



15 December 2002



**PROJECT NAME:** "Migratory Bird Conservation Site Network in the Grasslands of Northern Mexico"

**Pronatura Noreste A.C.**

**Head of technical reporting:** Enrique Guadarrama Escobar

**Project manager:** Alejandra González

**Abridged translation** provided by the Commission for Environmental Cooperation in preparation for the trilateral NABCI grasslands workshop, Chihuahua, February 18-20, 2003.



## Background

The grasslands of Canada, the United States and Mexico are home to major populations of migratory birds of common interest or concern. This type of ecosystem is heavily affected by Agriculture and overgrazing. An alliance was thus created between the World Wildlife Fund (WWF), The Nature Conservancy (TNC) and Pronatura Noreste to develop initiatives intended to have a continent-wide impact. The project links the conservation of three nationally and internationally recognized sites such as Ramsar sites, Important Bird Conservation Sites (*Áreas de Importancia para la Conservación de las Aves—AICAS*), Priority Conservation Areas designated by the National Commission for the Use or Awareness of Biodiversity (*Comisión Nacional para el Uso u Conocimiento de la Biodiversidad—Conabio*) and Protected Nature Areas, among others. This project is intended to create a network of sites that jointly provide more efficient conservation tools with respect to migratory birds.

## Goal

To create a network of North American grassland sites with similar characteristics, in order to establish a corridor for migratory grassland birds and to undertake joint actions for bird conservation.

## Objectives

1. To create a group of experts in North American grassland birds.
2. To include new conservation sites for migratory birds.
3. To build a Geographical Information System for each site.
4. To determine areas of opportunity for bird conservation in the grasslands of northern Mexico.
5. To hold a workshop on migratory grassland birds, to generate a project portfolio benefiting site conservation.

## Results

### 1. Creation of a group of experts

A group of 18 leading experts with current projects in grassland birds in the Chihuahua desert participated in this workshop, who have demonstrated an active and dynamic participation over time. This group includes one foreign institution and 11 Mexican institutions, representing academia (9), government (2) and non-governmental organizations involved in conservation (3).

## List of Participants:

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\* Annex . 1 lists 130 possible attendees at a bird workshop organized by WWF, as part of Ing. Héctor Arias' verbal agreement.

\*\* Annex 2 describes each institution's strengths.

## 2. Inclusion of new conservation sites for migratory birds

### Chihuahua:

**Proposed sites:** El Sueco, Babicora and Janos.

**Flagship species:** Golden eagle, bald eagle, aplomado falcon, ferruginous hawk, curlew (Numenius), mountain plover.

**Threats:** Agriculture and ranching

**Site conservation opportunities:** Community development, land purchase and environmental education.

Janos has a management plan, while Babicora and El Sueco have no such plan.

### Janos Nuevo Casas Grandes AICA 133 (PAGE 171) category G-1

Janos is located in Chihuahua, covering 40,000 hectares at an altitude of 1380 meters above sea level. It borders the U.S. state of New Mexico to the north, Ascensión to the east, Casas Grandes to the south, and Sonora to the west.

It lies between the plateaus of the septentrional part of the state and the Sierra Madre Occidental range, forming extensive steppe ranges and representing the last of the great North American prairie.



This zone is characterized by one of the largest prairie dog colonies (*Cynomys ludovicianus*), with more than half a million exemplars.

It currently has a total of 226 recorded bird species, according to records from the *Universidad Nacional Autónoma de México*. See Annex No. 3.

**Babícora AICA 60 (PAGE 163) Category G-4-C.**

This closed basin is located in the state of Chihuahua. It has an area of 13,860 hectares and is at 2,000 meters above sea level. This basin features numerous shallow temporary bodies of water, semiarid grasslands and corn and bean crops.

It comprises 70.6% native vegetation, 64.82% of which corresponds to pine forest and 5.77% of which is grasslands, while 22.75% corresponds to farm systems. Thus the major threats are Agriculture, urban development, deforestation and ranching.

