Nest Record Scheme Instructions

A. Aim of the Scheme

The scheme aims to provide comprehensive data on the breeding biology of Australian birds. Comparatively little such information is at present available, but since its inception in 1963, the Nest Record Scheme has achieved similar success to that enjoyed by other schemes throughout the world. The breeding information in the scheme is used for research and management. Several papers have been written exclusively using data from the scheme. An excellent example of comprehensive analysis of Nest Record Scheme data and the type of information revealed by the scheme is given in Marchants (1974), Analysis of Nest-Records of the Willie Wagtail, The Emu 74:149-160. Contributors can thus feel confident that their efforts will be put to good use.

B. Participation in the Scheme

Anyone may participate, whether a member of BirdLife Australia or not. Participation is also welcomed by local naturalist's clubs, schools or institutions, provided an individual of each organisation is made responsible for the distribution and collection of sheets and checking of accuracy. The value of the scheme is proportional to the support it gets from all parts of Australia and its Territories, so every contribution, from one or two sheets upwards, is welcome. Nest Record Sheets are obtainable from BirdLife Australia. The initial supply of sheets, when completed and returned, is replaced on request.

C. Type of Contribution Wanted

A Nest Record Form should be completed for every nest in which the contents have been accurately counted or where evidence suggests birds are currently breeding. This includes birds seen building a nest or seen carrying building material to a nest, birds seen incubating eggs or brooding young, and birds seen feeding young in the nest. For Young birds out of the nest where the nest is not found a record is only wanted where parent birds are seen feeding dependent young and not for independent young. Records are not wanted for old nests or nests that failed before they were found. It is most important that contributors complete sheets for ALL cases of breeding which fulfill the above conditions, and do not select records which seem to be the most interesting. In fact, for those contributors who are able to make a more or less full-time effort, it is preferable to select one of a few localities in which all or most of the nests of all species can be found during an entire breeding season, rather than spread the effort further to include what is thought to be rare or interesting. If possible, a search should be made from the earliest time that birds are thought likely to be nesting in an area until well after they may be thought to have stopped. Otherwise bias is liable to occur in the records, because it is possible for greater search to be made at particular times (e.g. school holidays).

Contributions from rural habitats are very useful to balance the many records which are liable to be completed for nests near observer's hom es, perhaps in less rural surroundings. If visits are made to bird colonies and individual nests are not followed up, the 'Colonial Breeding' form should be used. These are designed to record visits to a mixed or single-species colony. Normally these forms are used for casual visits to seabird colonies and the colonies of herons, egrets, ibis, cormorants, woodswallows etc.

D. Visiting Nests

1) Ethics Each observer must exercise a sense of responsibility always putting the birds' welfare first. Basically there are three potential risks:

a) accidentally damaging the nest

b) causing desertion or premature fledging of young

c) revealing a nest to predators.

Visits should be brief and, if possible, timed to coincide with a period when adults are absent. This will reduce disturbance at the nest.

2) Method Valuable information is provided by records of nests seen only once, but observers are encouraged, when possible, to follow nests up, as a series of visits provides far more data. Even two observations on a nest have more than twice the value of a single one. However it is not necessary to inspect nests daily, especially when no change in contents is expected. A few well-planned visits can provide maximum information. For instance, for a passerine (song bird), two afternoon visits during laying enables one to get the date of the first egg and the laying sequence; a visit during incubation gives clutch size, after which two visits at hatching time give the incubation period. If that is initially uncertain, or the laying routine irregular, more visits will be needed, but gathering of such information is one of the objects of the scheme. One visit when young are half-grown, followed by an occasional look without disturbing the young, will give details of the fledging period. Continue observation for as long as possible after the young leave the nest (i.e. fledging) provides valuable information on the success of the breeding attempt. The spacing of visits should of course be adapted to the breeding cycle of the species if that is already known. To cause least disturbance, to reduce effort and save time, as well as to enable inspection of inaccessible nests it is virtually essential to use a small mirror adjustably fixed to a pole. If this is of suitably light, strong material and extensible, nests many metres from the ground can be easily inspected.

3) Facts to be derived from the Nest Record Scheme

Five main facts can be derived from the cards/sheets for a species:

1. The timing and peaks of each breeding season.

2. Variation in breeding biology over a species' geographic range.

3. Intervals between laying of eggs; incubation and nestling periods.

4. Breeding success i.e. young fledged from eggs laid, or more broadly, the proportion of successful or partially successful nests.

