Birds Australia
CONSERVATION THROUGH KNOWLEDGE

South-eastern Red-tailed Black-Cockatoos – a flagship for the Greater Green Triangle

Findings of a survey of landholders' understanding of and attitudes towards the conservation of the South-eastern Red-tailed Black-Cockatoo

Wendy Beumer for
South Eastern Red-tailed Black-Cockatoo Recovery Team,
Birds Australia

September, 2003

WYNNS
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The project was overseen by Michael Weston, Birds Australia and Julie Kirkwood, Threatened Species Network (Victoria), in consultation with members of the South-eastern Red-tailed Black-Cockatoo Recovery Team.

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Preface:

Birds are widely acknowledged as being good environmental indicators. When lots of bird species decline or go extinct in a region, as is happening in south-west Victoria and south-east South Australia, then this is a clear indication that the natural system that we all live in is out of balance. While it is important to conserve all flora and fauna, some species have a much bigger role to play. Conspicuous, endangered birds such as the Red-tailed Black-Cockatoo, fill a special position as environmental 'flagships'. They serve as a focus and community rallying point for a wide range of other species, not least of which are the invertebrates which maintain our soil and water health and comprise over 99% of species on earth.

Conserving wide-ranging endangered birds such as the Red-tailed Black-Cockatoo requires the retention of large areas of suitable habitat, and the restoration of other areas, which have been degraded. This work assists a huge number of other less notable native species, which would receive little or no attention without the presence of the 'flagship' endangered species. Ultimately, work on endangered animals should be as much about regional biodiversity conservation, and a sustainable future for humans, as it is about saving one species from extinction.

It is no accident that the end result of much of the field research on Red-tailed Black-Cockatoos is targeted towards improving land management practices in their habitat such as: protection of large, hollow-bearing dead trees, changes to fire regimes in blocks of stringybarks, enforcement of native vegetation retention controls in buloke woodlands, and working with landholders to protect important areas of habitat from overgrazing.

This report measures the progress of the Red-tailed Black-Cockatoo Recovery Team towards achieving its goals from the perspective of one key stakeholder group: landholders. It provides clear insights into how the Recovery Team can improve its outputs and the targeting of its messages. It also provides valuable insights into how other Recovery Teams might usefully assess their work. The report will be very useful for a range of extension officers, landholders, community groups, agencies, and people living in the range of the Red-tailed Black-Cockatoo.

David Baker-Gabb
Chair, Red-tailed Black-Cockatoo Recovery Team

Contents:

1.0 Recommendations

Recommendation 1: That education for conservation of RtBC be encouraged in the region's schools and farm management training programs at tertiary institutions.

Recommendation 2: That the Red-tail Black-Cockatoo Education Kit (Birds Australia and www.birdsaustralia.com.au/rtbced/index.html) be reviewed, up-dated and promoted as a resource suitable for senior secondary and tertiary students.

Recommendation 3: That the state based Farmer's Federations should be a key point of contact for future RtBC conservation activities and programs. It will be important to be alert to their priorities and approaches to conservation issues.

Recommendation 4: Promotional materials developed for RtBC conservation and targeted at farmers should where possible be reviewed in consultation with state Farmer's Federations and Landcare groups, updated and promoted to farmers.

Recommendation 5: Farm Planning trainers and consultants should be encouraged to include the conservation of RtBCs in their programs and advice.

Recommendation 6: That programs which emphasise both improved farm productivity and conservation be encouraged.

Recommendation 7: Activities be undertaken in the South Australian part of the habitat range to inform the landholders of the new legislation to protect hollows suitable for RtBC nesting.

Recommendation 8: That the 1800 number for reporting RtBC sightings be maintained as a matter of priority.

Recommendation 9: That landholders be targeted for involvement in the Annual Count on their property.

Recommendation 10: Activities targeted at increasing landholders' accuracy of knowledge about the RtBC be continued and expanded.

Recommendation 11: Staff in approval authorities be regularly reminded of the legislative and conservation requirements for RtBC and encouraged to liaise with landholders on the requirements.

Recommendation 12: In line with Recommendation 2, information for landholders needs to include species identification for all local endangered species.

Recommendation 13: Provide continued support to encourage landholders to access grants for fencing and revegetation.

Recommendation 14: That those agencies administering fencing and revegetation grants focus on providing personalised help to landholders.

Recommendation 15: That funding be sought for Project Officer time to provide personalised help to landholders.

Recommendation 16: To alert other Recovery Teams of the benefits of conducting a similar survey of their key stakeholder groups, in particular those with significant private landholders and land management interests.

Recommendation 17: Engage the DSE/DPI Ecologically Sustainable Agriculture Initiative in the findings of this survey, and seek their participation in projects that follow on from the findings.

Recommendation 18: That the Report be distributed to the integrated natural resource management bodies in the RtBC habitat i.e. Wimmera CMA, Glenelg-Hopkins CMA and South East Natural Resource Consultative Committee.

Recommendation 19: That presentations based on this report be made to the Land and Biodiversity Implementation Committees and Community Facilitators in the habitat region.

Recommendation 20: That Summary information be provided to landholders using Red Tail News, Farmer's Federation newsletters, From The Ground Up and regional media.

2.0 Introduction

2.1 Research context:

This report presents a summary of the key findings from a telephone survey of 500 landholders in the habitat range of the South-eastern Red-tailed Black-Cockatoo (RtBC) (*Calyptorhynchus banksii graptogyne*) in South East, South Australia and western Victoria and the responses to these findings by four different groups of land managers, Extension Officers and people actively involved in biodiversity conservation. The survey aimed to establish the landholders' understanding of the importance, range and needs of the RtBC and their perceived barriers to protecting degraded vegetation and/or revegetation on their own land.

The project draws heavily on the methodology of a project, which focussed on farmer knowledge and attitude to native vegetation and conservation in Western Australia (Jenkins, 1998). Wendy Beumer, Extension Officer for the South-eastern Red-tailed Black-Cockatoo Recovery Team, Birds Australia undertook the study with funding from Threatened Species Network (TSN) Community Grants, a joint initiative of WWF Australia and the Natural Heritage Trust, and Wynn's Coonawarra, Southcorp Wines.

2.2 Research objectives:

1. Establish the level of community understanding of the importance (conservation status), range and needs (feeding trees, nest sites) of RtBC.
2. Outline the landholders' perspective of the need for the protection of remnant vegetation and/or revegetation suitable for RtBC habitat.
3. Assess the effectiveness of the community awareness raising efforts of the Recovery Team between 1998 and 2003.
4. Analyse the information for baseline community and landholder knowledge.
5. Analyse the Landholder perspective of issues relevant to the conservation of RtBC.
6. Prepare recommendations for general and specific promotion of the understanding of RtBC ecology and threats and for landholder participation in fencing and revegetation projects.

3.0 Background

3.1 RtBC Recovery Plan

While a Steering Committee was established in 1994, the Recovery Team had been researching, developing and implementing a Recovery Plan in the years 1998 - 2003. Three main issues have highlighted the need to establish the effectiveness of the community awareness raising activities, which have been undertaken, and then to review all Extension Activities:

1. The acknowledgement that the availability of suitable feeding trees is the most critical limiting factor for RtBC,
2. The very low level of up-take of fencing for the protection of degraded habitat and/or revegetation by landowners, and
3. Continuing unsatisfactory levels of clearing of feeding habitat either in stands or isolated paddock trees on private land.

3.11 Communication Strategy Messages.

There has been excellent involvement of volunteers in the Annual Count and in the reporting of sightings through the 1800 (free-call) number and the website (www.redtail.com.au). The messages targeted at the community, through the Communication Strategy were:

1. RtBC are endangered and worth protecting,
2. Get involved in saving the RtBC (report a sighting),
3. Help with nest searches
4. Help with revegetation

The messages to the landholders in the Communication Strategy were:

1. Protect remnant habitat,
2. Protect potential habitat,
3. Revegetate, and
4. Report sightings and nests.

In addition to the information gathered through reported sightings and other contacts, there is a need to find out which messages the community has understood, remembered and acted upon. From this, a more refined Communication Strategy, including a review of all pamphlets, information sheets and the Education Kit, can be developed and implemented. In marketing terms, this will provide the focus for a well-targeted promotional campaign.

3.12 Low Uptake of Incentives.

Private landholders are responsible for the management of 30% of the RtBC habitat. While there are various fencing and revegetation grants available to landholders, natural resource management (NRM) officers have reported a low level of uptake. This indicates a reluctance to be involved in the work that needs to be done on the ground to increase, in particular, feeding habitat. Landholders are still engaged in some land clearance and removal of or lack of protection for paddock trees. This suggests that landholders place low importance on the recovery of RtBC or are unaware of their needs.

3.13 Landholders' Bottom Line Issues

The perspective of the landholder, as he/she manages the farming business, is really important to the Recovery Team's approach to engaging them in the conservation of the RtBC, because the landholder has a vital role in on-ground action. Information from this survey will form the basis of a new program to reach the farm management and planning consultants, trainers and extension officers, who advise landholders on sustainable ways to increase farm productivity. By addressing the landholders' 'bottom line' issues, there should be greater involvement of landholders in the practical 'on ground' activities needed. This information will also be valuable to funding bodies.

3.14 Assist Regional Management

The survey results will assist in the implementation of integrated natural resource management plans. The vegetation targeted for protection in the South-eastern Red-tailed Black-Cockatoo Recovery Plan are themselves threatened communities. Plains Grassy Woodland is the main nesting habitat of RtBC and is endangered in Natural Resource Management regions in which the cockatoo occurs. Plains Woodland is the

Buloke dominated community which provides critical feeding habitat for cockatoos, and is an endangered plant community in the Wimmera region, both state and nationally.

3.2 Habitat Range

See Appendix 1: Habitat range South-eastern Red-tailed Black-Cockatoo

An estimated 38% of the original RtBC woodland habitats remain. Extensive areas of stringybark (*Eucalyptus arenacea/ E. baxteri)* feeding habitat remain uncleared (c. 48%), however, gum woodlands, the main provider of large hollows, have been extensively cleared (c. 3% remain) and Buloke (*Allocasuarina luehmannii)* woodlands have been almost completely cleared (c. 3% remain)(Hill and Burnard, 2002).

Table 1. Estimated extent of each habitat used by Red-tailed Black-Cockatoos.

