South-eastern Red-tailed Black Cockatoo Landholder Survey

Produced by Callum Banks for the South-eastern Red-tailed Black-Cockatoo Recovery Team and BirdLife Australia

2019

Acknowledgements

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This project is supported by the Australian Government's Regional Land Partnerships initiative of the National Landcare Program and the South East Natural Resources Management Board, Wimmera Catchment Management Authority and Glenelg Hopkins Catchment Management Authority. The project is also supported by the partner organisations BirdLife Australia, Trees for Life, Zoos SA, Greening Australia and Kowree Farm Tree Group.

For further information on the project please contact the Recovery Team on freecall 1800 262 062 or email redtail@birdlife.org.au

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Introduction

The South-eastern Red-tailed Black Cockatoo (SERTBC) is an endangered species that lives across the South-East of South Australia and the South-West of Victoria. Managing and restoring SERTBC habitat on privately owned properties within this area is crucial to the survival and recovery of the cockatoo throughout its range.

The SERTBC Recovery Team highly values the views and roles of private landholders in land and biodiversity management in the region. The Team has landholder representatives from both South Australia and Victoria at the table involved in all aspects of our work and decision making and we believe we have a strong and mutually respectful relationship with the community we partner with to save this wonderful bird.

The Team and its partners make a regular practice of listening to what the community needs from us to best support their efforts and this includes a broad scale survey across the range every 10 years (or so) to get a snapshot of basic demographic information and the community's activities, motivations and preferred communication channels. The last survey of this kind was delivered in 2003 (Beumer, 2003) through a telephone survey company.

In 2019 the SERTBC Recovery Team employed a contractor to conduct the broadscale landholder survey. This survey involved contacting landholders across the entire range of the SERTBC to answer around 20 questions. The purpose of the survey was to assess the effectiveness of the awareness, engagement and community support methods currently used by the SERTBC Recovery Team and compare responses against the previous landholder survey. The survey was undertaken during a six week period between March and April 2019.

The information gathered as a result of this survey will be used to update and refine the next communication strategy, the Recovery Team's communication tools, and our understanding of the community we are partnering with. The Team is hoping that the results of the survey will show what areas of community engagement need to be focussed on or refined over the next few years, in line with the draft SERTBC Recovery Plan (Burnard and Pritchard 2016) so we can continue to spread the word about the Red-tails.

Method

With the assistance of the South-eastern Red-tailed Black Cockatoo Recovery Team a series of 22 questions was created and the online website SurveyMonkey was used to capture the responses. During each phone call with a landholder the answers were manually put into the online survey. As more surveys were completed SurveyMonkey automatically generated graphs and tables representing the data collected.

Table 1 – List of questions in landholder survey

1. Have you seen or heard of Red-Tails?
2. In which Shire/Council is your property?
3. What does your farm/land produce?

4. Which age group are you?
5. How long have you owned/operated your land?
6. Are you a member of any groups or organisations related to farming and/or the environment?
7. What is the highest level of education you've completed?
8. Do you have paddock trees or patches of native vegetation on your land?
9. What do you do to manage this native vegetation?
10. What do you see as the benefits of managing this vegetation?
11. Red-tails eat the seed capsules of stringybark and buloke trees; do you have any of these trees on your property?
12. Red-tails nest in the hollows of large old trees; do you have trees with hollows on your property?
13. Have you ever seen Red-tails on or near your property (within 5km)?
14. Yellow-tails also occur in the south east/west; do you know how to spot the difference between Red-tails and Yellow-tails?
15. Where do you get information about managing the natural resources on your property?
16. Where would you go to get information about Red-tails?
17. What media do you get your news from?
18. Have you done re-vegetation on your property?
19. What is the purpose of your re-vegetation?
20. What has prevented you doing re-vegetation?
21. Have you been involved in any Red-tail conservation or monitoring activities? If so, which activities?
22. Would you be willing to undertake any of these voluntary activities in the future?

These questions were designed to obtain responses from landholders that would provide the Recovery Team with strong indication of their general knowledge and attitudes towards the SERTBC and how they manage their land. Some questions, if answered in a specific way, would lead to a certain number of questions being skipped. For example, question 8 ‘Do you have paddock trees or patches of native vegetation on your land?’ has four follow up questions (numbers 9-12). Therefore, if this was answered ‘No’ then these questions would be skipped as the landholder wouldn’t be able to answer the following questions effectively. Similarly with question 18 ‘Have you done re-

vegetation on your property?' if a participant answered 'Yes' then they would be directed to question 19, and if they answered 'No' they would be directed to question 20.

The Project Coordinator was able to source a database of landholders in the range of the SERTBC that had been developed for a survey conducted in 2017 by Greening Australia. This was very useful but predictably a percentage (40.8%) of numbers were now disconnected or did not belong to landholders anymore due to relocation. A website was also used to find additional landholders to contact in different areas that weren't represented in the initial database. As a result the number of landholder phone numbers on the contact list was 2069.

An article was placed in The Border Watch newspaper prior to the survey on the 5/4/19 to notify landholders of the survey and encourage them to participate. Most people that were called over the five week period were very pleasant and either happy to complete the survey, or politely declined as they were busy or weren't interested. Thankfully there were very few rude encounters; most of the time if people hung up it was straight after the initial introductory sentence. Out of the 432 people who responded on the phone 213 chose to complete the survey and 219 hung up or weren't interested in doing the survey. This was a success rate of 49.4%.

Towards the end of the survey period the Recovery Team decided to promote the survey on social media to increase the number of responses obtained. The survey was shared by Natural Resources South East, Wimmera CMA, Glenelg Hopkins CMA, West Wimmera Shire Council, Glenelg Shire Council, District Council of Grant and Naracoorte Lucindale Council on their various social media pages. We made sure to include in the posts that the Recovery Team was aiming to receive one survey per family/household to ensure we didn't receive any double ups, and that the survey was for landholders who lived in the range of the cockatoo. The survey was also shared to the recipients of the Red-tails newsletter. This resulted in an extra 89 landholders taking part, bringing the total number of surveys completed to 302.

Over the first couple of weeks of the survey only 10 people provided their contact details for more information about the Red-tails or to receive the results of the survey, with many people declining the offer. A lot of these respondents said they were either getting the information through the Red-tail newsletter or that they were aware of the Red-Tails website and would check there for the results. Of the respondents that provided feedback online 38 people left their contact details. It might simply be the case that people did not want to try and provide an email address over the phone as it is difficult to provide verbally.

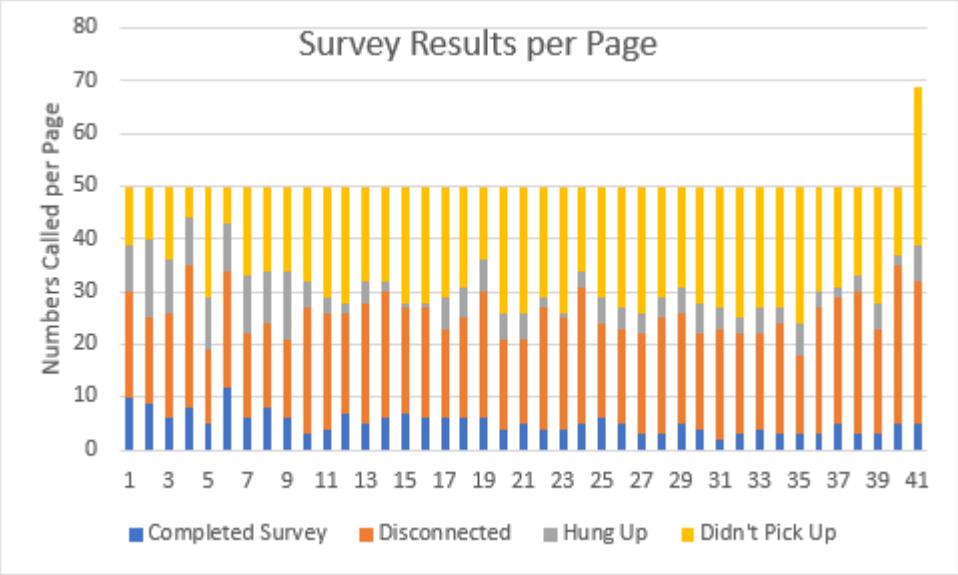


Figure 1 – Survey Responses

In order to keep track of all the phone numbers that would be called and what the response was, the database was split into pages of 50 contact numbers each. A colour coding system was then used to keep track of whether the landholder had completed the survey, hung up, their number was disconnected or they had failed to pick up the phone. If a landholder did not answer the phone the first time it was called, the number would be tried again two more times over the following week, at different times of the day. If the phone was still not answered after the third time then it was classed as 'didn't pick up'. As seen in Figure 1 most of the phone numbers were either disconnected or didn't pick up, leaving only a handful of people completing the survey out of every 50.

