

THE CENTRO DE ESTUDOS DE MIGRACOES DE AVES  
(CEMAVE)

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Created in January 1977 and becoming effective in August 1978, the Centro de Estudos de Migracoes de Aves (CEMAVE) is the coordinating body for bird-banding programs in Brazil. It lies within the Instituto Brasileiro de Desenvolvimento Florestal (IBDF), the institution responsible for the conservation and preservation of flora and fauna in Brazil.

The organization of CEMAVE was based on the Bird-banding Laboratory of the U.S. Fish and Wildlife Service, with adaptations thought to be necessary for the success of the technique in Brazil. More information concerning the organization and maintenance of the Center can be found in Antas (1979 & 1984).

In August 1978, the Center began its activities with two biologists who, together with Mr. William Belton, organized the First Bird-banding Course (I Curso de Observacao e Anilhamento de Aves) at Brasilia National Park, Distrito Federal, in November of the same year. During 1979, the Center was established in its own office, and held a second bird-banding course (II Curso de Observacao e Anilhamento de Aves) in June, in the Pantanal Matogrossense, Mato Grosso. Also during 1979, the Center took on its own secretary and two full time biologists; this remained its structure until 1983.

In the beginning, the main objective of CEMAVE was the training of people from other institutions who would have an opportunity to use bird-banding techniques in their research.

The banding courses offered by CEMAVE usually take place at sites where large numbers of birds can be captured and where classroom facilities are available for participants. The classes constitute 30% of the total number of hours, the rest being devoted to practical activities, such as capture techniques, removal of birds from mist-nets and traps, and bird-banding itself. After this course, which usually lasts for two weeks, the participants are able to use the bird-banding technique and to train new banders.

To receive a banding permit, bands and forms, the prospective bander should send a project proposal to CEMAVE with basic information on the objectives of the project, species to be banded, methods of capture to be used (mist-nets are allowed only with previous training), and place where the studies will be developed, along with details of any other participants who might band birds independently of the project leader. The bibliography to be used in the project should also be mentioned. Two letters of recommendation from ornithologists and/or banders are requested so that additional information can be obtained by CEMAVE if required.

This kind of procedure helps to avoid, as far as possible, the banding of birds which have not been correctly identified. At the same time, an analysis of the methods of capture can help to find ways of reducing injury to captured birds. The banding of injured birds not only affects the results of banding, but can also lead to the development of a bad attitude among the general public who ultimately are responsible for the success of a banding program.

If the project is approved by CEMAVE personnel, the bander receives a banding permit and a minimum of 50 or 100 bands (depending on the size of the band) suitable for the species listed in the project. A report on banding activities should be sent to CEMAVE at the end of each year (or earlier in the case of short-term projects) with the basic data on the birds banded during that period. If the bander uses the whole series of bands in a shorter period, the report can be sent earlier. When the report is received by CEMAVE, it is carefully checked for possible mistakes, especially in location (latitude and longitude), the species banded (e.g. to ensure that they conform to those allowed by the banding permit), the size of the band for each species, and the identification of age and sex. If no problem is found in the report, it is saved for future use by CEMAVE or any person previously authorized by the bander. If there is any doubt, the bander is contacted immediately and the problem resolved.

When the recovery of a banded bird is reported to CEMAVE, the information is sent at once to the person who banded the bird; this person is the only person allowed to publish the data. When required for management purposes, the recovery data are analysed by CEMAVE but not published as such. Once the information about a recovery is complete, a certificate of acknowledgement is sent to the person who reported the band, along with the basic data concerning banding and recovery of the bird.

In addition to coordinating several banding projects in Brazil, CEMAVE organizes and provides grants for programs involving species which are of special interest to the hunter and/or are priorities for conservation. Examples have included the banding of waterfowl in Rio Grande do Sul and Pantanal Matogrossense, and studies of Zenaida auriculata in northeastern Brazil. In recent years, migratory species, mainly of the families Charadriidae, Scolopacidae and Laridae, have received special attention, largely as a result of an international agreement signed between IBDF and the Canadian Wildlife Service (CWS). The agreement is primarily concerned with the exchange of information on species which migrate between Canada and Brazil, and improved preservation of this shared renewable natural resource.