	Nesting Only (ha)	Nesting & Feeding Only (ha)	Feeding Only (ha)	Roosting Only (ha)	Total Habitat (ha)
Entire Range					
Existing Habitat	61,027	442,034	521	1,544	505,126
Potential Habitat	433,906	856,861	45,130	Not available	1,335,897
South Australia					
Existing Habitat	44,904	27,912	483	1,544	74,843
Potential Habitat	241,856	90,074	18,024	Not available	349,954
Victoria					
Existing Habitat	16,123	414,122	38	Not available	430,283
Potential Habitat	192,050	766,787	27,106	Not available	985,943

Source GIS data: South Australian data: 1:40,000 floristic vegetation mapping and 1:50,000 pre-European settlement floristic vegetation mapping by Planning SA and Department for Environment and Heritage South Australia. Victorian data: Tree cover mapping at 1:25,000, Floristic mapping and pre-European settlement floristic mapping at 1:50,000 by Department of Natural Resource and Environment Victoria. *Areas for potential habitat generated from vector data converted from 40m grid cell data* (Hill and Burnard, 2002)

Table 2: The main floristic groupings used by Red-tailed Black-Cockatoos in Victoria* and lower South East South Australia and their original and current extent and conservation status where available. Data from Croft *et al.* 1999 and Anon. 2000. (Modified from Hill and Burnard, 2002).

Vegetation Community	Pre-European area (ha)	Current area (ha)	% remaining	% on private land	Area (ha) on private land
Victoria					
Stringybark woodlands	406,991	237,612	58	16	38,017
Plains Grassy Woodland	1,210,000	36,104	4	30	10,831
Plains Woodland	439,583	4,349	1	54	2,348
South Australia **					
Red Gum Woodland	171,844	24,698	14	95	23,463
E. arenacea/ baxteri woodland	176,300	43,946	18	70	30,762
Allocasuarina luehmannii	18,389	530	2.9	93	493

*only for areas within the south-west Regional Forest Agreement.
**Data for South Australia for whole South East study area.

The total area of RtBC habitat is estimated at 347,239 hectares, of which 105,914 hectares (30.5%) is privately owned.

3.3 Integrated Natural Resource Management Authorities

Those natural resource management authorities currently responsible for resourcing RtBC Recovery Team activities on behalf of Environment Australia (National Heritage Trust) are:

3.3.1 Glenelg-Hopkins Catchment Management Authority

79 French Street
HAMILTON VIC 3300

The Glenelg-Hopkins Catchment Management Authority (GHCMA) covers an area that stretches across south west Victoria, from the South Australian border to Ballarat. Covering more than 25,000 square kilometres, the catchment sits south of the Great Dividing Range, and the coastline is its southern border.

The region supports 95,850 permanent residents, with year-round tourism boosting the number significantly. The main economic drivers are agriculture (cropping, dairy, wool, plantation forestry and grazing), manufacturing, retail, education, health and community services, and construction. Approximately 81% of the catchment is developed for agricultural use, 16% is native vegetation and less than 1% is urban and industrial. Major communities in the catchment (in order of population size) are Ballarat, Warrnambool and Ararat, Hamilton, and Portland.

3.3.2 South East Natural Resource Consultative Committee

PO Box 1445
MOUNT GAMBIER SA 5290

The South East region of South Australia is bounded by the Victorian border to the east, the Southern Ocean to the south and west and extends north to the boundaries of the Kingston and Tatiara District Councils. The region covers approximately 21,000 square kilometres. Agriculture is the principle land use. Native vegetation covers approximately 13% of the region. The majority of the land in the South East is held in private ownership – primarily as freehold title or perpetual lease from the crown. The human population is estimated at 62,794. The agriculture, forestry and fishing sectors account for over half the region's employed labour force. Mount Gambier is the main regional town (with some RtBC habitat existing nearby). Other townships include Penola, Naracoorte, Lucindale, Bordertown and Keith (RtBC habitat) and Millicent, Robe, Kingston, Port MacDonnell, and Beachport (not RtBC habitat) (South East Natural Resource Consultative Committee, 2002).

3.3.3 Wimmera Catchment Management Authority

PO Box 479
HORSHAM VIC 3400

The Wimmera Catchment Management Authority (WCMA) covers an area in western Victoria, north of the GHCMA and covers an area of approximately 30,000 square kilometres. Agriculture is the most prominent landuse and approximately 85% of the region has been cleared of native vegetation. Much of the remnant vegetation exists within public reserves including the Grampians (not RtBC habitat) and Little Desert National Parks (RtBC habitat).
The population of the Wimmera is about 50,000 with almost one third living on farms or in small towns. Major towns include Edenhope, Horsham and Nhill (RtBC habitat) and Stawell and Warracknabeal (not RtBC habitat) (Curtis and Byron, 2002).

4.0 Methodology

4.1 Survey content

Following the identification of information gaps by the Recovery Team, a survey was developed based largely on the content of the form used by Jenkins (1998). The survey comprised 31 questions grouped into 4 sections. The questions were largely designed to be Open Questions so that responses would not be influenced by the order of options or the options themselves. The responses were designed so they could be coded by the telephonist conducting the survey, and to allow for all responses to be recorded. The project management group (the author, Julie Kirkwood, Chris Tzaros, Michael Weston) reviewed the survey design in detail. The survey proforma was trialed with three landholders, who were able to complete the survey by telephone, comment on the 'friendliness' of the survey and comment on the relevance and 'sense' of the survey to the landholder. A copy of the survey proforma is contained in Appendix 2.

4.2 Telephone survey process

A contractor conducted the telephone survey during the period 15 February – 1 March, 2003. A list of postcodes for areas within the RtBC habitat range, and excluding town centres, was prepared for the contractor (Appendix 3). Using her database of telephone codes and knowledge of the vegetation of the area, she allocated calls throughout the habitat range to achieve 500 responses by landholders.

Press releases informing the general public of the survey were made throughout the region in the weeks prior to the survey, to encourage landholders to respond to the telephone survey. Some members of the Recovery Team with a high community profile conducted radio interviews to encourage participation. In all cases, specific information about the content of the survey was not given, so that the survey results would not be influenced by recent new information about the birds.

Responses were recorded into an MS Access database designed for the project. 501 people responded to the telephone survey. The positive response to contact calls (i.e. the percentage of people called who agreed to complete the survey) was 66.7%.

Seventeen people requested further information about the RtBC. Their contact information was recorded separately from the survey database to preserve the privacy of the respondents, and information was mailed to them.

4.3 Data analysis

A first-cut analysis of the raw data was undertaken using Queries of the MS Access database and Charts in MS Excel. This was distributed as a report to a wide range of people for their comment, validation, interpretation and recommendations.

4.4 Focus group and consultation process

Focus groups were conducted in one town in each of the three integrated natural resource management areas (see 3.3 above):

Edenhope – Wimmera CMA – 5 attendees
Hamilton – Glenelg-Hopkins CMA – 1 attendee
Coonawarra – South East NRCC – 4 attendees

The report was presented at each group for comment on responses to each question and validation with their experience. Recommendations for future policy directions and actions were discussed. The report was also presented to the Biodiversity Committee Meeting, Wimmera CMA at Halls Gap – 12 attendees. A further four responses were received by email.

The process aimed to elicit responses to the information, validation and recommendations from different perspectives rather than produce responses to formulated recommendations already prepared by the author. The responses were collated with the first-cut analysis and discussed by the Recovery Team.

4.5 Limitations:
As with all research, suggestions were made for additional questions after the results were analysed!

4.6 Presentation of results and report:
For simplicity, the results and discussion of each question are presented together. Where relevant, recommendations are made within particular sections. The report was prepared by the author and reviewed in detail by the Project Management group.

5.0 Demographics – You and Your Property

5.1 Location of Property

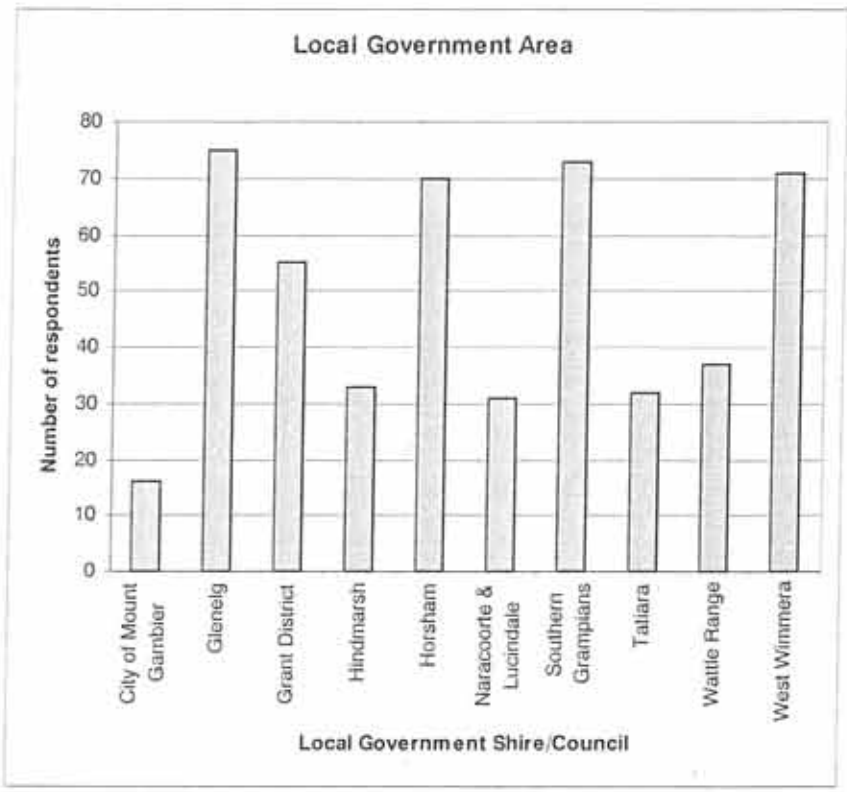

Figure 1: Number of Properties in each Local Government area

Table 1: Percentage of properties in relevant Local Government areas.