Results

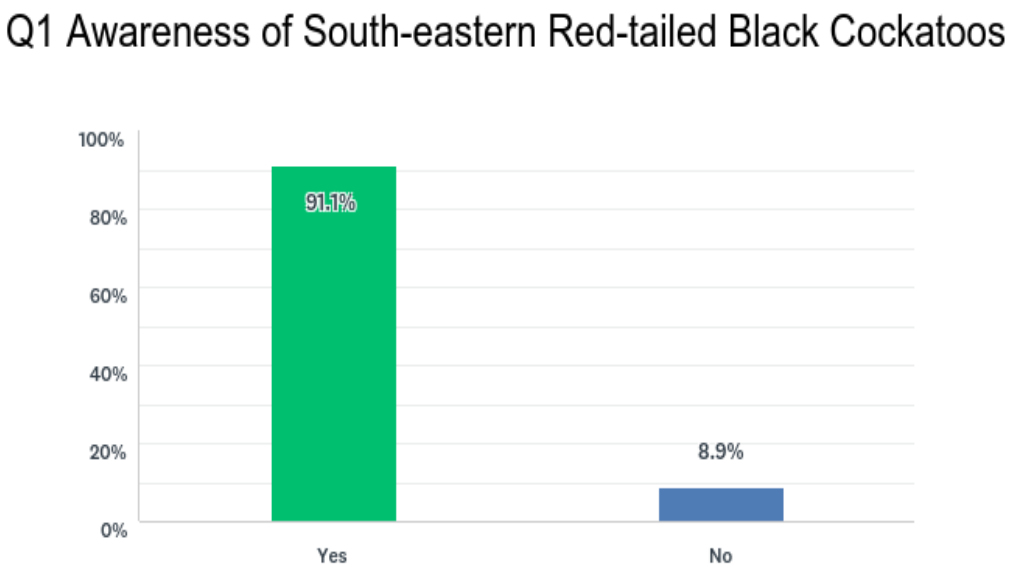


Figure 2 - Percentage of people who had heard of South-eastern Red-tailed Black Cockatoos

This was an introductory question and gave respondents an opportunity to share any experiences with the cockatoo. Over 90% of people had heard of Red-Tails in one way or another, which is a good indication that landholders in the range are generally aware of the bird. Some landholders chose to share a story of their experience with the Red-Tails, but a large number of people also questioned whether they should be completing the survey as they hadn't seen any on their property. The landholders were promptly made aware that their contributions were still important and that it wasn't a necessity that they had seen Red-Tails on their property.

Table 2 – Distribution of Landholders from 2003 landholder survey (Beumer 2003) compared with 2019 survey

LGA	2003 %	2019 %	% change
City of Mount Gambier	3.2	0	-100
Glenelg (VIC)	15.2	15.18	-0.13
Grant District (SA)	11.1	4.29	-61.4
Hindmarsh (VIC)	6.7	7.92	+18.2
Horsham (VIC)	14.2	0.66	-95.4
Naracoorte and Lucindale (SA)	6.2	16.83	+171.5
Southern Grampians (VIC)	14.8	1.32	-91
Tatiara (SA)	6.5	21.12	+225
Wattle Range (SA)	7.5	12.21	+62.8
West Wimmera (VIC)	14.4	19.80	+37.5

Table 2 shows the distribution of landholders who completed the survey across the range of the cockatoo in both 2003 and 2019. In the current survey the Tatiara district had the most responses, with 64 surveys completed and 21.12% overall, followed by West Wimmera with 60 completed and 19.80% overall. With regards to the share of surveys between South Australia and Victoria, Victorian landholders accounted for 138 (45.7%) of the surveys completed, whereas South Australia had the highest with 164 (54.3%). This is a good result and has provided a varied mix of data to take insights from.

When compared with the distribution of landholders found in the 2003 survey there were a few noticeable differences. Both the Southern Grampians and Horsham districts were well represented in the 2003 survey, with 145 completed surveys from the area, but in the current survey only 6 landholders from these areas contributed to the survey. This comparison shows that Victoria was better represented in the 2003 survey, whereas SA had a small majority in the recent survey. There can be small regional cultural differences and so the altered representation of some of the larger regional towns across the range may have had some impact on our overall results but based on the consistency of responses overall this impact is not likely to significantly change the summary results recommendations of the survey. To check this it may be useful to test the correlation between the answers to questions 1, 11, 15 or 19 against local government area to see if this indicates any stark changes between localities.

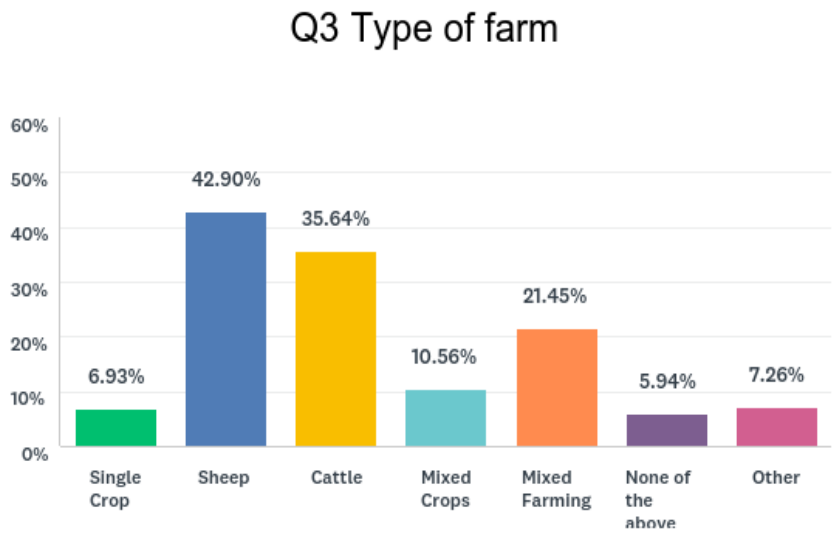


Figure 3 – Percentage of farm production types surveyed

The results show a generic trend in land use across the Red-tail habitation area with livestock farming showing to be the most popular use of land. The 'other' category included answers such as horses, native vegetation and pine plantations.

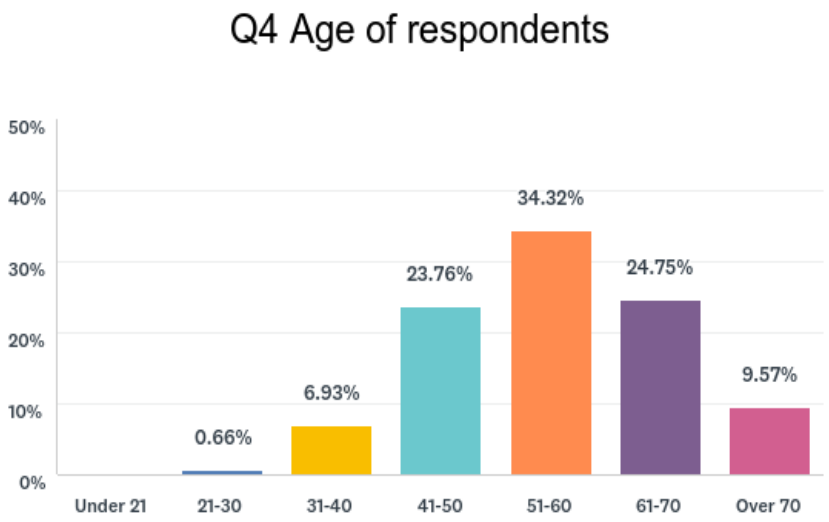


Figure 4 – Age group representation in 2019 survey

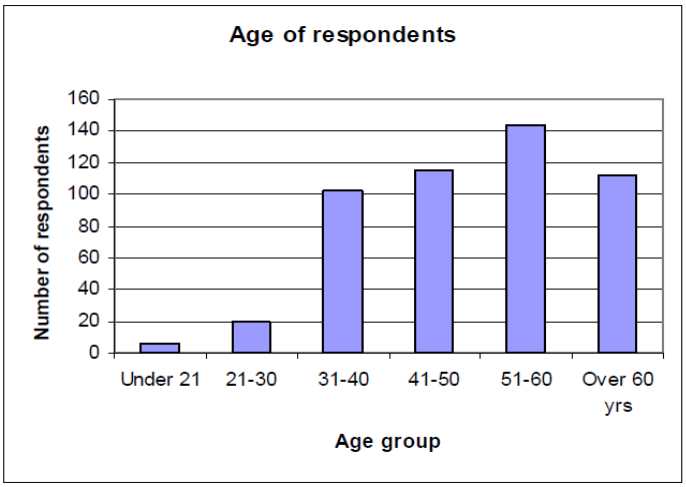


Figure 5 – Age group representation in 2003 survey (Beumer 2003)

Figure 4 shows that the vast majority of participants were between the ages of 40 and 70, with the 51-60 age group being the most represented. These figures are very similar to those shown in the previous landholder survey (Figure 5). Continuing to ensure that future generations of landholders are introduced to the endangered Red-Tailed Black Cockatoo will be crucial to continue the Team's partnership with the community to create more Red-Tail habitat on private land.

