

A PLAN FOR CREATING A NATIONAL BIRD WATCHING  
SOCIETY IN MAINLAND CHINA FOR  
BIRD CONSERVATION AND EDUCATION

by  
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## **ABSTRACT**

Traditionally, most Chinese people see birds as food, pets, agricultural pests, or potential medicine. Besides the bird conservation and education work led by researchers and government, a new perspective has emerged recently. Birding as a hobby was introduced into mainland China in the 1990's, and the increasing number of birdwatchers is adding momentum to the conservation movement. There is an urgent need to establish a specialized non-governmental organization to carry on bird conservation and education. The study provides practical instructions for creating such an organization in mainland China in the future.

This study surveyed 282 birders and interviewed staff of 9 bird-related organizations all over the country. The history and status of bird watching activities in mainland China, legal procedures of forming a national bird watching society, potential funding sources and a staffing plan for the society were identified and described. The results showed that a majority supported creation of a national bird watching society. Over half believed the primary purpose of the society should focus on implementing bird conservation and education. A national birding website, outdoor birding, and bird photo exhibitions were three the most desired activities by birders. However, to register a national NGO successfully is still the most difficult procedure in mainland China. Recommendations for the creation of the national bird watching society include the future bird-related activities, registration of the society, and management and development of the society.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **Importance of the Study**

In terms of total areas, China is the fourth largest country in the world. There are over 1,300 bird species in China. Some species, such as the black-necked crane and Cabot's tragopan, are among the most spectacular and fascinating birds in the world. Birds have been greatly admired in Chinese poems and paintings. For example, in Chinese traditional culture, the red-crowned crane was believed to have magical powers and to bring long life for humanity.

In addition, many bird species are easily seen or heard, making them excellent environmental indicators. In many cases, birds may provide scientists with the best glimpse at how humanity's actions affect ecosystems and wildlife. The number and species of birds should be good indicators for monitoring the quality of the environment (Erickson, 2006).

Unfortunately, birds are being threatened by many factors in China, including habitat loss and degradation, pollution, and other human disturbances. Traditionally, most Chinese people see birds as food, pets, agricultural pests, or potential medicine. The human population is more than 1.3 billion in China, which puts a huge pressure on the ecosystems of China. As Chinese consumption patterns increasingly emulate those of

the West, natural resources are further stressed.

Previously, most bird conservation and education work was led by researchers and the government, but a new perspective has emerged. Birding as a hobby was introduced into mainland China in the 1990s, and the increasing number of birdwatchers is adding momentum to the conservation movement. More than 16 local bird watching societies have been formed in China between 1999 and 2008 but all of these are regional, sporadically dispersed, and lack a unified leadership. In order to raise the public interest in protecting wild birds, there is an urgent need to establish a specialized non-governmental organization to carry on bird conservation and education. This study will provide practical instructions for founding such an organization in China in the future.

### **Statement of the Problem**

The purpose of this study was to develop a plan for creating a national bird watching society in mainland China for bird conservation and education.

### **Statement of Subproblems**

1. Subproblem 1: Determine the history and status of bird watching activities in mainland China.
2. Subproblem 2: Identify the legal procedure for creating a national bird watching society.

3. Subproblem 3: Identify and describe the bird conservation and education activities that a national bird watching society should conduct.
4. Subproblem 4: Develop a staff and financial plan for the national bird watching organization.

### **Limitations**

The study did not include Hong Kong, Macao and Taiwan. Results were limited to mainland China. Only readers of China Bird Watch were surveyed. Results were generalizable only to this population.

### **Definition of Terms**

Bird Conservation: Bird conservation includes strategies and activities used to prevent further bird extinctions, to reverse declines in bird populations, and to assure the protection and management of sufficient habitat of wild bird species for the future.

Bird Education: Bird education is education about bird taxonomy, ecology, conservation, evolution, and other knowledge and skills related to birds achieved through bird watching activities.

China Bird Watch: *China Bird Watch* is a bimonthly newsletter coordinated by active volunteers who are fond of literature and are experienced in editing. It is written in Chinese only with English summaries and provides up-to-date news about bird watching societies, bird conservation information in mainland China, as well as bird sighting records.

Mainland China: Mainland China is used to denote the area and population under the People's Public of China's rule, but usually excludes Hong Kong, Macao and Taiwan.

National Bird Race: A national bird race is an event whereby teams of birdwatchers record as many bird species as they can in a certain area within a 24 hour period. Since 2002, the National Bird Race has been held in Dongting Lake, Hunan Province every winter. Many Chinese bird-related organizations and some from other countries have sent representatives to attend the race.

National Bird Watching Society (NBWS): The National Bird Watching Society is a non-governmental organization focusing on bird conservation and education in mainland China, and is planned to be created by birdwatchers in the future.

Non-governmental Organization (NGO): A non-governmental organization is one that is not directly part of the structure of government.

### **Assumptions**

1. The local bird watching societies of China will be willing to be united as a national organization.
2. The organization will have enough members to provide financial and other support.
3. The organization can get financial support and expert advice from other international NGOs.
4. Respondents were honest in their replies to survey and interview questions.

## **Abbreviations**

NBWS: National Bird Watching Society

NGO: Non-governmental organization

## **CHAPTER TWO**

### **LITERATURE REVIEW**

The purpose of this study was to develop a plan for creating a national bird watching society in mainland China for bird conservation and education. In order to accomplish this, the following areas of the literature were reviewed:

- I. Current major threats to bird populations and species of mainland China
- II. History of bird watching activity in mainland China
- III. The population of birdwatchers in mainland China
- IV. Current bird conservation and education activities in mainland China
- V. The status of conservation NGOs in mainland China

#### **I. Current Major Threats to Bird Populations and Species of Mainland China**

China's bird fauna is seriously threatened by loss and fragmentation of habitat, hunting and the pet trade, pollution of waterways and inland seas, and use of insecticides on agricultural lands. Three main areas related to such threats will be discussed, including habitat, management and exploitation.

##### **A. Habitat Loss and Degradation**

There is a huge demand for land in the coasts of southern China because of human population pressure and very rapid economic development. Large areas of wetland have been reclaimed for agriculture, aquaculture, industrial and urban land. Clearance

for permanent agriculture and plantations has contributed to the reduction and fragmentation of natural forests in many areas (Boardman, 2006). Human disturbance and pollution are main reasons for habitat loss and degradation. Large areas of natural wetland have been converted to shrimp and fish ponds. For example, in Zhejiang Province in south-east China, large areas of mudflats have already been lost, and there are plans to reclaim an additional 659 km<sup>2</sup> in the next 15 years. On the Yellow Sea coast, large areas of intertidal habitat have been lost, and there are many large-scale ongoing projects and plans for further reclamation, for industrial development, agricultural land, salt works, urban expansion, aquaculture and freshwater reservoirs (Crosby, 2003).

### **B. Weakness in Reserve Management**

According to the State Forestry Administration of the People's Republic of China, as of 2006, the number of national, provincial or county-level natural reserves in China was 1,740 (P.R.C. State Forestry Administration, 2007). In addition to pressures from development, disturbance and pollution, many nature reserves have weaknesses in management. At some nature reserves, the protected area status is virtually ignored by local people, requiring improvements in institutional capacity, management, staffing and equipment. Although many new protected areas have recently been designated in mainland China, there is no stable financial mechanism in the national budget to support these reserves, and many reserves have to generate income for their own operating budget. As a result, illegal activities are common in many protected areas,

including logging, mining, forest grazing, agricultural encroachment and hunting. Recently, an increasing negative influence of tourism became a severe problem. High levels of tourism degrade the natural physical environment and create pollution. The preparation of management plans is the responsibility of nature reserve staff, subject to government approval, but many existing plans are inadequate or outdated, and require revision (Crosby, 2003).

### **C. Exploitation of Birds**

There is a saying about the people of southern China that they eat anything with four legs except tables, anything that flies except airplanes and anything that swims except ships (MacKinnon, 2000). That saying is not entirely true, but traditionally, most Chinese people see birds as food, pets, agricultural pests, or potential medicine. An upswing in commercial hunting of Chinese songbirds raises concerns that migratory and resident species, including yellow-breasted buntings and Eurasian tree sparrows, are being killed for food (Youth, 2003). In 2007, the P.R.C. Ministry of Public Security solved five severe wildlife trade cases. Two of them were related to wild birds, including more than 6000 dead yellow-breasted buntings in Rongshui, Guangxi Province and 30 Eurasian eagle owls in Zhenzhou, Hunan Province. These birds were illegally captured and transported to restaurants (P.R.C. Ministry of Public Security, 2007). The population of yellow-breasted bunting has declined drastically. In the winter of 2007, only a few of the birds were recorded by birdwatchers all over the country although it was one of the most common migrating birds that had frequently



been seen in the south of China in the 1990s (Simba Chen, personal communication, December 12, 2007). Hunting and wild bird trades are serious threats to birds of mainland China, even in protected areas. In September 2006, a picture taken at a restaurant beside Nanling National Forest Park, Guangdong Province, showed a dead yellow-bellied tragopan, which is listed as a nationally protected species in China, being prepared for cooking with other wildlife. Most birds are hunted in China, and in some areas mist-netting of birds for food and entertainment is very common. Illegal hunting is prohibited by law, but the law has not been implemented effectively. Trapping for the national and international cage-bird trade may be a significant threat to many threatened bird species, especially for song birds in mainland China (Crosby, 2003). Flower and bird markets exist in most cities in China. Although it is illegal to trade wild birds in such markets, in fact, a lot of wild and exotic birds as well as tamed birds are sold in the market publicly. Unfortunately, we have no exact data on how many birds are traded in this way every year.

## **II. History of Bird Watching Activity in Mainland China**

Bird-watching as a hobby was introduced into mainland China in the 1990s. In October 1996, four ornithologists of mainland China were invited to attend the Hong Kong International Bird Watching Race by the Hong Kong Bird Watching Society. The race asked birdwatchers from different communities and organizations to record as many bird species as they could in a certain area within 24 hours. The purpose of the race was to draw the public's attention to wild birds and advocate bird-related

activities. The race was introduced into mainland China in 1996 and became a popular form of advocacy for birding (Zhao, 2006).

Environmental educators and conservationists in mainland China gradually realized that birding was an effective form of environmental education for the public. They began to intentionally introduce bird watching activities into mainland China. The Friends of Nature, a non-governmental environmental organization located in Beijing, began to organize its members to participate in birding in Beijing in 1997. Green Earth, another non-governmental environmental organization in Beijing, began to encourage the public to watch birds, too. In 1999, the volunteers of Green Earth went to Hong Kong to take part in the Hong Kong International Bird Race.

In May 1999, copying the Hong Kong International Birding Race, the first bird watching race in mainland China was held in Beidaihe, Hebei Province. Almost 80 amateur birdwatchers from mainland China participated. Since 2001, several local bird watching societies have been founded around the country. In December 2002, the first national bird watching race was held in Dongting Lake, Yueyang City, Hunan Province. In late January and early February 2004, volunteers took part in the first waterfowl survey of the middle and lower Yangtze River floodplain, which was supported by World Wildlife Fund (WWF). Several societies have been formally registered with provincial governments around mainland China since 2001. According to a survey in 2007 from *China Bird Watch*, the only birding magazine in China, there

were 16 nongovernmental, bird-related societies in mainland China. Bird watching activities have been organized in at least 53 cities and the total number of birdwatchers in mainland China is estimated to be more than 3,000 (Zhong, 2008).

Figure 2.1 shows the distribution of bird watching societies in Mainland China.



**Figure 2.1: Distribution of bird watching societies in Mainland China**

### **III. The Population of Bird Watchers in Mainland China**

The Beijing Bird Watching Society conducted a non-scientific survey on birdwatchers of mainland China in 2004 (Hou, 2006). The questionnaire was designed and put on the website of the Beijing Bird Watching Society. Four hundred two people directly

responded to the questionnaire through the Internet. The ratio of men to women was 2.4 to 1.0. The survey found that 64% birdwatchers were from 20 to 40 years old. About 16% respondents were more than 40 years old. Twenty three percent of birdwatchers were students in universities. Scholars and experts made up 14% respondents. Teachers were 10%. Others included officers in government, journalists, managers in enterprises, and so on. Only 3% respondents began to watch birds before 1999 and 49% began to participate in birding after 2002. About 42% respondents belong to local bird watching societies.

When asked how they learned about bird watching, 20% people answered that they discovered bird-watching activities when they took part in activities organized by environmental protection organizations. Only 13% said they learned to watch birds because of formal study, and the same number of people reported that they were introduced by their friends. Other ways included instruction by teachers, reading news or essays, using forums of websites and taking part in outdoor activities.

