



Evaluation

EXOTIC BIRDS RECORD KEEPING SCHEME

February 2009

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Executive Summary

This report details the findings of a project to evaluate the Exotic Birds Record Keeping Scheme (EBRKS). The scheme was developed, "through consultation with exotic bird keepers in Australia to help bird keepers maintain adequate records showing where they have obtained exotic birds they hold."

Without background data on the scale of exotic aviculture in Australia it is impossible to measure the impact of the EBRKS scheme, particularly in the short time frame dictated for this evaluation. Therefore, it is assumed that only a small proportion of exotic bird keepers have chosen to participate in the current scheme.

The scheme has been well communicated by DEWHA to the exotic bird keepers in Australia. Knowledge of the scheme was high and most respondents had seen materials circulated by DEWHA about the scheme.

The evaluation found that bird keepers understood that the scheme was aimed at reducing illegal trade but were divided on the effects of the scheme. Fifty percent or less saw advantages to scheme participation but 69% stated that for holders of 'high interest' birds, participation in the scheme was "in the bird keeper's interest."

70% of respondents kept records of their sales and purchases of birds, while 56% kept records of previous owners of their birds. This suggests that a majority of bird keepers could demonstrate their compliance with Commonwealth legislation (reverse onus of proof) if called upon to do so.

Bird keepers participating in the scheme demonstrated an understanding of the schemes forms and fill them in accurately with the exception of information about sources on Activity Records. Very few bird keepers have provided full information about the source of their birds that would enable the source to be readily contacted without a search for further information.

Bird keepers interviewed twice had not significantly changed their views at second interview. Both their knowledge of and attitude towards the scheme remained largely consistent. This suggests that attitudes and behaviour towards the scheme, once formed, may be unlikely to change.

This evaluation should be used judiciously due to the difficulty in obtaining random samples of the entire Australian bird keeping community; the inevitably small sample sizes involved; and the fact that this evaluation deals largely with the perceptions and stated intentions of bird keepers (that may not reflect actual behaviour).

Of those people interviewed a clear majority of respondents (75% or 30 out of 40) thought the scheme should be compulsory under the law and expressed scepticism about the effectiveness of any voluntary scheme. On this basis there is therefore a clear argument for legally regulating record keeping by keepers of exotic birds. However, bird keepers would need to be carefully consulted about how any such scheme would operate. Any compulsory scheme would also require resources within DEWHA for its effective management and policing.

The issue of what constitutes proof of legal ownership is a source of anxiety amongst bird keepers and therefore needs to be adequately clarified. In particular, bird keepers report concerns about their inability to verify information with which they have been provided upon purchase of a bird.

'Low interest' birds may represent a more significant threat to Australia's biodiversity than 'high interest' species but there is very little interest in record keeping for 'low interest' birds. This issue is worthy of further investigation by DEWHA, in conjunction with State and Territory agencies.

State and territory agencies concerned with the regulation of aviculture appear to have not been actively engaged with the scheme or with any regulation of exotic bird keeping. Further liaison may be required to encourage other government agencies to be more actively engaged.

Introduction

Current Scheme

The Exotic Birds Record Keeping Scheme was developed by the Australian Government Department of the Environment, Water, Heritage and the Arts (DEWHA) in consultation with aviculturists through the Exotic Bird Keepers Advisory Group (EBAG).

On 9 December 2005, a workshop was held involving stakeholders in the exotic bird industry in Australia. The purpose of the workshop was to discuss a range of issues affecting the exotic bird industry relating to the regulation of exotic birds under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This workshop initiated the formation of EBAG whose role was to provide industry advice and guidance on key issues affecting the industry. Consultation with EBAG members began in 2006 and continued through 2007 involving several meetings to discuss options for record keeping.

EBAG's role as industry representatives (commercial brokers, zoos, aviculturists and associations) aimed to ensure that the scheme would be simple and practical for bird keepers to implement in order for exotic bird keepers to meet their obligations under the EPBC Act to verify the origin of bird specimens.

Overall, the Exotic Birds Record Keeping Scheme was formulated to address the concerns held by the bird keeping industry about the adequacy of documentation kept by bird keepers to verify that specimens had been lawfully imported. This was of particular concern, as under Federal legislation in the *Environment Protection and Biodiversity Conservation Act 1999*, the burden of proof rests upon the person holding exotic birds to verify the source of their birds and/or eggs.

Additional objectives that the Exotic Birds Record Keeping Scheme aims to address is to reduce the risk of bird keepers acquiring illegally imported birds; reduce the risk of captive birds contracting exotic diseases spread by illegal wildlife trade and to protect Australia's native wildlife from introduced pests and diseases.

During the pre-implementation of the Exotic Birds Record Keeping Scheme, DEWHA considered that incremental improvement in record keeping by exotic bird keepers was a realistic outcome that was worth pursuing by both the Department and the exotic bird keeping sector.

The Exotic Birds Record Keeping Scheme commenced on 7 December 2007 as a Government policy to help holders of exotic birds keep standard records on the origin of exotic birds and/or eggs and their movement in Australia.

The decision to implement the exotic bird record keeping scheme, as a policy with a 12 month support phase, was to provide the bird keeping sector with the opportunity to demonstrate a willingness to participate in a self-regulating scheme.

With the launch of the Exotic Birds Record Keeping Scheme, DEWHA commissioned an evaluation of the scheme. This was to be undertaken during the first 12 months of operation, as recommended by EBAG in its final deliberations to DEWHA.

The Department sought an independent evaluation to clearly establish the attitudes of bird keepers towards the scheme. Bird keepers were to be able to express their views openly, free of any sense that their statements may be prejudicial to their current or future activities. In addition, the Department sought to achieve an unbiased view of, and recommendations regarding, the effectiveness of the scheme.

Peter Stroud Services Pty Ltd (PSS) was contracted as the independent consultant to evaluate the scheme. Peter Stroud Services was founded in 2003 and has successfully undertaken consultancy

projects in the areas of wildlife regulatory compliance, exhibition design, zoo collection planning and captive animal husbandry. Peter Stroud was active in aviculture for a period of 10 years. From 1987 to 1991 he was Superintendent in charge of the extensive bird collection at the Adelaide Zoo. During his tenure there he implemented the first detailed animal specimen record keeping system of any type in the zoo, and was instrumental in the establishment of the "Regional Avian Species Plan" (later developed for all species as the "Regional Animal Species Plan – REGASP) for the Australasian Regional Association of Zoological Parks and Aquaria (ARAZPA).

The evaluation included a baseline study conducted at the introduction of the scheme and a follow up study to assess the performance and progress of the scheme after it has been operating for ten months. The objective was to produce a report that would help DEWHA to assess the effectiveness of the Exotic Birds Record Keeping Scheme and to inform its decision about the future operation of the scheme.

Objectives for the evaluation also included determining:

- how well DEWHA had communicated about the scheme to exotic bird keepers in Australia,
- how well bird keepers understood and accepted the scheme,
- the perceived impacts of the scheme on the trade in exotic birds, and
- what changes might be made to the scheme to improve it

It is not practical to attempt to randomly access the views and activities of exotic bird keepers through randomly sampling the entire Australian community. Furthermore, there is no register of all of the exotic bird keepers in Australia from which bird keepers can be randomly selected. Apart from Western Australia, no State or Commonwealth Government agency keeps records of keepers of exotic birds. Bird keepers can only be accessed through information networks, including bird clubs and societies through key events such as advertised "bird sales", or by using the contact details provided by sellers of birds in magazine advertising. This evaluation has therefore used these modes of access to provide a representation of the views and activities of the wider bird keeping community. Of course there may be many pet owners and hobbyist breeders that are not members of club or societies. Therefore an inability to access these people through these institutions means that pet owners have not been assessed in a representative way in this evaluation. There are indications that the market for companion birds is now a significant and growing market.

Communicating the scheme

Booklets and Guides for the scheme were distributed from late December 2007 following the commencement of advertisements in avicultural magazines, including Australian Birdkeeper Magazine and the Parrot Society of Australia newsletter.

Information packs about the scheme were distributed from late December 2007 to individual bird keepers, bird clubs, societies, key stakeholders and state agencies. Each bird club initially received two packs for distribution, with some clubs requesting multiple copies for members after the initial mail out.

A dedicated free call (1800 720 466) information line and email address exoticbirds@environment.gov.au was advertised for direct enquiries. The DEWHA website <http://www.environment.gov.au/biodiversity/trade-use/exoticbirds/index.html> provides comprehensive information and an email alert service people can subscribe to.

Record forms for low interest species were made available for downloading from 7 December 2007. Bound record books for high interest species were available from DEWHA from 14 January 2008 on request.

The Department has continued communication with a range of activities in February 2008.

The following indicates the initial level of communication activities under DEWHA's communication strategy up to mid-February 2008:

- 978 packs to clubs and societies
- 260 packs to individuals
- 40 packs to state agencies
- 20 packs to participants in the key stakeholder group
- 1100 packs to pet shops around Australia, and
- providing contact information postcards and posters to organisers of bird sales.

DEWHA is continuing with the distribution of information and will be providing zoos and secondary bird keeping communicators/outlet, such as avian veterinarians and feed suppliers, with information packages.

Background

National Exotic Bird Registration Scheme (NEBRS)

The National Exotic Bird Registration Scheme (NEBRS) was closed in February 2002 on the basis that the outcomes of protecting Australia's biodiversity and minimising illegal trade could be achieved in other more cost effective ways.

While NEBRS had managed to establish a list of all exotic bird species currently in Australia, the Minister at the time, the Hon Robert Hill, concluded that NEBRS was unlikely to result in significant further conservation achievements. There was also no evidence that NEBRS had had a significant impact on the Department's capacity to meet its obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or the Convention on Biological Diversity (CBD).