Land is held in communal farms (*ejidos*) and private ownership.

There are a total of 126 bird species recorded in Babícora, of which 53% are winter residents, 2% are summer residents, 1% are altitudinal migratory species, 5% are transitory and 6% are occasional. This area brings together a great number of migratory birds, including the bald eagle, the golden eagle and the Aplomado falcon (*Haliaeetus leucocephalus*, *Aquila chrysaetos* y *Falco femoralis*, respectively). Babícora and Laguna de Mexicanos represent the most important hibernation areas for *Grus canadensis* (sandhill crane) and *Chen caerulescens* (snow goose), and are therefore categorized as G 4 C. It is also an important site for Mexican duck reproduction.

**Coahuila:**

**Proposed sites:** El Tokio, Cuatro Ciénegas, Valle Colombia.

**Flagship species:** Mountain plover (*Charadrius montanus*), Burrowing owl (*Athene cunicularia*) and Golden eagle (*Aquila chrysaetos*), *Numenius*, *Anas diesi*, and *Spizella wortheni*.

**Threats:** Agriculture.

**Site conservation opportunities:** Community development, land purchase and environmental education.

Both sites have a management plan ( El Tokio in process).

**Cuatro Ciénegas. AICA 72.**

The Bolsón of Cuatro Ciénegas is a small intermontane valley situated in the eastern part of the Sierra Madre Oriental, in the center of the state of Coahuila. It has an area of 83,598 hectares and an altitude of 740 meters above sea level. It is an extremely arid desert region, with annual precipitation of less than 200 mm. Temperature ranges between 0 C in winter and 44 C in summer. It has a total of 114 bird species reported by the Department of Biological Sciences at the *Universidad Autónoma de Nuevo León* (UANL). See Annex No. 3.

**Valle Colombia. WWF priority site (3.02)**

**Durango:**

**Proposed sites:** Mapimi and the Durango grasslands.

**Flagship species:** Sprague's pipit (*Anthus spragueii*), *Calamospiza molanocorys*.

**Threats:** Agriculture and human development.

**Site conservation opportunities:** Environmental education.

It has a management plan.



### Mapimi AICA 135

Description: This area is located in the central part of the Chihuahua desert, in the states of Durango, Chihuahua and Coahuila. It has an area of 91,000 hectares and an altitude ranging from 1,000 to 1,500 meters above sea level. It is characterized by small mountain ranges surrounded by extensive plains, with a considerable presence of artificial bodies of water. The climate is arid, with somewhat constant drought cycles.

Vegetation is rosetophilic brush (*Agave asperima*), crassicaule scrub (*Opuntia rastrera*), *Larrea tridentata* scrubland, mezquite brushland, grassland (*Hilaria mutica*) and bunch grass.

There is a total of 160 recorded bird species, of which 38% are residents, 26% are winter residents, 3% are summer residents, 17% are transitory 11% are altitudinal migrants and 5% are occasional species. Some of these are included in Mexican Official Standard NOM-ECOL-059, such as the golden eagle and *Falco mexicanus*. There are also studies on other land and water animal and plant taxa, geology and anthropology. The type of habitat is globally important, characterized by xerophilic scrub and arid grasslands, and is thus categorized as G-3.

There are currently 159 bird species recorded. See Annex No. 3.

### Nuevo León:

**Proposed sites:** El Tokio and Mina.

**Flagship species:** Mountain plover (*Charadrius montanus*), Burrowing owl (*Athene cunicularia*) and Golden eagle (*Aquila chrysaetos*), *Numenius*, and *Spizella wortheni*.

**Threats:** Agriculture and ranching.

**Site conservation opportunities:** Community development, land purchase and environmental education.

It has a management plan (in process).