*China Bird Watch* conducted a survey on bird-watching organizations in 2006. The results showed that the number of bird watching societies (including those in preparation) was 15. The number of memberships was nearly 1,300, but the active membership number was less than 500 (Qiao, 2006).

#### **IV. Current Bird Conservation and Education Activities in Mainland China**

In order to promote bird watching and bird conservation in mainland China, all bird watching societies organize many activities individually or cooperatively. Outdoor bird watching activities are the most popular activities offered by Chinese bird watching societies. Every society has a variety of activities about birding. The Shenzhen Bird Watching Society has made great achievement in holding bird-watching activities and environmental education in primary and secondary schools. The Beijing Bird Watching Society has a seminar on Wednesday every week and an organized bird banding workshop every spring and autumn (Zhao, 2006).

Publications are another effective way to make the public realize the importance of birds. Several local bird watching organizations have published local bird species brochures and other education publications. In 2004, *China Bird Watch*, the first bird-watching newsletter of mainland China (supported by two international organizations, BirdLife International and Global Greengrants Fund), was begun by volunteers. Within 3 years, the newsletter had already developed into a bimonthly magazine and is sent to ornithologists, employers in reserve areas, and birdwatchers with no charge. It provides up-to-date news about bird watching societies, rare bird species records in mainland China, and contributions from bird watchers, as well as bird sighting records. The bilingual edition of *China Bird Reports 2003* was published at the end of 2004. From then on, the annual bird report was published on the same schedule every year. The annual bird report mainly embodied birdwatchers' bird

records around the country and improved the status of amateurs in ornithological research areas (Zhao, 2006).

On May 1 and 2, 2006, the China Ornithological Society and the Chengdu Bird Watching Society organized a conference on organizational development of bird watching societies in China. A total of 61 persons representing 37 organizations attended the meeting. The symposium discussed and reached resolutions on diverse topics, including the organization of national outdoor activities such as birding races, bird photography exhibitions and bird surveys, as well as the cooperation of local bird watching societies with Birdlife International. The representatives of some active local bird watching societies also agreed to form a Joint Bird Watching Societies Meeting (JBWSM) to coordinate national-level birding watching activities. According to Zhong (personal communication, May 25, 2007) the JBWSM was a weak round table discussion group instead of a strong central leadership group. The main leaders of bird watching societies only exchanged ideas through an Internet forum. Most discussion could not be made into reality for lack of funding, participants, and coordinators.

## **V. The Status of NGOs in Mainland China**

With its rapid economic growth, China has been facing many serious environmental problems, which incur significant social and economic costs. Environmental issues have become one of the most important social welfare concerns and demands of the

public. China's leaders have come to understand the importance of environmental protection, and they are eager to find a means to reconcile their desire to achieve both unimpeded economic growth and improved environmental protection. In addition to establishing an environmental protection mechanism and legal system, the government also supports environmental nongovernmental organizations to reduce the risk of environment degradation.

Beginning with the launch of the first environmental NGO, Friends of Nature, in 1994, China's leaders have opened the political space for popular participation in environmental protection, permitted the establishment of NGOs and supported grassroots efforts (Economy, 2005).

While permitting the NGO sector to develop in China, the government has been careful about limiting the range of its activities. In addition to formal regulations, it retains a number of mechanisms by which it can effectively control an NGO. For example, in order to register in the government, an NGO has to receive approval from a government organization that is willing to be its leader-in-law, which can control the activities of the NGO. Once the government organization doesn't want to be its leader-in-law, the NGO has to find another one, or it will lose its legal status. For example, in order to create a national NGO to advocate the public caring for their eyes, several doctors spent more than 10 years trying to register it, but they were still unsuccessful (Yao, 2007).

According to China's Ministry of Civil Affairs, which oversees such organizations, by 2002 there were 230,000 officially registered NGOs. A broader definition of social organizations that includes all types of citizen-based organizations and economic associations yields a number over one million, and if one attempts to account for NGOs that are not registered with the government, the number by some accounts is as high as two million (Economy, 2005). It is critical that a new NGO ensure that it is properly registered with the public authorities of the country. Without legal standing, it is difficult for an NGO to carry out its programs and projects effectively, to raise funds, and to get support from local people and stakeholders.

Why does the Chinese government allow the increasing activist environmental NGOs?

One of the reasons is they provide an inexpensive mechanism for monitoring local pollution and educating the public on environmental protection. The government wants NGOs to help but not to make trouble. The government's support of NGOs remains qualified. The range of restrictions it has placed on NGOs regarding registration, funding, staffing, and location have constrained the number of NGOs as well as the range of their activities.

In China, one of the most prominent characteristics of NGOs is that they have been influenced by organizations abroad. Such foreign NGOs are sources of funding, organizational assistance, and collaboration for technical and other types of environmental studies. Many renowned international NGOs focusing on nature



conservation and species protection have offices or projects in China - World Wild Fund for Nature (WWF), The Nature Conservancy (TNC), International Fund for Animal Welfare (IFAW), International Crane Foundation (ICF), and Wildlife Conservation Society (WCS).

Hong Kong has an important role in connecting mainland China internationally. Hong Kong was returned to China on July 1, 1997, following ninety-nine years of British rule. Under British rule, Hong Kong had developed a number of modern traditions, including a highly skilled civil service, freedom of press, speech, and assembly, and relatively low levels of corruption. Hong Kong also developed a small but active environmental NGO movement, including nature associations, broadly supported by international NGOs. These NGOs appeal to a wide range of citizens, from nuclear power activists to bird watchers.

Generally, Hong Kong NGOs are often more helpful than those from western countries. This is due not only to the short geographical distance between the mainland and Hong Kong, but also to familiar traditional culture and language. Hong Kong NGOs introduce modern theory from western countries and translated their materials into Chinese, an effort especially valuable for those mainland NGO leaders who do not speak English. The growing exchanges between the two groups will likely provide some foundation for future cooperative NGO activity on the mainland.

For example, the Hong Kong Bird Watching Society (HKBWS) is playing a leading role in the development of bird watching in mainland China. In order to help local bird-related organizations, HKBWS has organized several training workshops on bird education and shorebird identification. They published books on successful bird conservation all over the world and designed a bilingual website (English and Chinese) to advocate birding activities in mainland China. Birdlife International, an international bird conservation and education organization located in Great Britain, also has its Chinese program office with HKBWS.

## **CHAPTER THREE**

### **METHODOLOGY**

The purpose of this study was to develop a plan for the development of a national bird watching society in mainland China for bird conservation and education. This chapter describes the procedure that this research applied. The study took place at the University of Wisconsin-Stevens Point, between September 2006 and May 2008. The study population was the birdwatchers in China.

#### **Subproblem One Methods**

**Subproblem 1: Determine the history and status of organized bird watching activities in mainland China.**

A thorough literature review of peer-reviewed articles was completed. Birding is a new activity for most Chinese; few data have been collected and published. Data relating to the history of bird conservation and education in China are presented in Chapter Two.

To address the goal of the study, a survey was conducted of birdwatchers in China. An online questionnaire was determined to be an effective tool to gather survey data with the limited project budget (Fowler, 2002; Leedy & Ormrod, 2005; Salant & Dillman, 1994.) The online questionnaire form was chosen as a main delivery method for several reasons. Web surveys can increase the accuracy of responses with forms

designed to only allow data to be entered in the correct place and to require participants to enter all specified information. Online questionnaires are relatively inexpensive to design and administer. They can also add flexibility and save time with data entry, since information is received in the electronic form and does not have to be reentered into a computer. The disadvantage of a website survey is that as soon as people submit the survey, they cannot change it even they realize they made a mistake.

A questionnaire (see Appendix A) was developed. The questionnaire was based on the literature review, previous studies of birdwatchers and their attitudes toward bird watching activities in China. The questionnaire focused on questions about bird-watchers' opinions of birding as well as questions designed to find out how bird-watchers are obtaining information on birds and birding. This allowed the researcher to gain a better understanding of the reasons why people are attracted to birding. The questionnaire consisted of two sections. The first section included multiple-choice questions as well as open-ended questions. Thirty-two questions were written to gather information about the respondent's perceptions of birding, bird conservation, and education activities. Some of the questions contained multiple parts. The questionnaire also asked basic demographic questions, such as age and gender. The second section was discussed in "Subproblem Three Methods". A second mailed questionnaire was chosen as an additional method for the potential respondents who have no access to Internet.

The survey population consisted of the approximately 800 readers of *China Bird Watch*. The population was chosen because they represented the majority birders in China.

The graduate committee for this study, Dr. Dan Sivek, Dr. Corky McReynolds and Dr. Eric Anderson, reviewed a draft of the questionnaire, cover letter, and IRB insert. All the reviewers were asked to comment on readability, flow, and content. They were also asked how well the potential answers for each question appeared to match the objectives of the question. Based on their comments, the survey was deemed to have face validity.

### **Subproblem Two Methods**

#### **Subproblem 2: Identify the legal procedure of forming a bird conservation and education NGO.**

In order to create a legal NGO on bird conservation and education, it is first necessary to have accurate and reliable information about the procedure for forming of an NGO. An independent study was conducted for this subproblem. The literature review on the status of NGOs in mainland China was described in Chapter Two. The literature review on legislation related to forming and managing an NGO and personal communication with leaders of existing NGOs helped to describe the legal procedure of forming a bird-related NGO. Data are qualitative and are described in narrative

form in Chapter Four.

### **Subproblem Three Methods**

**Subproblem 3: Identify and describe the bird conservation and education activities that the national bird watching organization will conduct.**

The second section of the questionnaire (see Appendix B) consisted of 16 Likert-type scale questions, targeting the kinds of bird education and conservation effort believed to be most effective. The data for the description of bird conservation and education activities that the national bird watching organization will conduct were based on the results of the survey and the research conducted for the literature review for this study.

### **Subproblem Four Methods**

**Subproblem 4: Develop a staff and financial planning for the national bird watching organization.**

The researcher developed an interview question guide (see Appendix C) to interview key leaders of bird-related organizations in China. The data needed to identify this sub-problem are staff, the sources of funds, and expenses of different bird-related NGOs. The researcher collected data on this topic from the eight bird watching societies registered in mainland China, and Hong Kong Bird Watching Society. Since the research was in the U.S., the interviews were carried out by Emails from October, 2007 to November, 2007. This information, along with information collected from

other NGOs, was then used to develop an initial staff planning, an initial financial planning, and potential income sources for the national bird watching society.

### **Timeline**

Develop questions relating to the subproblems of this study to use in the questionnaire	March 2007
Conduct a pilot study to test for validity of questionnaire Questions	April 2007
Obtain a sample of 800 bird watchers in China	May 2007
Posted the survey on the Internet	August 10, 2007
Sent the mail-in survey to 800 readers <i>of China Bird Watch</i>	August 20, 2007
Posted the second announcement on all 16 local bird watching societies' chatrooms	September 21, 2007
Stopped accepting online questionnaires	October 20, 2007
Analyze data from questionnaires	October 2007
Interview other bird watching societies	October to November 2007

## **CHAPTER FOUR**

### **RESULTS**

The purpose of this study was to develop a plan for creating a national bird society in mainland China for bird conservation and education. As described in Chapter Two (literature review), the project had four sub-problems. This chapter discusses the results for each of these subproblems.

#### **Subproblem One Results**

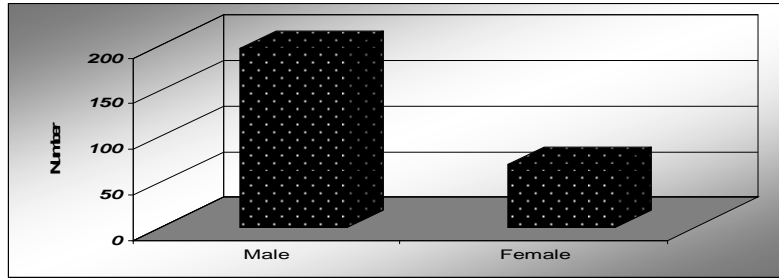
**Subproblem 1: Determine the history and status of organized bird watching activities in mainland China.**

##### **I. Sample Characteristics**

Overall, a total of 282 questionnaires were returned, including 269 Internet-responses and 13 mail-responses (response rate 35%), but some didn't answer all questions for undisclosed reasons.