At the time when NEBRS closed, there was an expectation from the Commonwealth that the state and territory governments would take on the responsibility for registration of people keeping exotic birds. However, this did not occur in all states and the type of species covered varied among the jurisdictions. Western Australia was most involved in administering an alternative scheme (which may reflect a higher level of activity in native species protection and minimising the impact of exotic species); NSW shared in the administration of exotic birds by implementing their own scheme, however this has not continued. The other states and territories showed little interest, perhaps due to the fact that some states did not have legislative powers to control the keeping of exotic birds at that time. The ACT does have a scheme in place for documenting exotic birds.

It was decided that the approach for regulating exotic birds should be shifted from Government regulation to greater self-regulation and industry involvement. Under this approach, the industry and government were to work in partnership to meet Australia's obligations under CITES and CBD.

The Department was criticised for not adequately communicating the closure of NEBRS to the relevant stakeholders even though all people registered under NEBRS were written to and notified that they should continue to keep records. Bird keepers continue to believe that the Department had been negligent in closing NEBRS. Additionally, exotic bird keepers who have only kept birds since the closure of NEBRS claim they were unaware of the reverse onus of proof under the EPBC Act and that they should be keeping records to prove lawful ownership.

Since the closure of NEBRS, the lack of scrutiny of the number and type of records kept has supported the opportunity for people to sell illegally imported specimens in Australia and exotic bird keepers have claimed that illegal trade has increased since its closure.

In a December 2005 exotic bird workshop forum that included members of the bird keeping community, it was made clear that the Australian Government was not contemplating a return to NEBRS and that alternatives would need to be developed and considered.

Method

The full methodology is attached in Appendix 1.

Phase 1 - First Survey Questionnaire

A primary questionnaire (Appendix 2) containing 59 questions was developed in conjunction with DEWHA staff.

The questionnaire was used to gather information sequentially, building from simpler yet definitive issues to more complex and detailed matters in relation to the scheme. A short profile of the questionnaire respondent was established in terms of their gender, age category, type of engagement in bird keeping (species kept and numbers) and level of activity (breeding and movement of birds/eggs). Indications as to club/society membership or professional association were also sought. Further questions sought to establish the level of the respondent's knowledge and understanding of the principles and detail of the scheme.

Thirty one respondents were selected for interview by:

- direct approach and request for interview at the Orange Bird Sale, March 1, 2008 (6 respondents)
- telephone to Commercial Breeders advertising in the magazine "Australian Bird Keeper" (3 respondents)
- telephone to Pet Shop owner/managers selected from the Yellow Pages and Zoo Animal Records Officers (9 respondents)
- telephone to bird keepers known to the consultant (3 respondents)
- telephone to bird keepers and bird dealers recommended to the consultant by bird keepers known to him (5 respondents)
- telephone to bird keepers who had contacted the DEWHA 1800 information line and had provided a contact telephone number (5 respondents)

Bird keepers who stated that they had not read the available materials about the scheme and expressed a generally poor understanding were not asked questions about the detail of the scheme. Therefore the number of bird keepers asked particular questions varied. The maximum number of respondents across all categories of bird keeping was 31.

Phase 2 - Record Returns

Movement Transaction forms

A sample of forms for examination was selected by taking the first 104 forms from the alphabetically ordered folders of compiled forms provided by DEWHA. Each form was interrogated using a set of 31 questions (Appendix 1).

The MTR forms were analysed to establish how the forms were used including:

- their accuracy
- the nature of the transactions undertaken
- the activity of the buyer and seller in relation to Activity Records submitted, and
- the species involved in the transaction.

A second sample set was analysed to determine levels and types of activity of primary questionnaire respondents in relation to the scheme, in comparison to their stated views and intentions when surveyed.

Activity Record forms

A sample set of Activity Record (AR) forms for examination was selected by taking the first 311 forms from the alphabetically ordered folders of compiled forms provided by DEWHA. These were analysed using a tailored set of 13 questions (Appendix 2).

The AR forms were analysed to establish how the forms were used including:

- how information was recorded
- the types of activity recorded and its accuracy and coherence, and
- the types of species involved.

A standard was set for assessing AR forms. This standard involved that an AR form was considered to be complete if all relevant fields were completed and information relating to buyers and sellers of birds included full residential address. It was considered that a full residential address had been provided, regardless of whether or not the postcode was included. This applied that the information was complete if contact could be made with the person referred to, without recourse to further information other than postcode.

A second sample set was also examined which comprised 56 AR forms returned by six respondents interviewed in the first round of evaluation interviews.

The second sample set was analysed to determine levels and types of activity of primary questionnaire respondents in relation to the scheme, in comparison to their stated views and intentions when surveyed.

Phase 3 - Second Survey Questionnaire

A set of 20 questions was selected from the primary questionnaire for the second round of interviews (Appendix 2).

Forty respondents were selected for interview according to the following categories:

- respondents who had been surveyed previously using the primary questionnaire (15 respondents)
- respondents who had contacted DEWHA and had been sent the scheme's forms and books but had not returned any forms as at 10 September 2008 (12 respondents)
- respondents selected at random from the lists of bird keepers contacting DEWHA Information line regarding the scheme, who had not been previously interviewed (13 respondents)

These 3 categories of respondents were interviewed in order to try and establish:

- if the attitudes and activities of reinterviewed respondents were consistent with the responses received to the primary questionnaire
- where responses differed, how they had differed and why and what did this suggest about perceptions of the scheme
- what changes in attitude or activity might suggest regarding uptake of the scheme amongst exotic bird keepers generally
- why some bird keepers had not yet participated in the scheme after receiving the relevant material, and
- an additional sample set of respondents' level of knowledge of, attitude to, and level of activity in relation to the scheme.

Results

The evaluation of the Exotic Birds Record Keeping Scheme sought the views of bird keepers through a series of 71 interviews conducted in March-April 2008 and November 2008. The views of state and territory agencies concerned with the regulation of aviculture were also sought. Over 311 Activity record forms and over 104 Movement Transaction Record forms were examined to assess their utility.

The results of all interviews can be found in Appendix 3 to 6.

Phase 1 - First Survey Interviews

Bird Keeper Interviews

Interviews took place between 1 March and 18 April 2008. A total of 40 interviews were conducted. Three bird keepers were interviewed in more than one category of bird keeping, with 1 bird keeper actually falling into 3 categories of bird keeping. The estimated average length of interviews was 1 hour.

The distribution of interviews undertaken in each bird keeper category, by number per State, is shown in Table 1.

Table 1: Distribution and numbers of interview respondents for each category of bird keeper.

STATE OF ORIGIN	CATEGORY OF BIRDKEEPER				
	Commercial Breeder	Hobbyist Breeder	Pet Shop	Pet Owners	Zoo/ Wildlife Park
QLD	1	4			
NSW	3	5			
VIC	1	3	3	3	
TAS		1			
SA	2	2			1
WA					1
NT					
ACT					
UNKNOWN	1				

Profiles

On the basis of data gathered for this evaluation, exotic bird keeping in Australia can be characterised as an activity predominantly (73%) undertaken by males over 40 years of age. A clear majority (72%) had kept birds for more than 10 years. Most kept between 5 and 10 species and most state that they had bred, acquired and sold birds in the 12 months prior to being interviewed.

Statutory zoos keep and breed exotic birds but do not appear to be actively engaged at all with the avicultural community. Smaller private zoos and wildlife parks appear to be more intimately engaged with broad aviculture and may use bird breeding and sale as a small source of revenue. Additionally, pet shops interviewed were not engaged in the breeding of exotic birds and therefore trade in 'high interest' birds could be characterised as irregular or occasional.

The range of bird keeping activities encompasses the following types of bird keepers:

- Breeders who are actively selling birds into both the avicultural and the pet market, the latter often being hand raised birds of considerable value.
- Commercial dealers, who simply act as brokers, receive and sell on birds but do not undertake much breeding themselves. Some brokers may operate an "ask no questions" policy. People who

deal with such brokers may have concerns with security and can maintain relative secrecy of their activities, regardless of their legality.

- Some commercial breeders have an advertised shop front. There are also smaller scale commercial operations where the level of income generated varies and may only represent a fraction of the owner's household income. The latter type of activity grades into hobbyists who may or may not trade in birds for income generation.
- Pet owners usually keep a single bird as a companion animal that has been subject to some sort of behavioural conditioning, perhaps through hand-raising. Owners of valuable pets may or may not perceive the possibility of recouping their money by selling the bird in the future. A very few bird keepers appear to be motivated strongly by welfare concerns and will deliberately obtain individual birds in order to improve their quality of life and well-being.

Birds that are legally or illegally sourced with or without legitimate records can enter the market at almost any point. But the original source of illegal birds in Australia is people that are prepared to directly and knowingly receive illegally imported or stolen birds. It is not possible to provide a profile of a typical illegal operator because they could be operating on any level within the market.

Twenty-seven of 31 (87%) respondents stated that they had access to the Internet, with 71% (22 of 31) of these regularly looking up information about birds and bird keeping. Twenty-three of 31 (74%) respondents reported using email, although in 3 cases this was through a spouse or partner. Fifteen of 31 (48%) of respondents also reported buying birds "on-line". Twenty-eight of 31 (90.3%) of respondents also reported reading some form of bird publication regularly.

All commercial breeder respondents and 80% (n=12) hobbyist breeder respondents reported acquisitions of exotic birds in the last 12 months. Additionally, all commercial breeder respondents and 93% of hobbyist breeder respondents reported breeding an exotic bird in the last 12 months. Both zoos had also bred exotic birds in the previous 12 months. Twenty-nine of 31 (93.5%) of respondents also reported that if they had disposed of a bird, they had done so in the last 12 months.

Awareness of the scheme

Bird keepers had heard about the scheme from multiple sources. Those indicating they had visited the DEWHA website generally stated that this occurred after they had initially heard of the scheme's existence from another source.

A majority of respondents in each category had seen information about the scheme distributed by DEWHA. A proportion volunteered (i.e. without being asked) that they had not read the material in detail and this may also be true for other respondents who were not asked and did not specifically volunteer information about how closely they had examined the material.

