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Sustainability of a long-term volunteer-based bird monitoring program
Recruitment, retention and attrition

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ABSTRACT
With an increasing demand and reliance on volunteers in a host of different sectors, the need for organisations to understand motivating factors behind volunteering, and how to retain volunteer services, is crucial. This paper examines the recruitment, retention and attrition among a group of volunteers participating in a long-term monitoring program for the critically endangered orange-bellied parrot Neophema chrysogaster. This project is one of the longest running of its type in Australia with more than 20 years of survey activities. Volunteers were most often recruited via other environmental agencies. Almost three-quarters of respondents had been involved in birdwatching or other bird monitoring activities usually in connection with conservation organisations. The modal response was an involvement of 10–20 years, with most other responses in the range 0–5 years. The majority intend to continue volunteering, but cited perceived health and time commitments as the main factors behind possible future decisions to cease volunteering. Respondents suggested improvements in the volunteer management of the program, and in particular, thought a personal ‘thank you’, would maintain motivation and participation.

INTRODUCTION
The Australian Government has pursued a program that increasingly relies on volunteers for many aspects of environmental and conservation management, including threatened bird conservation, management and monitoring (Landcare Australia 2001; Warburton, Marshall, Warburton & Gooch, 2005; Antos, Weston & Priest 2006). The use of skilled volunteers or ‘citizen scientists’ (Gallagher 2003) to gather data on threatened birds and their habitats enables the collection of data across extensive geographical areas that would not otherwise be possible (Rosenberg, Barker & Gallagher 1998; Weston, Fendley, Jewell, Satchell & Tzaros 2003). The cost-effectiveness of these programs means they often have a significant longevity, and so they permit long-term monitoring. Additionally, volunteers generally enhance the political and social support for projects, and often act as public advocates increasing community awareness and support of actions to protect threatened bird species and habitats (Gooch 2003; Weston et al. 2003; Warburton et al. 2005). A key assumption of the volunteer-based approach is that volunteers will have long-term stewardship over the works established by government. To attain such stewardship, volunteer groups need to be sustainable, in other words, they need to recruit and train enough new volunteers to at least compensate for any attrition of volunteers. This may be particularly difficult where volunteers require specialist skills.

The managers of volunteer programs can enhance sustainability of the volunteer base by increasing recruitment, improving retention, or decreasing attrition among volunteers. Since motivation is a key to any decision to volunteer, a more grounded understanding of why people become involved in a particular volunteer role and maintain their commitment is required to effectively match volunteer interests and skills to the aims and requirements of projects.
(Flick, Bittman & Doyle 2002; McClintock 2004). However, relatively little is known about volunteers working to conserve Australia’s birds, despite a heavy and growing reliance on them for biodiversity monitoring, threatened species programs and general on-ground remedial and restorative works (Weston et al. 2003; Weston, Silcocks, Tzaros & Ingwersen 2006). A better understanding of the factors that promote volunteer recruitment and retention should contribute to an improved management of the volunteer-base (Gooch 2003; McClintock 2004).

This paper examines recruitment, retention and attrition among a group of volunteers participating in a long-term threatened bird monitoring program. It is based on data collected from volunteers who participate in the Orange-bellied Parrot (*Neophema chrysogaster*) Population Monitoring Counts in Victoria, Australia. This project is one of the longest running of its type in Australia with more than 20 years of counting activities, with surveys coordinated centrally by a paid project officer who is assisted by volunteer regional coordinators. The species, which is nationally endangered, migrates to the mainland of south-eastern Australia for the winter. It inhabits mostly coastal areas of saltmarsh, and every winter volunteers conduct coordinated counts in suitable habitat. The species is highly cryptic (i.e. the plumage is very similar to the surrounding habitat), and expert identification skills are needed to separate it from similar species, especially the blue-winged parrot *N. chrysostoma* (see Garnett & Crowley 2000).

The species has also been the subject of much recent media attention, and was cited as the reason for rejecting a proposal to construct a coastal wind-farm development. This controversy occurred after the survey reported on here and therefore is not included in this paper.

**METHOD**

We developed a questionnaire to explore volunteer motivation, commitment, skills, satisfaction and constraints and to gather suggestions for improving the volunteer experience and recruitment strategies <www.birdsaustralia.com.au>. The questionnaire contained both open-ended questions and closed questions where multiple responses were possible. Respondents were contacted by telephone or email and asked to participate in the study, and were asked to nominate a time which was convenient for a half-hour telephone interview. The interviews were conducted between October and December 2005.