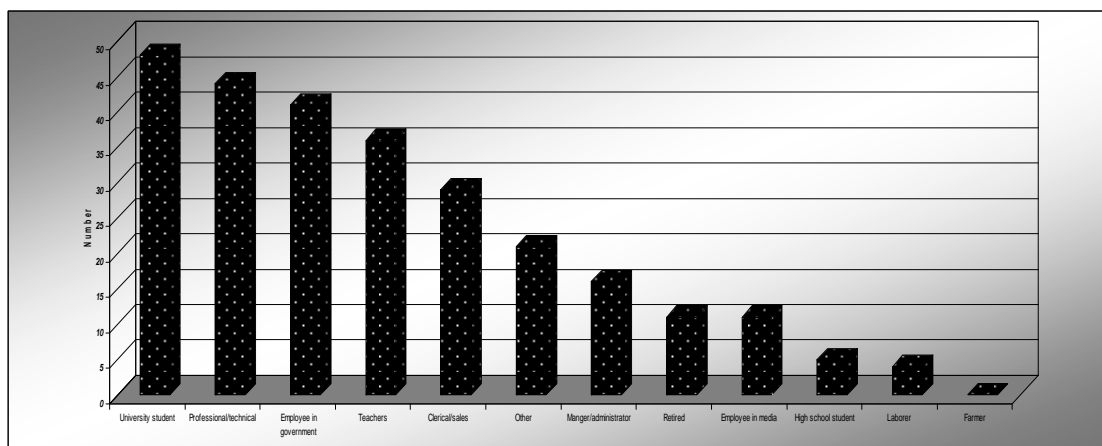
A total of 266 people responded to the question about gender. As shown in Figure 4.1, the majority (74%) were male. The ratio of men to women was about 2.9 to 1.





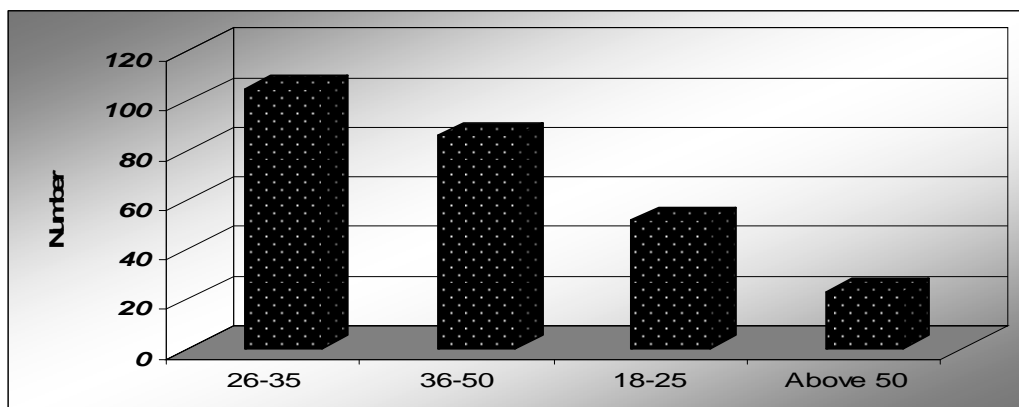
**Figure 4.1: Gender of respondents ( $\underline{n}=266$ )**

Of the 266 people that responded to the question about their occupation, the top three occupations were students in universities (17%), professional/technical (16.5%), and employees in government (15.4%). The three occupations with the fewest numbers were farmer (0%), laborer (1.5%), and high school student above 18 (1.9%) (Figure 4.2).



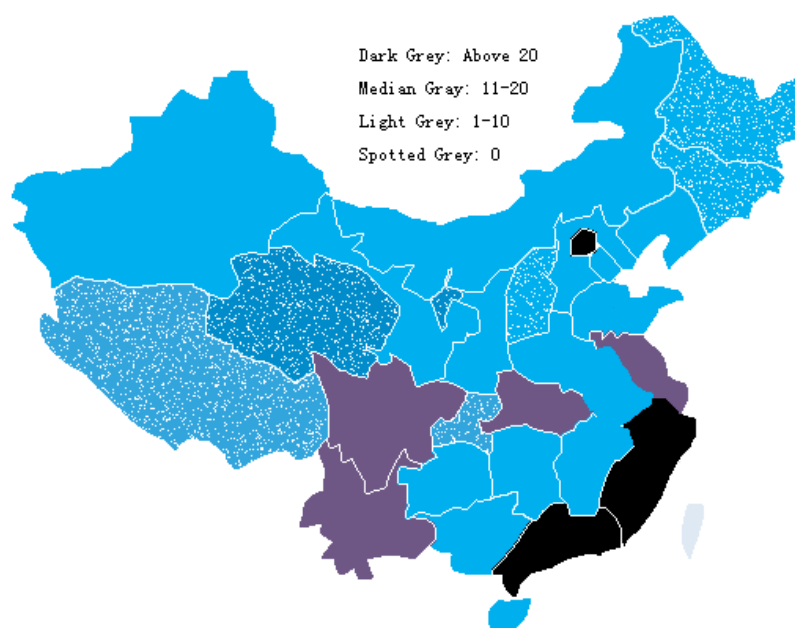
**Figure 4.2: Occupations of respondents ( $\underline{n}=266$ )**

Of the 266 people responded to the question about age, 39.5% were from 26 to 35, 32.3% were from 36 to 50, 19.5% were from 18 to 25, and 8.6% were more than 50 years old (Figure 4.3).



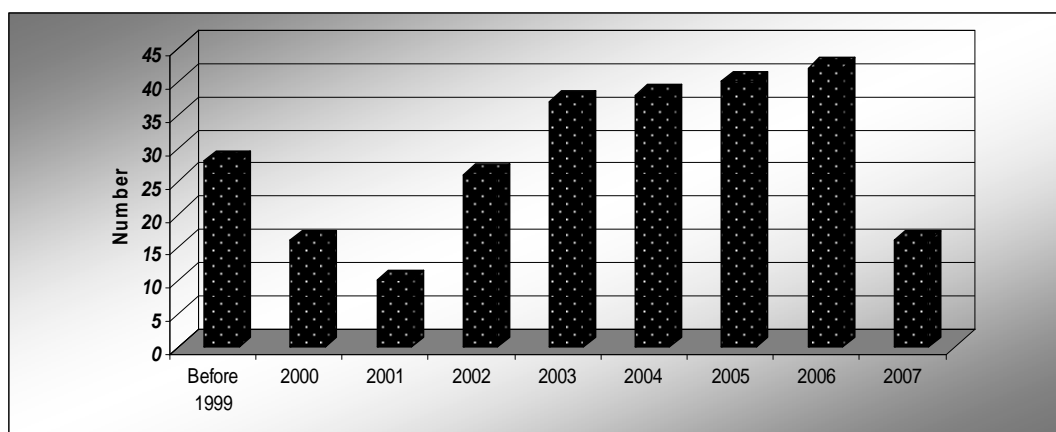
**Figure 4.3: Age of respondents ( $n=266$ )**

A total of 268 people responded to the question about the province or region in which they live. Most birders were from the east coastal provinces (Figure 4.4). The top four geographical areas were Fujian (13.8%), Beijing (12.7%), Zhejiang (11.2%), and Guangdong (10.1%).



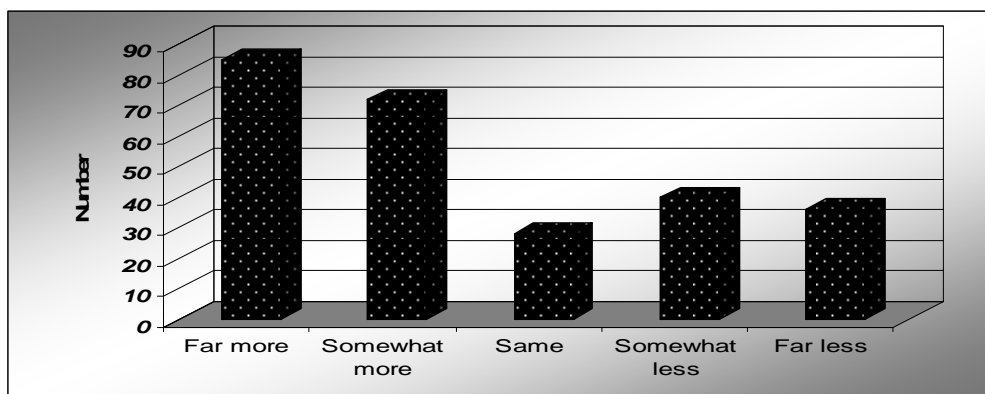
**Figure 4.4: Distribution of respondents**

Of the 253 people responded to the question about the year they started birding, 90% began to watch birds since 2000; and 10% started birding before 2000 (Figure 4.5).



**Figure 4.5: Year when birding started ( $n=253$ )**

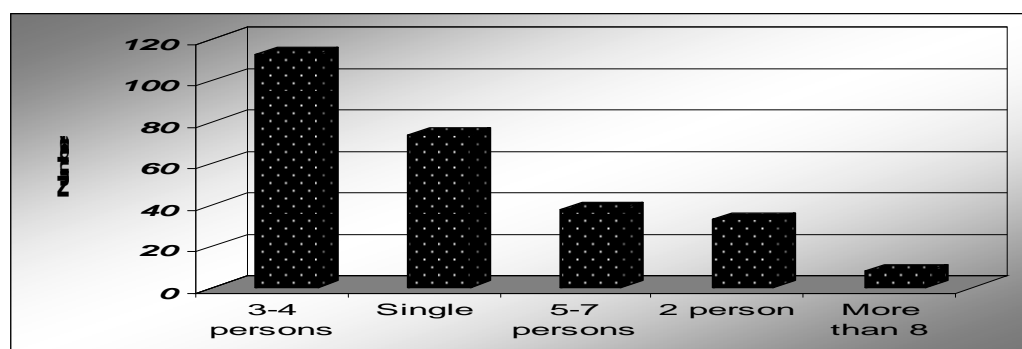
The number of time period (>30 minutes) spent birding each month ranged from 60-0, with 4.6 as an average. Of the 261 people that responded to the question about time spent birding compared with time spent on other hobbies, 32.5% spent far more time on birding compared to other activities; 25.7% spent somewhat more time; 10.7% said they spent the same time on birding as other hobbies; 15.3% spent somewhat less time; and 13.7% spent far less time on birding (Figure 4.6).



**Figure 4.6: Time spent birding compared with other hobbies ( $n=261$ )**

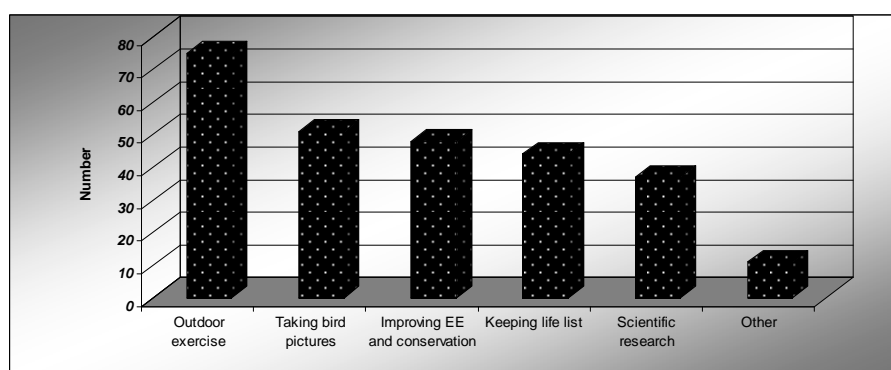
Of the 266 people that responded to the question about the size of birding group, 42.4% normally went birding with 3-4 persons; 27.8% preferred to go birding alone; 14.2% went birding with 5-7 persons; 12.4% went birding with 2 person; and 3%

went birding with more than 8 persons (Figure 4.7).



**Figure 4.7: Size of birding group ( $n=266$ )**

Of the 269 people that responded to the question about the factors that most attracted them to birding, 28.2% reported that the main factor was outdoor exercise; 19% chose taking bird pictures; 18% were for environmental education and conservation; 16.5% chose adding bird species to their life list; 13.8% were for scientific research, and 4.1% had other reasons (Figure 4.8).