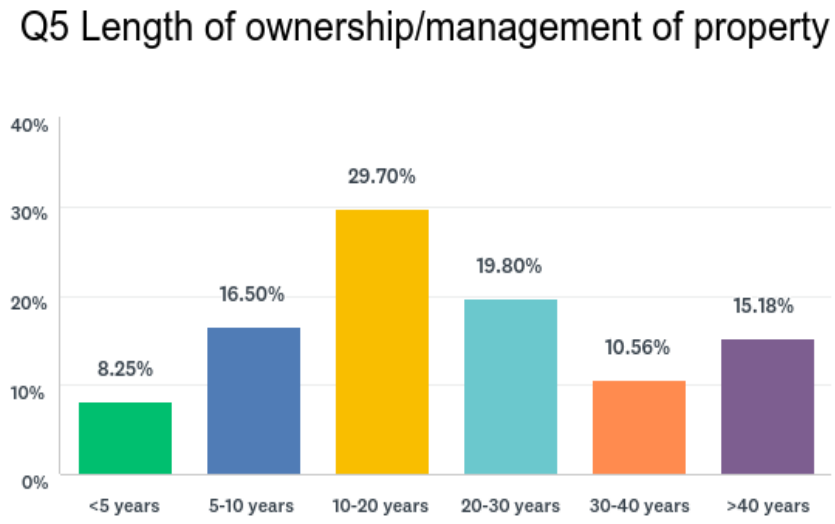
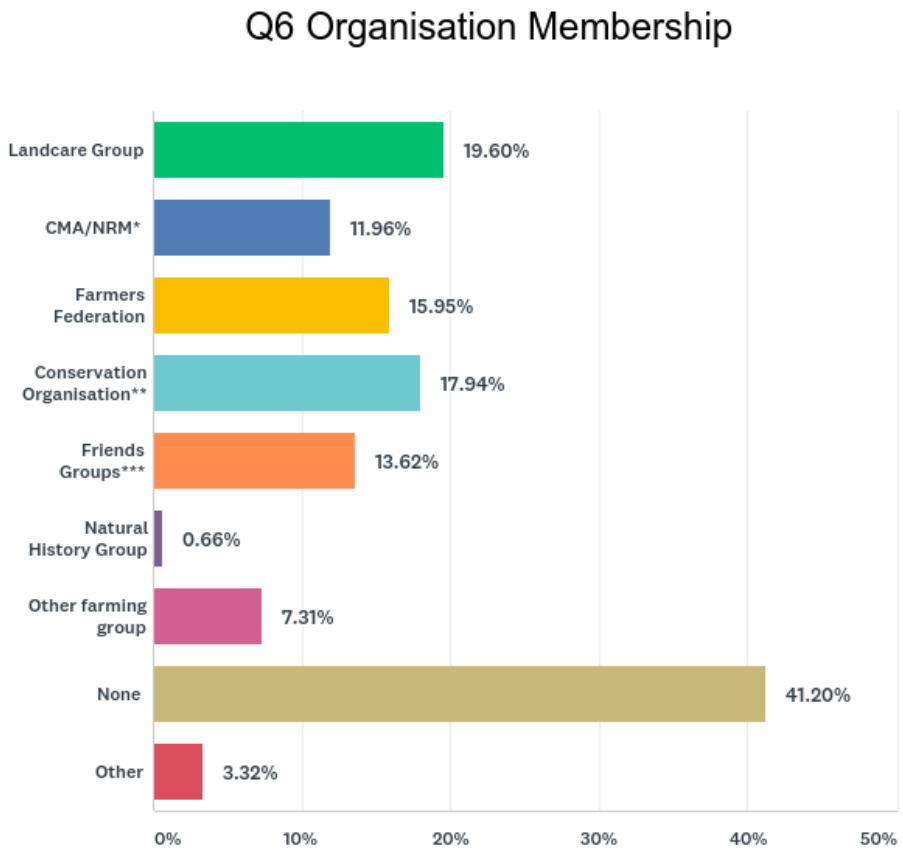


Figure 6 – Percentage of years landholders owned/operated land

The majority of landholders have owned their land for over 10 years. It was also interesting to note that around 20% had managed the land for over 40 years which would suggest that turnover is likely over the next 10 years. If this trend continues then it will be important to ensure that younger generations are aware of the SERTBC and how they can manage their land to improve their habitat requirements.



*Wimmera Catchment Management Authority, Glenelg Hopkins Catchment Management Authority, Natural Resources South East
**eg BirdLife, Greening Australia, Trust for Nature, Trees for Life
***eg Friends of Parks

Figure 7 – Organisational memberships for 2019 survey

Figure 8 – Organisational memberships for 2003 survey (Beumer 2003)

Figures 7 and 8 compare the results of organisation memberships from both the current survey and the 2003 survey. One major change from the 2003 survey is the number of landholders who were members of the Farmers Federation. In the previous survey 62.6% of participants were a member of the Federation, but in 2019 this number was only 16%. One of the recommendations from the previous survey was to make the Farmers Federation a key point of contact for future SERTBC activities. The current results indicate that this recommendation is now outdated, as a lot of landholders now do not belong to any organisations.

The percentage of landholders who are members of conservation organisations and 'Friends' groups has increased since 2003, which is definitely a positive trend and demonstrates more landholders seeking to work collectively to put their conservation aspirations into action. The 'other' category includes responses such as CFA and CFS.

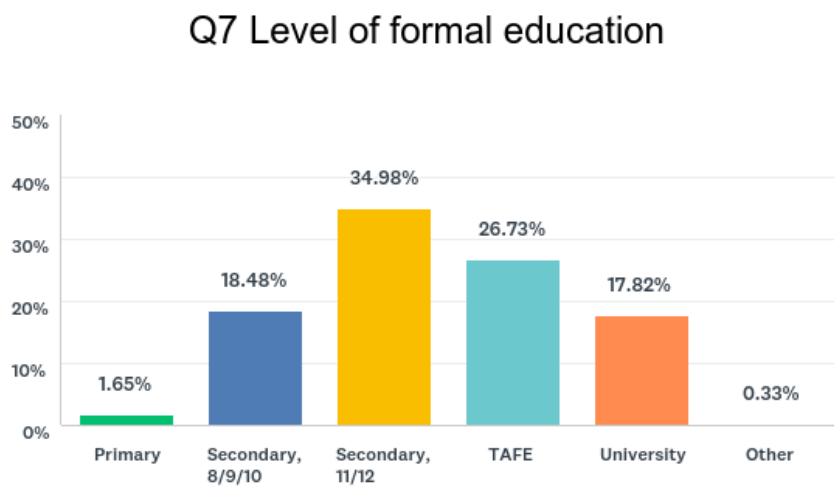


Figure 9 – Level of formal education

This figure shows that over 50% of landholders either left during or finished school and didn't seek further education afterwards. This is followed by 27% completing a course at TAFE, which was usually an agricultural related course. These figures might be related to the age of respondents with fewer opportunities for higher study available in regional South Australia before the 1970s.

Table 3 – Presence of paddock trees or native vegetation on land

Q8 Presence of paddock trees or native vegetation on land	**%**
Yes	80.86%
No	19.14%

Of those surveyed 80.86% answered yes to having paddock trees or native vegetation on their land. Respondents who answered no to this question did not answer the following 4 questions as they required a landholder to have native vegetation on their land to be answered effectively. This resulted in 245 respondents answering the following questions.