Nineteen of 31 (61%) respondents had seen the brochure and all 3 booklets. Twenty-one of 31 (67.7%) respondents had seen at least the main DEWHA brochure on record keeping or one of the other DEWHA booklets concerning the scheme. Seven of 8 (87.5%) of commercial breeder respondents reported seeing the brochure and all 3 booklets whilst, 9 of 15 (60%) of hobbyist breeder respondents had seen the brochure and all 3 booklets. Twenty-four of 31 (77%) of respondents reported having seen the classification lists.

Understanding of the scheme

Asked why they thought that the Government was introducing the scheme (respondents could give more than one response), some 20 responses involved mention of illegal trade and 9 responses mentioned disease risk. There appeared to be a tendency for respondents in all categories to describe the purposes of the scheme in terms of their opinion of what the scheme might or might not achieve rather than in terms of what they might have learned or considered about the Government's objectives. Thus for example if a respondent thought that illegal trade would not be affected by the scheme they would not acknowledge the reduction of such trade as a valid objective. A frequent

response was “not sure what the Government thinks it will achieve”, to which the prompt “what do you think they might be trying to achieve?” was delivered. This usually did not help focus the respondent.

Asked whether the onus is on the buyer or the seller to establish whether birds being acquired are legally sourced, 13 of 17 (76%) respondents answered in the affirmative. When asked specifically if the buyer should verify information by the seller, respondents answered both in terms of what they felt was required by the scheme as well as in terms of what was felt to be reasonable. It was not always possible to discern which of these two viewpoints was being offered. Nearly all respondents were of the opinion that it would be difficult to ask for verifying information as this was just not done, generally, in aviculture. Thirteen of 19 (68%) respondents understood that the scheme requires the buyer to verify information from the seller.

There was unanimous support for the idea that a keeper of ‘high interest’ birds, not participating in the scheme, would still need to keep appropriate records. On the other hand 70.5% (12 of 17) of respondents perceived no risk for keepers of ‘low interest’ birds who choose not to participate in the scheme.

When respondents were asked about the time frame in which Activity Record forms should be submitted to DEWHA, 22.5% (7 of 31) could correctly identify the time period for return of copies of the Activity Record for ‘high interest’ birds to DEWHA. Fourteen of 31 (45%) respondents understood that copies of Activity Records for ‘low interest’ birds are not sent to DEWHA.

Movement Transaction Records

Forty-two percent (13 of 31) of respondents understood that the MTR was to be provided by the seller of an exotic bird to the buyer. Sixteen of 31 (51.6%) respondents could identify that both the seller and the buyer should keep copies of MTRs they had signed. Another 14 respondents could correctly identify the time period for return of copies of MTRs to DEWHA, although there was some confusion amongst respondents regarding the question of who was responsible for sending the copy of the MTR to DEWHA (only 35.5% (11 of 31) of respondents could answer this question correctly).

There was fair to good knowledge of how to acquire the schemes forms and books, with 58% (18 of 31) and 61% (19 of 31) of respondents respectively, understanding correctly how to acquire the forms for High and Low interest birds. These percentages, obtained in March and April of 2008, are likely to have increased as information has been disseminated through bird keeper networks including club and society meetings and conversations amongst bird keepers.

Bird keepers with a knowledge of the scheme understood it was the responsibility of a buyer to verify information provided by a seller (68% or 13 of 19).

For ‘low interest’ birds, five respondents stated that neither buyer nor seller need to keep copies of MTRs; 11 respondents considered that both the buyer and the seller of ‘low interest’ birds should keep a copy of the MTR; and 13 (42%) of the total number of respondents (n=31) were in a position to know that copies of MTRs for ‘low interest’ birds did not need to be sent to DEWHA.

Participation in the scheme

Of 21 ‘low interest’ bird keepers interviewed, 7 indicated an intention to participate in the scheme. Both zoos interviewed stated that a full report of activity and movement of all animals held is already provided to DEWHA each year. One zoo indicated that it would therefore not be necessary for it to participate in the scheme.

Twelve of 18 (66%) respondents questioned about ‘high interest’ birds agreed with the statement that participation in the scheme was “in the bird keeper’s interest”. Three of 17 (17.6%) respondents questioned about ‘low interest’ birds also agreed that participation in the scheme was “in the bird keeper’s interest”. Eleven of 18 (61%) bird keepers stated that the scheme should be compulsory under the law for ‘high interest’ species, whilst only 1 of 17 (5.8%) agreed that the scheme should be

compulsory under the law for 'low interest' species. Fourteen of 17 (82%) agreed with the statement that the scheme was "of no consequence either way."

Four of 18 respondents who understood the scheme sufficiently to be asked the question, reported the opinion that participation in the scheme had advantages. They did not elaborate in the context of the question but elsewhere reported advantages in terms of the perceived impact of the scheme on bird values and in terms of ability to demonstrate compliance with the law.

Only 35% (11 of 31) of respondents indicated that in future they would only deal with scheme participants; 29% (9 of 31) indicated that they would not be influenced at all in their dealings by whether or not the other party participated in the scheme; and 19% (6 of 31) indicated that would be somewhat influenced.

Record Keeping

Only 26% (8 of 31) of all respondents indicated keeping scheme records, with 8 of 31 (25.8%) respondents commenting that they would not consider using the forms and books. All commercial breeder respondents reported keeping some form of records of the birds they sell and 53% (8 of 15) of hobbyist respondents reported keeping some kind of record relating to the actual birds they keep. Twenty-one of 27 (77.7%) respondents, who reported keeping some sort of record, do so in only paper form.

One pet shop respondent reported keeping no records at all. Thirteen percent (4 of 31) of all respondents reported consistently that they kept no records at all of the birds in their care. Twenty-six percent (8 of 31) of all respondents also reported that they either kept no records at all or did not consistently keep any sort of record. Furthermore, seven of 15 (46.6%) hobbyist breeder respondents reported that they did not consistently keep any type of record, or provided inconsistent answers with regard to whether or not they kept records.

Seven of 8 (87.5%) commercial breeder respondents and 12 of 15 (80%) hobbyists reported using some form of identifying device for the birds in their care. The most frequently used methods of individual marking were by microchip (26% or 8 of 31), closed ring (48% or 15 of 31) and open ring (45% or 14 of 31).

Nine of 31 respondents (29%) indicated that they had asked and/or had been asked to complete a Movement Transaction Record (MTR), while four of 31 (13%) of all respondents could report having used an Activity Record at the time of being interviewed. This contrasts with the 16 of 31 (51%) who reported having obtained the forms. All those who had completed a form reported doing so in less than 10 minutes.

Other Government Agency Interviews

Nine interviews were undertaken with other government agency representatives.

In New South Wales, the breadth of exotic bird keeping was not known. This was the case with most states. The Northern Territory reported that they had not compiled any statistics on avicultural activities and therefore there was no clear understanding of the breadth of exotic aviculture in the Northern Territory.

The Scheme

South Australia commented that the scheme was said to represent the top end of the avicultural industry which is trying to stabilise the market and legitimise its activities. Therefore they were not convinced of the scheme's value. Western Australia was also under the impression that the scheme is more about bird keepers than effective regulation and thought that the scheme would have minimal impact. They also did not have high confidence of the scheme persisting.

Tasmania reported that the scheme may have some impact on record keeping but there will not be the level of compliance hoped for as long as the scheme is voluntary. Tasmania therefore thought that the scheme is unlikely to provide many benefits in terms of risk mitigation.

Tasmania noted that the scheme does not really mesh with the state's approach, but noted that NEBRS did not either. Conversely, Western Australia noted that NEBRS meshed well with its approach to risks but they were not consulted much on the current scheme. Further, Queensland reported that the closure of NEBRS was problematic for the states.

Understanding of the Scheme

Respondents from New South Wales, Customs and from Victoria had not seen the information package from DEWHA regarding the scheme. However Victoria was aware of the new scheme. Queensland and Tasmania were also aware of the new scheme, with Tasmania advising importers about it prior to import.

New South Wales noted that there has been no interaction between the scheme and its native wildlife licensing and management unit.

Licensing

The majority of states (Victoria, Tasmania, New South Wales and Queensland) have no real system for licensing or regulating exotic birds. Many exotic bird species have been listed as exempt from licensing (usually classed as domestic) and therefore do not require permits (New South Wales, Queensland). Additionally, several states reported having undertaken no assessment for the risks (pest potential) they pose, except for Western Australia, Queensland and New South Wales. Queensland had assessed the pest potential of 70 exotic species and now bans the keeping of 10 species.

Two respondents, one in Western Australia and one in the Northern Territory, expressed concern about the high invasive pest potential of the Indian Ring-necked parrot *Psittacula krameri*, a species of 'low interest' under the current scheme. This species was reported as already becoming feral in Alice Springs.

Western Australia was the only state who reported having regulation for exotic birds, with licensing undertaken by the Department of Environment and Conservation. Western Australia has continued regulation in absence of NEBRS and additionally manages the import of exotic birds into the state and their keeping. Tasmania also requires permits for importation of exotic birds into Tasmania, but export permits are not required and the keeping is not monitored. The Northern Territory also issues permits for the import of species that are not listed on its own register of permitted species, and reported that the lists "need updating".

Trends in illegal activity

Several states (New South Wales, South Australia and Queensland) noted that the trends in legal and illegal activities are not discernable in their state. However, Victoria reported that legal and illegal activities can be tracked for native species but not for exotics.

In New South Wales, the Department of Primary Industries also does not conduct any enforcement activities in relation to exotic birds, as they consider this is to be a Federal responsibility. Customs additionally noted that there were no state bodies in New South Wales looking at exotic birds and therefore it would not be practical to measure the possible impacts of the scheme on illegal trade. Given that no other state (except WA) has a body monitoring illegal trade, the same would apply.

