Field Studies and Data Management: 2010 Summary Report

For convenience, the 2010 HBOC Field Studies program and the status of Data Management by HBOC in 2010 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 Wetlands Centre, DECCW offices in Newcastle, Nelson Bay, and Gloucester, and Birds Australia. Individual Club members often receive similar strong support from relevant organisations when conducting their regular surveys.

i) Important Bird Areas

In 2010, HBOC accepted responsibility for the monitoring programs for six Important Bird Areas (IBA's) 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 7th IBA in our Region – Cabbage Tree Island and Boondelbah Island IBA – is monitored by DECCW as part of their Gould's Petrel Recovery Project.

IBA monitoring was a significant component of HBOC's Field Studies program in 2010, and will continue to be so in future years. Many of the IBA's in our Region were already being monitored for their target species; however 2010 saw an escalation of activity and particularly to address the larger gaps that were considered to exist. Resource constraints mean that the monitoring efforts had 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.

Hunter Estuary IBA

The regular monthly surveys of the shorebirds and other waterbirds in the Estuary continued. Those surveys were extended in 2010 to include a simultaneous visit to Tomago Wetlands although resource limitations meant this did not occur every month (however, monthly mid week visits to Tomago Wetlands continued all year). Tomago Wetlands is not part of the IBA but shorebird numbers are expected to increase there when tidal inundations occur more frequently and may justify a future extension to the IBA boundary.

Some individual Club members conduct frequent surveys of the Hexham Swamp NR section of the IBA and therefore there currently are no plans to undertake monitoring for shorebirds and general waterbirds there as a formal HBOC activity. However, the Australasian Bittern (another target species for the IBA monitoring program) is unlikely to be detected by the survey methodologies normally used at Hexham Swamp NR. Consequently, in late 2010, specific surveys for Australasian Bittern in Hexham Swamp NR were commenced – those surveys are based upon use of a recording device ("Song Meter") left overnight at areas of apparently suitable habitat. The survey methodology will be fine-tuned during 2011. The Song Meter is discussed in more detail later in this report.

Pambalong NR is another part of the IBA, with Latham's Snipe being the trigger species for the nomination. A methodology for surveying there for Latham's Snipe is well established; however, there was no survey conducted in 2010 because of concerns about further spreading a weed infestation that has occurred; in any case, water levels at Pambalong NR are very high and there is little suitable habitat available for Latham's Snipe currently.

The final part of the Hunter Estuary IBA is The Wetlands Centre at Shortland. Some individual Club members conduct regular surveys and therefore there currently are no plans to undertake monitoring for shorebirds and general waterbirds as a formal HBOC activity. However, in October and December 2010, HBOC assisted The Wetlands Centre 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 nomination was the Rufous Scrub-bird (with another 5 supporting species). Mid-year, 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 focus for the HBOC Field Studies program in 2010, and HBOC became the lead organisation for developing a monitoring program that was also to be used in the four other IBA's for Rufous Scrub-bird in NSW/Queensland. Importantly, we received excellent cooperation from DECCW and Birds Australia, including access to the results from previous monitoring programs (which became benchmarks for data gathered in the new 2010 program).

Two intensive Rufous Scrub-bird surveys were conducted, these being based around 3-day visits to Gloucester Tops habitat during September and October 2010. Some enthusiastic surveyors also made follow-up day visits during November and December. Overall, the monitoring program was an outstanding success, with at least 24 territories confirmed along 21 km of linear transects in the high altitude (1200+ m) area that was selected to be surveyed. The 2010 results suggest that the density of territories, and the detectability of calling male birds within territories, is very similar to that found in the early 1980's in an inaugural study conducted by a Ph D student of the time, Simon Ferrier. The territories were predominantly in eucalypt and mixed woodland adjacent to Beech Forest (Rainforest). In addition 90 Atlas surveys were completed along the transects recording all bird species. This is the most comprehensive investigation of the bird populations at high altitudes in the Hunter Region. In addition to the Rufous Scrub-bird other specialist species with restricted range include the Olive Whistler and Crescent Honeyeater.

Greater Blue Mountains IBA

Within the Hunter Region, this IBA comprises Yengo NP and Wollemi NP. The trigger species for the IBA nomination was the Rockwarbler (with another 6 supporting species). Prior to 2010, HBOC had very little involvement with this IBA. The initial challenge is 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. A small team of HBOC members visited southern parts of Yengo NP in late November; this visit did not yield many Rockwarbler territories. Subsequently, a community awareness campaign was launched

in mid December, in the hope that this will lead to more information about where territories are located.

Lake Macquarie IBA

The trigger species for this IBA are Regent Honeyeater and Swift Parrot. The areas with suitable habitat for these species are visited by birdwatchers as part of the Birds Australia Regent Honeyeater and Swift Parrot surveys in May and August each year. The data are reported to Birds Australia. Therefore there currently are no plans to undertake any additional monitoring in this IBA as a formal HBOC activity. However, 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.

Lower Hunter Valley IBA

The trigger species for this IBA are Regent Honeyeater and Swift Parrot. The areas with suitable habitat for these species mostly are visited by birdwatchers as part of the Birds Australia Regent Honeyeater and Swift Parrot surveys in May and August each year. The data are reported to Birds Australia. Therefore there currently are no plans to undertake any additional monitoring in this IBA as a formal HBOC activity. However, 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.