Local Government Area	%
City of Mount Gambier	3.2
Glenelg	15.2
Grant District	11.1
Hindmarsh	6.7
Horsham	14.2
Naracoorte and Lucindale	6.2
Southern Grampians	14.8
Tatiara	6.5
Wattle Range	7.5
West Wimmera	14.4

The results demonstrate that respondents were sourced from local government areas relevant to the habitat range of the RtBC. (See Appendix 1: Habitat Range RtBC)

5.2 Farm Type

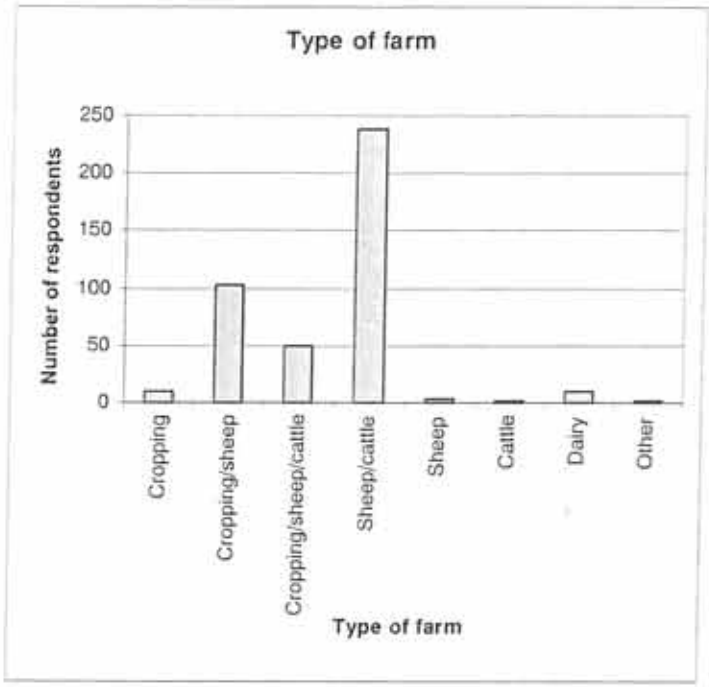

Figure 2: Type of Farm Production

Table 2: Percentage of farm production types surveyed.

Type of Farm Production	%
Cropping	2.4
Cropping/sheep	24.4
Cropping/sheep/cattle	11.7
Sheep/cattle	57.2
Sheep	1.0
Cattle	0.5
Dairy	2.4
Other - Boarding kennels, dogs	0.5

The farms surveyed reflected the regional profile for land use and landholders most important for the protection/extension of RtBC habitat.

5.3 Age of Landholders

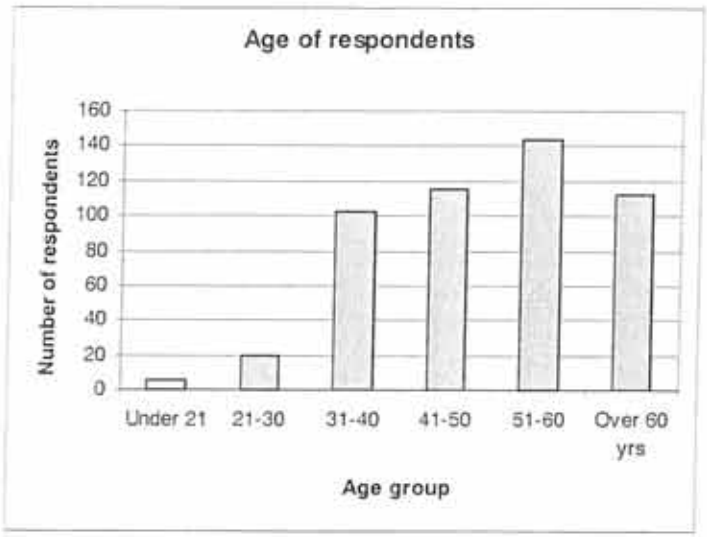

Figure 3: Age profile of landholders

The age profile demonstrates that that farm management is not often assumed until 30+ years of age. Assuming retirement of the over 60 years of age group in the next ten years, there will be a change of management on 22% of properties (those which are currently managed by the 60+ group). This presents an important need for future farm managers to be educated about and engaged in the conservation of RtBC.

Recommendation 1: That education for conservation of RtBC be encouraged in the region's schools and farm management training programs at tertiary institutions.

Recommendation 2: That the Red-tail Black-Cockatoo Education Kit (Birds Australia and www.birdsaustralia.com.au/rtbced/index.html) be reviewed, updated and promoted as a resource suitable for senior secondary and tertiary students.

5.4 Length of Property Ownership/Operation

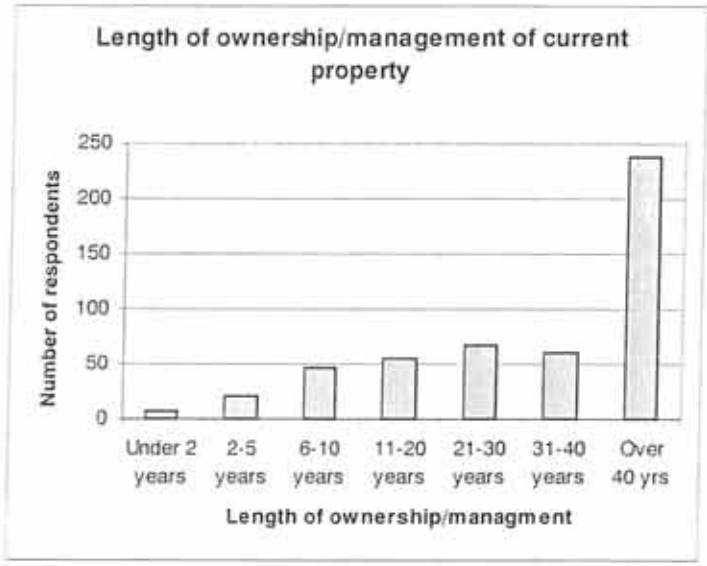

Figure 4: Length of time of ownership/management of property

47.5% of farmers have been operating the oldest part of their property for more than 40 years. This implies long-term knowledge and understanding of the property. Combined with the age distribution discussed in 5.3 above, there will be a critical loss of 'farm operational intelligence' within the next ten years. This reinforces the importance of Recommendations 1 and 2.

5.6 Organisation Membership

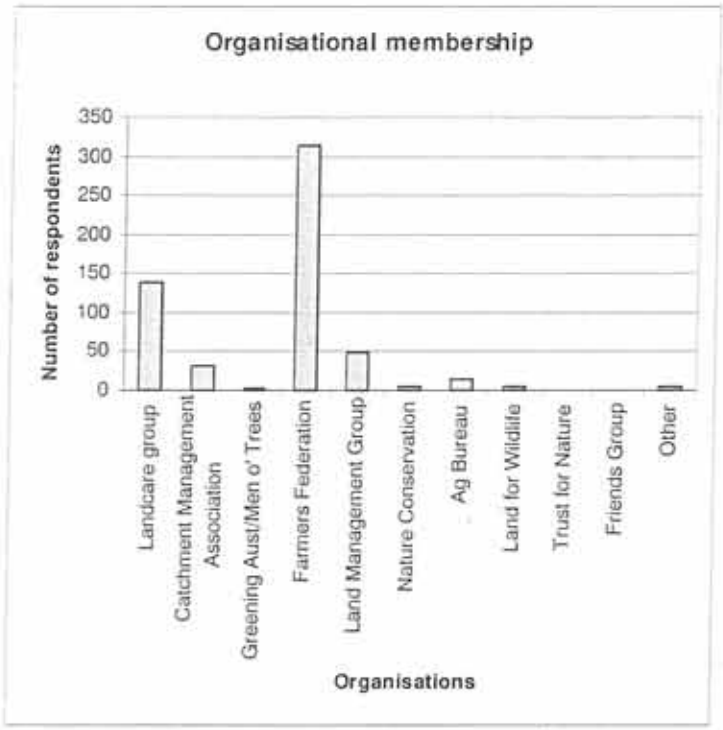

Figure 5: Membership of organisations relevant to farming

Other organisations offered included Wetland and Wildlife, Greenpeace, local producers group and Cockatoo Lake *(Conservation Group).*

62.6% of farmers indicated affiliation with one of the farmer's federation organisations. This appears consistent with the 68% affiliation in Western Australian wheatbelt in 1996 (Jenkins, 1998).

Recommendation 3: That the state based Farmer's Federation should be a key point of contact for future RtBC conservation activities and programs. It will be important to be alert to their priorities and approaches to conservation issues.

27.7% of farmers indicated membership of a Landcare group. It is important to ensure that accurate and relevant information is available to all groups identified.

Recommendation 4: Promotional materials developed for RtBC conservation and targeted at farmers should where possible be reviewed in consultation with Farmer's Federation and Landcare groups, updated and promoted to farmers.

5.7 Level of Formal Education

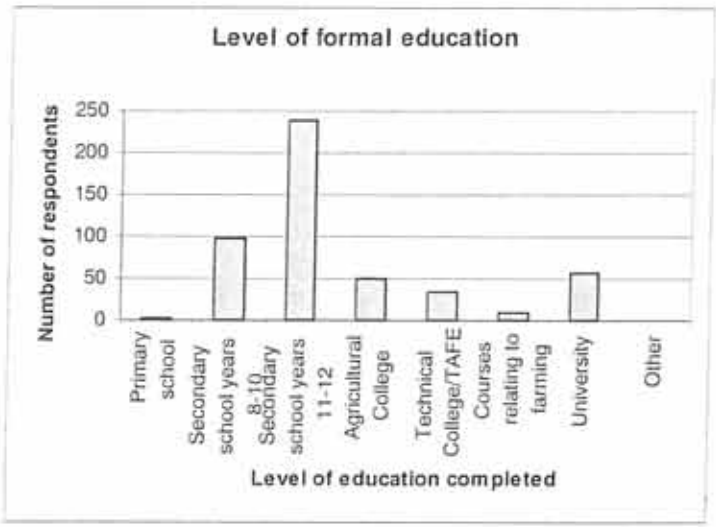

Figure 6: Level of formal education completed by landholders.

47.7% of landholders had completed some senior secondary education. This is a level above that reported from the Western Australian wheatbelt where 18.4% had completed tertiary education (Jenkins, 1998).

5.8 Farming Experience

98% of respondents had ten years or more farming experience, with an average of 35.3 years and a standard deviation of 14.

89.8% of farmers had been involved in farm management decision making for ten years or more with an average of 24 years and a standard deviation of 12.

76% of farmers had a farm plan and 45 % had attended a farm-planning workshop. It was not the scope of this project to establish the currency and quality of planning undertaken. The encouragement of farm planning and the inclusion of RtBC conservation information are opportunities to influence on-farm decision-making.

Recommendation 5: Farm Planning trainers and consultants should be encouraged to include the conservation of RtBCs in their programs and advice.

