular monitoring at 11 distinct sites in the Lower Hunter Valley IBA using their own resources. Therefore there currently are no plans to undertake any additional monitoring as a formal HBOC activity.

ii) Other Field Studies

There are two additional multi-participant surveys which HBOC organises, at Port Stephens and Broughton Island. The Port Stephens project commenced in 2004 and involves boat-based surveys, done in conjunction with the local NPWS office at Nelson Bay. The results contribute to an increasingly valuable database about Port Stephens waterbirds. In 2014, surveys were carried out in summer (February) and winter (July). A project to monitor Broughton Island land birds commenced in 2012, as a collaborative effort involving the local NPWS management and the Broughton Island Conservation Society. The aim of the project is to identify bird population changes resulting from the removal of feral species (rats and rabbits) from Broughton Island. In 2014, a survey was carried out in March (autumn) but resource constraints prevented the analogous spring survey from going ahead.

Many individual Club members conduct regular surveys at locations around the Region – for example, Walka Water Works, Morpeth Wastewater Treatment Works, Manning Estuary, East Seaham (*Greswick Angus*), Laguna (*Wirrumbirra*), Charlestown Golf Course, Newcastle Bight, Port Stephens, Birubi/Fingal coastline, Newcastle Baths, Blue Gum Hills Regional

Park, Green Wattle Creek, Black Rock near Martins Creek, Singleton Training Area and Tocal. It is pleasing that so many long term studies are underway (in many cases, they have been running for more than 5 years and in some instances, for well over a decade) and also that for the majority of cases, there is close engagement with the key stakeholders (e.g. land managers, conservation groups). These long-term surveys have built and continue to build extremely valuable databases. HBOC continues to encourage that the data from such surveys are analysed, and published either in *The Whistler* or an appropriate national or international journal. Much of the data are also reported each year in the Hunter Region Bird Report series.

HBOC also encourages its members to take part in nationally organised surveys – such as for Regent Honeyeater / Swift Parrot, Australian Painted Snipe, Australasian Bittern and Australian White Ibis – that are organised by groups such as BLA or NPWS. Many Club members participated in such surveys in 2014.

iii) Song Meter

The Song Meter has helped increase our understandings of the calling behaviour of Rufous Scrub-birds. A paper detailing some initial findings from the work appeared in Volume 6 of *The Whistler*, issued in early 2013. Some additional scrub-bird territorial recordings were made in the first half of 2014 with the aim to compare seasonally the behaviours of two calling male Rufous Scrub-birds in their territories. Unfortunately, instrument issues began to arise and ultimately the program had to be suspended. However, in late 2014 the BirdLife Australia Southern NSW Branch decided to purchase two new Song Meters for HBOC to use in this long-term study. It is anticipated that the ability to record two calling scrub-birds simultaneously (i.e. under near-identical conditions) will generate a rich flow of data for analysis.

DATA MANAGEMENT

HBOC has a variety of ways by which data from field studies and from opportunistic sightings by local birdwatchers are managed. 2014 saw further entrenchment of the initiatives started in previous years and which have substantially enhanced HBOC's data capture and management capability and the analysis and reporting of data.

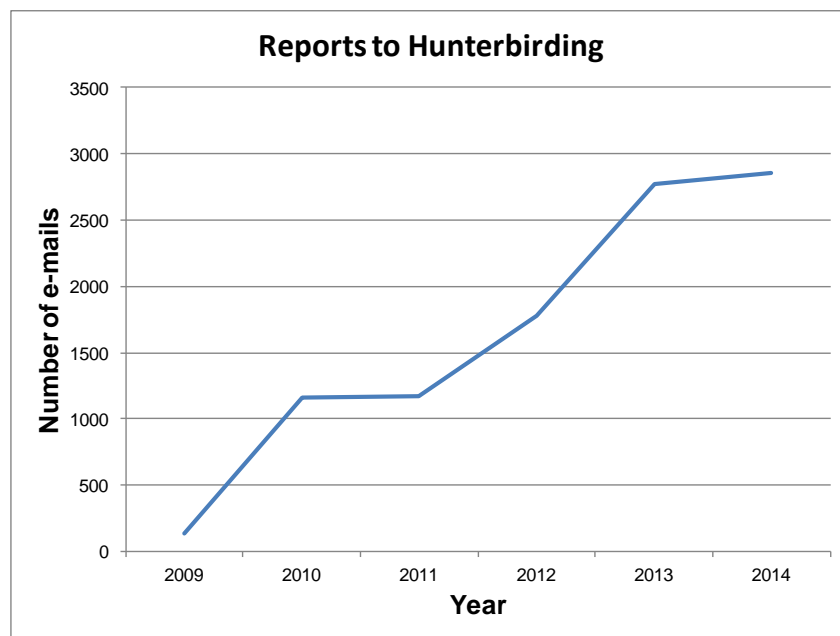
i) Data Collecting

An arrangement is in place with BLA to receive all the data for the Hunter Region from the BLA Atlas database ("Birdata"). In July 2014, HBOC received the 2013 data from the Atlas and also an updated data set for the period 1998-2012.