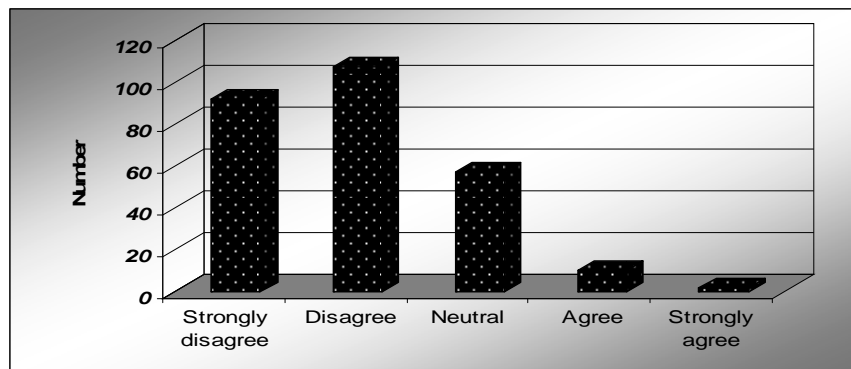


**Figure 4.8: Most important attractants to bird watching ( $n=269$ )**

## **II. Attitudes toward Illegal Bird Hunting**

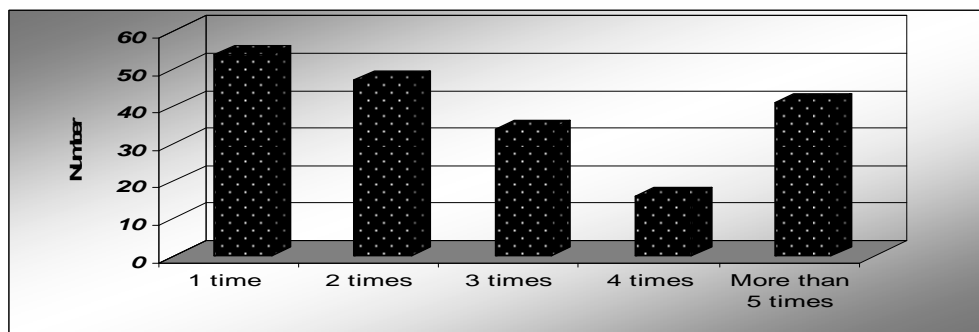
Of the 268 people that responded to the question about attitude toward keeping wild birds as pets, the majority of respondents (74.2%) disagreed with the statement, “people should be allowed to keep wild birds as pets” while only 4.5 agreed (Figure

4.9).



**Figure 4.9: Attitude toward keeping wild birds as pets ( $n=268$ )**

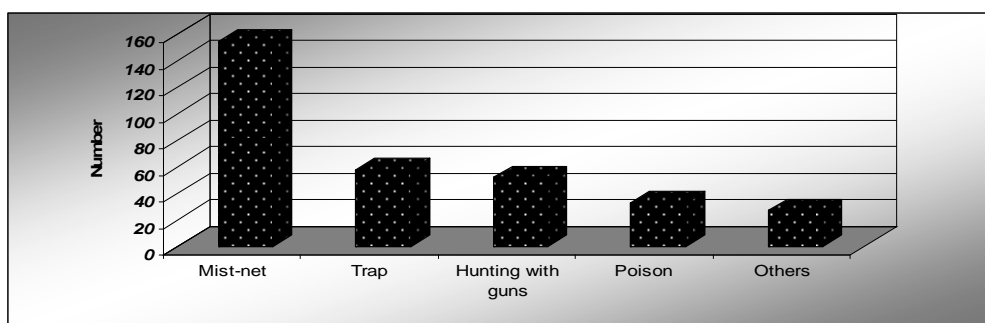
Most respondents (76.3%) had witnessed illegal wild bird capture with the past 12 months. Of the 192 people that responded to the question, 27.1% said that they came across one illegal capture of wild birds; 24.5% observed 2 times; 17.7% observed 3 times; 8.3% observed 4 times; and 21.4% observed more than 5 incidents of illegal capture of wild birds (Figure 4.10).



**Figure 4.10: Times witnessing illegal bird capture ( $n=192$ )**

A total of 325 incidents of illegal capturing wild birds were witnessed with the past 12 months. Because respondents were asked to choose any witness to illegal capturing of wild birds, the number of responses was higher than the number of respondents. Mist-net was the most common way to capture birds, which accounted for 47.6%;

10.1% of “captures” were with poison; 17.8% were with traps; 16.0% were hunting with guns; and 8.3% were others (Figure 4.11).



**Figure 4.11: Number of illegal wild bird captures observed in 2006 ( $\underline{n}=325$ )**

Because respondents were asked to choose any reaction to illegal capturing of wild birds, the number of responses ( $\underline{n}=339$ ) was higher than the number of respondents. A clear majority of respondents tried to positively stop the illegal wild bird capture, including destroying the tools (36.0%); persuading hunters (23.9%); calling the police or other governmental bureaus staff (23.3%), and confronting hunters (6.8%). Only 2.7% went away without doing anything. About 7.4% did other things.

### **III. Status of Bird Watching Activities**

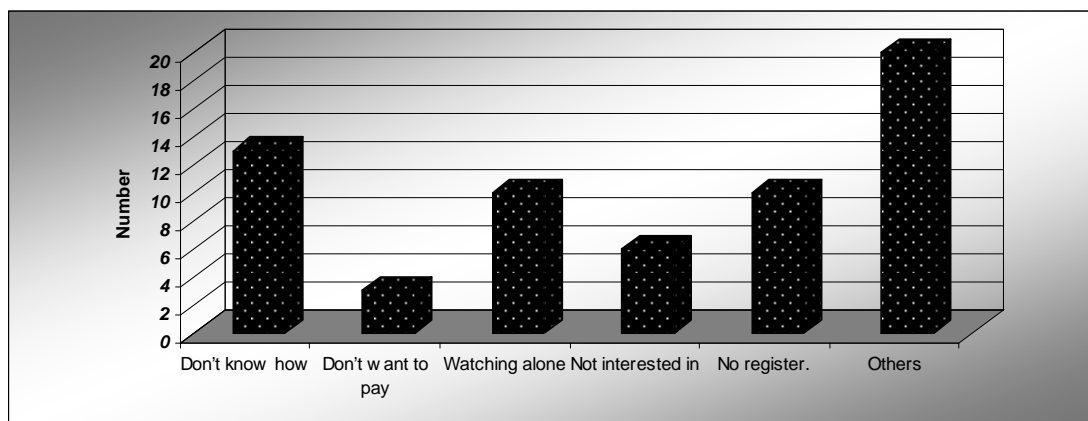
Of the 265 people that responded to the question about awareness of local bird watching societies, 82.2% knew that there was a bird watching society in the province where they were living; 10.5% were not sure; and 7.16% said no.

In the past 12 months (August 2006-August 2007) bird-related activities organized by a single society ranged from 120-0 times and averaged 17.6. The largest number of activities attended by any individual was more than 80 times.

Of the 228 people that responded to the question about the quality of activities, 32.4% ranked the quality of the society's activities as excellent; 39.9% ranked it as good; 23.2% ranked it as fair; 3.50% ranked it as bad; and 0.87% ranked it as very bad.

Of the 230 people that responded to the question about membership, 76.9% were members of some local bird watching societies; and 23.0% were not.

Of the 62 people that responded to the question about the reasons why they were not a member of bird watching societies, 20.9% didn't know how to join; 16.1% felt that they could watch birds without joining; 16.1% said that the society had not registered; 9.67% were not interested in joining such an organization; 4.83% didn't want to pay the membership fee; and 32.2% had other undisclosed reasons (Figure 4.12).



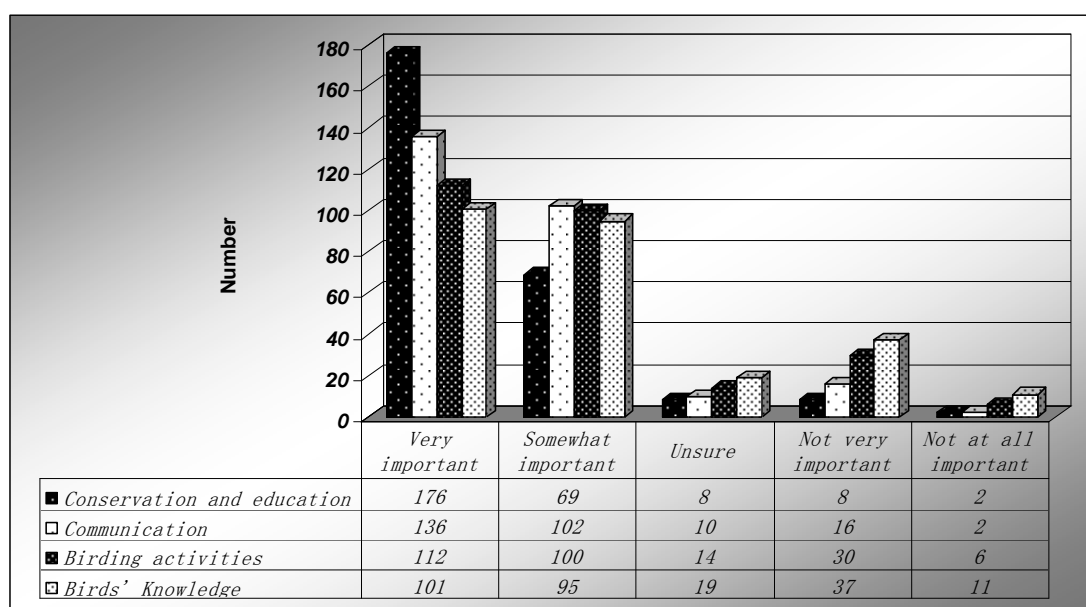
**Figure 4.12: Reasons why birders were not a member of bird watching societies**  
(n=62)

#### **IV. Attitudes toward a National Bird Watching Society**

A total of 263 people responded to the question about the importance of a national

bird watching society. A clear majority of respondents (79.0%) believed it was important to establish a national bird watching society in China while only 14.4% felt it was unimportant.

Of the 263 people that responded to the question about the reasons why people need to create a national bird watching society in China, 66.9% believed that it was very important to improve bird conservation and education; 51.1% believed that it was very important to facilitate communication with bird watching societies in other countries; 42.7% believed that it was very important to organize more birding activities; 38.4% believed that it was very important to teach the public more knowledge about birds (Figure 4.13).



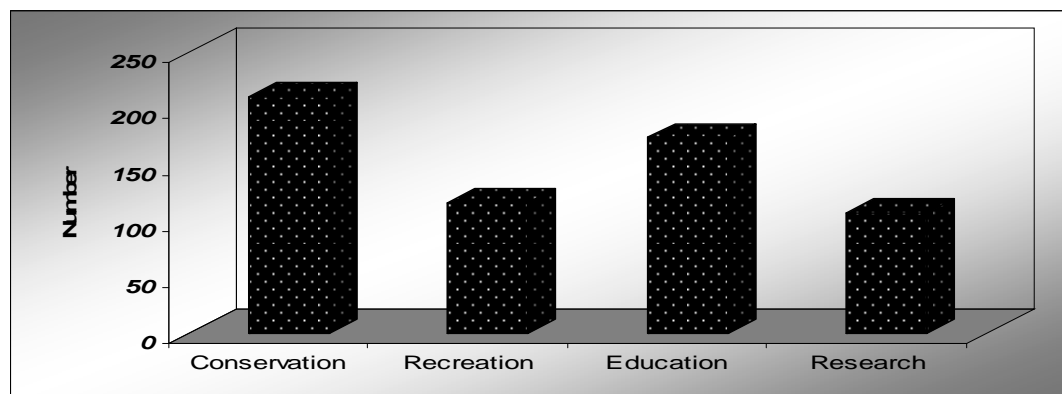
**Figure 4.13: Purposes of a national bird watching society ( $n=263$ )**

Of the 265 people that responded to the question about their willingness to become a member of a national bird watching society, 77.3% said that they would like to



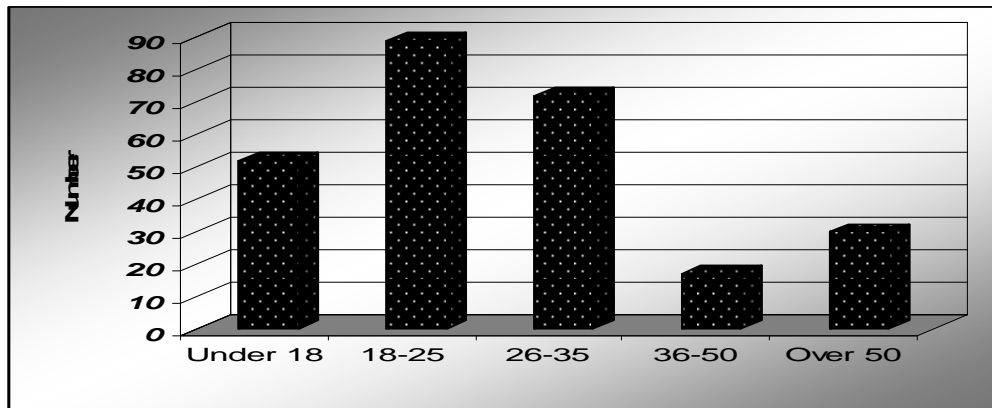
become a member if there was a national bird watching society in China; 21.1% were unsure; and 1.5% said that they didn't want to be a member.

Of the 269 people that responded to the question about the activities to pursue for a NBWS, 78% strongly agree that the society should conserve bird species and their habitats; 64.6% strongly agreed offering bird education to the public; 43.2% strongly agreed attracting more people to birding recreation; and 40.2% strongly agreed conducting ornithology research (Figure 4.14).