5.9 Total area of property

Total area managed by survey respondents is 880,529 hectares with an average landholding of 1,764 hectares and a standard deviation 2,056. The total area of the region surveyed is 76,000 square kilometres. There are no figures available which define the total area of private land in the habitat range.

5.10 Area of Native Vegetation

Total area of native vegetation reported by respondents on their land is 84,939 hectares or 9.6% of the total farm area surveyed. 463 respondents have native vegetation on property, with an average of 170 hectares and a standard deviation of 350. This includes trees along watercourses and along fence lines and could include non-indigenous native vegetation. No plantation establishment is recorded (see 5.11 below). Regionally an area of 11,230 square kilometres is native vegetation (Hill and Burnard, 2001). From the information available it is not possible to describe what proportion of the area reported as 'native vegetation' actually constitutes RtBC habitat.

5.11 Replanted Native Vegetation

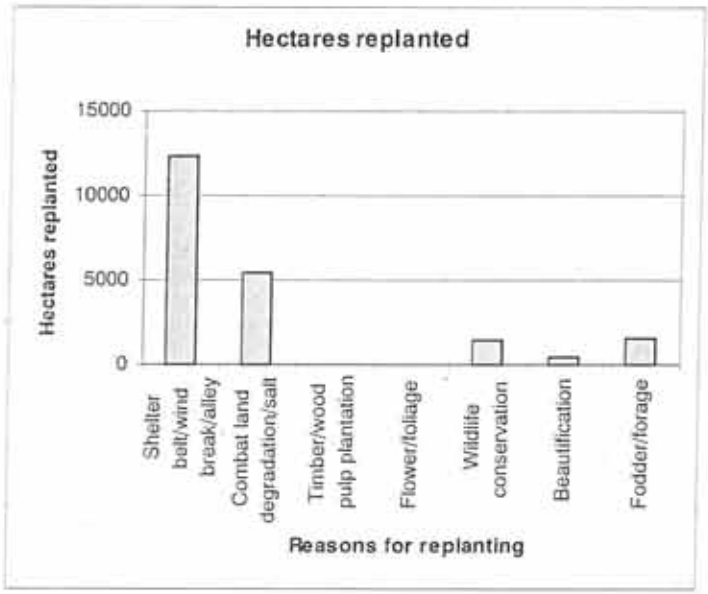

Figure 7: Reasons given for replanting native vegetation.

A total of 296 landholders stated that they had replanted areas of native vegetation. The total area of revegetation reported was 21,293 hectares. This does not include that around the house, but could include non-indigenous native vegetation. No plantation establishment was reported by survey respondents and no time-line of replanting was established. Focus groups expressed concern that this level of replanting may be over-reporting and that areas of actual indigenous species revegetation would be significantly less.

Conservation alone accounted for only 7% of revegetation activities and 91% of replanting was reportedly made to enhance farm productivity (shelter belts/ windbreaks/ alleys, combat land degradation/salt and fodder or forage). The message to increase the level of replanting clearly needs to be based on improving farm productivity and the promotion of species relevant to RtBC, rather than conservation values.

Recommendation 6: That programs which emphasise both improved farm productivity and conservation be encouraged.

Refer also to Recommendations 3 and 4 above

5.12 Area of Fenced Native Vegetation:

Total area of native vegetation (not including replanted areas) fenced by farmers was 41,923 hectares, i.e. 4.7% of total farm area surveyed. 278 respondents have fenced native vegetation, but no time-line of fencing was established. Focus groups expressed concern that this may be over-reporting.

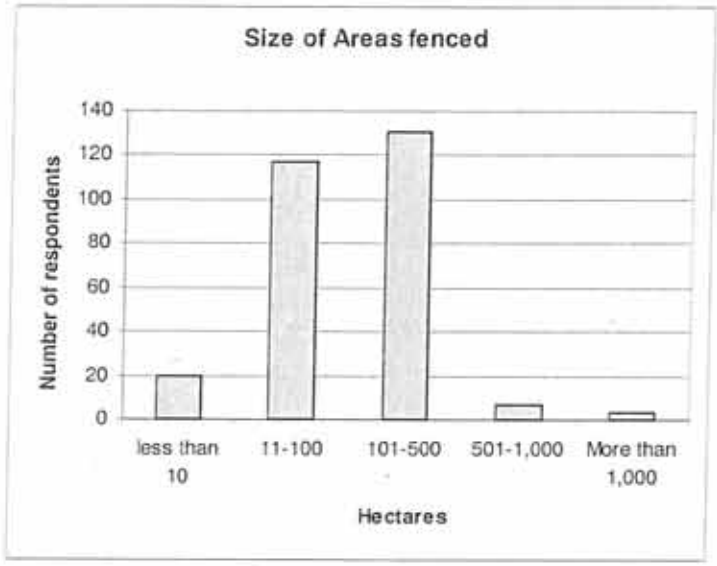

Figure 8: Size of areas fenced for protection of native vegetation.

6.0 Awareness and Knowledge - Your views about Red-tailed Black-Cockatoos

6.1 'Brand recognition'

93.6% of respondents had heard about RtBC and in marketing terms, this is excellent brand recognition, showing a high level of penetration of basic awareness.

6.2 Source of information

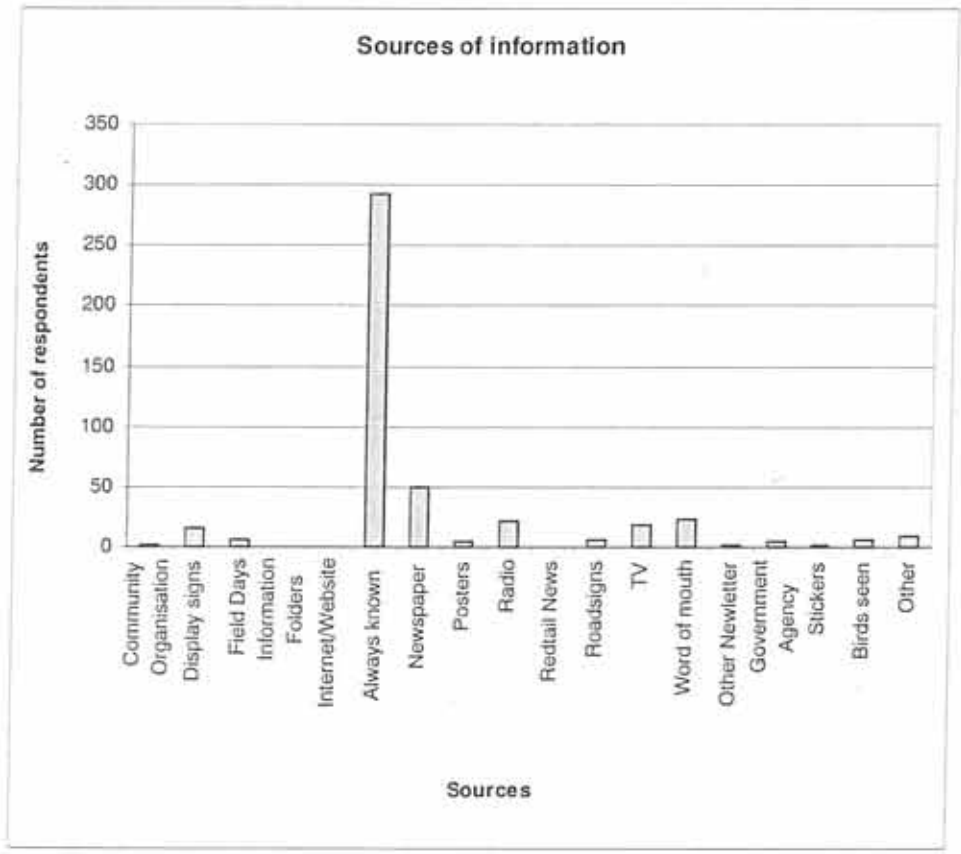

Figure 9: Sources of information about RtBC

The 'Always known about them' result makes the information difficult to interpret. However, use of newspapers, radio and word-of-mouth are most likely to be useful for future information dissemination. A Quadrant Agricultural Readership Survey (2002) of farmers has revealed that most farmers watch less than 2 hours of TV per day and their preferred viewing is ABC news. More than 50% of farmers listen to 2hrs 30mins of radio per day chiefly news and current affairs and usually the ABC, only 41% of farmers read a national (i.e. The Australian) or a metropolitan newspaper (e.g. Sydney Morning Herald, The Age) but 82% read agricultural newspapers (e.g. The Land, Weekly Times etc) and over 75% of farmers own a computer and 61% use the internet. ***'Word-of-mouth' results link well with Recommendation 3 above.***

6.3 Knowledge of RtBC Population

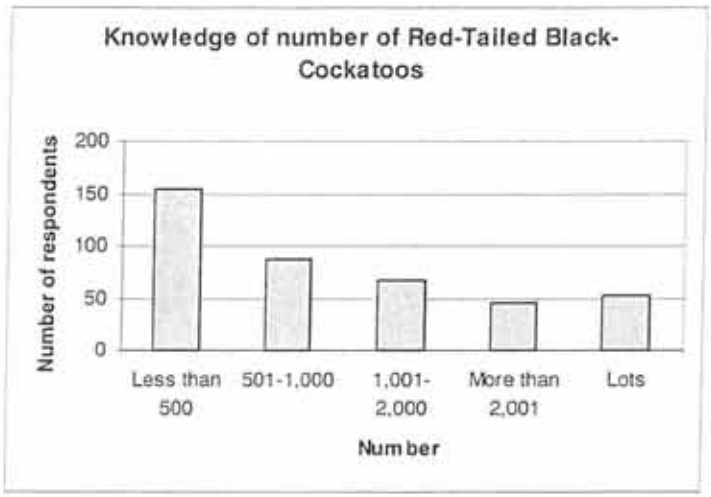

Figure 10: Knowledge of RtBC population size

Because the response 'Lots' has a very subjective interpretation, these records have been excluded from the summary. 68% of respondents have an accurate understanding of the population of RtBC, however this needs to be tempered by apparent mis-identification demonstrated by:

1. the confusion with Yellow-tailed Black Cockatoos (*Calyptorhynchus funereus*) reported in 6.7 below,
2. the confusion of food sources in 6.4 below and
3. the confusion of habitats reported in 6.6 below

Work carried out by the RtBC Recovery Team indicates that the cockatoo should be considered 'endangered' under the Environment Protection and Biodiversity Conservation Act 1996 (C2b), because it has a declining population of less than 1,000 birds (Annual Count, 2003). It is important for landholders to understand that the RtBC is endangered.