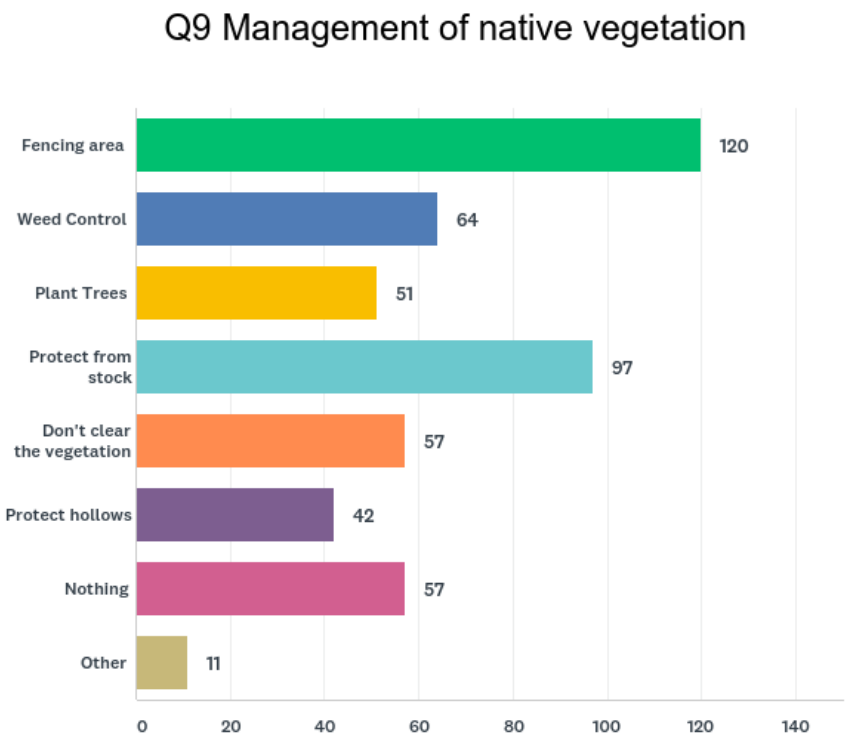


Figure 10 – How landholders managed their native vegetation

This question was designed so that landholders could tick multiple categories, not just one. From this data we can see that almost 50% of landholders fence off their native vegetation and almost 40% keep their stock away from the area. This is crucial in helping to maintain native vegetation for the SERTBC and other wildlife. However the results also indicate that nearly 25% of landholders don't do anything to protect the native vegetation or paddock trees on their land. Furthermore only 17% protect hollow trees on their land. Hollow trees take hundreds of years to form and are critical for Red-tails nesting. This survey indicates there are opportunities to increase landholder awareness of the value of trees with hollows and to work with them to design interventions to support the tree's protection.

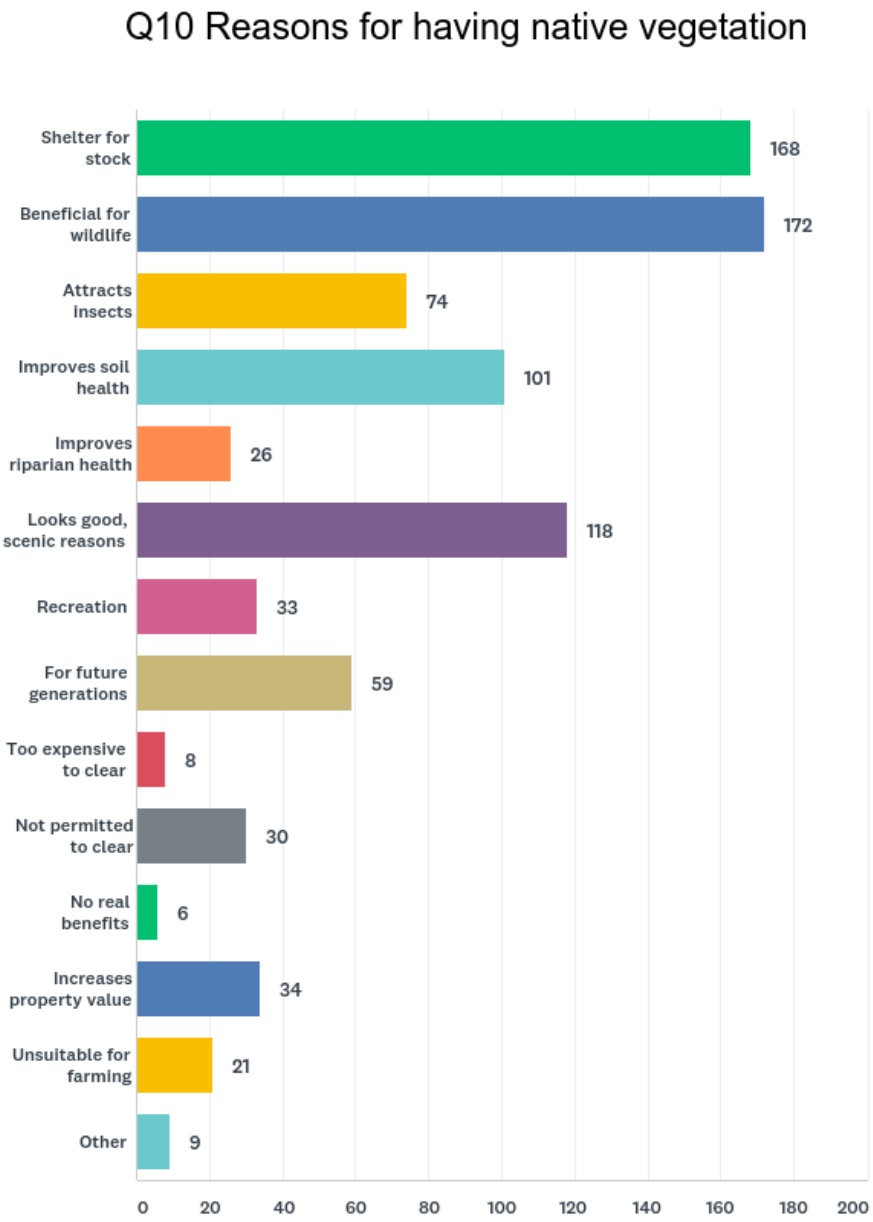


Figure 11 – Reasons for managing vegetation in 2019 survey

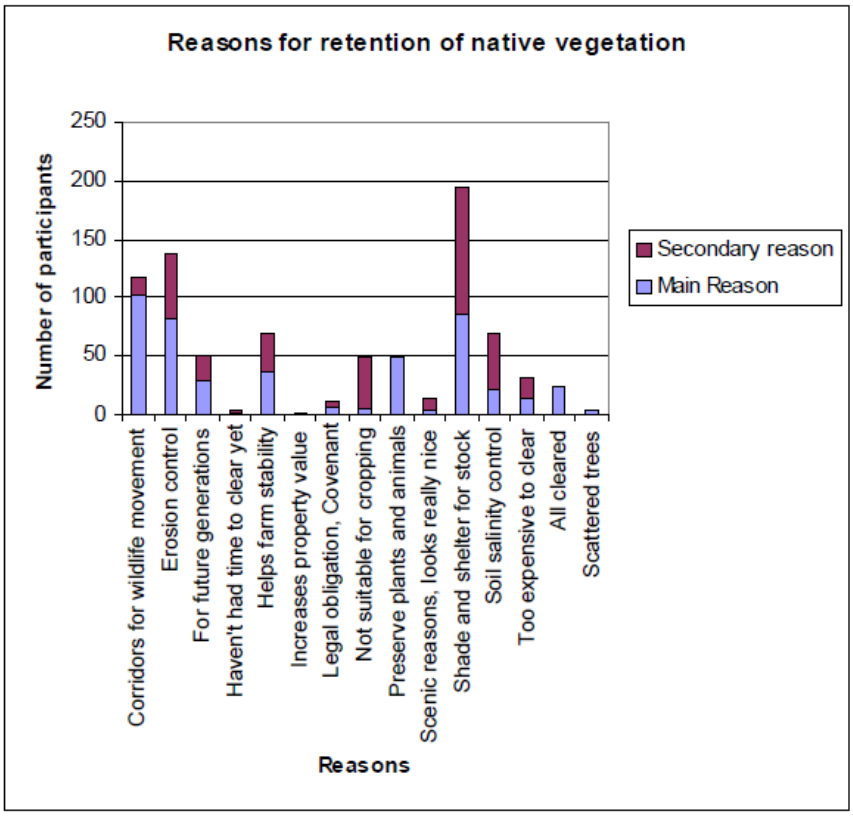


Figure 12 – Reasons for managing vegetation in 2003 survey (Beumer 2003)

For this question respondents were again able to choose multiple answers. The most common answers were 'shelter for stock' and 'beneficial for wildlife movement', with both being chosen by around 70% of landholders as shown in Figure 11. It is great to see such a significant group of landholders maintain their native vegetation for the sake of benefitting wildlife including but not exclusive to Red-tails and report enjoying the wildlife their land supports. This increased from 30% in 2003 to 70% in the current survey. Improving soil health' and 'scenic reasons' were also both popular answers, confirming landholders' value and maintain native vegetation for multiple benefits. For this reason it would be useful for the Recovery Team to continue to talk about habitat protection and creation measures for Red-tails in the context of multiple land management and intrinsic benefits. Furthermore nearly 25% of respondents also stated that they are managing their vegetation as a way of preserving a legacy for future generations. If the Team continues to promote Red-tail conservation in schools, then future generations will maintain and potentially increase the native vegetation on their land to help preserve SERTBC habitat in the future.