**SAMPLE SELECTION**

The sample was derived from a list of orange-bellied parrot counters that has been maintained over the years by project coordinators. A short list was produced, using only those people who were volunteers (n=347). Participants who worked for Birds Australia, government agencies or private consultancies were excluded (n=64). We constrained our sample of volunteers to those who had participated for at least five years because our focus was on longer-term volunteers. Approximately 70 calls were made to volunteers from the list, and 37 interviews were completed (c. 53% of those called). There were more male respondents (n=22) than female (n=15). There were no refusals to participate in the interview from those who were personally contacted (two volunteers were by then deceased), but many volunteers contacted (n=33) did not return our calls. While our sample size is low, necessitating some caution with respect to the extent to which results may be generalised, we consider that it is significant in terms of a very limited pool of highly skilled long-term volunteers. It should be noted that no volunteer regional coordinators were randomly selected for interview.

**QUESTIONNAIRE**

While most people are motivated to volunteer for a variety of specific personal, social or community-related reasons (Flick et al. 2002; Pope 2005), raising awareness of an issue, in this instance the need to monitor the status of an endangered bird species may increase the number of potential volunteers. Motivation is critical to recruiting and maintaining volunteers (Flick et al. 2002; Anderson & Cairncross 2005) so respondents were asked for their main initial reasons for volunteering. Reasons for volunteering may change over time (Haas 2000), altered life circumstances as well as different interests and preferences may affect the willingness or capacity of volunteers to continue to donate their time and energy to a specific task or cause. To ascertain changing volunteer motivations over time and to explore
the factors contributing to their continued (or discontinued) involvement in the project, volunteers were asked why they first volunteered for the project, how long they intended to volunteer, and/or why they no longer volunteered.

Failure to meet expectations associated with initial reasons for volunteering and a lack of satisfaction gained from volunteering leads to volunteer disengagement and withdrawal from projects (Haas 2000; Flick et al. 2002). To investigate this several open-ended questions were asked. Appreciation and acknowledgement of volunteers are also generally considered essential for on-going volunteer satisfaction and retention (Noble & Rogers 1998; Haas 2000; McClintock 2004; Anderson & Cairncross 2005), and to gain an understanding of how OBPI volunteers felt about these aspects of their volunteering experience, respondents were asked about their sense of worth to the project, how they could be made to feel more valuable, and how their efforts could have been better supported. Feedback from organisers was also examined.

Other sections of the questionnaire explored the types of tasks that volunteers participated in, and what other related activities they would like to be involved with, whether adequate training had been provided, travel distances, and pre-existing skill levels they believed were necessary to participate as OBPI Counters.

RESULTS

DEMOGRAPHICS AND AWARENESS

Most volunteers were aged over 55 years (Table 1). Of 37 respondents, 34.3% were employed full-time, 5.7% part-time and 60.0% were retired. Of 25 volunteers who provided information on how far their survey sites were from home, 16.0% were 2–10 km, 36.0% were 10–20 km, 15.0% were 20–50 km and 32.0% were 50–100 km from home.

Volunteers heard of the opportunity to volunteer in the count program via various channels: 43.2% had heard from other environmental organisations, 24.3% had heard through regular volunteer or bird group newsletters, 21.6% had heard from another volunteer, 21.6% heard through other sources, mostly through the communication channels associated with the host organisation (Birds Australia). No volunteers had gained awareness via the internet or a dedicated volunteer poster.

MOTIVATION

Most volunteers stated helping to conserve birds and habitat as their major motivation to volunteer (Table 2). When volunteers were questioned on the satisfactions and benefits of participation, responses included the contribution to a conservation effort (64.9%), sighting the species (32.4%), having a good dayout (29.7%), birdwatching opportunities (18.9%), social interaction with other birdwatchers (18.9%) and improved birdwatching skills (18.9%). Where some sense of dissatisfaction was mentioned, it was almost always expressed as frustration at not seeing an orange-bellied parrot.

RETENTION

Most respondents (70.3%) declared that they had not changed their reasons for participation over
time, and many (67.6%) also anticipated an ongoing involvement in the project. A lack of time or health reasons were the main reasons volunteers gave to explain the circumstances under which they might cease volunteering, along with poor coordination of count days and poor information dissemination (Table 3). Several respondents also reported transport and fuel costs as factors which would influence their continuation as volunteers, and increasing fuel costs suggest this may become a bigger factor in future.

Of 36 respondents who answered a question as to whether they felt appreciated and acknowledged, 62.2% indicated they did, 8.1% did not, and 27.0% indicated that such appreciation was not important. Overall, 74.3% reported feedback was satisfactory (n=35).