**Figure 4.14: Activities to pursue for a NBWS ( $n=269$ )**

Of the 260 people responded to the question about what age groups a NBWS should focus its activities on, 34.5% ranked people from 18 to 25 years of age as the most important; 28% ranked 26-35; 20% ranked under 18; 12% ranked over 50; and 7% ranked 36-50 (Figure 4.15).



**Figure 4.15: Most important age groups ( $n=260$ )**

A total of 252 people responded to the question about what type of people a NBWS should focus its activities on. The top three types of people were university student ( $n=87$ , 35%), primary and high school student ( $n=54$ , 21%), and teacher ( $n=32$ , 13%).

## **Subproblem Two Results**

### **Subproblem 2: Identify the legal procedure of forming a national bird watching organization.**

The latest national law in China about NGO management is *Regulations for Registration and Management of Social Organizations*, which was issued by the State Council in September 1998. According to the law, a national-level NGO needs to meet following standards:

1. More than 50 individual members;
2. Official name and framework;
3. Office;
4. Full-time staff;
5. More than RMB 100,000 (\$15,000 U.S. in 2008) funding resource;

According the same law, depending on its status, non-profit organizations should supply the following documents to national, provincial or county-level councils that manage registration:

1. The application;
2. The approval document from a “leader-in-law”, which is always a governmental organization;
3. The documents of funding resources and regular officers;
4. The identification of organizers and managers;
5. The bylaws of the organization.

As described in Chapter Two, among these requirements, the most difficult one is that all NGOs would have to receive approval from a governmental organization that is willing to be its leader-in-law before applying for the NGO status. Since the potential China Bird Watching Society would be a national NGO, it has to find a national ministry from the central government to be its leader-in-law. The most appropriate one is the State Forestry Administration of the People’s Republic of China, which is the highest level agency of wildlife management and protection in China.

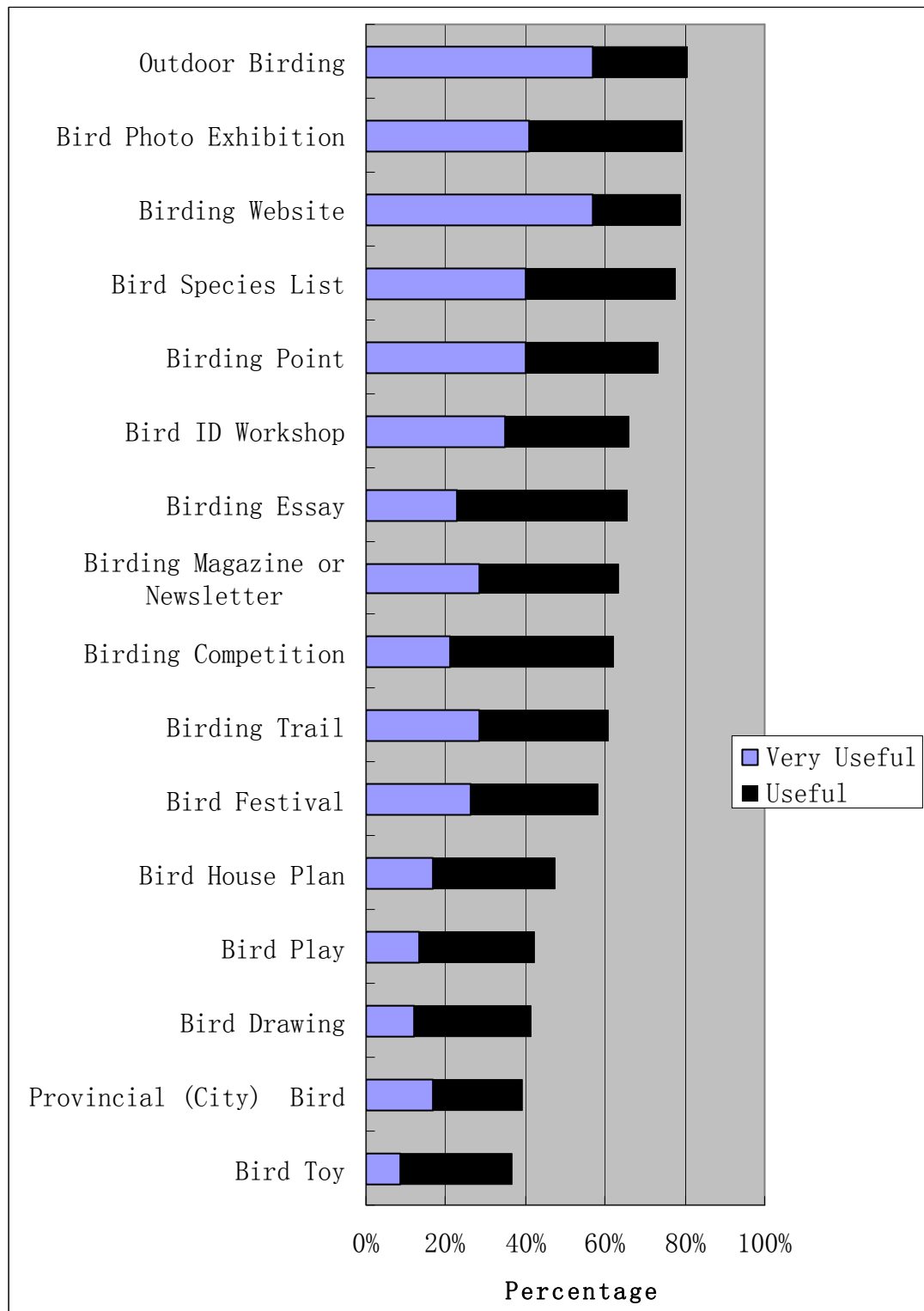
It is critical that a new NGO ensures that it is properly registered with the public authorities of the country. Without legal standing, it is difficult for an NGO to carry out its programs and projects effectively, to raise funds, and to get support from local people and stakeholders. The recommendation about how to get the legal status of a

NBWS would be described in Chapter Five.

### **Subproblem Three Results**

**Subproblem 3: Identify and describe the bird conservation and education activities that the national bird watching organization will conduct.**

The second part of the survey assessed the respondents' attitude toward some potential activities that would be useful for implementing bird conservation and education. As shown in Figure 4.16, the top five desired activities were outdoor birding, bird photo exhibition, birding website, bird species list, and birding point. The five least desired activities were bird toy, provincial (city) bird, bird drawing, bird play, and bird house plan.



**Figure 4.16: Bird conservation and education activities which respondents ranked as “very useful” or “useful”**

#### Subproblem Four Results

**Subproblem 4: Develop a staff and financial plan for the national bird watching organization.**

Nine leaders and staff of bird-related organizations in China were interviewed through Emails, including the Hong Kong Bird Watching Society, Xinjiang Bird Watching Society, Xia'men Bird Watching Society, Zhejiang Wild Bird Society, Shanghai Wild Bird Society, Fujian Bird Watching Society, Shenzhen Bird Watching Society, Beijing Bird Watching Society, and Chengdu Bird Watching Society. Hong Kong Bird Watching Society didn't supply their budget. (See the table 4.1)

<b>Table 4.1: Financial status of bird watching societies in China</b>					
Name	Year Founded	Employees	Funding Sources	Total Budget	Total Expense
Hong Kong BWS	1957	7	Project, Sale Donation, Member Fee	N/A	N/A
Xinjiang BWS	2004	0	0	0	0
Xiamen BWS	2003	0	Project, Member Fee	¥ 61,000 (\$8,714)	¥ 41,000 (\$5,857)
Zhejiang BWS	2005	2	Project, Member Fee	¥ 62,600 (\$8,943)	¥ 45,000 (\$6,428)
Shanghai BWS	2004	0	Project	¥ 28,100 (\$4,014)	¥ 26,000 (\$3,714)
Fujian BWS	2003	0	Project	¥ 65,000 (\$9,286)	¥ 60,000 (\$8,571)
Shenzhen BWS	2003	3	Project, Sale Member Fee, Donation	¥ 80,000 (\$11,429)	¥ 55,000 (\$7,857)
Beijing BWS	2007	0	Project	¥ 40,000 (\$5,714)	¥ 35,000 (\$5,000)
Chengdu BWS	2004	2	Project, Sale, Member Fee	¥ 60,000 (\$8,571)	¥ 58,000 (\$8,286)
Conversion rate: 7 RMB(¥)=1 U.S. Dollar (\$) (April 2008)					

More than half of the surveyed bird-related organizations have no full time employees.

The exceptions are Hong Kong, Zhejiang, Chengdu, and Shenzhen. The budgets of all

organizations are very small with \$7,087 as an average. Projects are the main funding sources. These bird-related organizations apply the funds for specific bird education or bird population survey activities from other international NGOs, such as BirdLife International, World Wildlife Fund (WWF), and International Crane Foundation. The funds are usually small and only last one or two years. Donations, member fees and sales are only a small part of the total budget. Some societies even had no income. No society has a full-time chief executive. The presidents of all societies have other jobs and are volunteers for the societies.

## **CHAPTER FIVE**

## **DISCUSSION AND RECOMMENDATIONS**

The purpose of this study was to develop a plan for creating a national bird watching society in mainland China for bird conservation and education. This chapter discusses how the society might be created and how it can play an important role in bird conservation and education in China based on the survey results, and provides recommendations for future research.

### **I. Bird-related Activities That a National Bird Watching Society Should Pursue**

1. A national bird watching website which includes the major activities all over the country is strongly desired by birdwatchers. Over 85.1% of respondents agreed that it should be created as soon as the funding can be secured. According to the survey, the website should have up-to-date information about birds and bird-related activities all over the country, and supply a chat room for people to exchange experiences on bird identification, education and conservation.

2. The most important attractant to bird watching was outdoor exercise (28.2%), which suggests that when managers organize bird-related activities, they should emphasize the opportunities to enjoy nature, perhaps by putting appealing photographs of birds and birders on brochures and advertisements. In addition, organizers could hold as many meetings and training sessions as possible outdoors, in forests or along streams, rather than indoors.



3. Almost half of respondents (47.8%) were from big cities of Fujian, Beijing, Zhejiang, and Guangdong. People who live in big cities generally have a higher standard of living than those who live in rural areas and can afford the greater expense of binoculars and traveling to view birds. On the other hand, they have few opportunities to enjoy nature with limited green spaces and a busy life. Therefore, there is a much larger potential audience in urban areas. The potential birding society should initially focus on people in big cities. This is also supported by the fact that other conservation NGOs have placed their emphasis on activities in rural areas.

4. Most respondents (56%) agreed that a NBWS should focus its activities on students, including those in primary and high schools and universities. The top three age groups which a NBWS should focus on were from 18 to 25 (34.5%), from 26 to 35 (28%), and under 18 (20%). The importance of advocating birding among students suggests that we should provide students with extensive opportunities to learn about birds. Students comprise the main potential body of birdwatchers in the future. The society should implement bird-related activities connecting with environmental education in schools to advocate bird conservation, such as young birding clubs.

5. Most respondents (76.3%) had witnessed illegal wild bird capturing (325 incidents in total) within the past 12 months. Mist-net (47.6%) was the most common way to capture birds for its low cost and effectiveness. The potential bird watching society

should monitor and help the government to alleviate illegal bird hunting, especially during bird migration, instead of encouraging birdwatchers to stop such action themselves for safety and efficiency. Reporting illegal bird hunting to officials and media will be encouraged.

6. Birders ranked bird conservation and education as the third most important reason that they watch birds (18%), behind enjoying outdoor exercise (28.2%) and taking pictures (19%). However a majority of respondents (66.9%) believed the primary purpose of a national bird watching society should be implementing bird conservation and education. The managers of the national bird watching society should seek a good match between organizational activities and birders' motivations, maximizing the likelihood that the most important motivations of birders who work with the organization will be fulfilled.

## **II. Registration of a National Bird Watching Society as an NGO**

While permitting the NGO sector to develop in China, the government has been careful about limiting the range of NGO's activities. It's not easy to register an NGO, especially a national NGO in China. Registering a provincial or county-level NGO to carry out activities which are not limited in local areas is a possible way to resolve the problem of legal status. China Bird Watching Society would be a sensitive name for the government because in Chinese culture, the public usually believe that a national organization should be created or managed by the central government instead of

others. The organization can be an abstract name or be named after a famous person just like The National Audubon Society, a famous bird conservation organization in the world, was named after an ornithologist and artist in the U.S. (Graham & Buchheister, 1990).

### **III. Management of a National Bird Watching Society**

#### **1. Mission**

By focusing on birds and the habitats on which they depend, the mission of the potential national bird watching society will be to protect and restore wild bird populations and their ecosystems through conservation and education. These efforts sustain the places where birds live, to the benefit of other wildlife and humans.