6.4. Knowledge of Food Sources

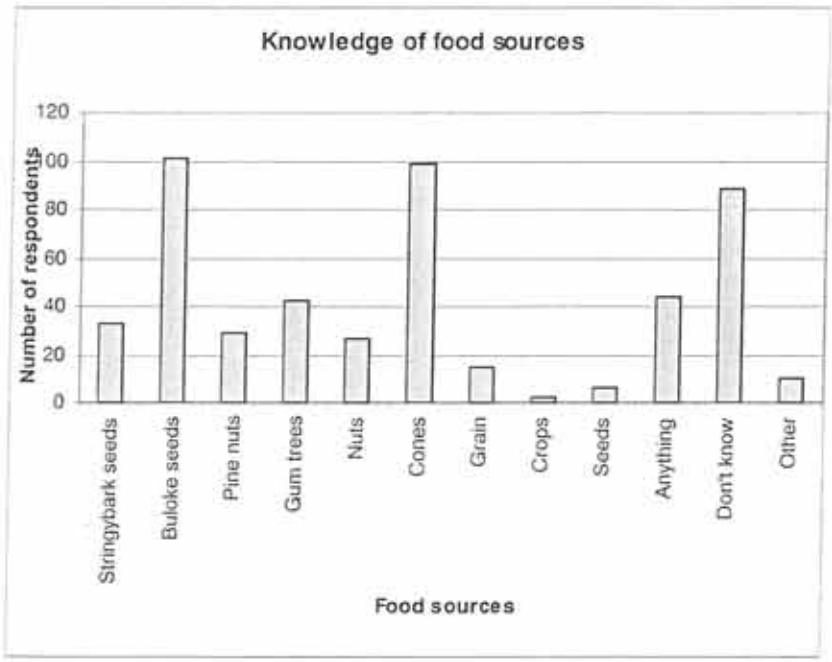

Figure 11: Knowledge of food sources for RtBC

Only 27% of respondents demonstrated an accurate knowledge of link between stringybark seeds and RtBC. Focus groups found the buloke response surprising, but believed that it might reflect the fact that the birds are easier to see in buloke and farmers work in paddocks where bulokes are. As well, there has been a lot of recent publicity about clearing of buloke. Farmers tend not to work amongst stringybark stands. It is important for landholders to understand the strong link between RtBC and stringy bark and buloke. (see Recommendation 9)

6.5 Knowledge of Nest Sites

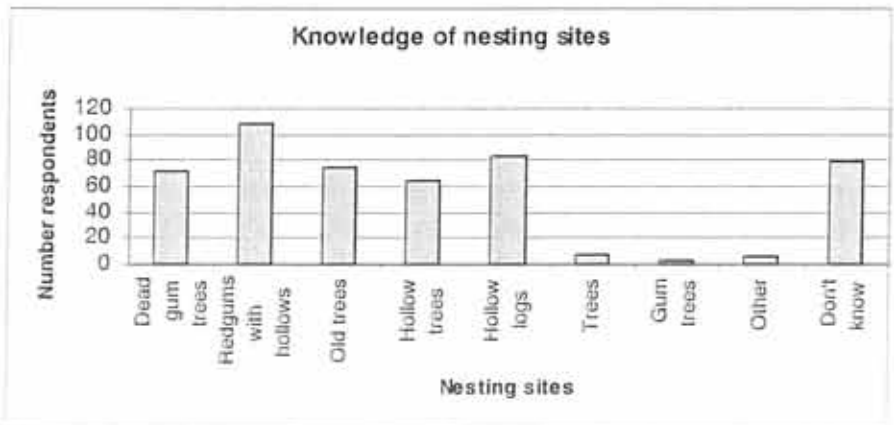

Figure 12: Knowledge of nesting sites

NB "Other" sites (Figure 12) included buloke, scrub, up north and sheoak.
The landholders demonstrated a reasonable level of understanding of the need for large hollows for RtBC nesting. This knowledge has been re-enforced by legislation, which protects dead trees with large hollows suitable for RtBC nesting in all local government areas in the habitat range. The legislation in South Australia was declared early in 2003. It is important to inform landholders of the new legislation quickly so that there are no illegal clearing issues, which would remove suitable dead trees and cause antagonism within the farming community if prosecution resulted.

Recommendation 7: Activities be undertaken in the South Australian part of the habitat range to inform the landholders of the new legislation to protect hollows suitable for RtBC nesting.

6.6 Knowledge of habitat range

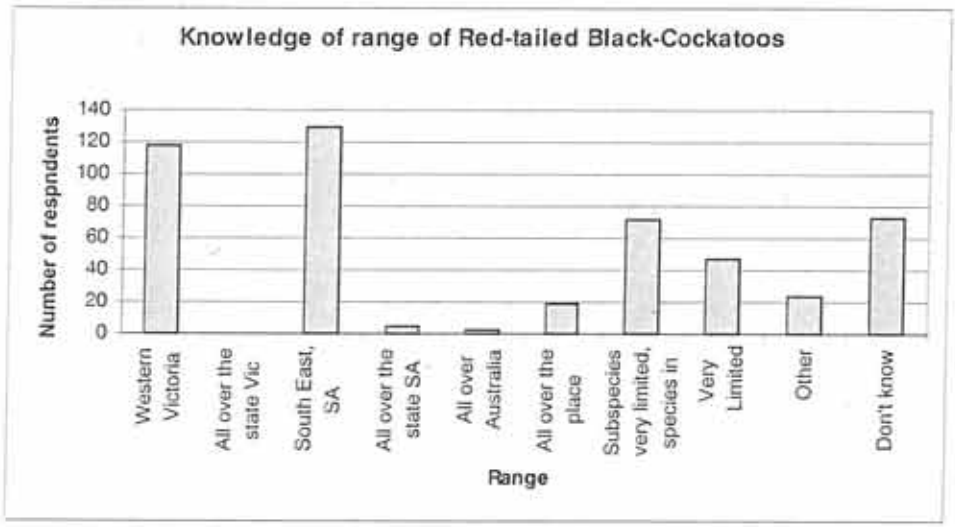

Figure 13: Knowledge of habitat range.

NB "Other" areas (Figure 13) included around Penola, between Naracoorte and Strathdownie, coastal, Edenhope, high rainfall areas, Kangaroo Island, Queensland, near Frances, Northern Australia, Northern New South Wales, Northern Victoria, Northern Territory mostly, Riverland, Southern parts of Australia, Western Australia and Wimmera.

The respondents demonstrated a reasonable level of understanding of the habitat range of the RtBC. This is important to the landholders' understanding of the relationship between their property and the birds' presence.

6.7 Knowledge of types of Black Cockatoos:

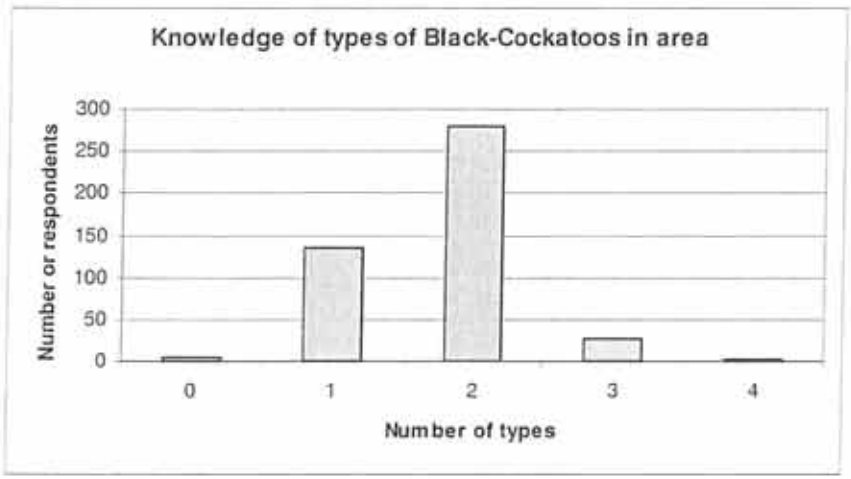

Figure 14: Knowledge of number of types of black cockatoo

55.9% of landholders understood that there are two types of black cockatoo in the area. These are RtBC and Yellow-tailed Black-Cockatoos. Because of the abundance of Yellow-tailed Black-Cockatoos in the area, it is concerning that 27% of landholders believed that there is only one type of black cockatoo. This could be a contributing factor in the overestimation of RtBC numbers (6.3 above).

6.8 Observations

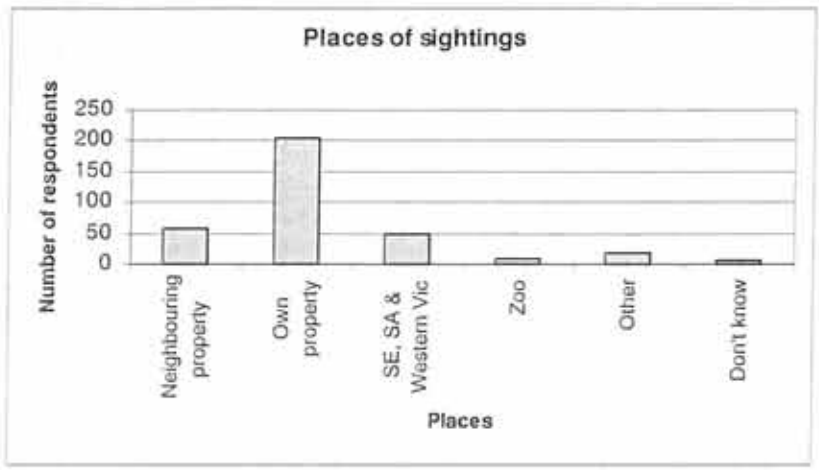

Figure 15: Places where RtBC seen

321 (64%) of landholders reported having seen RtBC. Other areas reported were Victoria, Kangaroo Island, Kingston, Northern Territory, National Parks, pine forests

and Queensland. 81% of these landholders had observed RtBCs in their locality either on their own or neighbouring property.