Preliminary banding data from Rio Grande do Sul presented by Flavio Silva at the Eleventh Brazilian Zoological Conference (XI Congresso Brasileiro de Zoologia) at Belem in 1984, included several recoveries of young birds ringed in Rio Grande do Sul and recovered along the coast as far north as Bahia. The data also demonstrated the presence of previously unknown hunting pressure on young birds in southern Santa Catarina State. The regional importance of the nesting site where the banding took place is reinforced by the dispersion of the young, which were found much further afield than expected.

Concerning our knowledge of inter-continental movements, the importance of collaboration and contact between different countries is evident. Working as a group and not individually, the countries involved can increase the recovery rate of banded birds and significantly improve the results obtained from bird-banding activities. This is clearly demonstrated by the results already obtained from joint studies conducted by Brazil (IBDF), Canada (CWS) and the U.S.A. (Manomet Bird Observatory). In April 1983, CEMAVE and CWS held a training course to train bird-banders to work with canon-nets. During the training period, 250 Sterna hirundo were caught. Of these, three individuals had already been banded with North American bands. The rest of the birds were banded with Brazilian bands, and three of them were

subsequently recovered in New York and Massachusetts, U.S.A., one of them in June 1983 at its nest.

In a project carried out jointly by IBDF and Manomet Bird Observatory in Rio Grande do Sul in April and May 1984, 300 Calidris canutus were caught, six of which had already been banded elsewhere. Until that time, there had been only one recovery of C. canutus in Brazil (Lara-Resende & Leal, 1982). Other birds caught during this same banding project included two Sterna hirundo which had been banded in the U.S.A.

The above examples demonstrate the importance of a national center for bird banding in spreading the technique within a short period of time. Furthermore, the existence of a center where data is collected on a standardized international system already operating in other countries makes possible the exchange of information at an international level and highlights the need for similar centers in all countries. Basic standardization includes the use of bands with numbers or letters for the inside diameter of the band, sequential numbering within each series, return address in the band, banding forms for 100 bands each, and use of the 10 minute square for location of banding sites.

During recent years, several researchers in Latin American countries have shown an interest in starting bird-banding programs in their studies, especially when these involve the biology, ecology and migration of birds (Lara-Resende, 1984). Usually, it has been suggested to these workers that they use bands from centers already in existence, such as the Bird-banding Laboratory in the U.S.A. or CEMAVE in Brazil. Several international organizations have supported these suggestions. However, one must consider the political and practical problems which would certainly result in the failure of this approach. It has been suggested in previous IWRB meetings that CEMAVE should consider the possibility of becoming the banding center for the whole of Latin America. There are, however, a number of problems to this. Although the language barriers are relatively small among the Latin countries, their importance increases when one considers the different languages spoken in Guyana, Suriname and French Guiana. Customs controls would cause problems in the delivery of materials and equipment needed for banding, and mailing costs between countries would be high. Bird-bands are usually recovered by rural people, who often do not have enough money to pay the amount requested by the post office. Each country has its own laws concerning the use of its natural resources and the techniques which may be used in the capture of wild birds. Finally, public opinion and attitudes to bird-banding vary widely from country to country and this results in completely different needs for environmental education. At a political level, it is very important to involve the government and national institutions as much as possible in a banding program. This makes it easier to obtain support for the research itself and to carry out the management and conservation indicated by the studies.

The main argument against a bird-banding center in every country is lack of money. However, we believe that the first step depends only on the decision of the country itself and on the presence of one researcher who is ready to take on the responsibility of coordinating the basic banding procedures. If the number of people involved in banding is low, six hours of work per week is sufficient to control the whole system without any problems. The most important consideration is that the center be designed to follow the international system. CEMAVE is happy to help anyone who is interested in setting up a banding center, by providing training at its



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office in Brasilia and demonstrating the Brazilian system, a system which has been tailored to the particular needs of a Latin American country.

Looking at the bird-banding situation in Brazil now, five years after its inception, we see that there are more than 160 banders and that over 45,000 birds have been banded. This demonstrates that a national center for the coordination of bird-banding can stimulate the development of bird-banding activities in the country concerned, and produce extremely good results in a very short period of time. We hope that other countries in South America will seriously consider the use of banding programs in their studies and create national centers for the coordination of these activities.