The availability of the Atlas data considerably enhances our knowledge of the distribution and relative abundance of species in the Hunter Region, and will allow us in future to have a much better handle about how these may be changing. This applies particularly for the more common species, for which our local capability to collate and analyse data has been very limited and therefore we have not been able to track any distribution or abundance changes for such species at regional scale. An Excel-based program developed by Ian Martin allows statistical reports for individual species to be readily generated. More recently, with the help of Dan Williams, we have made good progress in developing a GIS platform for analysing the Atlas data. Already, the benefits from being able to examine point data have become apparent.

Online Birddata entry is increasingly used by HBOC members. Although some contributors prefer paper entry using “pink sheets” which are sent to BLA in Melbourne for scanning, online entry provides superior data security and we encourage it. However, online entry removes immediate scrutiny of records by the Atlas Regional organiser, Ann Lindsey. Errors in Birddata, due to incorrect species identification or to data entry mistakes, are a serious issue. During 2014 recommendations were again made to BLA suggesting ways Birddata could be enhanced to facilitate data entry and to provide reports which could be routinely used for checking database integrity. Ideally Birddata will become a multipurpose database generating reports for projects (e.g. shorebird counts) as well as regional and national statistical summaries and overviews. Currently this versatility and the issue of data integrity mean that it is usually necessary to input data to and maintain two databases (i.e. Birddata and a project database). This is inefficient and erodes time available for data analysis and publication. Hopefully enhancements to Birddata will eliminate the need for double data entry.

In 2014, there continued to be growth in participation (# of subscribers, # of messages posted) in HBOC’s on-line forum ‘hunterbirding’, as the figure below shows.



Hunterbirding was set up by HBOC in late 2009 and has been adopted with great enthusiasm by local birdwatchers. Probably the main reason for that has been the interest by subscribers to receive and share information about uncommon birds that they can have the opportunity to see.

One important thing Hunterbirding does is to provide feedback about interpretation of field observations and species identification. It is taking local birdwatchers to a much higher skill level in terms of field identification and awareness of what birds are doing. A very important additional outcome is that far more records about opportunistic sightings are reported. This enhanced information flow about uncommon species nicely complements the information about more common species flowing from the BLA Atlas database (the Atlas database also includes records for uncommon species, but the full details for them are more difficult to obtain until such time as we have the GIS platform fully developed). A potential downside is that many people are not well aware of what records are important, and their hunterbirding postings potentially omit important records of species which are out of range or which are present in unusual numbers or season.. In some cases people have started submitting Atlas

record sheets to supplement their hunterbirding postings, and we encourage this so that those additional important records can be captured. The proposed new BLA portal should make the submitting of records easier and we eagerly await the portal's launch.

ii) Data Analysis and Reporting

The main vehicle for data analysis and reporting is the Hunter Region Bird Report. The 2013 Bird Report (#21 in the series) was published in October 2014, with data for 445 species. Once again, the Atlas data were included in the Report with also a summary of the full 16 years of prior data (for all locally common species).

HBOC's journal *The Whistler* is another important vehicle for data analysis and reporting. The preparation of Volume 8 of *The Whistler* was completed in 2014 and it is now sent for printing. Distribution to Club members will commence with the February 2015 program of activities. Volume 8 contains several papers where the authors analysed data from regular surveys which they carry out. It also continues the approach of dedicating one paper to a current status statement for a single species (or closely related species) based on a synthesis of the information contained in the entire Bird Report series and the BLA Birdata archive. In 2014 the relevant article highlighted the possibility that the Fairy Martin was declining as a breeding species in the Hunter Region.

A paper detailing results from the first 3 years of the Rufous Scrub-bird monitoring project was published in the journal *Australian Field Ornithology (AFO)* in 2014, as were papers in *AFO* about the response of eight bird species to woodland rehabilitation at Green Wattle Creek and about a significant breeding event of Regent Honeyeaters in the Hunter Economic Zone (near Kurri Kurri) in 2007. A paper summarising 6 years of shorebird monitoring in the Manning Estuary was published in the international journal *Silt* in 2014. Also, three presentations about HBOC's IBA monitoring programs were made in Sydney in July at a symposium on IBA monitoring that was organised by BirdLife Australia Southern NSW and attended by representatives of all the major bird clubs in NSW. Gratifyingly, the general approach that HBOC has adopted for IBA monitoring received many favourable comments both during the symposium and subsequently.

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14 January 2015