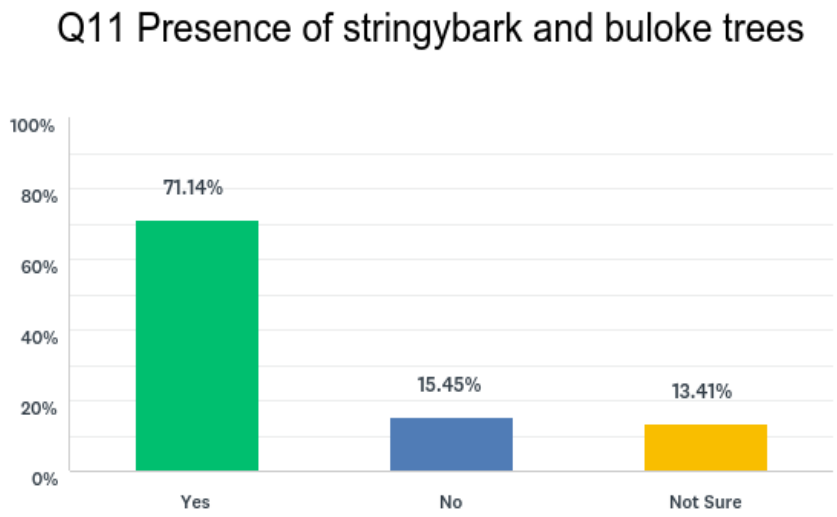


Figure 13 – Presence of stringybark and buloke trees

This question generated 245 responses, with over 70% of landholders with native vegetation reporting that they had stringybark and/or buloke trees on their property. 13% weren't sure, so this indicates that the Recovery Team should continue to produce educational material so landholders can identify the types of trees on their land important for Red-tails

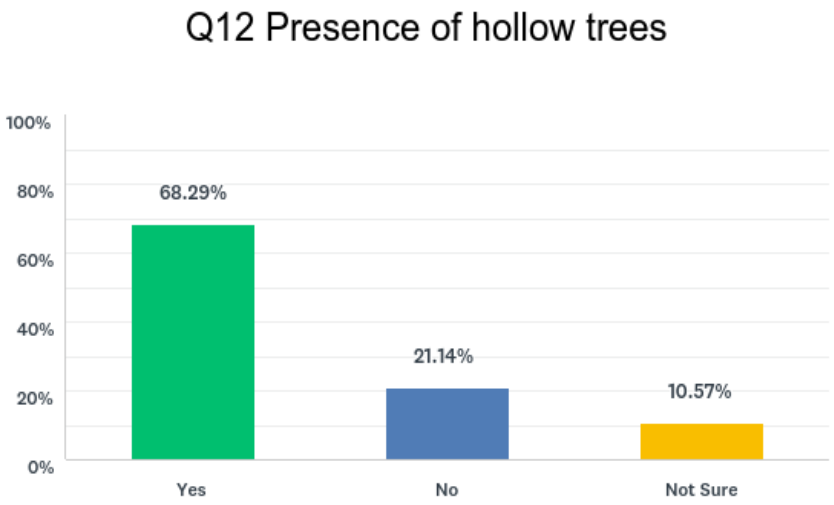


Figure 14 – Presence of hollows on landholder properties

It is a promising sign that almost 70% of landholders have hollow trees present on their properties. However as stated earlier in this report, only 17% of landholders choose to protect the hollows on their property. Therefore this enforces the earlier recommendation that landholders are continued to be made aware of the importance of hollow trees to benefit the recovery of the SERTBC.

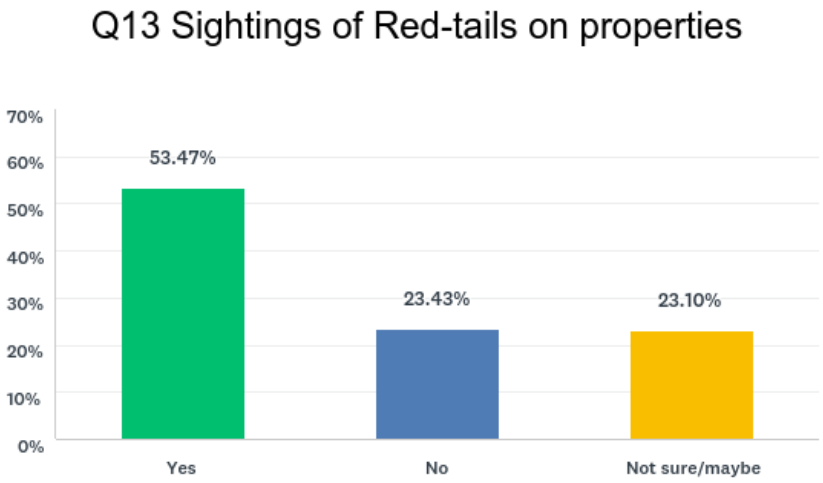


Figure 15 – Sightings of Red-Tails by landholders on their properties

All 303 landholders were able to respond to this question. 53% of respondents said that they had seen the SERTBC on or near their property. This equates to 161 landholders, but from speaking on the phone it seemed that quite a few of these sightings were from many years ago. Most landholders made it clear that they hadn't seen the birds for a long time on their property. Another important statistic is that 23% of landholders weren't sure if they had seen the bird. Ensuring that landholders can distinguish the Red-tails from any other bird such as Yellow-tailed Black Cockatoos would potentially increase the number of sightings reported and provide the Recovery Team with a greater understanding of the range of the SERTBC.

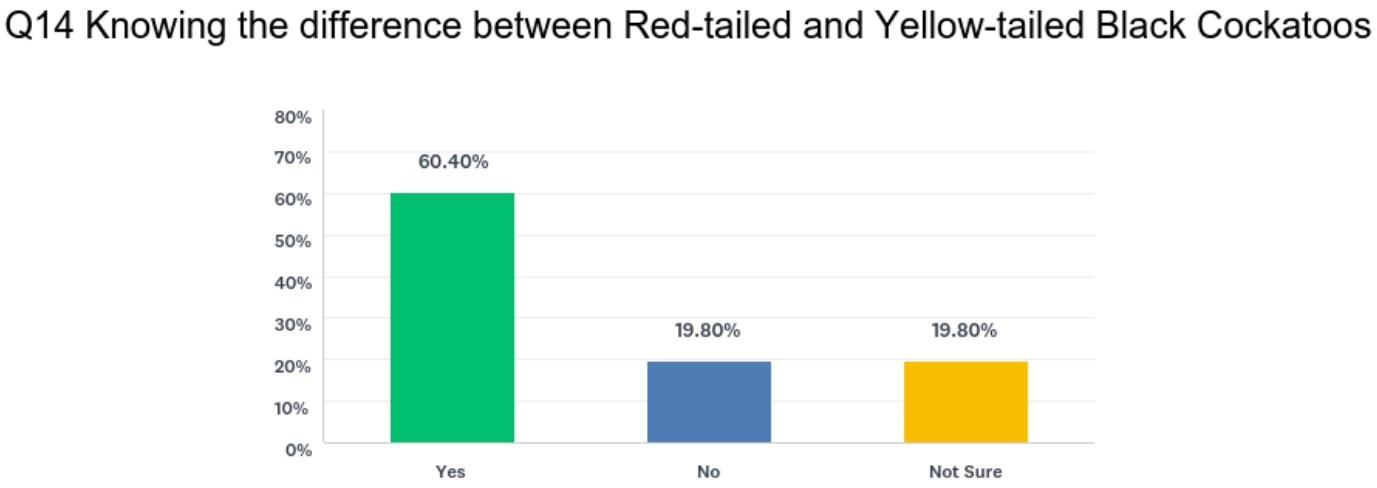


Figure 16 – Responses to knowing the difference between Red-tails and Yellow-tails

Following on from the previous result regarding sightings, the bird that is most commonly mistaken for a Red-Tail is the Yellow-Tailed Black Cockatoo. Respondents were asked specifically if they knew the difference between the cockatoos using methods apart from the colour of their tails (possible responses included that Yellow-tails are larger, have a different call and feed in pine trees). The table above shows that nearly 40% of landholders either answered 'No' or 'Not sure' to knowing these differences between the two birds The lack of confidence reported by landholders in distinguishing between the cockatoos could potentially be a factor in people not reporting the sightings. It is important that the Recovery Team continue to develop and promote mechanisms to help

community members feel confident about identifying the two separate species over and above communication around the annual count.