Mudgee-Wollar IBA

The trigger species for this IBA are Regent Honeyeater and Swift Parrot. The areas with suitable habitat for these species mostly are visited by birdwatchers as part of the Birds Australia Regent Honeyeater and Swift Parrot surveys in May and August each year. The data are reported to Birds Australia. Therefore there currently are no plans to undertake any additional monitoring in this IBA as a formal HBOC activity. However, 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.

ii) Other Field Studies

Many individual Club members conduct regular surveys at locations around the Region – for example, Morpeth Wastewater Treatment Works, Manning Estuary, Forster/Tuncurry, Curricabundi NP, Ash Island rehabilitation areas, Newcastle Bight, Green Wattle Creek, Black Rock, and farm properties at Butterwick, Duns Creek and the upper Allyn Valley – and HBOC continues to encourage that this happens and that the data from those surveys are recorded and analysed. Also, HBOC encourages its members to take part in nationally organised surveys – such as for Regent Honeyeater / Swift Parrot, Painted Snipe – that are organised by groups such as Birds Australia.

In 2010, HBOC organised two waterbirds surveys of Port Stephens – a February summer survey and a July winter survey. These boat based surveys, done in conjunction with the local DECCW office at Nelson Bay, have been conducted for many years now and thus are forming an increasingly valuable database about Port Stephens waterbirds. Land based surveys of the main shorebird roost sites every second month by an individual Club member continued in 2010; these complementary surveys are very valuable and they further add to the richness of the database.

Surveys were made every two months by HBOC members at the property *Greswick Angus*, near East Seaham. These surveys have been underway now for about 5 years, and they have built and continue to build an extremely valuable database.

Resource constraints meant that there was less survey effort at Columbey NP in 2010 than planned. NPWS have established a set of survey sites with an intention to survey quarterly using the standard 2ha 20 min method. HBOC assisted in conducting these surveys and training personnel. In addition a sub-set of the HBOC sites was surveyed during winter.

iii) Song Meter

In September 2010, HBOC was loaned a Song Meter by DECCW for evaluation as part of the Rufous Scrub-bird monitoring program. The equipment was placed into a Rufous Scrub-bird territory during the September survey and into a different territory during the October survey. It was also used during an exploratory visit by some Club members to an area north of Taree. The recording device produces digital sonograms which may be analysed using complementary software ("Song Scope") developed by the same company.

The initial Song Meter results from the Rufous Scrub-bird territories seem very exciting, although detailed analysis of the information will not commence until 2011. Based on the performance in those first applications and the other monitoring prospects identified (for example, the Australasian Bittern surveys discussed earlier), HBOC has now purchased a Song Meter and various accessories for it, and will purchase a copy of the Song Scope software in early 2011. The software purchase has been delayed pending availability of a suitable computer to install it on.

DATA MANAGEMENT

HBOC has a variety of ways by which data from field studies and from opportunistic sightings by local birdwatchers are managed. 2010 saw some substantial enhancements to the data management capability and to the analysis and reporting of data.

i) Data Collecting

A major step forward in 2010 was an arrangement put in place with Birds Australia to receive all the data for the Hunter Region from the BA Atlas database. In April 2010, HBOC received the data from the first 12 years of the modern Atlas, and expects to receive an annual update of data from BA. This new development has considerably enhanced our local 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.

The availability now of BA Atlas data for the Hunter Region is expected will reinvigorate the local interest in supplying records for the BA Atlas. Already, there are encouraging signs that this has been occurring; the number of survey forms submitted for 2010 is anticipated will be similar to that for the peak early years of the modern Atlas, reversing almost a decade of decline since that peak.

Another important development in data collection in 2010 was the growth in participation (# of subscribers, # of messages posted) in HBOC's on-line forum HunterBirding. This forum was set up by HBOC in late 2009 and has been adopted with great enthusiasm by local birdwatchers in 2010. 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. However, a very important additional outcome is that far more records about opportunistic sightings are reported now. This enhanced information flow about uncommon species nicely complements the information about more common species flowing from the BA Atlas database (the Atlas database also includes records for uncommon species, although the full details for them are more difficult to obtain).

ii) Data Analysis and Reporting

The main vehicle for data analysis and reporting is the Hunter Region Bird Report. The 2009 Bird Report (#17 in the series) was published in late 2010, with data for 437 species (amazingly, the Hunter Region list continues to grow). An important inclusion into the 2009 Report was the BA Atlas data; for nearly all species there is a summary of the full 12 years of data and information about the 2009 records. Already, some other bird clubs are discussing with Birds Australia about similar data sharing arrangements for their region of interest.

HBOC's journal *The Whistler* is another important vehicle for data analysis and reporting. Volume 3, issued in early 2010, contained several papers where the authors analysed data from regular surveys which they carry out. Similarly, Volume 4, prepared in 2010 and to be published in early 2011, has more such articles and also a paper with distribution maps for threatened species in the Region (using BA Atlas data for generating the maps).

In March 2010, HBOC hosted the AGM for BASNA (BA's regional group for Southern NSW and ACT). The accompanying symposium included several presentations relating to aspects of Hunter Region birdlife, largely drawn from information in Hunter Region Bird Reports and the BA Atlas database.

A new HBOC Special Report, dealing with Seabirds of the Hunter Region (Special Report #5), was published in 2010; it drew upon seabird records from the 17 Hunter Region Bird Reports and the limited historical records from before then. Also, a paper summarising Australian Pied Oystercatcher status in the Hunter Region, drawing upon data from the Bird Reports, was published in *Stilt* in 2010.

All the old records relating to the Hunter Region were not available in digital format, only as hard copy and not collated (in particular; not sorted as individual species) which made it difficult to extract those records in situations where some specific information was being sought. An important step forward in 2010 was that those old records were entered into an Excel database, so they now are easily searchable. Special thanks go to Paddy Lightfoot, who made more than 4000 data entries thus allowing the old records to be modernised i.e. readily searchable.

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