Phase 2 - Record Returns

A total number of 304 individuals or organizations had submitted Activity Records and/ or Movement Transaction Records to DEWHA by 10 September 2008.

Movement Transaction forms

In September 2008, a sample set of 104 Movement Transaction Records returned to DEWHA was selected for analysis. These records were generated by 19 bird keepers. Full results can be found in Appendix 4.

Of the 19 bird keepers, 3 were respondents in the first round of interviews. Forms from these respondents, plus those for an additional 3 respondents were examined as a separate sample. This comprised 89 MTR forms (note: the two sample sets overlapped, but the smaller set was not a subset of the larger set).

There were 2 sample sets of Movement Transaction Records (MTR) forms examined. Sample set 1 contained 104 MTRs which were generated by 19 bird keepers, while sample set 2 contained 89 MTR forms which were generated by 6 bird keepers. It must be noted that 3 of the 6 keepers in sample set 2 were examined in the first sample set. Therefore, the two sample sets overlap.

For sample set 2, of the 6 Phase 1 interview respondents that submitted MTRs, all had indicated their intention to participate in the scheme when asked at interview.

A significant number of sellers submitting MTRs did not submit an Activity Report by 31 July 2008 and therefore are not fully participating in the scheme. (Full participation by a seller, requires that a bird sold should be recorded on both a Movement Transaction Record and on an Activity Record for the seller.) For sample set 1, the transactions on 36.8% of the 95 MTRs dated before 30 June 2008, were not shown on an Activity Record returned to DEWHA for the Activity year ending June 30, 2008. For sample set 2, the transactions on 45.7% of the 83 MTRs dated before June 30, 2008, were not shown on an Activity Record. For those MTR transactions examined in both sample sets, that are shown on an Activity Record, only 6 of 60 and 7 of 45, in sample sets 1 and 2 respectively, show full contact details for the source of the specimen.

For sample set 1, of 104 transactions, 60 are shown on ARs so far submitted by sellers, but only 20 are fully recorded on ARs so far submitted by buyers. For sample set 2, of the 89 transactions examined, 45 are shown on ARs submitted by sellers but only 16 are fully recorded on ARs so far submitted by buyers.

Sellers submitting an MTR were more likely to also submit an AR than buyers who sign an MTR. Additionally, if an AR is submitted by a buyer, in nearly all cases specimens in and out will be listed correctly.

The most common type of transaction listed on MTRs was the sale/purchase of a pair of birds of the same species. For sample set 1, of the 104 MTRs examined, 54 indicated more than one of six possible source notes, provided on the form to indicate the origin of the birds, with the most frequent claim being that the specimen was bred on the seller's premises and could be traced to specimen held under the NEBRS. For sample set 2, of the 89 MTRs examined, 47 indicated more than one source code. This reflects the tendency of one seller who provided 39 MTR forms in this sample set, to list more than one source.

The most common incomplete field on the form was the buyer's signature field, reflecting the difficulty of obtaining signatures for an interstate transaction.

In sample set 1, of the 192 specimens listed as transacted on 104 MTR forms, only 3 specimens had no ID recorded. In sample set 2, of the 134 specimens listed as transacted on 89 MTRs, 131 had IDs listed.

If a seller submits an MTR, in all most all instances the specimens will be listed as carrying ID. Furthermore, the most commonly used method for attaching permanent ID marks to a bird is banding.

On approximately half of MTR forms examined, specimens were listed as traceable to records held under the NEBRS. In sample set 1 on 56 of 104 MTR forms all specimens were listed as traceable back to NEBRS. On a further 12 forms, some specimens were listed as traceable to NEBRS. In sample set 2, 49 forms listed all specimens as traceable to NEBRS. On only one further form were some specimens, but not others, listed as traceable to NEBRS.

Activity Record forms

There were 2 sample sets of Activity Records (AR) examined. Sample set 1 comprised of 311 AR forms and sample set 2 comprised of 56 AR forms. Sample set 1 were returned by 67 individuals participating in the scheme, while sample set 2 contained records from 6 phase 1 interview respondents who had become scheme participants by 10 September 2008. Only 2 individuals in sample set 1 were interviewed in phase 1.

Of the 2 bird keepers interviewed in Phase 1 who were in sample set 1, both had indicated their intention to participate in the scheme for 'high interest' birds. Of the 6 bird keepers interviewed in Phase 1 who were in sample set 2, all had indicated their intention to participate in the scheme for 'high interest' birds.

In sample set 1, the total number of entries on all 311 forms was 1557. In sample set 2, the total number of entries on 56 forms was 315.

In sample set 1 and 2, only 10.3% (n=32) and 12.5% (n=7) of AR forms respectively could be considered complete by the standard. Information regarding the source of a specimen is thus by far the most common incomplete section on the AR forms submitted. Conversely, for sample set 1, information for all other sections assessed was complete in more than 80% of cases. For sample set 2, information for other sections was complete in 32% or more of cases (although this may reflect the repeated omissions of a single bird keeper).

The number of listed sales corresponds approximately with the number of listed purchases in the sample set of 311 ARs. For the sample set of first round interview respondents, the figures suggest that sales were to buyers who are not participating in the scheme.

89.5% of entries showed specimen ID in sample set 1, and 90.8% of entries showed specimen ID in sample set 2.

In sample set 1, 17 individuals (25.3%) had also submitted MTRs as a seller. Another 10 individuals were listed as a buyer on an MTR submitted by another party. In sample set 2, 4 individuals (66%) had submitted an MTR, with no individuals listed as a buyer on an MTR submitted by another party.

Overview

The sample sets of MTRs and ARs examined suggest that exotic aviculture in Australia is heavily centred in New South Wales and to a lesser extent, in Queensland. A relatively small number of sellers generated a significant proportion of the MTRs so far received by DEWHA, with one prominent seller generating 39 of 104 MTRs examined in one sample set for this evaluation.

In nearly all cases apart from Source details, bird keepers seem to be able to fill out Movement Transaction Record (MTR) and Activity Records (AR) correctly. Buyers receiving a copy of an MTR do not seem motivated to participate in the scheme as measured by submission of ARs, to the same degree that sellers who submit MTRs are motivated to submit ARs (19% as opposed to 57.6%).

The number of MTRs received by DEWHA is significantly not matched by a corresponding number of ARs listing the transactions. 36.8% of sellers in one sample set submitted MTRs to DEWHA for the

Activity year ending June 30 2008, but did not also submit an Activity Report. In the second sample set of sellers who had been interviewed in Phase 1, the discrepancy was 45.7%.

Phase 3 - Second Survey Interviews

Forty interviews took place between 17 November and 9 December 2008.

Fifteen bird keepers who took part in Phase 1 interviews were re-interviewed in Phase 3. Table 2 shows the distribution of respondents.

Table 2: Distribution and numbers of interview respondents for each category of bird keeper who had been surveyed previously using the primary questionnaire.

STATE OF ORIGIN	CATEGORY OF BIRDKEEPER			
	Commercial Breeder	Hobbyist Breeder	Pet Shop	Zoo/ Wildlife Park
QLD	1	2		
NSW	2	4		
VIC			1	
TAS		1		
SA		2		1
WA				1
NT				
ACT				
UNKNOWN				

Twenty-five bird keepers were interviewed for the first time in Phase 3 (see Table 3).

Table 3: Distribution of first time interviews in Phase 3

STATE OF ORIGIN	CATEGORY OF BIRDKEEPER			
	Commercial Breeder	Hobbyist Breeder	Pet Shop	Zoo/ Wildlife Park
QLD	2	3	1	
NSW	2	6		2
VIC		2		
TAS				
SA		2		1
WA		3		
NT		2		
ACT				
UNKNOWN				

Of the total of 40 interviews conducted, eighty-five percent (n=34) of bird keepers kept 'high interest' (or both 'high' and 'low interest') birds, while the remainder (n=6) only kept 'low interest' birds. All six keepers of 'low interest' species stated their intention not to participate in the scheme.

Thirty-three respondents (82.5%) indicated that they had acquired the scheme's forms and books. Of these only 47.5% (n=19) reported using the forms and books. Another 14 respondents stated that they would not consider using the forms and books.

Fifty percent of respondents reported seeing advantages to scheme participation. Seventy percent of respondents (n=28) stated that the scheme was in the bird keepers interest, while 75% (n=30) agreed with the statement that the scheme "should be compulsory under the law".

Thirty-five percent (n=14) of respondents indicated keeping scheme records.

Conversely, all hobbyist respondents reported keeping some kind of record relating to the actual birds they keep. Fifty percent of respondents indicated that they asked or had been asked to complete an MTR.

The reporting rate for permanent marking was 95% of responses. All commercial breeder respondents reported marking the birds in their care, whilst 96% (n=25) of hobbyist breeder respondents reported marking their birds. The three most frequently reported methods of individually identifying (marking) bird specimens was by microchip (37.5%), closed ring (77.5%) and open ring (30%).

Only 25% of respondents indicated that they would only deal with scheme participants; 30% indicated they would not be influenced at all and 45% indicated that they would be somewhat influenced.

Examination of results from a specific sample of 12 keepers of High Interest exotic birds who had been sent the schemes forms but had not provided any copies of MTRs or Activity Records to DEWHA revealed a high level of knowledge of the scheme. 5 of 12 claimed to be using the schemes forms although this could include signing a form as a purchaser. No difficulty was expressed regarding the forms themselves although comments such as “the scheme makes it hard for bird keepers” were received. 8 of 12 stated their intention to participate in the near future although two bird keepers suggested that they were waiting until it became compulsory to do so. Most respondents saw advantages in record keeping and participation in the scheme as being in a bird keeper’s interest.

Re-interviewed Phase 1 respondents

Some inconsistencies were apparent between Phase 1 interviews and Phase 3 interview responses for some respondents however, comments by all respondents were remarkably consistent between the first and second interviews.