5. Nest site and breeding habitat.

Analyses have shown that many of these factors vary from year to year, from month to month within a year, and also with geographical location and altitude. Moreover some of these factors themselves may interact, e.g. breeding season and breeding success of one species may vary in different habitats. We want to know what happens in Australia, but will only do so when a large and representative sample of records from the whole country is available for each year. This is why records of the commonest species, which some observers might not think worth sending in, are in fact of special value. Will you please try to interest as many others as possible in contributing to the success of the scheme?

INSTRUCTIONS FOR COMPLETING NEST RECORD SHEETS

Key points in filling in Nest Record Sheets

1. Fill in one sheet for each breeding attempt observed.

2. Use a non-smudging ink when filling in the sheet.

3. Make sure the following are recorded:

-Name and personal reference number

-Species: Please use the currently accepted common and scientific names, as used in the Atlas project. If known, add the “RAOU number”.

-Longitude and Latitude and name of locality

-Date of observations

A. GENERAL POINTS

-Fill in one sheet for each breeding attempt

-If a nest is used more than once, use separate sheets for each attempt and cross-reference these as necessary.

-Use non-smudging ballpoint pen to record data on sheets.

-Do not guess; record only what you have observed. Check the sheet is correct and complete.

B.FILLING IN SHEETS

This is simple, straight forward and obvious, but some amplification maybe useful.

OBSERVER, ADDRESS AND NUMBER. The name of the observer and his/her address and his or her allocated personal reference number. Note that if you are using your Atlas number, it should begin with a letter, e.g. A9502.

SPECIES, LATIN, RAOU No. Against 'Species' it is essential to record the common and Latin (scientific) names because there is some fluidity in the use of common names in different parts of Australia which could easily lead to confusion. Names from the existing RAOU checklist should be used. The RAOU No. is the species number appropriate to each species.

CUCKOO, LATIN RAOU NO. This section should only be completed when parasitism by a cuckoo species has been observed. Inbeen observed. In such a case the same procedures as above should be followed. The number of young or eggs of the host, plus the cuckoo's egg or nestling, should be entered in the appropriate column, putting the host first (e.g. 3 & 1 in the EGGS column denotes 3 eggs of the host and one of the cuckoo). Please always be certain to identify which egg or young belong to the host and which belong to the cuckoo.

LOCALITY, STATE, MAP USED. The general district in which the breeding record was observed; e.g. Gyranda homestead, between Theodore and Cracow. The title of any map used to pinpoint the location should be recorded.

LAT, LONG, ALTITUDE. It is essential to be able accurately to locate the position of the breeding record, therefore the latitude and longitude grid co-ordinates should always be recorded (preferably to the nearest minute). Altitude above sea level should be recorded in metres.

ACCURACY. This refers to the accuracy of the latitude and longitude co-ordinates. Where you are unable to determine the location of a nest to the nearest minute, a ten minute or one degree block may be used. Please write the block size used in the accuracy box.

SITE OF NEST.

Nest located in/on - place a cross in the appropriate squares which accurately describe the nest site. More than one can be marked. If none of the categories are appropriate cross other and record the details on the back of the sheet.

Nest was:

hanging i.e. nest was attached to the supporting structure from above eg. hanging from a rim.
supported i.e. nest was supported by some structure directly beneath it e.g. nest sitting in a fork.

Height - is to be recorded in metres. Distance to the nearest edge of the nest plant is the shortest distance to the edge of the foliage or branches of the plant the nest is actually located in.

LAND USE. Place a cross in the appropriate square. You may tick several boxes if needed. The categories are broad but the information has great value in the long term.

Industrial - factories, sewage farms, ports, commercial areas, railway sidings, mining areas.

Residential - suburbs, towns, housing estates, homesteads, schools, universities, hospitals, etc.

Recreational - sports fields, golf courses, municipal parks and gardens, roadsides, riverbanks, lakes and reservoirs outside managed parks and wildlife reserves.

Agricultural - horticulture, planted crops and cleared grazing land.

Wood production - commercial forests

Rangeland - uncleared and unmanaged grazing land, private woodland.

Unmanaged crown land - includes deserts

National park or reserve - managed reserves and wilderness areas.

YEAR, NUMBER OF VISITS, STANDARD AND SUMMER TIME. The calendar year should be recorded, along with the total number of visits made to the nest site. As it may be important to the analyst to distinguish whether you have recorded the time of your visits in standard or summer (daylight saving) time, please place a cross in the appropriate square.