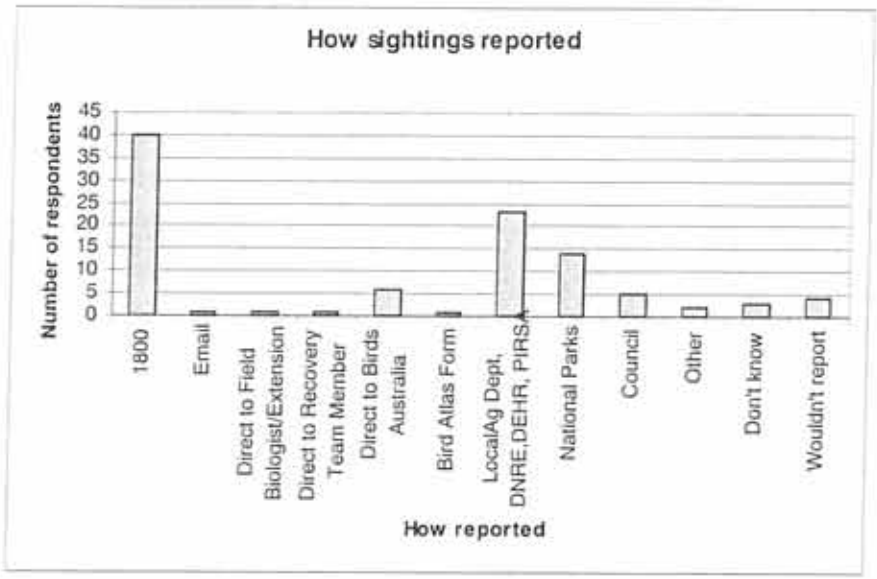

Figure 16: How sightings have been reported

Of those landholders, who had seen RtBCs, 15.8 % reported the sighting to an organisation engaged in bird monitoring. The 1800 number maintained by the RtBC Recovery Team was seen as an important reporting mechanism. Since continuous monitoring of the population and distribution is important for the collection of information relevant to conservation, further activities need to be undertaken to encourage landholders to report sightings.

Recommendation 8: That the 1800 number for reporting RtBC sightings be maintained as a matter of priority.

5.4% landholders reported involvement in the Annual Count of the RtBC. These people would be quite knowledgeable and interested in RtBC conservation. This indicates that the survey has not been answered by only 'the converted'. The Annual Count is largely conducted on public lands. Targeted encouragement of landholders to participate in the Annual Count could lead to more accurate counting by including a larger component of private land.

Recommendation 9: That landholders be targeted for involvement in the Annual Count on their property.

Recommendation 10: Activities targeted at increasing landholders' accuracy of knowledge about the RtBC be continued and expanded.

Since continuous monitoring of the population and distribution is important for the collection of information relevant to conservation, further activities need to be undertaken to encourage landholders to report sightings.

6.9 Comments about RtBC Conservation

117 respondents provided feedback encouraging continuation of the good job being done to conserve RtBC and reinforcing the need for protecting feeding trees, nesting sites and the birds in general and providing more information about the bird's needs. Many people admired the bird and wished to be able to see more of them in the area, reinforcing the view that RtBCs are a good species for use as a "Flagship for Conservation".

7.0 Attitude to Native Vegetation - Your opinion of native vegetation on your property

7.1 Reasons for retaining native vegetation

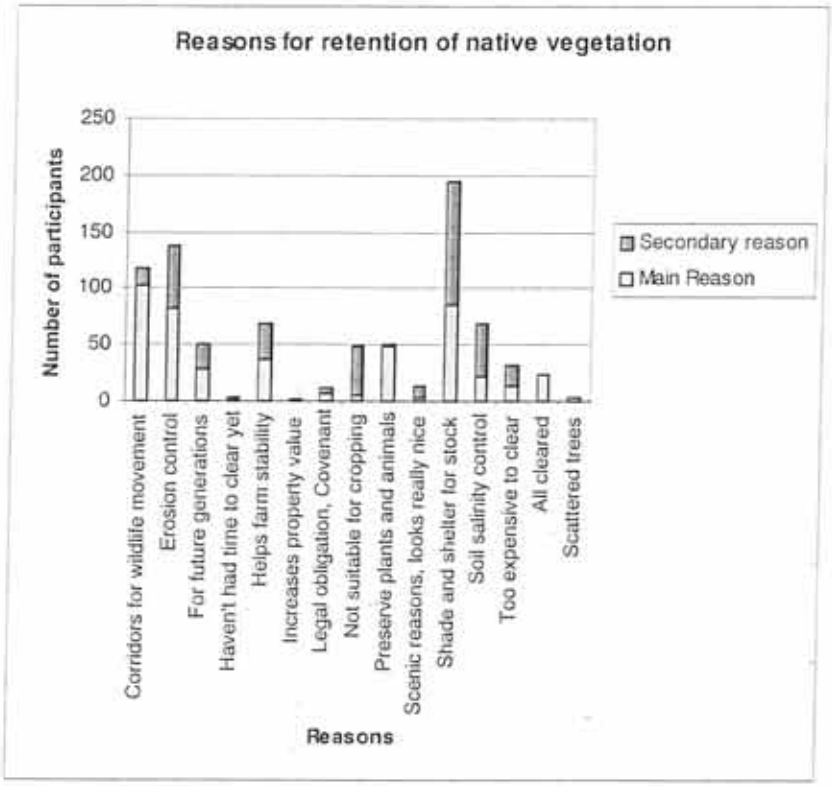

Figure 17: Reasons given for the retention of native vegetation

Three major reasons for retention of native vegetation such as shade and shelter for stock, erosion control and corridors for wildlife accounted for 54% of the responses. The message about the importance of corridors for wildlife movement has been well understood and rates closely to reasons related to improved farm production. It is very encouraging that many landholders have attached this level of importance to a conservation message.

7.2 Plans to Clear Bush

Only three respondents indicated that they planned to clear native vegetation in the next 5-10 years. As pointed out by the focus groups, this is not the same as 'would like to clear' or 'will clear'. The reasons given were centre pivot (2) and new fence lines. There continues to be a high level of successful clearing applications in the region, many due to pivot irrigation. It is important to be alert to applications for clearing and ensure that they comply with the relevant legislation. It is far better for all applications to be fully compliant than for farmers to spend a lot of time and money on non-compliant applications, add to their frustration and thereby encourage 'illegal' clearing.

Recommendation 11: Staff in approval authorities be regularly reminded of the legislative and conservation requirements for RtBC and encouraged to liaise with landholders on the requirements.

7.3 Knowledge of endangered plants and/or animals on property:

14% of landholders were aware of the presence of species of endangered plants and/or animals on their property. 39% said 'No' and the remainder didn't know or didn't care. Focus groups believed that this reflected a lack of knowledge of whether species are endangered or not, and not whether they are present on the property.

Recommendation 12: In line with Recommendation 2, information for landholders needs to include species identification for all local endangered species.

8.0 Importance of Incentives - How you feel about incentives for the protection and replanting of native vegetation?

8.1 Use of grants for fencing native vegetation from stock

8% of respondents received grants at some time for fencing of native vegetation from stock. Of those, 36% would not have fenced if grants were not available. Overall, there is a very low level of uptake of grants for fencing to protect remnant vegetation. It appears that grants are not a major driver or that there are significant barriers to access. *(Refer to 8.3 below)*

8.2 Use of grants for revegetation.

34% of respondents received grants at some time for revegetation activities. Of those, 12% would not have replanted without a grant. Overall, there is a low level of uptake of grants for revegetation, but it is a significant factor for some landholders.

In a number of cases, planting may be for production reasons (no landholders reported plantation establishment) rather than conservation reasons and therefore did not meet grant requirements. The planting may not necessarily be indigenous to the local area.

8.3 Encouragement to plant more native vegetation or fence existing bushland

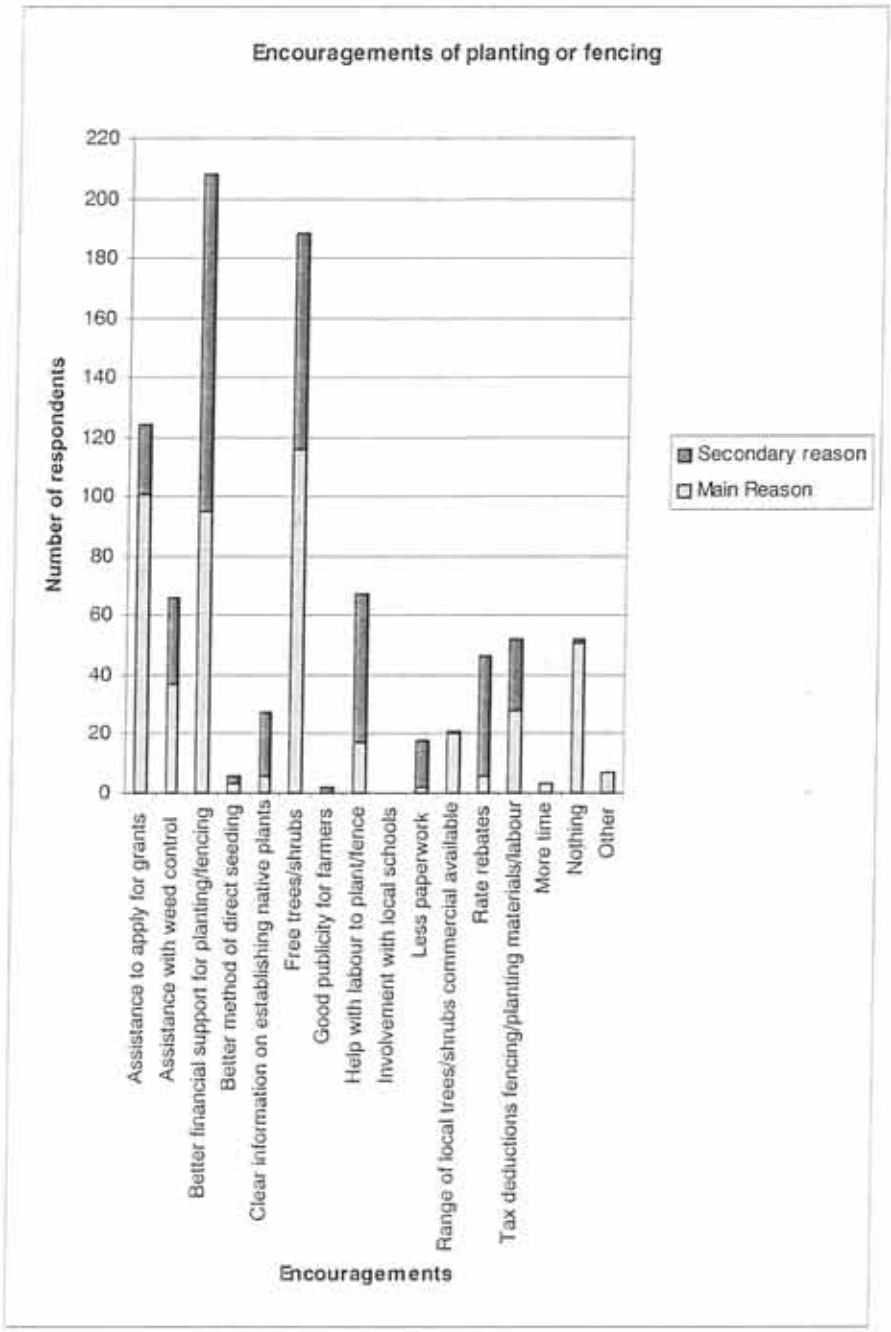

Figure 18: Encouragements to replant and fence

Landholders placed a large emphasis on the cost of materials and labour as well as help for applying for grants. Future efforts to engage them in fencing and revegetation need to focus on personalised help on the ground. Focus groups reinforced this view and identified three reasons why this is currently difficult:

1. A higher level of personalised help and follow-up will require a higher level of Project Officer resourcing than is currently available.