### Resumen

El Centro de Estudios de Migraciones de Aves (CEMAVE) fue creado como parte del IBDF en 1978. Sus objetivos son estimular y coordinar los programas de anillamiento y marcaje de aves en Brasil, y enseñar los métodos utilizados a personas de otras instituciones que tengan la posibilidad de usar el anillamiento en sus investigaciones. CEMAVE organiza cursos de aprendizaje que incluyen tanto enseñanzas teóricas como prácticas, sobre el terreno, y apoya proyectos de marcaje de especies de especial interés.

Se describen los pasos necesarios para la obtención de permisos, anillas y planillas adecuadas, así como sobre la forma de enviar los resultados de las actividades de anillamiento.

Durante los últimos años se ha prestado especial atención a los limícolas y Laridae migratorios, llevándose a cabo programas conjuntos con el Canadian Wildlife Service de Canadá y el Manomet Bird Observatory de Estados Unidos, que han demostrado la importancia de la cooperación internacional.

La posibilidad de ampliar el campo de acción de CEMAVE a otros países de la región no se contempla por varios motivos, animando a que cada país establezca su propio centro de anillamiento con características similares a las de los ya existentes. CEMAVE está dispuesto a prestar ayuda compartiendo sus experiencias.

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## ANILLADO DE PATOS PICO ROSADO, *Dendrocygna autumnalis*, EN VENEZUELA: RESULTADOS PRELIMINARES

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### Introducción

En el año 1981, el Servicio Nacional de Fauna Silvestre (SNFS) del Ministerio del Ambiente y de los Recursos Naturales Renovables (MANRR) de Venezuela, inició un programa de anillado de patos del género *Dendrocygna* con la finalidad de recabar información referente a sus patrones de dispersión en el territorio nacional (Espinoza & Chang, 1983) y obtener datos ecológicos de utilidad a la hora de diseñar planes de manejo y regularizar las temporadas de cacería deportiva o de control de estas aves, las cuales constituyen, por el número de piezas cazadas, las más importantes en la actividad cinegética del país (Gómez Nuñez, 1983; Madriz, 1984; Madriz et al., 1981; Parra, 1984) y han sido señaladas como causantes de daños en áreas de cultivo de arroz (Bruzual, 1976; Casler et al., 1981; Ríos Soto et al., 1981). No obstante, la casi totalidad de los patos anillados hasta ahora pertenecen a la especie conocida como "guiriri pico rosado" (*Dendrocygna autumnalis*). Algunos resultados preliminares de esta actividad son discutidos en el presente trabajo.

### Area de anillado y metodología

El anillado de patos se ha realizado fundamentalmente en las lagunas El Boral, La Cochina y Cascabeles (07.45 N, 68.56 W) del Hato El Frío, y en una pequeña porción en el Hato La Palmera (07.37 N, 69.18 W) ambos ubicados en el estado Apure, en los llanos bajos de Venezuela. Los patos han sido anillados en los meses de Diciembre y Enero, cuando muchos de los individuos de esta especie se encuentran en la muda post-reproductiva, donde la pérdida de las rémiges primarias les impide el vuelo, momento en que son conocidos como "pelones". La metodología de trabajo ha sido descrita por Chang (inédito) y consiste, en términos generales, en el "arreo" de los animales hacia corrales previamente ubicados para su posterior captura, registro de información biológica, anillado y liberación.

Las estimaciones de las distancias entre el área de anillado y el lugar de recuperación de las anillas se hizo sobre un mapa a escala 1:2.000.000. Debido a que la mayor parte de las veces los cazadores no informan sobre el sitio exacto de recaptura, sino simplemente el área general, las distancias fueron tomadas considerando el punto de referencia más cercano y/o aquella localidad que constituye el centro aproximado del área donde se han recuperado dos o más anillas.

En base a las fechas y lugares de recuperación de las anillas se determinó el número de patos cazados legal e ilegalmente, de acuerdo a lo establecido cada año en las regulaciones de la cacería deportiva (MANRR-DGIIA, 1981, 1982 y 1983).