#### **2. Board of Directors**

Prior to incorporating or registering, the national bird watching society should first establish a Board of Directors or an Advisory Board and develop the organization's mission (Byrd, 2000). The members of the board, as a group, have trustee and legal responsibility for the actions and operation of the organization, including financial management, planning, program, fund raising, human resource management, information management, marketing and public relations, board affairs, and so on. The national bird watching society's board numbers should be made up of ornithologists, conservationists, governmental officers and other experts.

#### **3. Initial Staff Planning**

Based on the mission of the national bird watching society, the society needs at least three full-time staff for the positions of chief executive, program coordinator, and office coordinator at the initial stage.

The chief executive's major functions include supporting operations and administration of the board by advising and informing board members, interfacing between board and staff, and supporting the board's evaluation of the chief executive. He or she needs to oversee delivery and quality of programs, products and services, and recommend a yearly budget for board approval and prudently manage the organization's resources. At the same time, he or she should have the ability of identifying funding sources, establishing strategies to approach funders, submit proposals and administer fundraising records and documentation.

The program coordinator will provide technical support to programs run by the society, in close coordination with the chief executive. He or she has to have the ability to work effectively and responsibly with a wide range of people, individually and in teams. Because the national bird watching society will have many opportunities to work with experts from other countries, excellent communication skills in both Chinese and English are necessary, too.

The office coordinator will provide support for the implementation of the programs. The primary responsibility is to support day-to-day program operation,

with duties including but not limited to administration, communications, information management, writing and publications, learning, event organizing, and arranging logistics and traveling for meetings and workshops.

Because of a potentially limited budget at its inception, much work of the national bird watching society may have to be achieved by part-time staff and volunteers. With the development of the society, more full-time staff will be needed.

#### **4. Initial Financial Planning**

Birding is a fast-growing, international environment-friendly hobby which has significant economic impact all over the world. Bird conservation and education based on birding would bring a spirit of entrepreneurship and creativity to building public support for conservation. Although most local bird-related organizations in China have small budgets, the potential national bird watching society is committed to hiring best-in-their-field staff at all levels of the organization. The significant investments of funding to focus on recruiting top talent are necessary. I therefore recommend the following initial annual expenditures (Table 5.1) based on the expenses of some international conservation organizations' China offices. The initial annual expenditure doesn't include any potential expense, such as traveling and insurance. It supplies the basic requirements to start a national bird watching society.

<b>Table 5.1: Initial annual expenditures</b>
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	China RMB(¥)	U.S. Dollar (\$)
<b>Payroll Expense</b>		
Chief Executive	84,000	12,000
Program Coordinator	60,000	8,571
Office Coordinator	36,000	5,143
<b>Fixture Cost</b>		
Computers (3)	21,000	3,000
Printers (2)	3,000	428
Computer Desks w/chairs (3)	1,400	200
Website	6,000	857
Decoration Expense	20,000	2,857
Office Rent	36,000	5,142
<b>Total Expense</b>	<b>267,400</b>	<b>38,198</b>
Conversion rate: 7 RMB(¥)=1 U.S. Dollar (\$) (April 2008)		

## **5. Income**

As a nonprofit corporation, foundation and individual donations will be the main financial resources. According to personal communication with staff of BirdLife International (BirdLife), BirdLife is willing to implement bird conservation and education programs in mainland China in the near future. BirdLife would be a good source for funding as well as other bird-related materials for bird-related organizations in mainland China. We should keep BirdLife updated on the status of bird conservation and education carried out by birders in China. The potential activities should focus on Chinese crested tern, spoon-billed sandpiper, black-faced spoonbill and other critical endangered species that BirdLife is concerned with too.

There are some other potential sources:

1. World Wildlife Fund
2. The Royal Society for the Protection of Birds
3. Hong Kong Bird Watching Society

#### 4. Darwin Fund

#### 5. The Nature Conservancy

We also need continuous communication with community leaders, partners, and other key institutions, like the Environmental Protection Association and Forestry Administration, in order to motivate stakeholders and entrepreneurs to support the society.

The national bird watching society will be a nonprofit organization. No project money will be generated, but some bird-related activities and products can be offered for fundraising, e.g., field guides, optics, tripods, birdsong recordings, videos, toys and other birding accessories. Membership, endowment, grants, interest, and other earned income will also be resources of the national bird watching society.

### **IV. Recommendations for Further Research**

The principal researcher had tried to interview some bird-related organizations by using Email in other Asian countries, e.g. Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, and Vietnam, where there are already national bird conservation organizations but failed to receive any feedback for uncertain reasons. Because of time constraints, the decision was made to interview only officers of Chinese bird watching societies. In these countries, people have a similar cultural background and

are facing similar threats to birds. Migratory birds in Asia will benefit from international cooperation among these countries. This limitation should be overcome in future studies through surveying the leaders of bird-related organizations in these countries.

Second, I recommend that additional attention be devoted specifically to the relationship between birding and eco-tourism. With the largest population in the world, China is facing serious conflicts between economic development and environmental conservation, including birds and habitat conservation. Birding has been proven to be a very successful environment-friendly tourist activity with few local environmental impacts in the U.S and some other countries. The final purpose of conservation is for people as well as birds and other wildlife. The economic impact of birding tourism of U.S. or other countries should be studied as well as its potential economic impact in China. The highest bird diversity areas are always in rural and poor areas in China. The local communities and stakeholders would like to support bird conservation if eco-tourism including birding could improve local economy.

Third, I also recommend that this survey be administrated to other specific groups, e.g. student birders or the general public instead of birders. We will find the differences between these groups which will be helpful for developing complete conservation and education plans for different groups.



Fourth, I recommend collecting the data regarding the motivational differences between new birders and those with more years of experience and the causes for their differences in motivations. The information is important for the leaders of the national bird watching society to know how to encourage birders to support its activities.

Finally, I recommend that directly interviewing selected birders would broaden the information gained and perhaps reveal areas of interest and concern that cannot be determined from “pencil and paper” (or close ended) surveys. It is also recommended that birders’ income level and education background be collected in future research.

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# APPENDICES

## **APPENDIX A: Questionnaire Part I**

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### **Survey on the Development of a Plan to Create a National Bird Watching Society in**

#### **Mainland China for Bird Conservation and Education**

My name is Ximin Wang and I am collecting information for my Master's Thesis project in environmental education at the University of Wisconsin-Stevens Point in the United States. The objective of this project is to gather data and make recommendations that will guide the development of a plan to create a national bird watching society in mainland China for bird conservation and education. Your answers to the following questions will provide valuable and important information about the current status of bird conservation and education in mainland China. If you feel uncomfortable answering any question, you may skip it. Your completion and return of the survey constitutes your permission to use the information you provide. My research will last from September 2007 to May 2008. When the study is completed, China Bird Watch may publish the results.

The survey has two editions: Internet survey and paper survey. You only need to answer one of them. Please don't answer the survey if you are less than 18 years old.

If you have any questions, please contact us at the College of Natural Resources at the University of Wisconsin-Stevens Point: Mr. Ximin Wang (xwang252@uwsp.edu) 715-343-5956. Thanks.

#### **Part I Demographics, Attitudes, and Birdwatching Activities**

- 1. In what year did you begin to watch birds? \_\_\_\_\_**
- 2. How many times do you go out birding each month ( more than 30 minutes per time) ? \_\_\_\_**
- 3. How much time do you spend birdwatching, as compared to other activities you pursue during your free time**

A	B	C	D	E
Far less Time	Somewhat less time	About the same	Somewhat more time	Far more time

- 4. With how many people do you normally go birding?**

**A. Alone    B. 1    C. 2-4    D. 5-7    E. 8 or more**

- 5. Which single factor most attracted you to bird-watching?**

- A. Adding bird species to my life list
- B. Taking bird pictures
- C. Participating in scientific research
- D. Improving environmental education and conservation
- E. Outdoor exercise
- F. Other \_\_\_\_\_

**6. Please comment on the statement “People should be allowed to keep wild birds as pets?”**

A. Strongly disagree    B. Disagree    C. Neutral    D. Agree    E. Strongly agree

**7. Have you observed any illegal capture of wild birds when you were birding?**

A. Yes                      B. No

If your answer is “Yes”, please go to question 8

If your answer is “No”, please go to question 11

**8. How many times did you come across an illegal capture of wild bird(s) in 2006?**

1   2   3   4   5   6   7   8   9   10   or   \_\_\_\_times

**9. What kinds of illegal capture did you observe? (circle all that apply)**

A. Mist-net

B. Poison

C. Trap

D. Hunting with guns

E. Other\_\_\_\_\_

**10. What did you do when you saw people capturing wild birds illegally? (circle all that apply)**

A. Went away without doing anything.

B. Tried to persuade them to stop, but avoided conflict.

C. Called the police or other governmental bureau staff to stop them.

D. Destroyed their tools when they were not here.

E. Confronted them and attempted to destroy their tools.

F. Other\_\_\_\_\_

**11. Is there any bird watching society in the province where you are living? ( Bird Watching Society means any organization which organizes bird-related conservation and education activities. Some such societies aren't named as Bird Watching Society.)**

A. Yes

B. No

C. I don't know

If your answer is “Yes”, please go to question 12

If your answer is “No”, please go to question 17

**12. How many activities did the bird watching society offer in the past 12 months?(August,2006-August,2007) \_\_\_\_**

**13. In how many of the activities did you participate? \_\_\_\_**

**14. How do you rate the quality of the society's activities?**

A. Excellent      B. Good      C. Fair      D. Bad      E. Very Bad

**15. Are you a member of a local bird watching society if there is any such society in the province where you are living?**

A. Yes      B. No

If your answer is "Yes", please go to question 17

If your answer is "No", please go to question 16

**16. Why didn't you join the local bird watching society if one existed?**

- A. I don't know how to join it.
- B. I don't want to pay the membership fee.
- C. I can watch birds without joining it
- D. I am not interested in joining such an organization.
- E. The society has not registered.
- F. Other\_\_\_\_\_

**17. For you, how important is it to establish a national bird watching society in China?**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Not at all important      Not very important      Unsure      Somewhat important      Very important

**How important is each of the following reasons for creating a national bird watching society in China?(18-21)**

**18. It can improve bird conservation and education in China.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Not at all important      Not very important      Unsure      Somewhat important      Very important

**19. It can facilitate communication with other bird watching societies in other countries.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Not at all important      Not very important      Unsure      Somewhat important      Very important

**20. It can organize more birding activities.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Not at all important      Not very important      Unsure      Somewhat important      Very important

**21. It can teach me more about birds.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Not at all important      Not very important      Unsure      Somewhat important      Very important

**22. If there was a national bird watching society in China, would you become a member?**

A. Yes      B. No.      C. I don't know

**To what extent do you think a national bird watching society should pursue the following activities?**

**23. Conserve bird species and their habitats.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Strongly disagree    Somewhat disagree    Unsure                      Somewhat agree    Strongly agree

**24. Attract more people to birding recreation.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Strongly disagree    Somewhat disagree    Unsure                      Somewhat agree    Strongly agree

**25. Offer bird education to the public.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Strongly disagree    Somewhat disagree    Unsure                      Somewhat agree    Strongly agree

**26. Conduct ornithology research.**

\_\_\_\_\_1\_\_\_\_\_2\_\_\_\_\_3\_\_\_\_\_4\_\_\_\_\_5\_\_\_\_\_

Strongly disagree    Somewhat disagree    Unsure                      Somewhat agree    Strongly agree

**27. Rank the following age groups in the order that a national bird watching society should focus its activities on? (1= least important, 5= most important) \_\_\_\_\_**

- A. People under the age of 18
- B. People from 18 to 25 years of age
- C. People from 26 to 35 years of age
- D. People from 36 to 50 years of age
- E. People over 50 years of age

**28. Rank the following type of people in the order that a national bird watching society should focus its activities on? (1= least important, 10= most important)**

- A. Primary and high school student    B. University student    C. Employee in government
- D. Professional/technical                      E. Teachers                      F. Employee in media
- G. Manager/administrator                      H. Clerical/sales                      I. Farmer
- J. Laborer    K. Retired

**29. Gender: M                      F**



**30. What is your primary occupation? If you are unemployed, give your former occupation.**

A. Primary, middle, and high school student   B. University student   C. Employee in government

D. Professional/technical

E. Teachers

F. Employee in media

G. Manager/administrator

H. Clerical/sales

I. Farmer

J. Laborer

K. Retired

L. Other\_\_\_\_\_

**31. Age:**

A. 18-25

B. 26-35

C. 36-50

D. Above 50

**32. Province that you currently live in \_\_\_\_\_**

**II**

**Conservation and Education Activities**

**Instructions:**

To what extent do you believe each of the following activities is useful for implementing bird conservation and education?