### El Tokio AICA 232.

The study area is located in the subprovince of the Sierra Madre Occidental and Llanura, a component of the Sierra Madre Oriental. It has an area of approximately 245,000 hectares, including the Mexican northeast and the Coahuila, Nuevo León and San Luis Potosí state borders. Its altitude ranges from 1,800 to 2,000 meters above sea level. Vegetation: There is rosetophilic brush on the hilltops and slopes of 12% or more, with shallow, rocky soil. The low areas feature gypsophilic grassland dominated by grass developing in plaster-rich soils, including low vegetation of 0.1 to 0.2 meters high and covering 80% of the surface. The most frequent species are *Muhlenbergia villiflora* and *Buteloua chasei*. The area's main threat is agriculture.

**DOMINANT VEGETATION:** Low grasslands of *Muhlenbergia villiflora*, associated with *Scleropogon brevifolius*, *Frankenia gypsophila* and *Zinnia anomala*

**DOMINANT VEGETATION:** Low grasslands of *Muhlenbergia villiflora*, associated with *Zinnia anomala*

It has 115 recorded bird species, according to the UANL Department of Forestry Sciences. See Annex No. 3.

### Zacatecas:

**Proposed sites:** Cerro de la Virgen, San Juan de Horcados, Loma Tascatita and Guadalupe de las Corrientes.

**Flagship species:** Cranes, Golden eagle, (Chorlito manzano, *Charadrius* sp?, and Pato triguero, *Anas* sp?)

**Threats:** Agriculture and ranching.

**Site conservation opportunities:** Environmental education.

None of the sites in Zacatecas has a management plan or IBA (Important Bird Area) registration.



### 3. Geographical information system

It was noted at the workshop that the last grassland census by the National Institute of Statistics, Geography and Information (*Instituto Nacional de Estadística, Geografía e Informática*—INEGI) should be set aside, to include all Chihuahua desert grasslands as a priority system for research because there is no information on migratory grassland birds for the majority of the ecoregion.

### 4. Database for assigning geographical areas to experts

We designed a survey to determine conservation and research opportunities in order to include each expert's information in a database. It was sent to the workshop participants in early October. The survey will be an important tool for the workshop to be held 18 November of this year, to identify the conservation opportunities and threats at each site and to provide the framework for developing the site network proposed above.

### 5. Creation of a bird conservation site network

#### CREATION OF A BIRD CONSERVATION SITE NETWORK FOR THE CHIHUAHUA DESERT GRASSLAND

The site selection is postponed because several similar exercises have been carried on over time, and no effort has been made to determine new sites.

The first point of discussion was the selection of site selection criteria, depending on each participant's priorities. The matrix sent by NABCI was used as the basis.

#### NABCI Matrix for the Identification of Priority Sites for Trinational Projects

**NABCI RATING SYSTEM:** Once the sites are identified, it is suggested that a scale of 1 to 3 be used to rate the sites that most adhere to each of the NABCI criteria. The highest rated sites will receive priority attention.

#### NABCI criteria:

1. It involves all three countries (Mexico, the United States, and Canada), with a strong foundation in Mexico and linked to sites in the other two countries. The premise upon which the project is based must originate in Mexico.
2. It focuses on habitat conservation, with priority habitats defined by suites of priority birds. It strives to address the needs of all major groups of birds in the project area. Habitat conservation includes management, stewardship and policy.
3. It incorporates local community interest and involvement. This varies from direct involvement to communication, as appropriate.
4. It incorporates a strong partnership component, strengthening coordination, communication and networking. Broad, multifaceted partnerships are a continuing goal. There is respect for all levels of cooperation.
5. It builds individual and institutional capacity, including technology and knowledge sharing. In particular, it addresses capacity building in Mexico.
6. It includes a means of measuring success, with explicit attention to evaluation and accountability. There should be components of monitoring and sharing of information to



permit learning from the work. It should contribute to local, regional, national and international databases and operate within the context of larger objectives.

7. It should be feasible with early signs of progress and a high likelihood of ultimate success. This will allow partners to see progress and to communicate it widely.

