

S07-4 Local community involvement: the role of the IBA program in Mexico

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Abstract The IBA program in Mexico began in 1996 as a cooperative effort. First and second phases involved two sets of collaborators: first, academics with knowledge of birds and their habitats, and secondly, governmental agencies concerned with managing biodiversity and its conservation. Using information and facilities from the two sets, we compiled a directory of important areas for bird conservation with three products: a printed book, a database and a geographical information system. This was the first phase. The second phase involved promotion of local conservation action in priority sites designated by a number of regional workshops. These initiatives evolved in concert with a North American Bird Conservation Initiative (NABCI), which in Mexico adopted the IBA program as its implementation tool. International participation here has strengthened local conservation action by developing pilot cooperative conservation projects that involve all parties (i.e., local people, international players) in identifying needs and goals and in finding ways to overcome challenges.

Key words Important Bird Areas, Prioritization, Local communities, Ecotourism, Mexico

1 Introduction

The Mexican avifauna is particularly diverse, with 1050 species in 468 genera, 79 families and 22 orders (AOU, 1983; Escalante et al., 1992; Howell and Webb, 1995). Mexico, moreover, is the country through which more than half of the migratory birds of North America pass. Around 100 species, representing 10% of the national avifauna, are endemic. The areas of highest endemism are, in order of importance, (i) the tropical dry forest of the Pacific slope, (ii) the arid and semiarid areas of the center-north and, (iii) the temperate forests of the Sierra Madre del Sur and the Eje Neovolcánico Transversal (Escalante et al., 1993; Arizmendi and Ceballos, pers. obs.).

Birds in Mexico, like other groups of vertebrates, are subject to strong pressures that threaten their survival. These pressures affect all the species, but especially those restricted in distribution. The main threat that they face today is habitat loss. The conservation of natural populations of plants and animals necessarily depends on maintenance of the habitats in which they have evolved and can breed and survive. Thus perhaps the highest priority for biodiversity conservation is the protection of habitats and areas that will ensure sustainability not only of birdlife but also all other components of the ecosystems.

The number of bird species under threat in Mexico has increased in recent decades. Thus, in 1979, Aguilar-Ortiz (1979) reported that 31 species were at risk of extinction. Soon after, the International Council for the Conservation of the Birds (King, 1981) raised the number to 35. More

precise information then caused the International Council for the Preservation of Birds (CIPAMEX, 1989) to increase this to 117 species, of which 35 were considered in danger of extinction, 27 as threatened and 55 as prone to extinction. In recent reviews (Collar et al., 1994; IUCN, 1996), 76 species are considered globally threatened; and in the last revision of BirdLife International (2000), 70 species are so listed.

Yet, despite the threats to such a diverse bird fauna, conservation action was limited and uncoordinated until 1996. Then an Important Bird Areas program was initiated in Mexico as part of a trilateral project between Mexico, USA and Canada within the framework of the North American Free Trade of Commerce Agreement (NAFTA). The main aim of the Important Bird Areas (IBA) program is to identify and conserve areas of global importance for bird conservation.

2 Methods

As a first step in the Mexican program, a steering committee was formed to oversee the activities of a coordinator. Representatives from both academia and government formed this committee to ensure the involvement of both sectors and towards integrating the program into governmental agendas and areas of interest. The next step involved experts who knew the regional bird fauna and its habitats. These were brought together at one national and eight regional workshops between 1996 and 1999 to identify all potential IBAs in Mexico.

The national workshop comprised experts representing different regions of the country. Each had been nomi-

nated by his or her own regional collaborators. This was accompanied by a communications campaign that produced a printed bulletin outlining the aims of the program and the criteria used to identify IBAs. It was sent to a wide list of persons and organizations known to be concerned with wildlife conservation in Mexico. At the national workshop, 170 initial IBAs were identified using standardized IBA criteria. This meeting was then followed by the eight regional workshops to review and refine the IBA directory with a wider regional representation of experts, including students and local naturalists.

To reinforce governmental involvement and improve coordination, we invited the governmental institution Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO) to design a database and to prepare maps with the same system used for other biodiversity databases generated in Mexico. The database and maps were compiled after the first phase of involvement and then revised (i.e., maps were replotted at a finer scale of 1:250 000) during subsequent regional workshops.

3 Results

These initiatives produced a directory of 230 IBAs (Fig. 1) representing more than 22 000 records of 1 038 species of birds (96% of all species in Mexico, after AOU, 1983). Additionally, they ensured that all globally threatened species identified in Mexico by BirdLife International (2000) were covered by the IBA network. Of the 100 species endemic to Mexico, all were included in at least IBA. This information is now published in hard copy (Arizmendi and Valdelamar, 2000) and on the internet (<http://www.conabio.gob.mx>), as well as stored in a database.

4 Discussion

4.1 The prioritization exercise

Implementing necessary conservation actions in all IBAs was not possible. Because of that, we decided to develop regional criteria for prioritization. During the workshops, we scored each IBA in each region for its bio-

logical diversity, presence of endemic species and opportunities for conservation, judged by institutional presence and attitudes of local people. It resulted in 16 IBAs being identified as high priority areas for bird conservation (Fig. 2). Protection of all 16 IBAs conserves 805 species (over 75% of the Mexican avifauna), 55% of Mexico's globally threatened species (BirdLife International, 2000), and 81% of endemic Mexican species.

Mexico nevertheless has a responsibility to conserve all Mexican endemics and to ensure conservation of all species considered globally threatened. To achieve this, we implemented a prioritization exercise based on species. Using lists of endemic Mexican birds (Escalante et al., 1993) and globally endangered species (Birdlife International, 2000), we searched for fewest areas covering all such species in the IBA network, adding a further 19 IBAs to the original high priority 16.