**33. Outdoor Birding (informal group gatherings where the main goal is to observe birds in the wild)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**34. Bird Identification Workshop (an educational activity where birding experts teach others how to identify birds)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**35. Selecting a Provincial (City) Bird (a program where a community chooses a particular bird species to rally people's interest in birds and bird conservation)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**36. Bird Festival (a fair including many different bird-related activities in a certain period)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**37. Bird Plays (an activity of organizing children's plays on relationships between birds and the environment)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**38. Birding Competition (an activity where teams of birdwatchers record as many bird species as they can in a certain area within a certain period.)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**39. Bird Photography Exhibition (exhibitions of bird photographs)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**40. Bird Species Lists (brochures that list all the bird species likely to be seen in a given area)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**41. Birding Magazine or Newsletter (a magazine about news of birding and bird sightings)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**42. Selling or giving away Bird Toys (toys that depict birds and can be used to promote interest in birds)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
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Totally useless	Useless	Neutral	Somewhat Useful	Very useful
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**43. Bird Drawing (an activity organizing children to draw pictures of birds, e.g. during a bird festival)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**44. Birding Essay (an activity encouraging people to write articles describing their feelings about birds and submit them for publication)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**45. Bird House Plans ( information on how to build bird houses to attract certain species)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**46. Birding Trails (the trail is a system of easily-accessible sites where people can observe a variety of birds species)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**47. Bird-watching Points (places set up in parks or other public areas where bird watching organizations regularly conduct programs to introduce birding to the public)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**48. Bird-watching Websites (websites with discussion forum and up-to date information about birds and birding)**

_____1_____	_____2_____	_____3_____	_____4_____	_____5_____
Totally useless	Useless	Neutral	Somewhat Useful	Very useful

**Thank you for completing this survey!**

You can answer the survey through Internet:

<http://www.my3q.com/home2/174/wangximin/2008.phtml>

Or send the paper survey to:

Ximin Wang

China Bird Watch

4-616, Min No.20 Building

No.2 Jintaixi Lu

Beijing 100026

### **APPENDIX C: Interview ---- Funding Resources and Staffing Plan**

My name is Ximin Wang and I am collecting information for my Master's Thesis project in Environmental Education at the University of Wisconsin-Stevens Point in the United States. The objective of this project is the Creation of a National Bird Watching Society in mainland China for Bird Conservation and Education. I will ask a few questions, your answers will provide valuable and important information about the current situation of bird conservation and education in mainland China.

Your knowledge about this topic, and your participation and experience in different projects related to bird conservation and education would be very helpful for this project, and therefore for the development of the bird conservation and education in mainland China. Taking this into account, would you let me ask you some questions about your organization?

1. How many staff, including full-time and part-time are in your organization?
2. What are their titles and duties? (Can you please send or email any written position description?)
3. What was your total budget last year in your organization?
4. What proportion of your spending last year was devoted to the following categories: supplies, office, salary and other? Would you be willing to share the budget?
5. What is the source of funding for your organization?
6. What proportion of your income last year came from the following sources: foundation, donation, membership, items sold and other? Would you be willing to share the budget?
7. What's your advice about funding resources for a bird watching organization?
8. Is there any other information you would like to share?

## APPENDIX D: Results of Survey- Part Two

Q33. Outdoor Birding (informal group gatherings where the main goal is to observe birds in the wild)

A total of 254 people responded to the question 33. As shown in Figure 1, 57.1% ranked it as very useful; 23.6% ranked it as useful; 12.2% ranked it as neutral; 3.5% ranked it as useless, and 3.5% ranked it as totally useless.

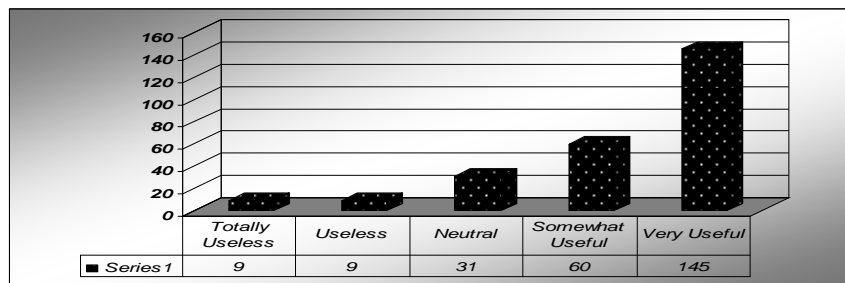


Figure 1: Importance of outdoor birding ( $n=254$ )

Q34. Bird Identification Workshop (an educational activity where birding experts teach others how to identify birds)

A total of 254 people responded to the question 34. As shown in Figure 2, 35.0% ranked it as very useful; 31.1% ranked it as useful; 23.6% ranked it as neutral; 8.3% ranked it as useless; and 2.0% ranked it as totally useless.

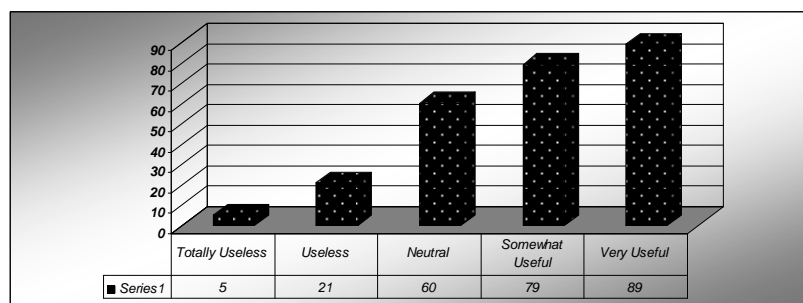
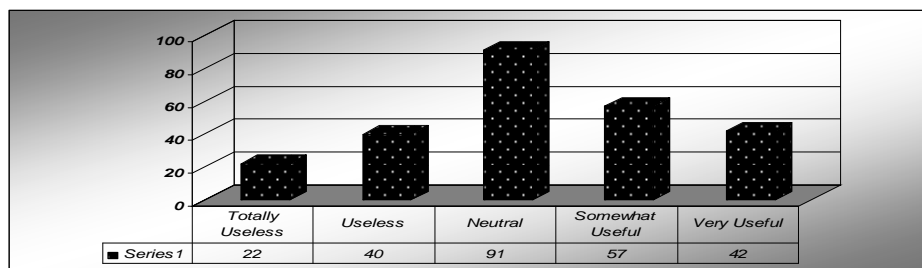


Figure 2: Importance of bird identification workshops ( $n=254$ )

Q35. Selecting a Provincial (City) Bird (a program where a community chooses a particular bird species to rally people's interest in birds and bird conservation)

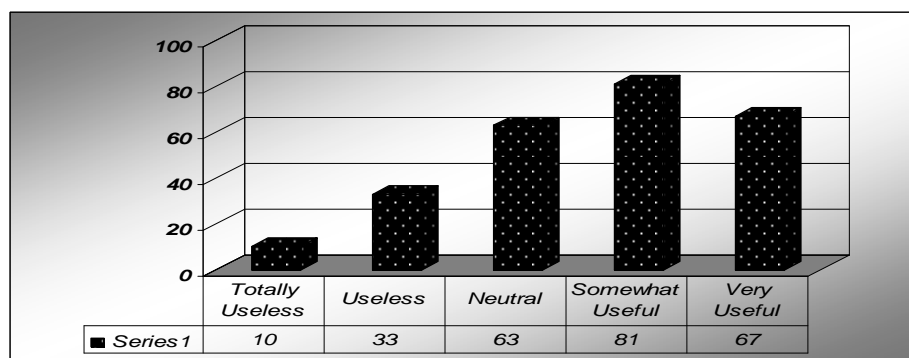
A total of 252 people responded to the question 35. As shown in Figure 3, 16.6% ranked it as very useful; 22.6% ranked it as useful; 36.1% ranked it as neutral; 15.8% ranked it as useless; and 8.7% ranked it as totally useless.



**Figure 3: Importance of selecting a provincial (city) bird (n=252)**

Q36. Bird Festival (a fair including many different bird-related activities in a certain period)

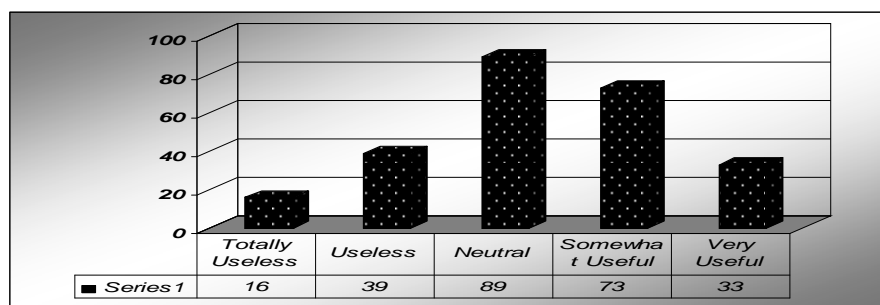
A total of 254 people responded to the question 36. As shown in Figure 4, 26.3% ranked it as very useful; 31.8% ranked it as useful; 24.8% ranked it as neutral; 12.9% ranked it as useless; and 3.9% ranked it as totally useless.



**Figure 4: Importance of bird festival (n=254)**

Q37. Bird Plays (an activity of organizing children's plays on relationships between birds and the environment)

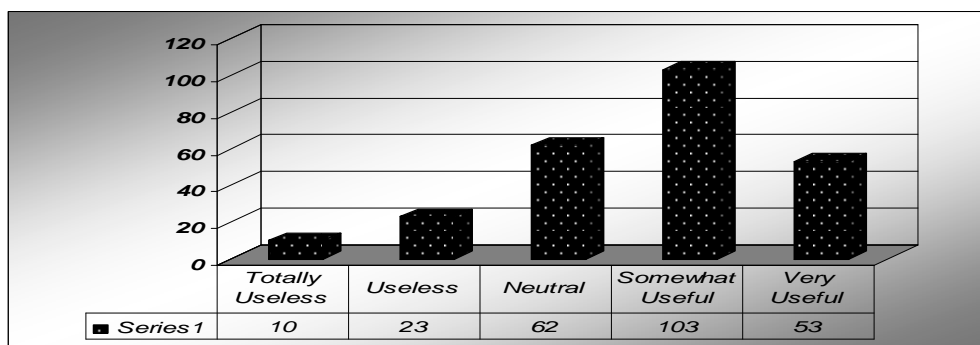
A total of 250 people responded to the question 37. As shown in Figure5, 13.2% ranked it as very useful; 29.2% ranked it as useful; 35.6% ranked it as neutral; 15.6% ranked it as useless; and 6.4% ranked it as totally useless.



**Figure 5: Importance of bird plays ( $n=250$ )**

Q38. Birding Competition (an activity where teams of birdwatchers record as many bird species as they can in a certain area within a certain period.)

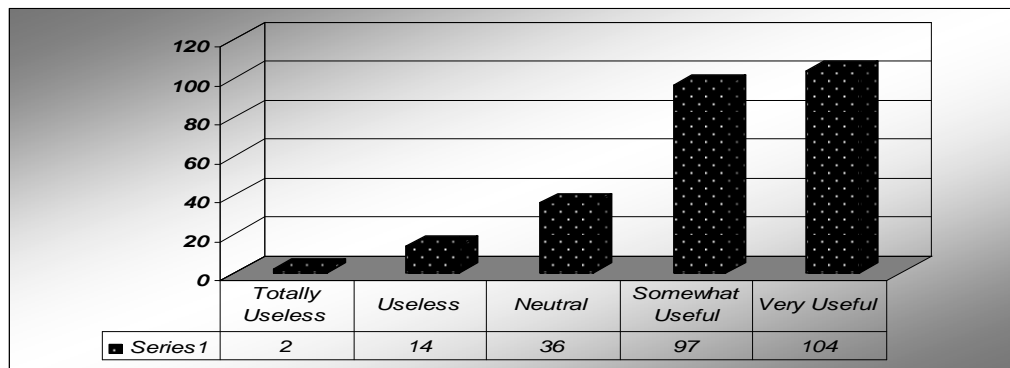
A total of 251 people responded to the question 38. As shown in Figure 6, 21.1% ranked it as very useful; 41.0% ranked it as useful; 24.7% ranked it as neutral. 9.2% ranked it as useless; and 4.0% ranked it as totally useless.