#### Site selection criteria, developed by the workshop working group:

1. Sites containing grassland birds that are of interest to Mexico and/or the United States and Canada.
2. Sites lacking and/or requiring information.
3. Grassland sites for which conservation is feasible.
4. Interest and/or participation of local conservationists.
5. Sites of interinstitutional interest.

#### Reorganization of the above criteria.

1. Grassland sites.
2. Species of interest.
3. Feasibility of conservation.
4. Participation of local groups.
5. Interinstitutional interest.
6. Low-information sites.

#### CREATION OF THE WORKING GROUP:

Explanation of the proposal from the workshop members, to define the frame of reference under which the working group is to be formed and named (committee, association, subcommittee, et al.).

**Alberto Lafón:** *Proposes an association.*

**Armando Contreras:** *States the possible conflicts with various Mexican organizations.*

**Felipe Chávez:** *Proposes that instead of discussing an association, a working group should be considered that could avoid administrative work for the time being.*

**Patricia Manzano:** *Proposes a subcommittee, with the flexibility to act.*

**Patricio Tavizón:** *States the difficulties of working as a committee. Funds cannot be attracted.*

**Alberto Lafón:** *Comments on the advantages of a working group, strengthening institutions, distributed into committees or associations as a single institution.*

**Felipe Chávez:** *Proposes that no administrative organization be given to the group, leaving such work to the subcommittee.*

The following points were concluded from the above:

The idea was discussed to form a group for grassland bird conservation, detailing the inherent advantages and disadvantages of forming a society or Subcommittee. It is agreed to form an independent working group, with its own intents and commitments. A grassland bird subcommittee will also be formed, which should be ready by the end of the next year.

As from its launch, the group is composed of the following workshop participants:

Alberto Lafón, Armando Contreras, Enrique Guadarrama, Felipe Chávez, Isabel Morán, Juan Medel, Jorge Necedal, Laura Scott, Mauricio Cotera, Patricia Manzano and Patricio Tavizón.



The working group will act under the objectives and goals set forth in the workshop, described below:

**AGREEMENT:** To form a working group focusing on the conservation of migratory birds in the Chihuahua desert grassland.

**GOAL:** To promote the conservation of grassland birds in the Chihuahua desert.

**OBJECTIVES:**

1. Create a committee
2. Coordinate efforts
3. Strengthen individuals/institutions
4. Push for new participants
5. Support for proposals
6. Standardize methodologies
7. Create a regional network of monitoring sites
8. Train group members
9. Identify needs (diagnostics, problematics, research, etc.)
10. Create a database
11. Link with different players, sectors, etc.
12. Environmental education
13. Catalog strengths, capacities, etc.
14. Plan for contingencies
15. Publish current information

**Felipe Chávez:** *Proposes to work on strengths. Literature generated by each member should be included, along with a list of participants, available field equipment and other tools or attributes that add to the working group's strengths.*

**GOAL DEVELOPMENT, CATALOG OF STRENGTHS, CAPACITIES, ETC.**

**DATABASE CREATION.-** A brainstorming session was held in which the participants shared ideas they are presently developing or working on. This database work may increase as more people enter the group. The following elements will be included in the database, for each institution:

1. Name of institution.
2. Bibliography.
3. Postgraduate programs.
4. Geographical Information System laboratory.
5. Database inventories.
6. Wildlife management plans.
7. Bird species identification certification.
8. Community development.
9. Legal tools for land conservation.
10. Bird collection.
11. Biological material deposits.
12. Ringing.
13. Wildlife census.
14. Environmental impact.
15. Molecular biology.
16. Inventories.





17. Monitoring.
18. Vegetation.
19. Sustainable wildlife conservation, management and usage units (*unidades para la conservación, manejo y aprovechamiento sustentable de la vida silvestre—UMAs*).
20. Environmental education.
21. Field stations.
22. Project development support.
23. Equipment.
24. Finances.
25. Training courses.
26. Contingency planning.
27. Staff support.
28. Chemical laboratories.
29. Facilities.
30. Web page.
31. Professional services.