4.2 Local community involvement

The first Mexican IBA selected was El Carricito del Huichol, one of the few intact remnants of old-growth pine forest on the western coast of Mexico. This area has been a focus of attention for CIPAMEX since 1997. Our particular goal here was to promote conservation by developing a management plan that would enable local landowners (private and indigenous) to make a living from their lands without damaging the environment. Several steps have already been taken, including the construction of a field station where both scientists and tourists are welcome to carry out research or bird watch. The project grew so fast that in 1998 a new NGO, Bosque Antiguo AC, was formed to manage the area.

More recently, a second, sister IBA, Sian Ka'an in the Yucatan Peninsula, was established in cooperation between Panama, Mexico and Canada. This project is developing bird-based ecotourism as an alternative to economic development in the area. To this end, Amigos de Sian Ka'an, together with the director of this biosphere reserve and CIPAMEX, conducted training workshops for two local communities to produce local nature guides. Trails for bird watching are being built as well. Promotion at the national level is provided by



Fig. 1 Important Bird Areas in Mexico



Fig. 2 Priority IBAs in Mexico

CIPAMEX, and at the international level by our Canadian partner, the Canadian Nature Federation.

Conservation plans developed by ornithologists, academics and local people are being put into effect in three further IBAs: Marismas Nacionales, Sierra de Arteaga and Cuitzeo. At another site, a biosphere reserve that already has a management plan, a series of bird-oriented activities concerned with environmental education are being undertaken as well.

4.3 International community involvement

Out of these processes, a broader initiative grew: the North American Bird Conservation Initiative (NABCI) which has as its aim the promotion of bird conservation in Mexico, USA and Canada with all tools available to all three countries. Both IBAs and Bird Conservation Regions (BCRs) were agreed as the implementation units for determining major bird conservation regions under this program. A trilateral committee identified birds of common concern, including migrants shared between the countries and shared endemics in IBAs and BCRs. These birds are used as linkages for coordinating international effort for bird conservation. Endemic Bird Areas (EBAs), where migrants from Canada and USA winter (Blanchet, 2002), were an important criterion in the choice of regions.

Three BCR regions containing several IBAs were chosen in Mexico. One is the Yucatan Peninsula, which includes three IBAs (two biosphere reserves and one national park), and many migrants mainly from the east of the continent. The second, El Triunfo biosphere reserve, is an area of high concentration of migrants from the center and west of the continent. The third is the grasslands of northern Mexico where there is a high concentration of endemics. All three regions are EBAs and contain a considerable number of threatened birds.

These three pilot regions will be developed under the NABCI program as participative projects where both local people and international participants will have opportunities to develop cooperative projects which have both international strength and the involvement of local people. Planning will be finished in 2003, and the three pilot projects implemented soon after.

5 Conclusions

In Mexico, we view the involvement of people at dif-

ferent levels as a key issue, and the only route to success for conservation programs. Both IBA and NABCI programs are now in the minds of many people, including government. However, this is only a first step, and the next challenge will be to put this entire framework into action in ways that will achieve long-lasting bird conservation.

To achieve these goals, establishment of each IBA will have to be approached separately, as each one faces different problems and opportunities. For that reason, we are planning to develop NABCI demonstrative or pilot projects in three very different regions of the country. These projects will address the challenges and opportunities in each site, using the experience and talents of both local people, local and federal government and international participants.

References

- Aguilar-Ortiz F, 1979. Aves en peligro de extinción: un llamado a la investigación para la sobrevivencia. Veracruz: Cuaderno de Divulgación INIREB Xalapa.
- AOU (American Ornithologists' Union), 1998. Check List of North American Birds. 7a ed. Washington, D.C: American Ornithologists' Union.
- Arizmendi MC, Valdelamar LM, 2000. Áreas de Importancia para la Conservación de las Aves en México. México: CIPAMEX, D.F.
- Bibby CJ, 1995. Recent, past and future extinctions in birds. In: Lawton JH, May RM ed. Extinction Rates. Oxford: Oxford University Press, 98–11.
- BirdLife International, 2000. Threatened Birds of the World. Barcelona: Lynx Editions.
- CIPAMEX, 1989. Aves mexicanas posibles de clasificarse como amenazadas o en peligro de extinción. Cuauhtli, CIPAMEX 1: 7–8.
- CONABIO-Pronatura, 1996. Identificación de regiones prioritarias para la conservación en México, Avance de resultados del taller. México: CONABIO, PRONATURA A.C.
- Collar NJ, Crosby MJ, Stattersfield AJ, 1994. Birds to Watch 2: The World List of Threatened Birds. Cambridge: BirdLife International.
- Escalante PP, Navarro AG, Peterson AT, 1993. A geographic, ecological and historical analysis of land bird diversity in Mexico. In: Ramamoorthy TP, Bye R, Lot A, Fa J ed. Biological Diversity of Mexico: Origins and Distributions. Oxford: Oxford University Press, 281–307.
- Escalante PP, Sada M, Gil JR, 1996. Listado de nombres comunes de las aves de México. México: CONABIO-Sierra Madre.
- Howell SN, Webb S, 1995. A Guide to the Birds of Mexico and Central America. New York: Oxford University Press.
- IUCN, 1996. Red List of Threatened Animals. Gland: IUCN.
- King WB, 1981. Endangered Birds of the World: the ICBP Bird Red Data Book. Washington, D.C: Smithsonian Institution Press.