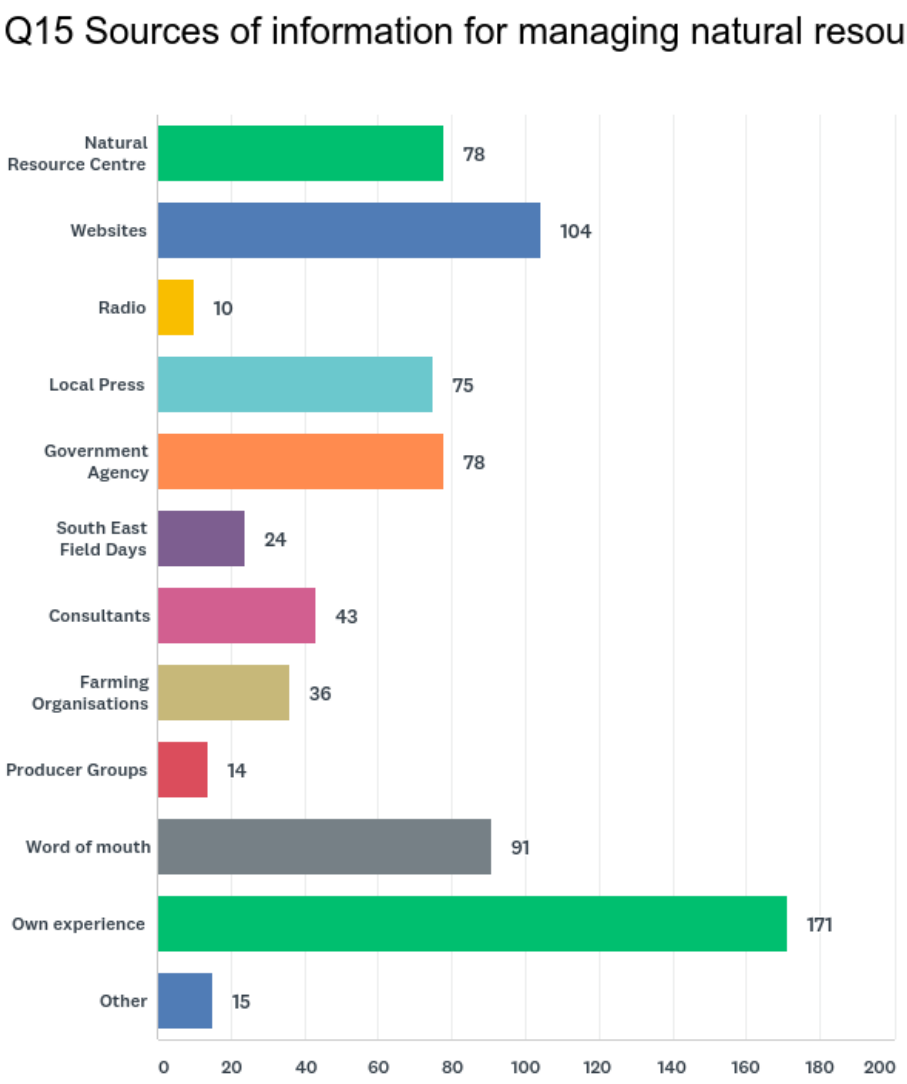


Figure 17 – Sources of information for managing Natural Resources

For this question landholders were able to choose more than one answer. This question received a lot of different responses, but the standout answer is that 171 respondents relied on their own experience to manage their land. This can make it difficult to influence landholders through different organisations and projects. However over 100 people used websites to help manage their resources, which indicates an increase in the use of technology to gain information. Making sure the SERTBC has a strong online presence going forward could let the team take advantage of this change. The 'other' category included responses such as CMA's, Councils and Libraries.

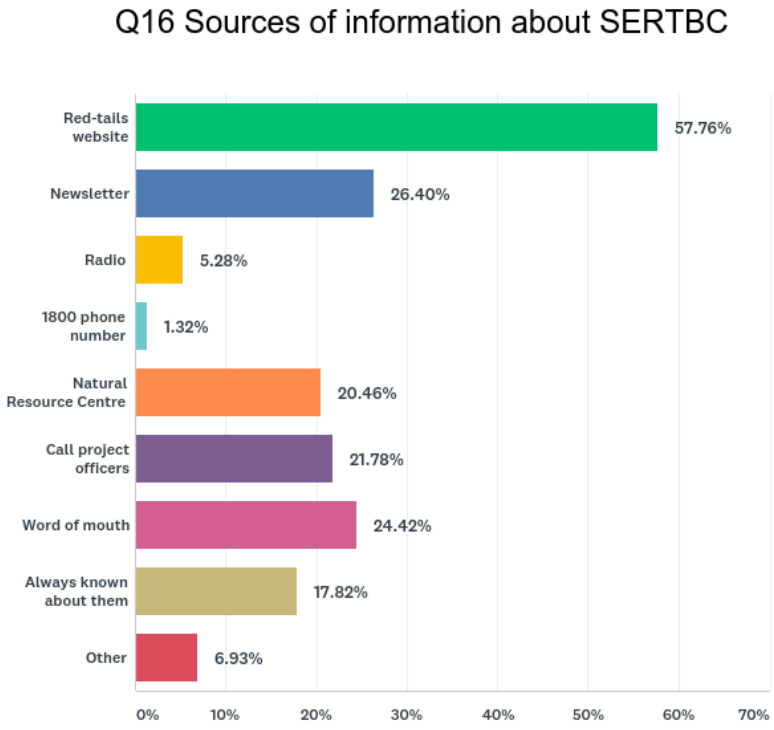


Figure 18 – Sources of information about Red-Tails for 2019 survey

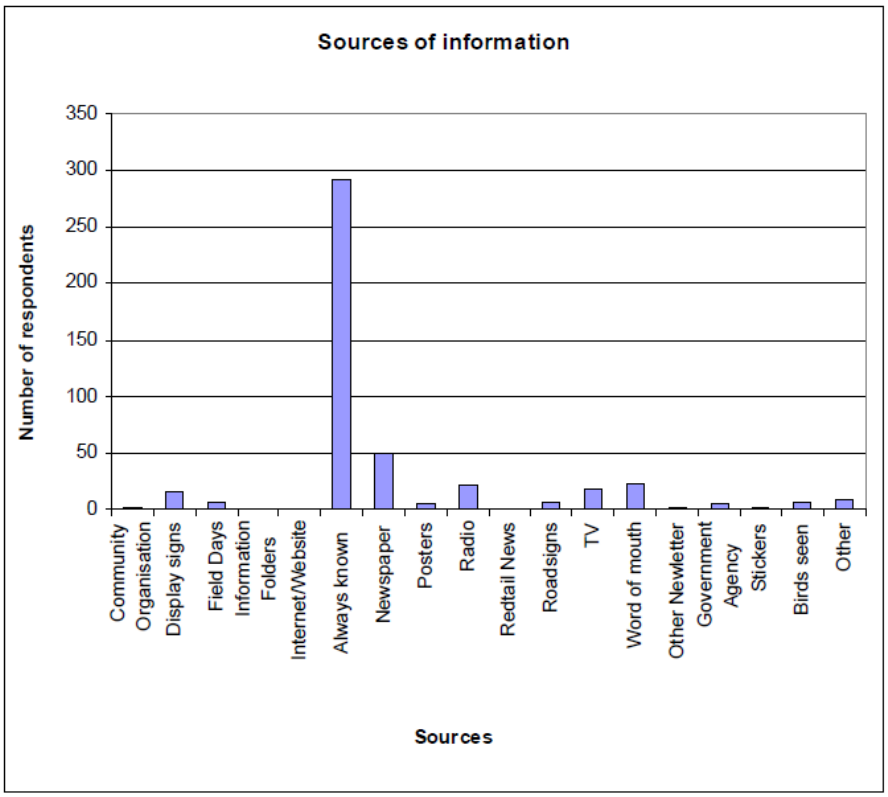


Figure 19 – Sources of information about Red-tails for previous survey (Beumer 2003)

As seen in the comparison between the 2003 results and the current survey, the use of technology by landholders has notably increased. However it is important to also note that the 2003 results are based on the question 'Where did you hear of Red-Tails' which could provide different answers to the current survey question 'Where would you go to get more information on Red-Tails'. Irrespective it indicates that landholders are using technology more and that the Red-Tails website is now a well-known source for finding information about the bird. Therefore, the site needs to be used effectively and kept up to date so landholders are well informed on the latest news regarding the Red-tails. The newsletter is also a popular source of information and should continue to be produced.