One zoo respondent that was not aware that birds had been classified for the purposes of record keeping indicated that they were aware in the second interview.

A number of respondents had changed their opinion about whether there were advantages or disadvantages to keeping accurate records. 2 respondents who had previously considered that record keeping increased the value of birds, had changed their minds and did not offer this opinion at second interview. 4 respondents to Phase 1 interviews who considered that record keeping decreased the value of birds legally traded no longer thought so at second interview. One respondent no longer thought that record keeping made birds harder to sell, while another respondent no longer thought that record keeping made it easier to sell birds.

Two respondents who had indicated in Phase 1 interviews that they would participate in the scheme, no longer indicated this at second interview. This was mirrored by another 2 respondents who initially indicated that they would not participate but indicated at second interview that they would do so.

One pet shop respondent who indicated at Phase 1 interview that participation in the scheme was a matter of no consequence, no longer reported this view at second interview. One Hobbyist respondent who at Phase 1 interview considered that participation in the scheme should be strongly advised had changed their view at second interview to “no consequence either way”.

There were some changes of view indicated by Hobbyist respondents asked to agree or disagree with a series of statements about the scheme. These views concerned changes to the value of birds, changes in trade costs and changes to the image of aviculture. These changes of view are approximately evenly spread in each direction.

There was some change in reporting of the type of records kept. In second interviews 7 of 9 Hobbyist respondents presented a different multiple choice answers concerning at least 1 category of record, to that given in Phase 1 interviews.

One hobbyist respondent, who indicated in Phase 1 interviews that birds were permanently marked, indicated the opposite at second interview. One commercial breeder respondent, who indicated in

Phase 1 interviews that birds were not permanently marked, indicated the opposite at second interview.

Two commercial Breeders who indicated in Phase 1 interviews that when disposing of a bird or egg they would not be influenced at all by whether the other party was a scheme participant, no longer reported this view at second interview. One Hobby respondent and 1 Zoo respondent who had previously indicated that they would only deal with scheme participants, no longer reported this view.

Two hobbyist respondents who, prior to the Phase 1 interview had not asked for a copy of advertising material, and/or had not been asked to complete a Movement Transaction Record, indicated at second interview that that they had been asked to do so.

Two commercial breeder respondents who indicated at Phase 1 interview that they had, respectively, exchanged “copies of advertising materials” and “copies of relevant import permits, NEBRS documents or Statutory Declaration identifying these”, did not indicated this at second interview.

Respondents with forms and books who presented “No Returns”

Twelve bird keepers were selected at random from lists maintained by DEWHA of persons who had requested the schemes forms but who had not returned any information to the Department as at 10 September 2008. Seven of those were members of an avicultural club or society. The distribution and category of respondents is shown in Table 4.

Table 4: Distribution and numbers of interview respondents for each category of bird keeper who had contacted DEWHA but had not returned any forms as at 10 September 2008.

STATE OF ORIGIN	CATEGORY OF BIRDKEEPER			
	Commercial Breeder	Hobbyist Breeder	Pet Shop	Zoo/ Wildlife Park
QLD	1		1	
NSW	1	5		
VIC		1		
TAS				
SA		1		
WA		2		
NT				
ACT				
UNKNOWN				

Eight out of the 12 respondents reported that they intended to participate in the scheme, some indicating that they would participate when the scheme becomes compulsory, or when they can collate records. Some indicated that they would participate some time in the future. The voluntary and not compulsory aspect of the scheme was also raised by 4 out of the 12 respondents who indicated their intention not to participate in the scheme.

Five out of 12 respondents reported using the scheme forms and books and a further 3 answered that they would consider using the schemes forms and books. Coinciding with this, 8 of 12 respondents saw advantages to scheme participation while 3 saw disadvantages and 1 saw both advantages and disadvantages (see Appendix 5).

Nine of 12 respondents acknowledged that for holders of ‘high interest’ birds, scheme participation was in the bird keeper’s interest. Additionally, with participation being in the bird keeper’s best interests, 8 of 12 considered that the scheme should be compulsory under the law.

Nearly all respondents (11 of 12) agreed that the scheme may help reduce illegal trade by documenting legal trade and that the scheme would make no difference or discourage people from taking up aviculture. Additionally, 9 out of 12 respondents considered that the scheme would increase or make no difference to the value of birds.

There was a high level of reporting of record keeping amongst respondents with 11 of 12 reporting keeping receipts of purchase or sale and details of the specimens held and 10 of 12 reporting keeping details of previous owners. All respondents also permanently marked their birds and 92% understood the term “buyer beware”.

Seventy-five percent of respondents reported that they would be somewhat (7) or completely (2) influenced in their decision to deal with another bird keeper by whether or not that person was a scheme participant. The other 25% stated that they would not be influenced at all.

Five out of 12 respondents reported asking or being asked to complete a Movement Transaction Record. Four of 5 respondents reported that for the transaction, an individual identification record for the bird and a financial record of the transaction were exchanged.

The majority of respondents (11 of 12) understood all of the circumstances in which an MTR should be completed under the scheme.

Effectiveness of forms

Asked to comment on the schemes forms, a small minority referred to difficulties in understanding the forms requirements. The majority of bird keepers using the forms did not express particular concerns about the forms themselves with 2 exceptions.

- Recording eggs laid on Activity records is seen as impractical for a range of reasons, including the disturbance caused to breeding birds, the futility of noting infertile eggs or failed nests that may only be partially detected, the impossibility of verifying after the fact that eggs have been laid and lost or disposed of, the essential issue being the movement of an egg from a property not its possibly ephemeral existence in a nest or incubator.
- “Second pages” of MTRs need a box where the form number listed on the first page can be entered so that multiple pages for multiple birds in a single transaction are clearly linked under the one transaction number.

Consolidated Results - Phase 1 and Phase 3 Interviews

Of 71 separate responses recorded, 21 or 29.6%, reported an opinion that the maintaining accurate records for the breeding and movement of birds would increase the value of birds traded, while 16 or 22.5% reported the opinion that this would decrease the value of birds traded. 15 or 21% reported the opinion that accurate records would make birds easier to sell, while 27 or 38% reported the opinion that such records would make birds harder to sell.

In both Phase 1 and Phase 3 interviews there was complete awareness amongst those agreeing to be interviewed, that standard records are being encouraged.

44 or 70% agreed that the scheme may help reduce illegal trade by documenting legal trade.

41 or 57.7% agreed that the scheme may reduce the risk of illegal import of disease.

43 or 60.5% agreed that the scheme would help bird keepers establish records of their holdings.

47 or 66% agreed that the scheme would result in the falsifying of records. (In phase 1 this question was asked slightly differently to Phase 3. In Phase 1 the question included the words “and do little to affect illegal trade”. 12 of 31 or 38% of respondents agreed with the statement when these words were included.)

8 of 71 or 11.2% of respondents agreed that the scheme would positively influence people to participate in aviculture while 25 or 35% felt it would have a negative influence.

24 of 71 or 34% agreed that the scheme would increase trade costs for legitimate dealers and pet suppliers.

29 of 71 or 41% agreed that the scheme would improve the image of aviculture as an activity.

Fourteen of 71 respondents agreed that the scheme may decrease the value of birds/eggs by providing some history to each specimen in terms of source and movement. Again this roughly correlates with the result of 16 respondents out of 71 (22.5%) who agreed to a separate question that maintaining records decreased the value of birds traded.

Overview

Levels of participation in the scheme

The number of individual bird keeper enquiries listed on DEWHA 1800 enquiry tracking lists up to 20 February 2009 was 855. Some individuals telephoned more than once. Of these calls, DEWHA regarded that 476 were positive, 347 were neutral and 32 people expressed negative comments regarding the scheme. These comments have been summarised in Appendix 7. As these comments were similar to those received in the interviews, they have not been individually drawn upon for discussion in this report.

A total number of 304 individuals or organizations had submitted Activity Records and/ or Movement Transaction Records by 10 September 2008. It is not possible to determine what percentage of the total number of exotic bird keepers holding High Class birds this represents.

Exotic bird keepers (not including zoos and pet shops) were found to be well connected to information networks with more than 81% citing membership of a club or society.

61% of owners of High Interest birds indicated an intention to participate in the scheme, a somewhat lower percentage than those who cite having acquired the schemes forms. Only 33% of keepers of Low Interest birds stated an intention to participate. All respondents to Phase 3 interviews who kept only Low Interest birds stated clearly that they would not use the schemes forms.

Overall while a majority (60.5%) agreed that the scheme would help bird keepers establish records of their holdings and agreed that the scheme may help reduce illegal trade (70%) as well as reduce the risk of illegal import of disease (57%) the only other point about the scheme with which a majority could agree was the likelihood that the scheme would result in some falsifying of records (66%). The highest overall proportion of respondents seeing advantage to bird keepers in participating in the scheme was 50% of Phase 3 respondents.

The intentions of exotic bird keepers towards the scheme invite comparison with the observed rate of growth of participation in the scheme. In Phase 1 interviews 25.8% said that they would not consider using the schemes forms and books while in Phase 3 interviews 35% stated this. It should be noted that the higher percentage for Phase 3 occurs despite the high percentage of respondents who had acquired the schemes forms and the higher percentage of keepers of High Interest birds in the sample set (85% in Phase 3 as opposed to 65% in Phase 1)

Nonetheless, for High Interest birds, 66% of Phase 1 respondents asked, and 70% of all Phase 3 respondents agreed that participation in the scheme for owners of High Interest birds, was "in the bird keeper's interest". There was unanimous support for the statement that a keeper of High Interest birds not participating in the scheme would still need to keep appropriate records.

When asked about their intentions regarding their potential dealings with scheme participants their responses again were unclear. In Phase 1, 35% indicated that in future they would only deal with scheme participants, while in Phase 3, 25% indicated this. Those who stated that they would be somewhat influenced were 19% and 44% respectively. This apparent trend in commitment to the scheme must be treated with caution as there may be no clear correlation between people actually participating in the scheme and those stating their intention to only deal with scheme participants. 3 bird keepers not currently participating in the scheme stated their intention to in future only deal with scheme participants.