DESCRIPTIONS. If there is additional information on any of the listed items place a cross in the appropriate square and make sure the information is included somewhere on the sheet. Plenty of space is available on the back of the sheet for notes on anything unusual or thought to be important. Items 13 and 14 are for additional information on young after they have left the nest and should be filled in only after careful observations of the young which left the nest have been made.

13 Number reaching age of flying. This applies mainly to precocial young (i.e. young which leave the nest shortly after hatching) and is designed to show the number of young which reach the age of being able to fly. For example, the number of ducklings which reach flying age is often fewer than the number which leave the nest, due to predation etc, therefore the number reaching flying age is a better measure of breeding success.

14 Number reaching independence. Number of young which were previously seen receiving parental care but which are no longer receiving care, i.e. surviving independently without the direct assistance of adult birds.

Also,

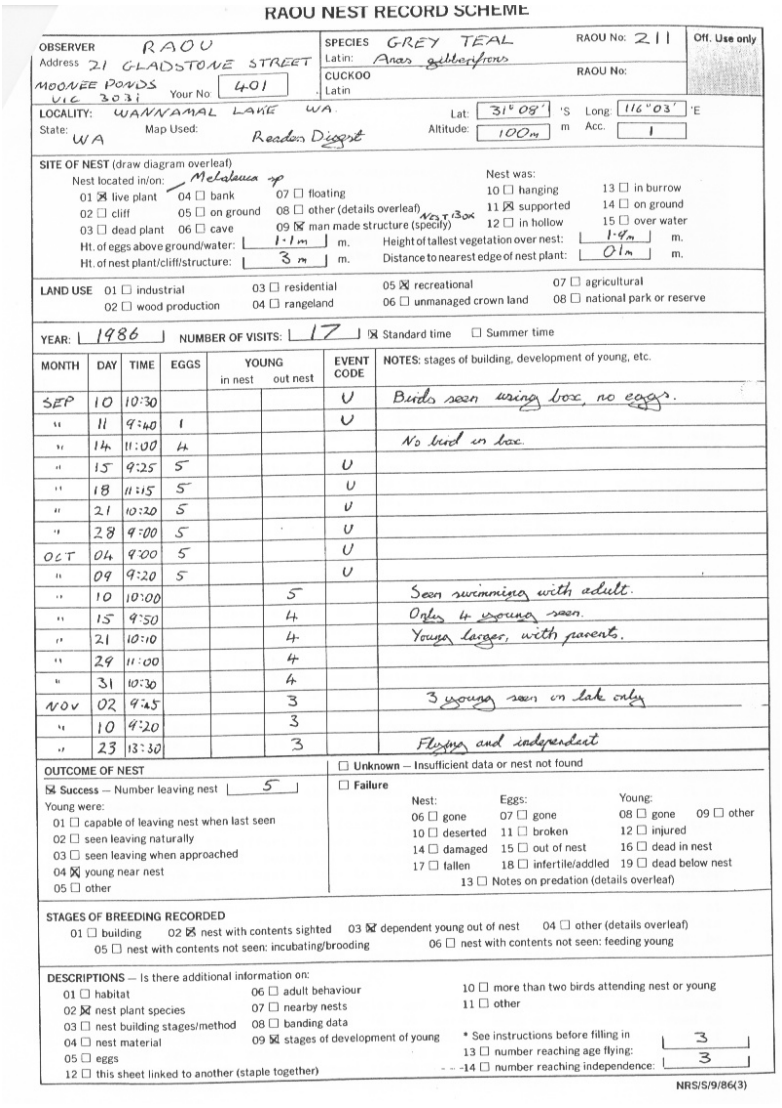
- If more space is needed than is available on one sheet, another sheer should be used and stapled to the first, and a cross placed in the "this sheet linked to another ' square. This square should also be marked if the same individual birds have been recorded making another attempt (recorded on another sheet) or if one nest is used more than once for a second breeding attempt.

- Please do not send in any doubtful records. If a nest is found in an unlikely site for the species concerned, or made of atypical material, or even of unusual construction, a note to confirm identification should be given. The appointed representatives of organizations have a particular responsibility here in checking member's cards.