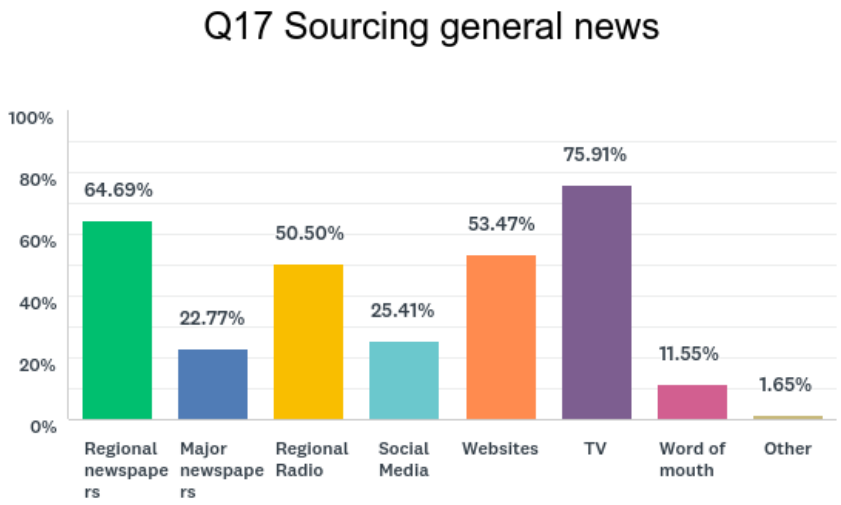


Figure 20 – Use of different types of media to obtain news

Despite the rise in internet usage over the last 15 years, landholders are still relying on regional newspapers and radio as a major source of news. Therefore, it is important that the Recovery Team continue to use these sources to spread information about the SERTBC. Despite social media not being as popular among landholders as a source of news, developing social media accounts could be used as a way of interacting with younger generations and raising awareness about the Red-tails.

Table 5 – Percentage of landholders who have conducted revegetation

Q18 Landholders who have conducted revegetation on their property	**%**
Yes	68.32
No	31.68

The majority of landholders have taken part in revegetation activities on their land. Therefore 209 respondents were able to respond to question 19, and 136 answered question 20. These numbers add up to more than 302 so it is believed that some respondents answered both questions.

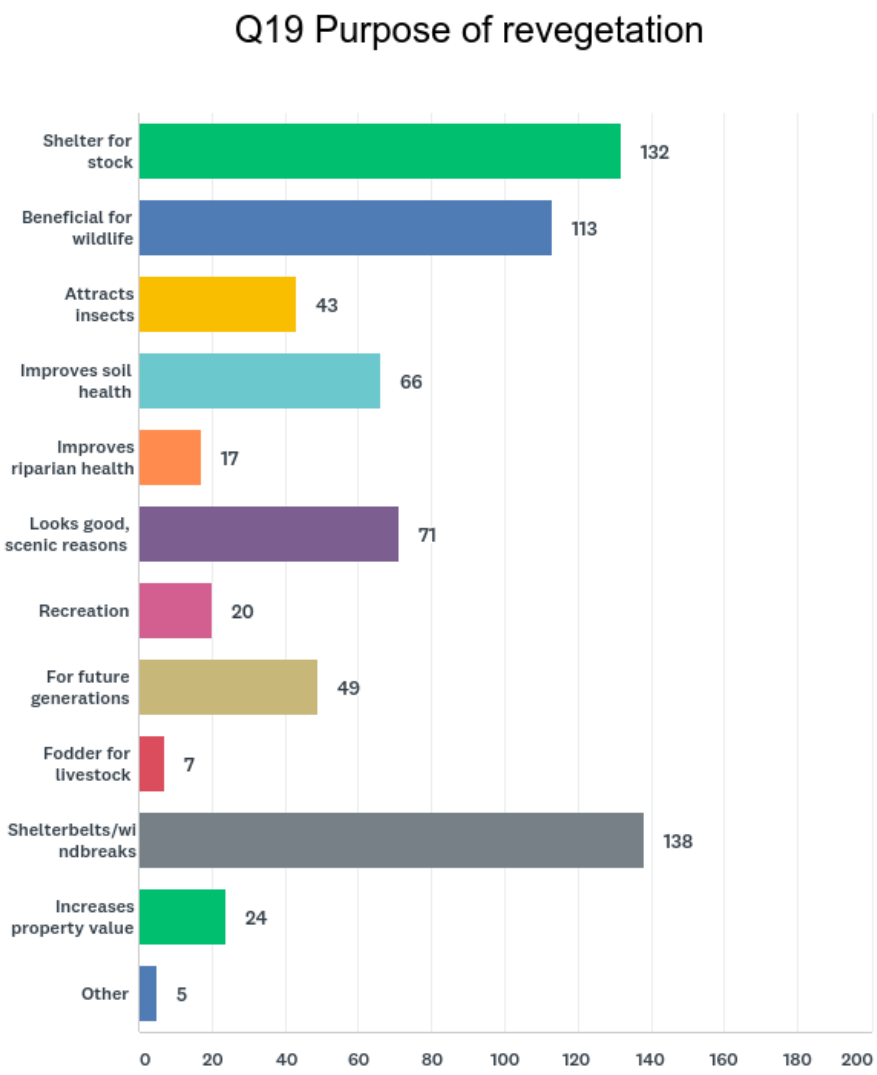


Figure 21 – Purpose of revegetation

Landholders were able to choose multiple answers for this question. Most respondents indicated that the reason for their revegetation was for shelterbelts/windbreaks or shelter for their stock. However, many also gave the response that it was beneficial for wildlife, which shows that landholders do have wildlife in mind when conducting these kinds of activities on their land. Therefore as discussed earlier in this report talking about habitat creation for Red-tails with stringybark and buloke plantings in the context of multiple land management benefits such as stock shelter would be beneficial.
The 'other' category included responses such as a source of firewood.

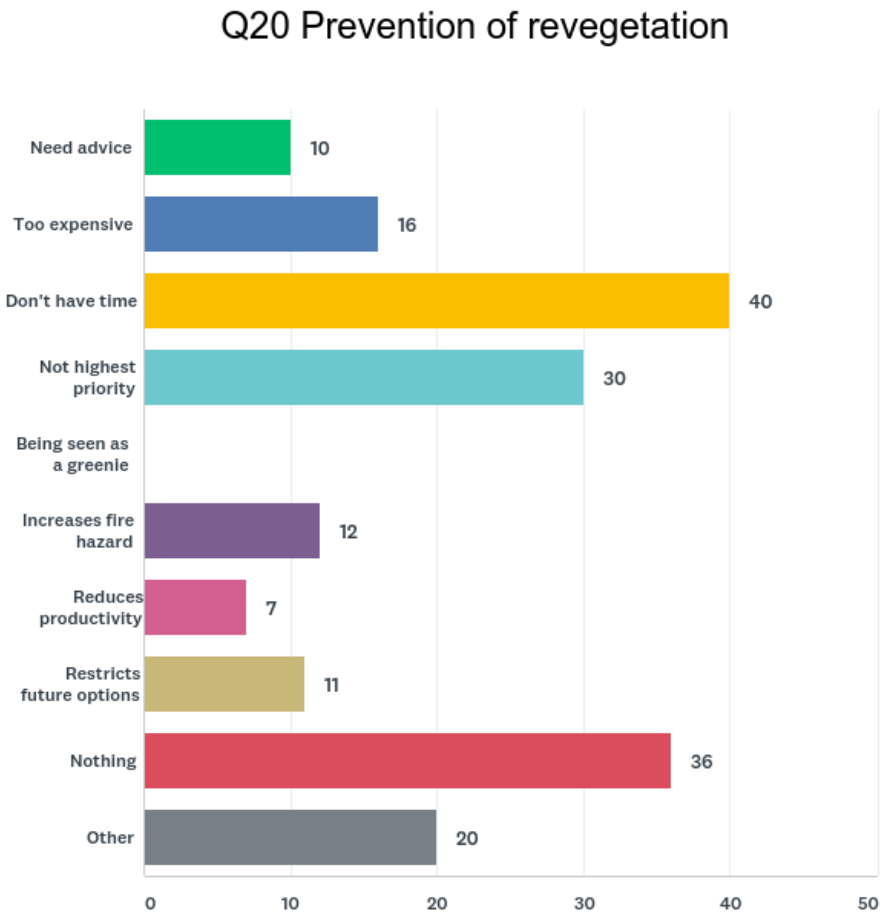


Figure 22 – Prevention of revegetation

Respondents were able to choose multiple answers to this question. From this data we can see that over 25% of landholders who haven't completed any revegetation on their land have nothing standing in their way of doing it. With the current incentives available there is a tremendous opportunity to work with these landholders to look at potential activities that will work at a scale for them. 'Not enough time' was also a popular answer, therefore it is important that partner organisations such as Trees for Life, Zoos SA, Greening Australia and Kowree Farm Tree Group can continue to assist landholders with revegetation for the Red-tails on their land. On a positive note the implication of 'being seen as a greenie' is apparently not an issue for landholders. The 'other' category included responses such as: already have native vegetation on land, property size, and lack of funding over multiple years.