**Figure 6: Importance of birding race ( $n=251$ )**

### Q39. Bird Photography Exhibition (exhibitions of bird photographs)

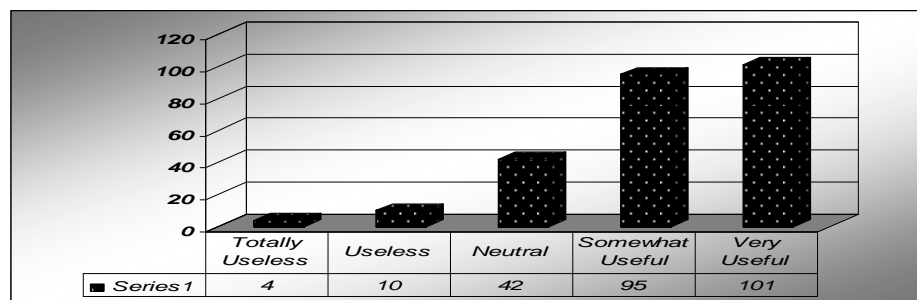
A total of 253 people responded to the question 39. As shown in Figure 7, 41.1% ranked it as very useful; 38.3% ranked it as useful; 14.2% ranked it as neutral; 4.7% ranked it as useless; and 1.6% ranked it as totally useless.



**Figure 7: Importance of bird photography exhibition ( $n=253$ )**

### Q40. Bird Species Lists (brochures that list all the bird species likely to be seen in a given area)

A total of 252 people responded to the question 40. As shown in Figure 8, 40.0% ranked it as very useful; 37.6% ranked it as useful; 16.6% ranked it as neutral; 4.0% ranked it as useless; and 1.6% ranked it as totally useless.

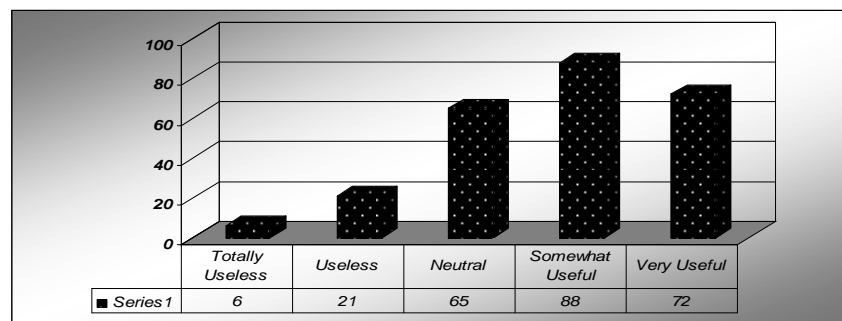


**Figure 8: Importance of bird species list ( $n=252$ )**



**Q41. Birding Magazine or Newsletter (a magazine about news of birding and bird sightings)**

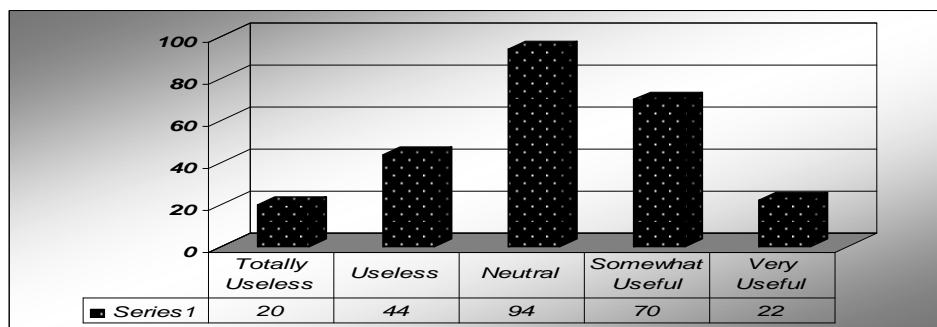
A total of 252 people responded to the question 41. As shown in Figure 9, 28.5% ranked it as very useful; 34.9% ranked it as useful; 25.7% ranked it as neutral; 8.33% ranked it as useless; and 2.38% ranked it as totally useless.



**Figure 9: Importance of birding magazine or newsletter (n=252)**

**Q42. Selling or Giving Away Bird Toys (toys that depict birds and can be used to promote interest in birds)**

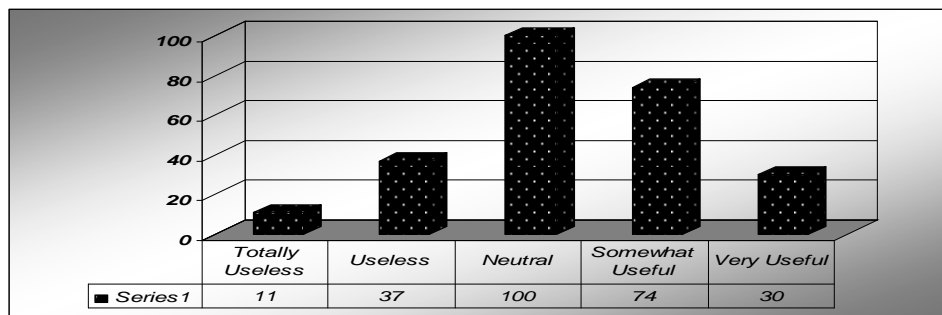
A total of 252 people responded to the question 42. As shown in Figure 10, 8.79% ranked it as very useful; 28% ranked it as useful; 37.6% ranked it as neutral; 17.5% ranked it as useless; and 8.0% ranked it as totally useless.



**Figure 10: Importance of selling or giving away bird toys (n=252)**

Q43. Bird Drawing (an activity organizing children to draw pictures of birds, e.g. during a bird festival)

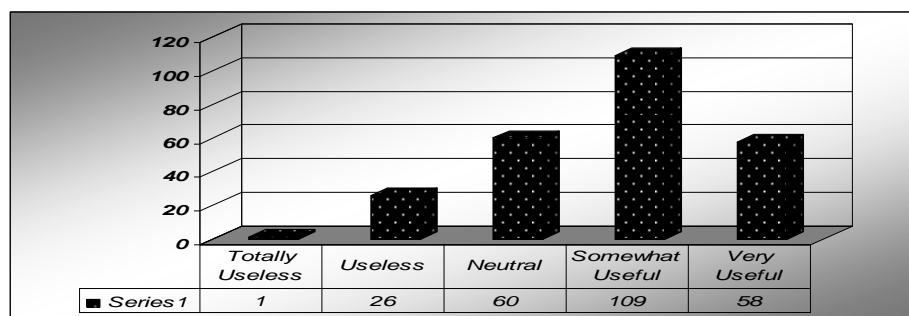
A total of 252 people responded to the question 43. As shown in Figure 11, 11.9% ranked it as very useful; 29.3% ranked it as useful. 39.6% ranked it as neutral; 14.6% ranked it as useless; and 4.36% ranked it as totally useless.



**Figure 11: Importance of bird drawing ( $n=252$ )**

Q44. Birding Essays (an activity encouraging people to write articles describing their feelings about birds and submit them for publication)

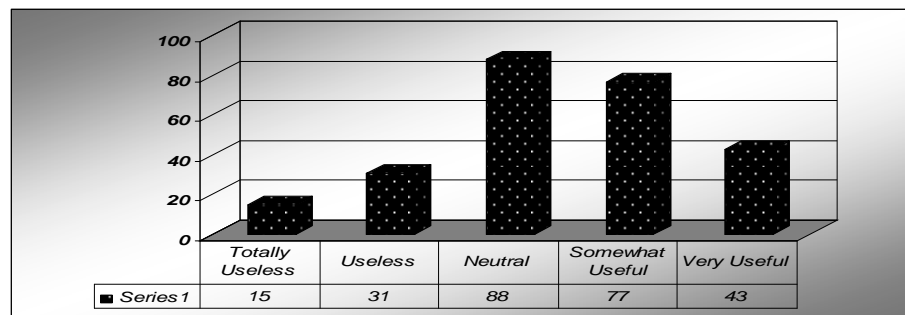
A total of 254 people responded to the question 44. As shown in Figure 12, 22.8% ranked it as very useful; 42.9% ranked it as useful; 23.6% ranked it as neutral; 10.2% ranked it as useless; and 0.4% ranked it as totally useless.



**Figure 12: Importance of bird essays ( $n=254$ )**

Q45. Bird House Plans ( information on how to build bird houses to attract certain species)

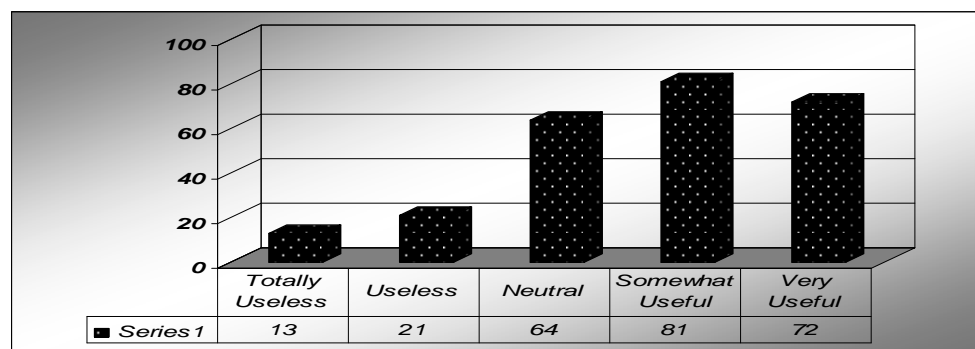
A total of 254 people responded to the question 45. As shown in Figure 13, 16.9% ranked it as very useful; 30.3% ranked it as useful; 34.6% ranked it as neutral; and 12.2% ranked it as useless; 5.90% ranked it as totally useless.



**Figure 13: Importance of bird house plans (n=254)**

Q46. Birding Trails (the trail is a system of easily-accessible sites where people can observe a variety of bird species)

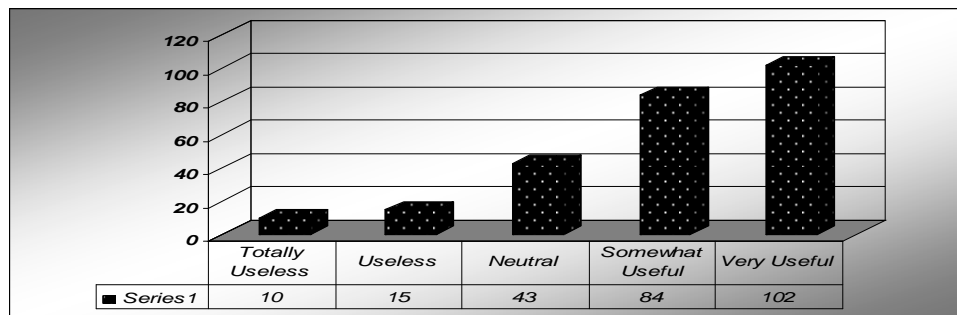
A total of 251 people responded to the question 46. As shown in Figure 14, 28.6% ranked it as very useful; 32.2% ranked it as useful; 25.4% ranked it as neutral; 8.36% ranked it as useless; and 5.17% ranked it as totally useless.



**Figure 14: Importance of birding trails (n=251)**

Q47. Bird-watching Points (places set up in parks or other public areas where bird watching organizations regularly conduct programs to introduce birding to the public)

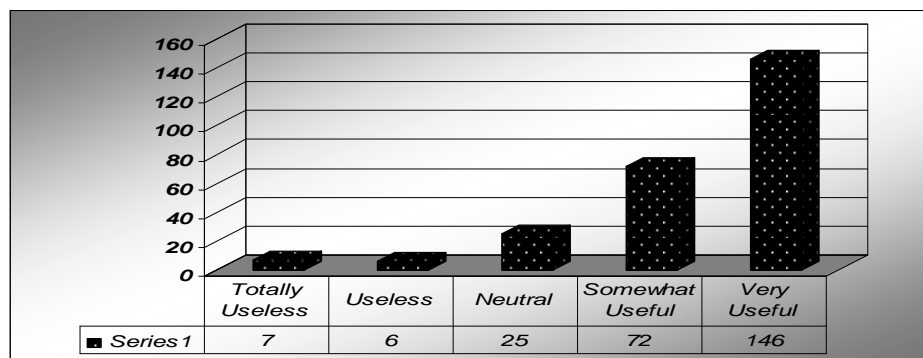
A total of 254 people responded to the question 47. As shown in Figure 15, 40.1% ranked it as very useful; 33.0% ranked it as useful; 16.9% ranked it as neutral; 5.90% ranked it as useless; and 3.93% ranked it as totally useless.



**Figure 15: Importance of bird-watching points ( $n=254$ )**

Q48. Bird-watching Websites (websites with discussion forum and up-to date information about birds and birding)

A total of 256 people responded to the question 48. As shown in Figure 16, 57% ranked it as very useful; 28.1% ranked it as useful; 9.76% ranked it as neutral; 2.34% ranked it as useless; and 2.73% ranked it as totally useless.



**Figure 16: Importance of bird-watching websites ( $n=256$ )**