- Finally, please check for mistakes and omissions, which are less likely to occur if sheets are filled in daily. Completed sheets should be returned (as a single batch) to the Organiser as soon as possible after the end of each nesting season and in any **NOT LATER THAN JUNE 30th**. It is realized that in some areas certain species will be actively breeding in June-July; in which case only sheets for completed nests should be returned by June 30.

- If you wish to retain a personal copy of each sheet you submit feel free to make photocopies before sending in sheets. Please send the NRS the original only.

Example of a completed sheet:



RAOU NEST RECORD SCHEME

OBSERVER RAOU
Address 21 GLADSTONE STREET MOONEE PONDS VIC 3039 Your No: 401

SPECIES Latin: GREY TEAL Anas gibberifrons
RAOU No: 211
CUCKOO Latin
RAOU No:
Off. Use only

LOCALITY: WANNAMAL LAKE WA
State: WA Map Used: Readers Digest
Lat: 31° 09' 'S Long: 116° 03' 'E
Altitude: 100m m Acc: 1

SITE OF NEST (draw diagram overleaf)
Nest located in/on: Melaleuca sp
01 ☒ live plant 04 ☐ bank 07 ☐ floating
02 ☐ cliff 05 ☐ on ground 08 ☐ other (details overleaf)
03 ☐ dead plant 06 ☐ cave 09 ☒ man made structure (specify) NEST BOX
Nest was:
10 ☐ hanging 13 ☐ in burrow
11 ☒ supported 14 ☐ on ground
12 ☐ in hollow 15 ☐ over water
Ht. of eggs above ground/water: 1·1m m. Height of tallest vegetation over nest: 1·4m m.
Ht. of nest plant/cliff/structure: 3m m. Distance to nearest edge of nest plant: 01m m.

LAND USE 01 ☐ industrial 03 ☐ residential 05 ☒ recreational 07 ☐ agricultural
02 ☐ wood production 04 ☐ rangeland 06 ☐ unmanaged crown land 08 ☐ national park or reserve

YEAR: 1986 NUMBER OF VISITS: 17 ☒ Standard time ☐ Summer time

MONTH	DAY	TIME	EGGS	YOUNG in nest	YOUNG out nest	EVENT CODE	NOTES: stages of building, development of young, etc.
SEP	10	10:30				U	Birds seen using box, no eggs.
"	11	9:40	1			U	
"	14	11:00	4				No bird in box.
"	15	9:25	5			U	
"	18	11:15	5			U	
"	21	10:20	5			U	
"	28	9:00	5			U	
OCT	04	9:00	5			U	
"	09	9:20	5			U	
"	10	10:00			5		Seen swimming with adult.
"	15	9:50			4		Only 4 young seen.
"	21	10:10			4		Young larger, with parents.
"	29	11:00			4		
"	31	10:30			4		
NOV	02	9:45			3		3 young seen on lake only
"	10	9:20			3		
"	23	13:30			3		Flying and independent

OUTCOME OF NEST
☒ Success — Number leaving nest 5
Young were:
01 ☐ capable of leaving nest when last seen
02 ☐ seen leaving naturally
03 ☐ seen leaving when approached
04 ☒ young near nest
05 ☐ other

☐ Unknown — Insufficient data or nest not found
☐ Failure
Nest: 06 ☐ gone 10 ☐ deserted 14 ☐ damaged 17 ☐ fallen
Eggs: 07 ☐ gone 11 ☐ broken 15 ☐ out of nest 18 ☐ infertile/addled
Young: 08 ☐ gone 09 ☐ other 12 ☐ injured 16 ☐ dead in nest 19 ☐ dead below nest
13 ☐ Notes on predation (details overleaf)

STAGES OF BREEDING RECORDED
01 ☐ building 02 ☒ nest with contents sighted 03 ☒ dependent young out of nest 04 ☐ other (details overleaf)
05 ☐ nest with contents not seen: incubating/brooding 06 ☐ nest with contents not seen: feeding young

DESCRIPTIONS — Is there additional information on:
01 ☐ habitat 06 ☐ adult behaviour
02 ☒ nest plant species 07 ☐ nearby nests
03 ☐ nest building stages/method 08 ☐ banding data
04 ☐ nest material 09 ☒ stages of development of young
05 ☐ eggs
12 ☐ this sheet linked to another (staple together)
10 ☐ more than two birds attending nest or young
11 ☐ other
* See instructions before filling in
13 ☐ number reaching age flying: 3
14 ☐ number reaching independence: 3

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