2. The one year funding cycle for grants is too short to fit into the farm planting cycle.
3. Recruitment of Project Officer staff does not always take into account the interpersonal and 'selling' skills required to engage landholders.

Recommendation 13: Provide continued support to encourage landholders to access grants for fencing and revegetation.

Recommendation 14: That those agencies administering fencing and revegetation grants focus on providing personalised help to landholders.

Recommendation 15: That funding be sought for Project Officer time to provide personalised help to landholders.

8.4 Disincentives to planting native vegetation or fencing existing bushland

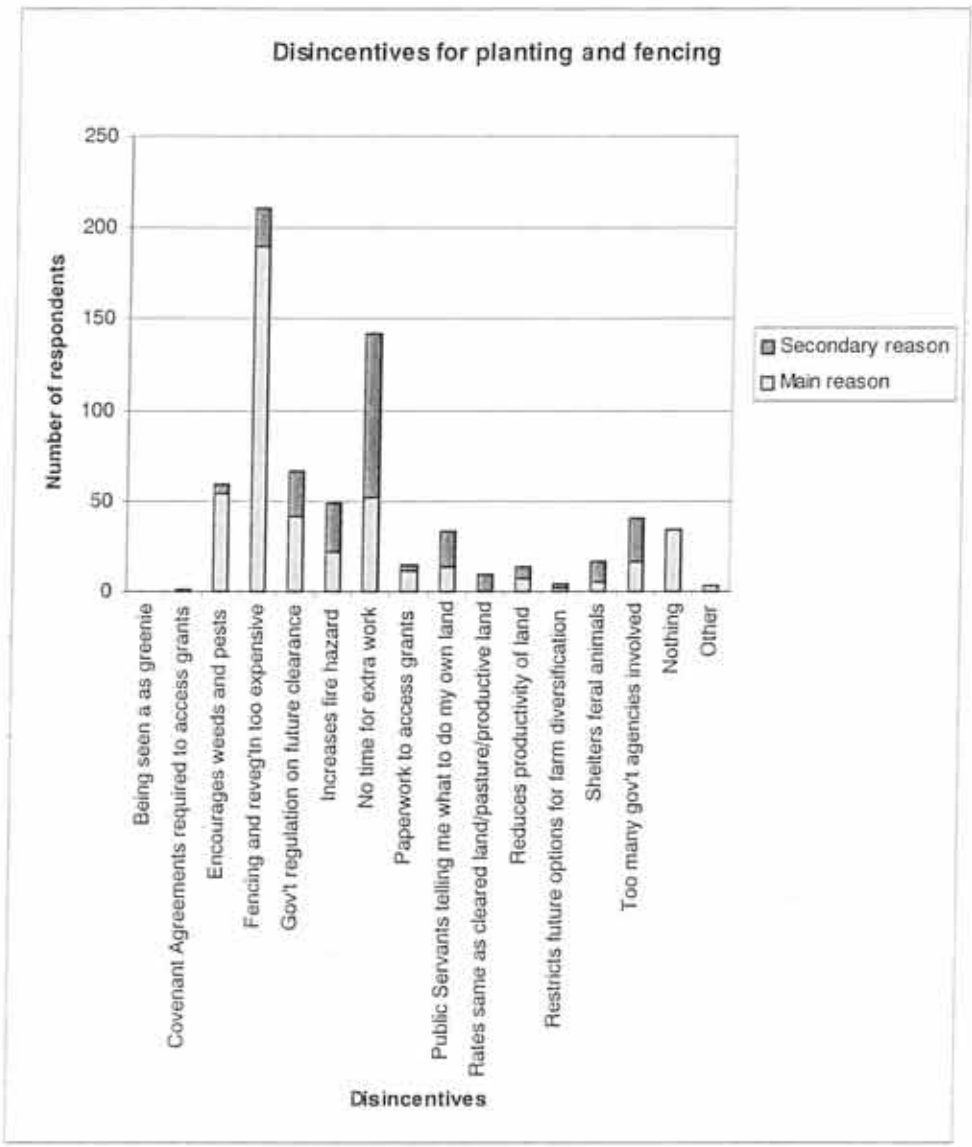

Figure 19: Disincentives to replanting and fencing

These results confirm that cost and a lack of personalised help hinder fencing and revegetation activities. Collectively, there is also some nervousness expressed about their future ability to manage areas set aside for conservation.

9. 0 Overall recommendations

Recommendation 16: To alert other Recovery Teams of the benefits of conducting a similar survey of their key stakeholder groups, in particular those with significant private landholders and land management interests.

Recommendation 17: Engage the DSE/DPI Ecologically Sustainable Agriculture Initiative in the findings of this survey, and seek their participation in projects that follow on from the findings.

Recommendation 18: That the Report be distributed to the integrated natural resource management bodies in the RtBC habitat i.e. Wimmera CMA, Glenelg-Hopkins CMA and South East Natural Resource Consultative Committee.

Recommendation 19: That presentations based on this report be made to the Land and Biodiversity Implementation Committees and Community Facilitators in the habitat region.

Recommendation 20: That Summary information be provided to landholders using Red Tail News, Farmers Federation newsletters, From The Ground Up and regional media.

10.0 References

Curtis, A., Byron, I. (2002) *Understanding the social drivers of catchment management in the Wimmera region.* Johnson Centre, Charles Sturt University, Report No 169.

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Jenkins, S. (1998) *Native Vegetation on Farms Survey 1996 – A survey of Farmers Attitudes to Native Vegetation and Landcare in the Wheatbelt of Western Australia.* National Research and Development Program on Rehabilitation, management and Conservation of Remnant Vegetation, Research Report 3/98.

South East Natural Resource Consultative Committee (2002) *South East Integrated Natural Resource Management Plan,* Draft for Consultation

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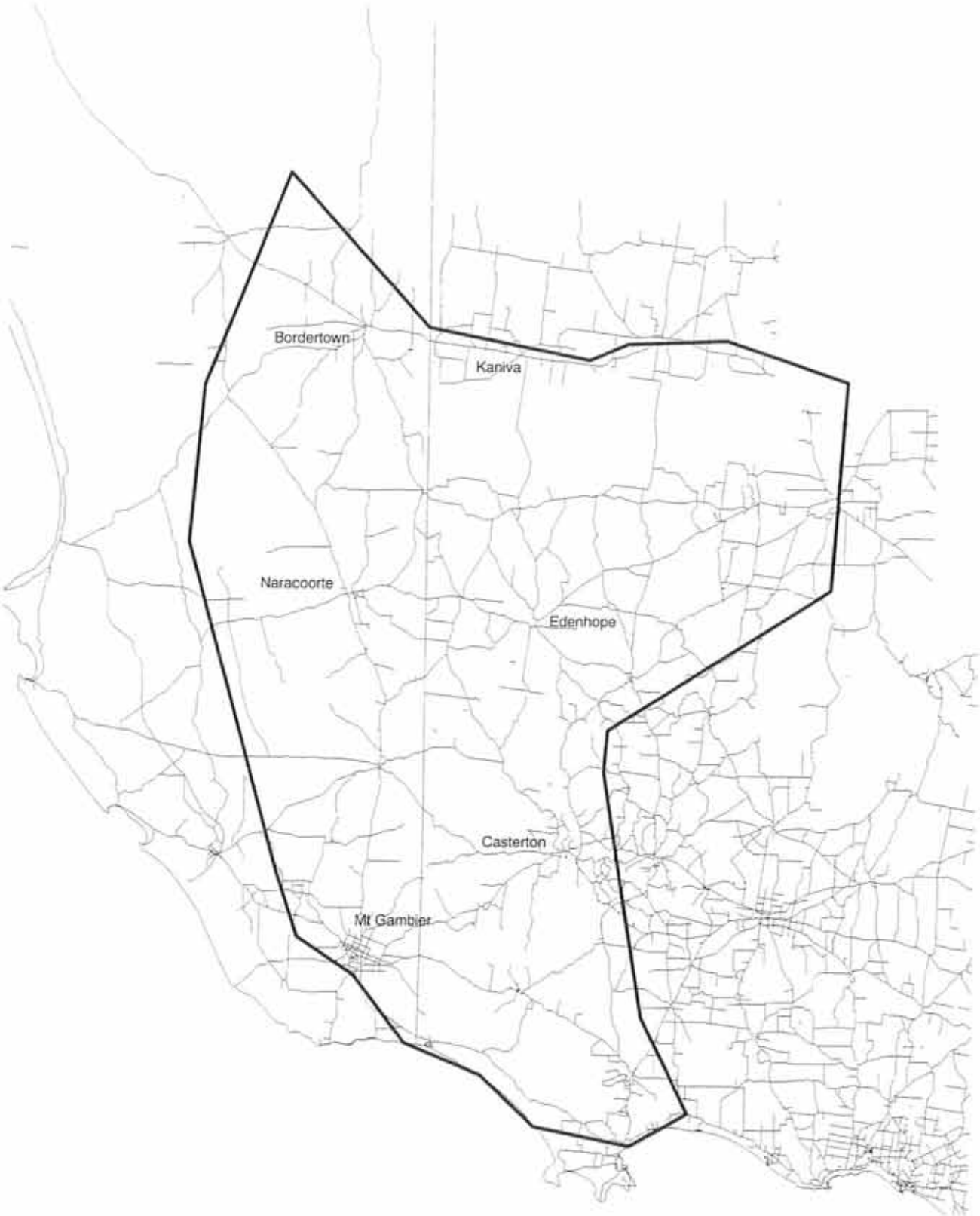

Appendix 1: Habitat Range South-eastern Red-tailed Black-Cockatoo

Appendix 2: Survey Form

Introductory spiel:

My name is, ****, I am conducting a survey for the Birds Australia project for Red-tailed Black-Cockatoo recovery. No personal information will be recorded. The questions will take about 10 minutes to complete. Will you participate? Would it be more convenient to ring back at another time? When?