Discussion

Evaluation Challenges

The evaluation faced a number of challenges in assessing the extent of knowledge of the scheme amongst exotic bird keepers in Australia and their attitudes towards it. These same challenges were faced in assessing the significance of the level of participation in the scheme during its first 9-10 months of operation.

While there is clear information on the range of exotic species held in Australia, the number of exotic bird keepers in Australia is unknown as are the numbers of exotic birds. Furthermore, gaining access to a wide representative sample of exotic bird keepers by randomly polling the general community was limited given the resources and time available for this evaluation. As a result, the methods of accessing bird keepers in this evaluation were by their nature selective of particular bird keepers i.e. those more likely to be exposed to information about the scheme than a truly random poll of the community.

The selection of individuals for interview could not be truly random and is probably somewhat biased towards individuals who have deliberately sought information about the scheme. This bias arises from use of the enquiry tracking lists to randomly select respondents for interview, from the deliberate examination of bird keepers who had deliberately acquired the schemes forms and books but were not participating in the scheme, and from selection of club and society officials and sellers advertising in magazines, who are all more likely to have been exposed to information about the scheme in the first place.

Pet owners by definition were not breeders of exotic birds and rarely transact specimens. They appear to be unlikely to be at all engaged with the avicultural community and are therefore very difficult to access other than by random polling of community in a way that was outside of the scope of this evaluation. Given that pet ownership is allegedly a growing sector of the exotic bird market, its impact in shaping that market and the activities of exotic bird breeders in relation to it, is a matter of some interest. An assessment of the relative scale of the market for pet exotic birds would be useful but difficult to establish accurately. (One approach would involve interviews with a sample selection of major dealers in exotic birds).

Additional challenges faced relate to attempts to evaluate the impact of the scheme on the bird keeping community. The size of the market in exotic birds, even those of 'high interest', can only be estimated. This market reflects fashions in exotic bird keeping. Prices of birds, the amount of breeding that is undertaken, and the numbers of transactions of birds that take place are influenced by the perceptions of bird keepers around issues of "value". There are likely to be two way feedback effects between breeding and demand, with rising and falling price cycles related to rapidity of reproduction and the rate at which a population of any species-in-demand expands in the market (see Robinson, 2001). Prices for birds are always negotiable and rarely advertised except at bird sales. On-line auctions of exotic birds appear to be a growing phenomenon. Some bird keepers commented that the scheme has depressed the prices reached at these auctions due possibly to uncertainty about the documentation for the birds on sale.

Prices and demand can be further influenced by the broader economic climate. During this evaluation, a "global financial crisis" occurred of which the effects are unknown. Additionally, this 'financial crisis' may not have directly impacted the Australian exotic bird trade during the evaluation period but may have future effects on the level of trade and participation in record keeping.

In the absence of hard data about the market for exotic birds in Australia, any assessment of the impact of the scheme must rely on the impressions and opinions of bird keepers themselves. This evaluation should therefore be viewed as qualitative, providing a range of the views of bird keepers of the scheme and its operation that are likely to be representative of the exotic bird keeping community. However, due to the methods of accessing bird keepers, this evaluation may not be entirely representative of those entirely against the scheme and who have not approached DEWHA or made themselves known by other methods.

Bias

By selecting bird keepers for interviews via advertising material, enquiry lists and from list of personal contacts, a representation of the views and activities of the wider bird keeping community would be obtained. Nonetheless there is an inherent risk of bias in the results of any evaluation that adopts this approach.

It is considered that the results of the survey questionnaire are unlikely to have been biased in any systematic or organized way. Even where a bird keeper was recommended for interview by another interviewee, in all cases the recommended interviewee was not at all closely known to the person making the recommendation, but rather where somehow considered to hold relevant opinions. Additionally no consistency in specific responses is detectable.

In all instances the bird keepers interviewed were approached 'cold' with no warning from another person that contact would be sought. Given the delay of up to a week between making an appointment to interview a bird keeper and the interview itself, a respondent could in theory have sought the views of other people about the scheme, but as no respondent had any knowledge of who else may have been approached, the possibilities for organised bias appear to be nonexistent.

One possible risk of bias might have arisen because of an inherent tendency of respondents to answer a question, asked by a person contracted by the DEWHA, in a particular way. For example a person might have been more inclined to express a favourable or an unfavourable view of the scheme because they imagined that an opportunity was presented to address a representative of government. It is not possible to establish just to what extent this may have been the case. There is also a possibility that particular answers were influenced by a desire to say "the right thing". This was possibly indicated where respondents prefaced an answer with words such as "well of course people should" or similar such answers. Such answers tended to indicate what the respondent thought should be the case rather than what they actually thought themselves.

Results may additionally have been biased whereby a person, who had been interviewed in the first round, was more likely to have proceeded to participate in the scheme simply by virtue of the fact that they had been interviewed.

Another possible risk of bias could exist amongst the responses of the people who had called the DEWHA 1800 number for information about the scheme. The propensity to seek information directly from the Department might have correlated with a predisposition to a set of views and attitudes towards the scheme. However, there is no detectable evidence of this in the results. No consistency of view or attitude that would raise suspicion is revealed amongst the responses of these interviewees. Detailed statistical analyses were not applied to reveal bias as they would be inappropriate for such a small sample size.

By using the DEWHA provided enquiry lists to source questionnaire respondents, the proportion of hobbyist breeder respondents keeping 'high interest' birds may have been biased. Keepers of 'high interest' birds may have been more likely to contact DEWHA for information simply because there is a greater onus on the keepers of High Interest birds to provide information to DEWHA, under the scheme.

Other situations that may have resulted in biased results included sourcing interviewees from specific avicultural clubs or societies, approaching club secretaries to recommend contacts for interview, and attending a club or society meeting by appointment to seek and conduct interviews. All of these situations were avoided in this evaluation because they all presented opportunities for specific organisational responses to the regulation or control of the industry.

Level of Awareness of the Scheme

Bird Keepers

This evaluation discovered no obvious deficiencies in the promotion of the scheme amongst exotic bird keepers. The two most frequently cited reasons for a lack of understanding of the scheme were that the respondent had simply not tried to find out any details about the scheme at all or had obtained the information package but had not bothered to examine it carefully (yet).

Results of Phase 1 and Phase 3 interviews suggest that there is broad and developing awareness of the EBRKS in the exotic bird keeping community in Australia with 93% of people interviewed aware that exotic birds had been classified for the purposes of record keeping as being of High and Low interest. In both Phase 1 and Phase 3 there was complete awareness (100%) that standard records are being encouraged with multiple sources of information being cited. It is also promising that 74% of bird keepers indicated that they had at least seen the DEWHA booklet, *A guide to record keeping for exotic birds*.

Other Government Agencies

At the time their views were sought (April 2008), other government officials that were interviewed did not seem well informed or have a clear understanding of the objectives of the scheme. Furthermore there was little evidence of any calculation of the environmental and economic risks that exotic bird keeping might present in their respective jurisdictions. In New South Wales it was openly stated that it was not considered that exotic birds might pose a risk. No state or territory apart from Western Australia had any way of assessing the nature and scope of exotic aviculture. Trends in legal and illegal bird trading activity were also not discernable.

Two main issues in regards to the scheme were highlighted in conversations with state and territory agencies. The first is that these agencies did not appear to have a stake in the success or failure of the scheme. They were not in a position therefore, to promote or reinforce the scheme through their own regular contacts with bird keepers, clubs, societies and state level associations. Regulation of native bird keeping deals with a community that is not separate and distinct from exotic aviculture. While as one respondent noted, exotic aviculture "is a Federal responsibility" it could be argued that this should not absolve the states and territories from cognisance of, and a role in, the management of the risks posed by exotic aviculture. Currently the states and territories appear to have not grasped the range of issues and have had no buy-in to the scheme. Some further engagement by DEWHA with the states and territories, regarding the challenges presented by exotic aviculture, would seem to be warranted.

The second issue concerns the aims of the scheme in relation to controlling the risks of exotic aviculture. States and territory respondents noted that the aim seems to be to provide a means of monitoring the breeding and movement of 'high interest' species, thereby, to discourage illegal entry of birds to Australia by imposing a risk of more ready exposure, and at the same time to mitigate the risk of the illegal entry of disease. However, these 'high interest' species do not necessarily present the greatest environmental threat to Australia. This threat may be posed by species that are already common and of low value in aviculture. If this is true, then the aim of the scheme to help protect Australia's biodiversity may be at least partly unachievable. Furthermore, regulation for activities that involve such common species may simply be impractical. A collaborative investigation/ risk assessment of these issues involving the Commonwealth and state and territory Governments is warranted.

Level of Understanding of the Scheme

Generally understanding of and participation in the scheme could be characterised as developing slowly through the course of 2008. In March to April 26% of respondents reported keeping records under the scheme while 51% reported having obtained the schemes forms. In November 35% reported keeping scheme records, while 47.5% reported that the schemes forms were being used. The discrepancy between these two figures for November may reflect confusion about the questions

being asked or a readiness to confuse the acquiring of forms with actually using them. This was exposed by specific questions about types of records kept.

82.5% of respondents to Phase 3 interviews in November reported that they had acquired the schemes forms and books but this figure is certainly not representative of the broader exotic bird keeping community beyond the sample set. Sampling DEWHA enquiry lists and particularly the inclusion in the Phase 3 sample set of a cohort that had received but not returned the schemes forms, means that those receiving forms have been “over-selected” for interview. Therefore, it probably remains true that the level of understanding of the scheme amongst exotic bird keepers is higher than the participation rate in the scheme.