### Table 3: The reasons provided as the likely cause of cessation of participation among volunteers

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage (number) of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>36.6 (15)</td>
</tr>
<tr>
<td>Time and other commitments</td>
<td>29.3 (12)</td>
</tr>
<tr>
<td>Information dissemination and coordination of count days</td>
<td>14.6 (6)</td>
</tr>
<tr>
<td>Transport</td>
<td>9.8 (4)</td>
</tr>
<tr>
<td>Costs (i.e. fuel)</td>
<td>9.8 (4)</td>
</tr>
</tbody>
</table>

### PREFERENCES AND EXPERIENCE

The volunteers involved in this project are very experienced as almost three-quarters of respondents had been involved in birdwatching or other bird monitoring activities, most often associated with conservation organisations. The modal response was an involvement of 10–20 years, with most other responses in the range 0–5 years.

Volunteers (81.1%) reported counts and surveys as the type of activity that interested them the most, followed by mapping, tracking, monitoring sites and banding (29.7%); habitat restoration (29.7%); and research (2.7%). No volunteers indicated a desire to assist with administrative support. Table 4 outlines the reported activities in which volunteers are currently, and have been previously, involved.

Asked whether they would like to continue to be involved in more activities associated with the program, 56.8% indicated they would like to take part in additional counts and surveys. Others indicated an interest in habitat restoration or creation, and raising awareness.

Volunteers identified skills which they considered necessary for volunteering on the counts: these were the ability to identify the species (78.4%), enthusiasm and interest (16.2%) and 13.5% of respondents felt no extra skills were necessary if a person was already a birdwatcher. About half of all respondents believed that they had received the necessary training or supervision for participating in the project. The half that did not feel this way frequently indicated that they did not feel any training or supervision was necessary, particularly if they were experienced birdwatchers. When questioned about desirable additional training, 48.6% indicated pairing with an expert on field trips would be beneficial, 40.5% indicated workshops on species identification, 8.1% suggested other activities (such as a tour of captive-breeding facilities), and 5.4% indicated local information about the site and site conditions. Table 5 presents the ways in which volunteers thought additional support and appreciation could be achieved.

### DISCUSSION

The age of volunteers who participate in the orange-bellied parrot surveys reflects Australia’s aging population and changing demographics (Patrickson & Hartmann 1995), with more than half of those
surveyed being older than 55 years of age. It is possible that a shortfall of volunteers may occur in future, potentially requiring a concerted recruitment campaign to recruit more volunteers. Additionally, many insurance companies are refusing to insure against personal injury for those over 80 years of age.

Not surprisingly the greatest motivation for respondents was to help conserve the species. However, volunteers also indicated a desire to conserve habitat and/or to participate in a conservation effort as a strong motivating factor. This demonstrates the way in which a flagship species can be used to drive the conservation of the natural environment. Without the orange-bellied parrot as a catalyst, fewer people perhaps would be involved in the conservation of salt marsh and related habitats used by the species. A number of respondents stated that the social aspect of the surveys was a motivating factor for participation, while others indicated the desire to increase their own knowledge and skills. Given that these volunteers incur time and financial costs in assisting the recovery effort (one-third of those interviewed travel up to 100 km to survey a site), it is unsurprising that some cease to participate due to the expense.

The greatest preference for volunteers was to participate in surveys in the field, banding and tracking of birds, and habitat revegetation, whilst no volunteers indicated administrative support as an attractive activity. This has been shown previously and suggests that volunteers need the support of paid staff to carry out administrative tasks (Weston et al. 2003).

Among respondents the main reason volunteers anticipated ceasing participation was health. Time and other commitments were also responsible for a large portion of the respondents discontinuing their efforts. With so many organisations calling on the services of volunteers the need to retain volunteers will require careful forward planning. Of immediate importance to the count coordinators (both paid staff and volunteers) was the fact that a number of participants stopped participating in the surveys due to poor information dissemination, and poor coordination of the surveys themselves. This is perhaps the most easily addressed issue we identified but will require careful consideration given that a number of surveys for this species are organised by regional coordinators who are themselves volunteers. Improved liaison with these coordinators, and guidance where required, should prevent these issues from being a concern in the future. Other respondents cited transport issues and costs as reasons for cessation. Given that the cost of fuel likely to continue to rise, the financial burden on volunteers will increase and may lead to more volunteers disengaging. Increased communication by count coordinators to organise car pooling would seem prudent. A number of the issues raised in regard to volunteer retention are within the control of project organisers. We can only speculate that if those issues identified by participants as being important to their retention as volunteers are addressed, that the already high retention rates might be improved. In order to test this, monitoring of retention rates will be carried out on an ongoing basis by project organisers.

**ACKNOWLEDGMENTS**

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