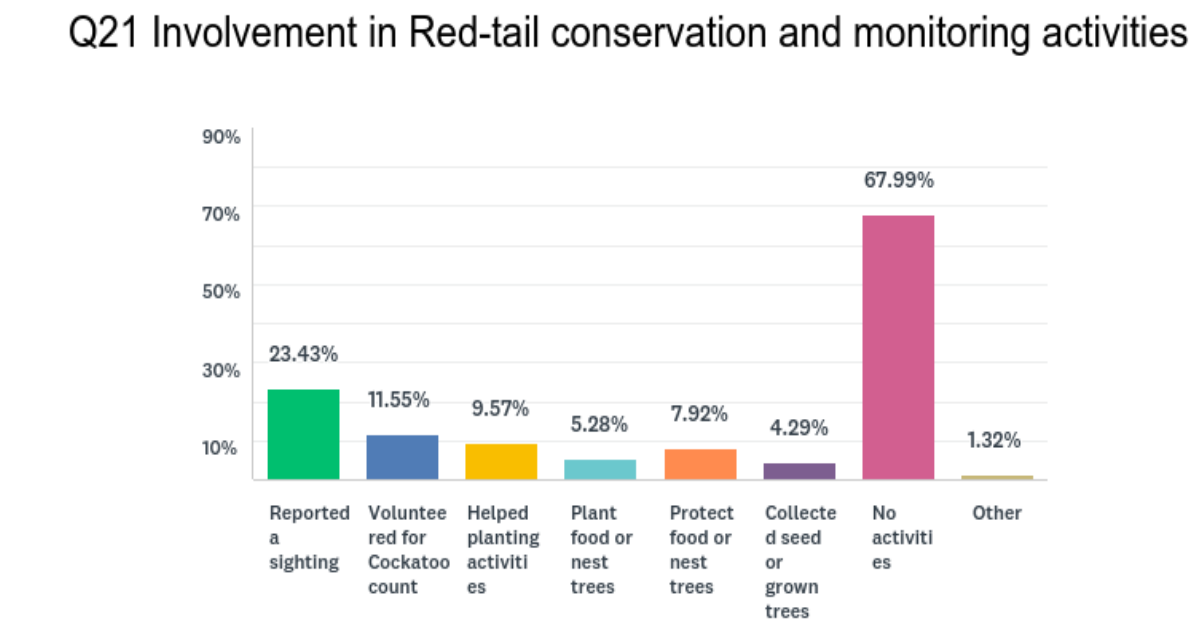


Figure 23 – Involvement in Red-tail activities

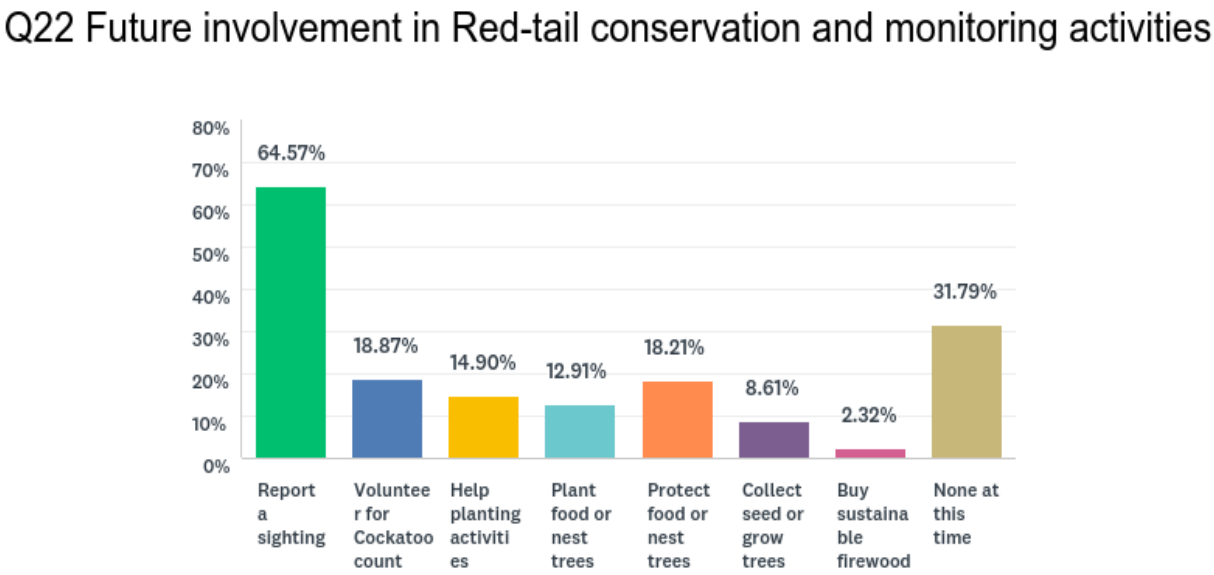


Figure 24 - Future involvement in Red-tail activities

Many of the respondents spoken to on the phone hadn't taken part in any conservation or monitoring activities for the SERTBC. Multiple reasons were given for this, but the most popular were the lack of Red-Tails on their property and that they were too old to take part in activities. This was the case with any future activities too. However nearly 65% of people stated that they would report a Red-Tail sighting if they did see them on their property, which is a good outcome.

Recommendations

From the results obtained the following recommendations were made:

- Any future surveys should make full use of social media and online advertising. This would save costs and in the future the number of landholders using the internet will only increase as younger generations come through.
- Most landholders finished their education during or shortly after high school, it is important that the Team minimise technical language and jargon to ensure their material is accessible to a range of readers and talk about recovery actions in the context of sound contemporary land management practices.
- One of the biggest differences between the 2019 and the 2003 survey is the small number of landholders who are currently a member of the Farmers' Federation. Landcare and conservation groups (some of which are already a large part of the SERTBC Recovery Team) are the groups which the Team need to ensure close communication and partnership with.
- More information needs to be spread among landholders about the need to protect any hollow trees on their property as this is a critical requirement of the SERTBC habitat
- Ensuring that landholders are aware of the difference between Yellow-Tails and Red-Tails could improve the number of reports coming through of Red-Tail sightings (potential for a small guide to be made?)
- 'Word of mouth' is a popular source of information on many subjects between landholders. Therefore promoting and facilitating opportunities for landholders to discuss Red-Tails between themselves could help spread information on the issues facing the bird and enable landholders to take action. This has been a regular element of the Zoos SA partner project 'Cockies Helping Cockies'.
- Despite social media not being one of the biggest sources of information for landholders, it is likely that this will increase in the future. Promoting the Red-tail Recovery Project on platforms such as Facebook and Instagram could help the program reach a younger audience and therefore get more people involved.
- The project needs to continue using local radio and newspapers as ways to reach people and educate them on the SERTBC program
- Continue to explore opportunities for new landholders to take part in revegetation projects on their properties, as many stated there was nothing stopping them from starting to plant trees on their properties.

Conclusion

The landholder survey has been successful in showing a number of areas that the SERTBC Recovery Team could focus on going into the future, and what media outlets will best get the Team's message across. A lot of people were very interested in the project and were happy to have a chat on the phone, telling stories of how Red-Tails used to be on their property. Attitudes to the bird were very much positive and overall most of the landholders spoken to were happy to complete the survey, showing that they are willing to help the project going into the future.

With the size of the regional community population within the cockatoo's range we needed to sample 383 people to achieve a margin of error of 5% with 95% confidence limits (typical acceptable limits). As we completed 302 surveys we did not reach this target but this number of surveys still provides us good confidence in the reported trends. These trends indicate there is widespread awareness of the bird; local landholders are generally active or open to undertaking land

management practices to help the bird in conjunction with delivering other on farm and wildlife benefits; peer and land management networks, websites and local media are important sources for reaching landholders within the range; and building the community's understanding and capacity to protect large trees with hollows is an area to prioritise in the next Team's communication strategy.

References

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