An examination of the extent to which bird keepers understood the detailed requirements of the scheme showed that in 83% of cases, the term ‘buyer beware’ was understood. Bird keepers therefore understood that this meant an onus of responsibility was placed upon a bird keeper acquiring birds, to establish that the birds being acquired were lawfully held by the person providing them. There would therefore appear to be a high level of understanding of one of the fundamental principles underlying the scheme.

Participation in the Scheme

Of possible significance is the sense conveyed by some bird keepers that the scheme as it currently stands is only a trial and that further changes will occur. If this sense is more broadly shared in the avicultural community, this could suggest a higher rate of participation may be achieved once it is clearly signalled that the scheme is in its final form.

The failure to submit Movement Transaction Record (MTR) copies and Activity Records (AR) by bird keepers is difficult to gauge as to whether it is by deliberate design or is simply by omission. One allegation was received that some sellers are using MTRs as a device to signal the legitimacy of their sales either without subsequently submitting a copy of the MTR to DEWHA or without completing Activity Records. If this is the case then some buyers of birds are being misled and the scheme is unwittingly supporting this. There would appear to some risk of accidental or deliberate abuse of the scheme. Without the resources to follow up systematically on each MTR and AR record DEWHA may have difficulty assessing and managing this risk. It should be made very clear that Movement Transaction records are to be used in conjunction with Activity Records and that maintaining one set of records without the other is not compliant with the scheme. In particular, buyers should be further encouraged to ask for documentation to support statements made on the MTR forms. Relevant instruction should be added to the form itself if the scheme is to continue.

One obvious partial explanation for the change in reporting rate for record keeping might seem to be that re-interviewed bird keepers were more likely to have changed their practices at least partly as a result of being interviewed in Phase 1. Bird keepers contacted by the evaluator might feel as if they are under additional scrutiny from DEWHA. This however is not borne out by the results of second interviews. What is interesting about second interview results, but again difficult to account for, is that 7 of 9 hobbyists reported keeping at least one type of records that was not cited in Phase 1 interviews.

There are likely to be a number of complex interrelated factors operating to further inform views about record keeping. These could include but are not limited to:

- a respondent’s tendency to answer questions about records in terms of the scheme rather than in terms of record keeping per se.
- a greater awareness of the scheme that may lead more bird keepers to keep records or to at least report at interview that they are doing so, reflecting an increased sense of obligation to comply with Government policy
- different reporting rates of views by respondents may occur due to the selection process for interviews i.e. there may be a correlation between those calling the DEWHA enquiry line and the keeping of records.

Hobbyist bird keepers noted in interviews about “two markets” in aviculture. The first involved people who were very keen to establish the legitimacy of their birds and who like to keep records. These people approach record keeping in a more systematic and scientific way and hold that doing so

increases the value of their birds. They sell to people with similar values who are keen to establish the full legitimacy of the birds they hold and are prepared to pay a premium for this. They are more likely to be scheme participants.

The second were those for whom "writing things down" was just not part of their hobby, or for whom records could prove an inconvenience either because the volume of breeding/trade they undertake, or because they might doubt the full legality of their activities. This group is likely to trade with to similarly minded bird keepers who are not seeking information about the specimens they buy but want the best price. They do not attach a premium to recorded information about the birds they trade. They are less likely to be scheme participants.

A high proportion (overall 87%) of bird keepers attached permanent individual identification to their birds. Just as reporting rates for record keeping increased between Phase 1 (74%) and Phase 3 (95%) interviews, so to did the reporting rate for use of identification markers. This increased in the use of individual identification was reflected in the increased reporting rate for marking methods but with a disproportionate increase in the use of closed rings (from 48% to 77%). Given that keeping records and attaching permanent markers are essential to the operation of any record keeping scheme that includes the movement of specimens, the apparent growth in marking and record keeping can be seen as possible indications of a positive trend.

Despite this equivocation, overall 70% of responses by bird keepers indicated that receipts of purchase or sale were kept and 56% reported keeping records of previous owners of the birds they held. These two types of records are fundamental to establishing legal ownership and it is therefore significant that reporting rates for them are relatively high. Reporting rates below 50% would arguably cast doubt on the potential of the scheme to do other than rely on the assertions of owners about the movement of birds.

The high number of exotic bird keepers that appear to be using internet to communicate about bird keeping and buying birds on-line has implications for the scheme. This is both in terms of the communication of issues, where it is likely that significant numbers of bird keepers can be reached via the internet, and in terms of the schemes operation where a Movement Transaction Record may be completed by parties who, if they meet at all, only do so after a sale/purchase is actually agreed.

Movement Transaction Records

The most common transaction type on MTRs is for a pair of birds of one species. This would be expected for High Interest birds where relatively high prices foster breeding and a philosophy of bird keeping that seeks a return on investment.

A higher number of MTRs were returned by commercial breeders in the sample sets. It would be expected that commercial breeders would, as individuals, return a higher number of forms than hobbyist breeders. On the other hand the proportion of commercial breeders so far returning MTRs may not reflect the actual number of such breeders as a proportion of the exotic bird keeping community.

The source codes used on the form indicate the categories of origin of the birds being transacted. More than one source code can be used but the most commonly used (approximately half of all forms examined), indicates specimens bred on the sellers premises and traceable to a specimen held under NEBRS. This may reflect the high proportion of MTRs examined that came from prominent Commercial Breeders, who are more likely to have kept records of their holdings, not least to confer a market advantage, than Hobbyist breeders. There may also be at play an effect where owners of birds that are traceable to NEBRS are more likely to participate in the scheme than owners who cannot do this. NEBRS records appear to still confer value to a specimen, according to magazine advertisements. Owners of birds with record linkages to NEBRS might therefore be more inclined to see that value is conferred by participation in the current scheme.

The most common incomplete field on MTRs was the buyer's signature. This is certainly because interstate sales often do not involve direct contact between buyer and seller. One seller reported sending forms for signature, to a buyer, along with stamped envelopes for forwarding the relevant

copy to DEWHA and returning copies to the seller. Other means to address this issue might include a tear off portion of the form, or an additional copy, to be sent to the buyer for signature and onward forwarding to DEWHA, where buyer and seller signatures are matched under the one form number.

Activity Records

The failure to submit a third of the 311 Activity Records in the first sample set, by the 31 July deadline may or may not be significant. It would be unwise to draw conclusions so early in the operation of the scheme. Bird keepers are establishing their participation and late submission of forms may simply reflect the time they are taking to do this.

The majority of bird keepers are single operators or family run businesses. For owners of large collections or for Commercial Breeders completing large numbers of transactions each year the amount of work involved in collating and transcribing records onto the AR forms is considerable. For example, the breeding season generates a high workload due to bird breeding activity and resultant eggs that may require incubation and other specialist care, including hand-raising.

The lack of full source details about the origin of specimens (sellers name, address, contact number etc.) on activity records is also a significant problem in the keeping of records by bird keepers. This may be due to some bird keepers being of the view that presenting such details presents a security risk for the original source of the birds.

Some sellers also do not like to publicize their holdings or do not want to relate their birds back to original owners who have since had birds seized (for fear that their birds would also be seized). It would seem however more likely that the reason full details are not shown is because there is not a clear understanding that they are required. A change to the Activity Record form to more clearly indicate the type of information (full name and full contact details) that is required might be warranted. Other changes that might be useful would be the removal of general instructive information from the top of the form to create more room for entries. Instructive information could be provided as a cover sheet for each pack of forms.

Acceptance of the Scheme

A high level of support was found for a scheme that is “compulsory under the law” (11 of 18 or 61% in Phase 1 and 20 of 25 or 75% in Phase 3). There was strong anecdotal comment made during interviews to suggest that bird keepers have little faith in a voluntary scheme to deal with the risk issues of concern to the Government. This combined with uncertainty about how far an onus of proof on owners and buyers can actually extend over time, leads many to prefer the relative certainties of a compulsory scheme that in a sense would level the playing field for exotic aviculture in terms of “cost” and “value” issues associated with scheme participation (the perceived advantages and disadvantages). Many bird keepers expressed regret that the NEBRS had been closed and referred to a perceived “black hole” - a gap in record keeping that will exist between its closure and any new compulsory scheme.

It also appears as if that the scheme has found little favour, generally, with keepers of ‘low interest’ birds because they see no advantages to participation. Even amongst owners of ‘high interest’ birds, attitudes appear to be equivocal. Attitudes may have hardened against the scheme as some bird keepers learned more about it. As the bird keepers came to understand that the scheme was voluntary and that not all bird keepers were participating, their sense of obligation to participate weakened. Participation in any regulatory scheme will to some extent rely on the perceived consequences of non participation. In the absence of clear penalties some bird keepers will always see the risks of non participation as acceptable or “worth taking”.

The issue for DEWHA is the behaviour of bird keepers in relation to the scheme rather than the opinions they express about it. Behaviour does not always correlate with expressed opinions. For example bird keepers may express very negative views about the scheme and say they will not participate, but then proceed to do so, and vice versa. Although there must always be room for objective feedback about the scheme, it is quite difficult to separate opinion from fact or even to

determine clear facts from the views gathered in this evaluation. Some bird keepers are apt to report as facts mere hearsay, for example that a fall in the value of birds offered at auction is entirely due to the scheme. Therefore, the views that were expressed by bird keepers could often be contradictory or hypocritical.

Behaviour towards the scheme to date suggests a relatively low level of participation which may be somewhat influenced by the mind-set of bird keepers. A total number of 304 individuals or organizations had submitted Activity Records and/ or Movement Transaction Records by 10 September 2008. Only 53% of the people who enquired about the scheme actually returned records to the Department. There could be a set of people who have chosen to use the forms but have decided not to return them to the Department. They may have concerns about security and what constitutes proof of ownership and whether they hold sufficient proof to satisfy enforcement authorities. There is no way of knowing how many people failed to access the books either directly from the Department or the Department's website, after trying to do so.

It may be simply too early to tell what the participation rate may be in the longer term or to determine the extent of behavioural change that the scheme may bring about in long established habits. An evaluation in a further 12 months time would reveal any trends in the development of record keeping practices and in scheme participation.