Your views about Red-tailed Black-Cockatoos

1. Have you heard about Red-tailed Black-Cockatoos?

Yes.....☐ No.....☐

2. If YES, where?

Community organisation	
Display signs – information about birds	
Field Days	
Information Folders	
Internet/website	
I've always known about them	
Newspaper	
Posters	
Radio	
Redtail News	
Roadsigns – protect hollow trees	
TV	
Word of mouth	
Other newsletter – please specify	
Other – please specify	

3. How many Red-tails do you think that there are altogether?

Less than 500	
501 – 1,000	
1,001 – 2,000	
More than 2,001	
Lots	

4. What food do you think that Red-tails eat?

Anything	
Buloke seeds	
Cones	
Don't know	
Gum trees	
Nuts	
Pine nuts	

Stringybark seeds	
Other- please specify	

5. **Where do you think that Red-tails nest?**

Dead gum trees	
Don't know	
Hollow logs	
Hollow trees Hollow logs	
Old trees	
Red gums with hollows	
Other – Please specify	

6. **Where do you think Red-tails occur?**

All over Australia	
All over the place	
All over the state SA	
All over the state Victoria	
Don't know	
South East, South Australia	
Subspecies very limited, but species occurs in other places around Australia	
Very limited	
Western Victoria	
Other – Please specify	

7. **How many different types of Black Cockatoos do you think that there are in this area?**

1	
2	
3	
Other - record	

8. **Have you seen Red-tailed Black Cockatoos?**

Yes.....☐ No.....☐ If NO, go to Q 13

9. **If YES, where?**

Neighbouring property	
Your own property	
Other area – Please specify	

10. **Have you reported the sighting of a Red-tailed Black-Cockatoo?**

Yes.....☐ No.....☐

11. **How did you / would you report a sighting?**

1800 phone number	
Bird Atlas Form	
Email	
Direct to Birds Australia	

Direct to Field Biologist or Extension Officer	
Direct to member of Recovery Team	
Local Agriculture Dept, DNRE, DEHR, PIRSA	
Other – please specify	

12. Have you been involved in the annual bird count for Red-tailed Black-Cockatoos?
Yes.....☐ No.....☐

Your opinion of native vegetation on your property

13. For the native vegetation on your property, why have retained it?

Reason	Main reason	Secondary
Corridors for wildlife movement		
Erosion control		
For future generations		
Helps farm stability		
I haven't got to clear it yet		
Increases property value		
Legal obligation, Covenant Agreement		
Not suitable for cropping		
Protect rare plants		
Scenic reasons, looks really nice		
Shade and shelter for stock		
Soil salinity control		
To preserve flora and fauna		
Too expensive to clear		
Other – please specify		

14. Do you have plans to clear bush in the next 5-10 years?
Yes.....☐ No.....☐ If NO, go to Q 16

15. If *YES*, what are your reasons?

Reason	Main reason	Secondary
Fear of stricter government controls in the future		
Increase property value		
Native vegetation takes too much time to maintain		
To clear unsightly scrub		
To control feral animals		
To control kangaroo numbers		
To increase area of productive land		
To remove a fire hazard		
To remove undesirable plants and diseases		
Other – please specify		

16. Are there endangered plants and/or animals on your property?
Yes.....☐ No.....☐ Don't know.....☐ Don't care.....☐

How you feel about incentives for the protection and replanting of native vegetation

17. What would encourage you to plant more native vegetation or fence existing bushland on your property?
More than one response possible

A better method of direct seeding to plant large areas quickly	
A range of local trees and shrubs which were commercially available	
Assistance to apply for grants	
Assistance with weed control	
Being provided with free trees/shrubs	
Better financial support for planting and fencing efforts	
Clear information on the establishment of native plants on my soil type	
Good publicity for farmers	
Help with labour to plant/fence	
Involvement with local schools	
Less paperwork	
Nothing	
Rate rebates	
Tax Deductions for fencing and planting materials and labour	
Other- please specify	

18. What do you see as disincentives to planting native vegetation or fencing existing bushland on your property?

Being seen as a greenie	
Covenant Agreements required to access grants	
Encourages weeds and pests	
Fencing and revegetation are too expensive	
Government regulations on future native vegetation clearance	
Increases fire hazard	
No time for extra work	
Nothing	
Paperwork to access grants	
Public Servants telling me what to do on my own land	
Rates same as cleared land/ pasture/ productive land	
Reduces productivity of land	
Restricts future options for farm diversification	
Shelters feral animals	
Too many different government agencies involved in land management matters	
Other - please specify	

19. Would you like to make further comment about Red-tailed Black-Cockatoo conservation?

.....

.....

.....

.....

You and your property:

20. In which Shire/Council is your property?

City of Mount Gambier	
Glenelg	
Grant District	
Hindmarsh	
Horsham	
Naracoorte & Lucindale	
Southern Grampians	
Tatiara	
Wattle Range	
West Wimmera	

21. What type of farm do you manage?

Cropping	
Cropping/sheep	
Cropping/sheep/cattle	
Sheep/cattle	
Other – Please specify	

22. What is your age group?

Under 21	
21-30	
31-40	
41-50	
51-60	
More than 60 years	

23. How long have you owned/operated the oldest part of your present property?

Under 2 years	
2-5 years	
6-10 years	
11-20 years	
21-30 years	
31-40 years	
More than 40 years	

24. Are you a member of any of the following groups or organisations?

Landcare Group	

Catchment Management Association	
Farmers Federation	
Land Management Group	
Greening Australia/ Men of the Trees	
Nature Conservation Group (eg Wildflower Society, Birds Australia, Naturalist Society)	
Agriculture Bureau	
Land for Wildlife	
Trust for Nature	
Friends Group	
Other – please specify	

25. What is your highest level of formal education attained?

Agricultural College	
Courses relating to farming	
Primary School	
Secondary School, years 11 or 12	
Secondary School, years 8, 9 or 10	
Technical College, TAFE	
University	
Other – Please specify	

26. How many years have you been involved in farming?

.....years

27. How many years have you been responsible for major farm management decisions?

.....years

28. What is the total area of your property?

.....ha Acres x = hectares

29. Do you have a Farm Plan for managing your property? (This is where you have a map of the farmland and a list of actions to be taken over the next few years)

Yes.....☐ No.....☐

30. Have you attended a farm planning workshop?

Yes.....☐ No.....☐

31. How many hectares of your property contains native vegetation?

(This includes trees along water courses and along fence lines)

.....ha

32. Have you planted native trees and shrubs on this property on areas which had previously been cleared? (This does not include around the house)

Yes.....☐ No.....☐ if NO, go to Q 36

33. If ***YES,*** what was your reason, and how many hectares were replanted for each reason?

Beautification	
Flower or foliage uses	
Fodder or forage	
Shelter belts/windbreaks/alleys	
Timber or wood pulp, plantation	
To combat land degradation/salt	
Wildlife conservation	
Other – please specify	

34. Have you received any grants to do your planting?
Yes.....☐ No.....☐

35. Would you have planted without a grant?
Yes.....☐ No.....☐

36. How many hectares of native vegetation on your farm is fenced from stock?
This does not include areas of planting
.....ha If zero, go to Conclusion

37. Have you received any grants to fence native vegetation from stock?
Yes.....☐ No.....☐ If No, go to Conclusion

38. If YES, would you have fenced the vegetation if grants were not available?
Yes.....☐ No.....☐

This concludes the survey questions.

Would like any information about the Red-tailed Black-Cockatoo sent to you? If *YES*, what is your name and mailing address. This information is not recorded with the survey answers.

Thankyou for your help in completing the survey. There will be Press Releases to the regional media as soon as the results are analysed and recommendations made for further action.

Appendix 3: Towns and Postcodes for Survey

Town	State	Postcode
Allendate East	SA	5291
APSLEY	VIC	3319
ARARAT	VIC	3377
BALLARAT NORTH	VIC	3350
BENAYEO	VIC	3319
BINNUM	SA	5262
BIRREGURRA	VIC	3242
BORDERTOWN	SA	5268
BRIDGEWATER	VIC	3302
CAMBERWELL	VIC	3318
CASTERTON	VIC	3311
CAVENDISH	VIC	3314
COLERAINE	VIC	3315
COONAWARRA	SA	5263
DARTMOOR	Vic	3304
DEAN	VIC	3304
DEER PARK	VIC	3352
DERGHOLM	VIC	3312
DIGBY	VIC	3312
DINGLEY	VIC	3309
DUNKELD	VIC	3294
EDENHOPE	VIC	3318
ELSTONWICK	VIC	3448
FRANCES	SA	5262
GLENTHOMPSON	VIC	3385
GORDON	VIC	3305
GOROKE	VIC	3412
GRANTON	VIC	3412
HAMILTON	VIC	3300
HARROW	VIC	3317
HEYWOOD	VIC	3304
HORSHAM	VIC	3401
HORSHAM	VIC	3402
KALANGADOO	SA	5277
KALANGADOO	SA	5278
KANIVA	VIC	3419
KARRUM	VIC	3419
KEITH	SA	5268
KEITH	SA	5267
KONGORONG	SA	5275
KYBYBOLITE	SA	5262
LUCINDALE	SA	5272
MERTON	VIC	3310
MINYIP	VIC	3413

Town	State	Postcode
MONASH UNIVERSITY	VIC	3392
MT GAMBIER WEST	SA	5291
MUMBANNAR	VIC	3304
MUNDULLA	VIC	3304
MURTOA	VIC	3390
NANGWARRY	SA	5277
NARACOORTE	SA	5271
NAREEN	VIC	3315
NHILL	VIC	3418
PADTHAWAY	SA	5271
PENOLA	SA	5277
PENSHURST	SA	5277
PORTLAND	VIC	3305
ROBE	SA	5276
ROCHESTER	SA	5276
ST ANDREWS	VIC	3761
STAWELL	VIC	3380
STRAUN	SA	5271
TARPEENA	SA	5277
WARRACKNABEAL	VIC	3393
WEST MELTON	VIC	3337
WILLALOOKA	SA	5267
WOLSELEY	SA	5269
WOMBELANO	VIC	3401