See Annex No. 2 on the group strength database matrix.

See Annex No. 3 on the survey.

#### **COMMITMENTS:**

**Pronatura Noreste A.C. and the Bird Museum:** To develop the Data Center for the conservation of migratory birds in the Chihuahua desert grassland.

#### **SHORT, MEDIUM AND LONG-TERM ACTIONS**

##### ***Short-term: 15 days to 3 months, as from January.***

1. Workshop summary (15 days)
2. Create list of possible persons interested in the group (10 days)
3. Draft action plan, goals, etc. for the group (10 days)
4. Format of the database and usage policies (15 days)
5. Format for creating a grassland bird subcommittee, and circulation thereof (3 months).
6. Specification and format of available literature (theses, articles, reports, etc. – 3 months).
7. Forwarding of proposals for research, training, monitoring site networks, etc. (3 months).
8. Proposal for the participation of students and technical staff in the Monitoring Avian Productivity and Survivorship (MAPS) program (2 months).
9. Activation of the environmental education group, proposal for an action plan (Pronatura Noreste, Bird Museum, DODO, Profauna – 3 months).

##### ***Medium-term: 6 to 12 months.***

1. Publication of an article.
2. Exchange and standardization of census, monitoring, vegetation and ringing methodologies.
3. Training on grassland stability indicators.
4. Technique standardization and staff training workshops.
5. Draft Species Conservation and Recovery Project (*Proyecto de Conservación y Recuperación de Especies Prioritarias—PREP*)
6. Proposal of monitoring sites.
7. Determination of persons interested in participating in the working group, with letters of intent.



**Long-term: More than 12 months.**

1. Consolidation of the subcommittee and working group.
2. Operation and follow-through of monitoring network.
3. Training (continued from above points).
4. Creation of article on grassland birds.
5. Organization of a congress, meeting, etc. on grassland birds.
6. Proposal and support of the different activities carried on in the region.
7. Creation of manuals of various topics regarding identification, monitoring techniques, ringing, etc.
8. First meeting of the working group on Chihuahua desert grassland birds, including a progress report.
9. Creation of an electronic and printed newsletter on the working group, job openings, etc.

2. - **GROUP STRUCTURE**

Coordinators: Jorge Necedal, Laura Scott, Patricia Manzano, Enrique Guadarrama and Armando Contreras.

3. - **POSSIBLE PROJECTS TO BE UNDERTAKEN BY THE WORKING GROUP**

1. Ferruginous hawk (in progress)
2. Tagging (in progress)
3. Promotion of predatory species instead of dogs.
4. Proposal on the impact of electrical grids on birds of prey (Patricia Manzano to lead).
5. Propose the selection of four sites for monitoring grassland birds (Felipe Chávez to lead). The sites to be included in this proposal are Cuatro Ciénegas, Tokio, Janos and Babicora. Activities: Grassland characterization, networking, census by transect (monitoring), monitoring birds of prey. WINTER (November to February). Budgeting (equipment, material, attendees, food, transportation). For JANUARY.
6. Search for funding for the Workshop for the Identification of Grassland Birds (Enrique Guadarrama).
7. To create an on-site museum (search for funding and planning)

**AGREEMENTS FROM THE MEETING:**

1. Formation of a working group in addition to a subcommittee. This group may be expanded and may add people in the future.
2. Databases to be generated as part of the working group, to be kept by Pronatura and the Mexican Bird Museum.
3. The group is composed first as a personal endeavor and will later consolidate institutionally by means of letters of commitment from the institutions' leaders.

**NABCI-WWF Meeting.**

**Proposal by Alberto Lafón:** *Proposed monitoring of sites already chosen by the group. Proposed monitoring of "new" sites. Not repeat the site selection task.*

AGREEMENT: Enrique Guadarrama will take care of passing this proposal on to NABCI and WWF.