While bird keepers expressed a variety of views about the scheme, and these are often negative views, it is difficult to draw any clear conclusions about the scheme from the way in which they were expressed. While bird keepers are also reluctant to see advantages in scheme participation, they are prepared to define their interest in terms other than what they perceive may be of advantage to their bird keeping i.e. their views on the schemes advantages and disadvantages do not correlate with what they see as being in the interests of a keeper of 'high interest' birds. Any attempt to regulate the keeping of exotic birds in Australia would therefore be likely to meet some resistance.

Alternative approaches to the current scheme

Individual specimen records

An alternative approach to encouraging record keeping by exotic bird keepers might involve the provision of a template for individual specimen records. The sound management of captive breeding of valuable specimens in zoos, for example, involves use of individual specimen records. Such records hold details of the origins of a specimen, its' identification markers, its' movements within and between owners, general notes on its' management and specific notes on its breeding. A copy of the specimen's record follows the specimen throughout its life forming a composite history. Information could be provided about how such records should be maintained, the relationship between such records and sound genetic management of captive stocks, and the potential to enhance the value of specimens by providing details of their history and breeding. Maintenance of such specimen records, with supporting documentation, could help a bird keeper verify their lawful ownership of birds. Information would not be returned to DEWHA but bird keepers would be asked to establish their participation in the scheme perhaps through registration.

Again with this approach there will still be resistance from those bird keepers who don't like to keep records anyway.

Bird Industry Code of Practice

One approach to establishing standards in aviculture might be a code of practice to which bird keepers might adhere. However aviculture has a number of different aims:

- Bird keepers may see themselves as simply producing birds for sale to make a profit.
- Birds are bred to produce particular mutations that are rare in the current market and may give the seller a competitive advantage.
- Some bird keepers perceive aviculture as supporting species conservation.

- Many bird keepers simply enjoy keeping and breeding birds and merely seek to sustain their hobby.

This variety of aims and complex motivations, along with the lack of any clear and consistent approach to maintaining the genetic health of stock, make the design of a Code of Practice problematic. Beyond basic animal welfare, it might be difficult to establish clear principles for such a Code.

Overall while many bird keepers acknowledge the need for some sort of regulation of exotic aviculture, they are fiercely protective of what they perceive as their own interests even where they are less than clear about what these interests may be. The idea that regulation should be compulsory may be one of the few ideas that unite a clear majority, linked with the view that there should be a level playing field for all participants.

Conclusions

The Exotic Birds Record Keeping Scheme aims to mitigate probable risk by attempting to change the behaviour of exotic bird keepers towards keeping records of their activities. The scheme's strategy to attract participants is to use the principle of "reverse onus of responsibility" where buyers must take responsibility for ensuring, and being able to prove, the legality of birds they keep, breed or trade. The implied threat from the operation of the scheme is that a failure to at least keep records to a minimum standard established by the scheme could leave a bird keeper vulnerable to prosecution.

An aspect of the culture of bird keeping is a not uncommon concern with secrecy and security related to the protection of valuable specimens, itself linked to ideas about rarity and exclusivity. (The exclusivity of ownership of particular birds supports the relatively higher prices that may be obtained when such birds are sold.) These concerns can be held by legitimate operators but are also held by owners wishing to conceal the questionable legality of their activities.

All of the indicators examined in this evaluation suggest that the scheme has been well communicated by DEWHA and is well understood by exotic bird keepers in Australia. The forms are generally understood and are filled in fairly accurately with the exception of source information for birds listed on Activity Records.

If the scheme were to continue, changes to the Activity Record form to encourage bird keepers to supply complete contact details for suppliers of their birds should be made.

Generally in aviculture, tracking eggs whilst in the nest is difficult. It is not customary to disturb birds whilst they are laying or sitting on eggs, because birds are prone to abandoning their clutch if disturbed. This leads to difficulties in establishing how many eggs are present in each nest or how old they are. Furthermore there may be a number of infertile eggs in a clutch. Breeders are more likely to track hatchlings. The amount of viable young may not actually be counted until birds are actually fledged. Once eggs are deliberately removed from a nest for incubation and hand raising then these eggs and their movements should be recorded. Therefore the issue of listing eggs on Activity Records should be reviewed.

Without some reasonably accurate measurement of the scale of exotic aviculture in Australia, it is impossible to gain an accurate measure of the impact of the schemes' strategy. It is also difficult to gauge the schemes effectiveness over the very short timeframe in which the scheme has been operating. Therefore, it is not possible to determine whether the scheme "has or has not worked" at this stage and it is very difficult to discern trends, let alone assess their significance in the absence of a complete review of the practices of the entire bird keeping community.

A precautionary principle should therefore operate in drawing any conclusions from the data gathered in this evaluation. The proportion of bird keepers holding exotic birds who had commenced participation in the scheme during the evaluation period should consequently be assumed to be a small minority.

Whilst a higher proportion stated their intention during interviews to participate in the scheme, it is not possible to assess how serious this intention might be. There is some evidence that as bird keepers became more confident in their knowledge of the scheme there was a corresponding hardening of attitudes around a decision not to participate.

It is not possible to discern at this stage, any effects of the scheme upon legal and illegal activity or upon the market price for exotic bird species in Australia. It is also not possible to discern any effect on the conservation of Australia's biodiversity, a key objective of the scheme. The Department has no way of assessing the complete scale of the exotic aviculture industry in Australia. Furthermore no agencies keep statistical data on illegal activities. There are comparatively few seizures and convictions and that in itself does not necessarily reflect the level of illegal activity associated with exotic aviculture. It is therefore not possible to establish baseline information that would enable the impacts of the scheme to be measured.

The reasons for the probable low participation rate in the scheme are linked to the fact that the scheme is voluntary, and the perception that it confers no clear advantage on ordinary bird keepers. A significant proportion of bird keepers see that the scheme does not enhance the value of their birds and in fact may reduce their capacity to on-sell birds. The conclusion may be drawn that this is related to a reluctance of bird keepers to keep and maintain documentation. Bird keepers consistently express a level of uncertainty and anxiety about what constitutes proof of legal ownership. Nonetheless if the majority opinion of exotic bird keepers is to be considered, in the face of low levels of participation in a voluntary scheme, there is a case for regulating record keeping by exotic bird keepers, under the law.

Whether or not the current voluntary scheme continues, or a compulsory scheme is put in place, the opportunities for dishonest exploitation and abuse of the scheme by bird keepers should be carefully reviewed. Some forms of exploitation may be unavoidable as some individuals will always seek to bypass the system.

Despite equivocal attitudes towards the current scheme an attitude of acceptance of some level of regulation of exotic bird keeping is discernible. No negative comments about the NEBRS were received at any time. Bird keepers saw NEBRS as a way of legally establishing their holding of birds, but with the closure of NEBRS they were thrown back into a state of uncertainty. This suggests that if a legally enforceable scheme is to be developed, bird keepers may be willing to embrace the advantages that regulation infers i.e. a clear legal footing for their activities.

With such diverse interests in the keeping of exotic birds in Australia, establishing a representative group for aviculture is a key challenge to avoiding the appearance of supporting vested interests of people participating in discussions with regulators.

The role of state and territory government agencies in any regulation of exotic bird keeping should be reviewed. At present, outside of Western Australia, these agencies play little or no role in even monitoring exotic aviculture and appear to have been little engaged in the development or implementation of the scheme. There may be divergent views between state and territory agencies and individuals on the sorts of risks that exotic aviculture incurs for the conservation of Australia's biodiversity. There is a case that as currently formulated; the scheme does not sufficiently recognise the threat to biodiversity from some 'low interest' species. DEWHA should engage with the states and territories to explore these issues.

The idea of self-regulation of record keeping for low interest species by exotic bird keepers must be questioned. From the data gathered in this evaluation, there appears to be practically no interest from keepers of 'low interest' exotic species in adopting the schemes forms. There is also no way of measuring the actual level of use of the forms. To be justified, self-regulation needs to be able to be monitored in some reasonably accurate way through access to reliably representative data. The scheme for 'low interest' birds probably cannot be justified and should cease.

Ultimately the priority given to regulation for exotic aviculture will depend on a detailed evaluation of the environmental and economic risks it poses, as measured against the larger environmental and economic risk background. Such an evaluation will need to establish the actual extent of exotic

aviculture in Australia, determining at least approximately, how many bird keepers and how many species and specimens are involved.

To be effective any compulsory scheme of regulation would need adequate and ongoing resources for data gathering and monitoring, at a level that captures omissions and inconsistencies in reporting. There would need to be a level of scrutiny of records and additional documentation with authorities conducting inspections of premises. A computerised system would be needed to collate information for identification and prosecution of illegal activity.

Recommendations

1. A study should be commissioned to obtain baseline data on the full extent of exotic aviculture in Australia.
2. Engage the states and territories collaboratively to undertake an assessment of the risks of exotic aviculture in Australia including the classification of birds as high or low interest, and a definitive list of the species currently present in Australia. Based on the identified risks, discuss with the states and territories how exotic aviculture may be effectively regulated.
3. Consider alternative measures to change the culture of bird keeping in Australia including a campaign to establish the keeping and use of individual specimen records (these records would not be returned to the Department).
4. Maintain the current scheme for high interest birds with improvements to be made to the forms.
5. Cancel the record keeping scheme for low interest birds.
6. Scrutinise the information on forms returned to the Department under the current scheme to establish the range of species in trade, the number of transactions per species, and the numbers of bird keepers participating in the scheme. Actively verify the linkages between activity records and movement transaction records for possible compliance purposes.
7. Establish a clear record/database of all the clubs, societies and other key stakeholder organisations to form part of the information base to establish the level of activity in the exotic aviculture industry.
8. Re-establish a representative body of exotic aviculture stakeholders, to provide input and advice to the Department regarding the regulation of exotic aviculture.

References

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