WINTERING OF COMMON CRANES (GRUS GRUS)
IN MOROCCO FROM 1980 TO 1985

Michel Thevenot—Alain Salvi
Maroc—France

Introduction

Till the fifties, cranes were considered to winter essentially in Morocco when migrating along the south western european route. In fact, Bernis (1960, 1966) pointed out the importance of the Iberian peninsula in the wintering of cranes and further investigations confirmed its first place (Fernandez-Crus, et al., 1981).

Thus, actually, only some hundreds of cranes are considered to cross the straits of Gibraltar (Cramp—Simmons, 1980) and the aim of this study is to give precisions on the sites and numbers concerned during the last years.

Wintering areas in Morocco

Data from Thevenot et al. (1980, 1981, 1982, 1985) and Thevenot (1985) show the existence of five (six?) regular wintering places for cranes in Morocco (fig. 1).

In the South of the country, these sites are mainly wetlands. For example, site E is a mouth of a river with a lake. In North-Morocco, they are open coastal or slightly undulated plains with cereals, sugar cane, beet... fields (Jacquemin, pers. comm.). At last, birds can travel regularly from extreme South-Spain to extreme North-Morocco or inversely during the day (Heim de Balsac—Mayaud, 1962; Pineau—Giraud-Audine, 1979; Fernandez-Crus et al., 1981).

The numbers of cranes concerned may change from year to year and from site to site (table 1).

Discussion

Now, Morocco is certainly the most southern wintering area for cranes travelling along the South-West migration route in Europe. It appears to be a very secondary wintering site, even behind France some years, but we do not know if this situation was already the same in the past. If it was, our former ornithologists were mistaken about their estimations. If not, one might believe that the progressive (?) desertion of Morocco has been the beginning of the actual modifications observed in the migratory behaviour of the species (Salvi, 1985).

Summary

L'hivernage des grues cendrées (Grus grus) au Maroc de 1980 à 1985. Longtemps considéré comme le quartier d'hivernage essentiel des grues migrant par la voie ouest-européenne, le Maroc s'avère être en fait un site relativement secon-
Figure 1. Wintering areas for cranes in Morocco, 1980—1985

Table 1.
Maximum number of cranes observed at the different regular wintering sites in Morocco during the last 5 years (from Thevenot, 1985). For the whole country, the maximum number of wintering cranes do not exceed 800—1000 in the best years

<table>
<thead>
<tr>
<th>Site</th>
<th>Maximum number observed</th>
<th>Date of the winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>250</td>
<td>1984—1985</td>
</tr>
<tr>
<td>B</td>
<td>400</td>
<td>1980—1981</td>
</tr>
<tr>
<td>C</td>
<td>700</td>
<td>1983—1984</td>
</tr>
<tr>
<td>D</td>
<td>150</td>
<td>1981—1982</td>
</tr>
<tr>
<td>E</td>
<td>200</td>
<td>1980—1981</td>
</tr>
</tbody>
</table>
daire, moins de 1000 grues hivernant sur 5 à 6 zones régulières. La situation dans le passé est mal connue, si bien qu'on ne peut attribuer les anciennes conceptions à des estimations incorrectes ou à des transformations apparues depuis dans les habitudes migratoires de l'espèce.

Author's address:
Michel Thevenot
Institut Scientifique
B. P. MA—703 Rabat-Agdal
Maroc
Alain Salvi
La Cure d'Air
16 El rue de la Côte
F—54 000 Nancy
France

References


A daru (Grus grus) telelése Marokkóban 1980 és 1985 között

Michel Thevenot—Alan Salvi
Marokkó—Franciaország

Az ötvenes évekig a nyugat-európai darvak fő telelőhelyének Marokkót tartották. Ma már tudjuk, hogy elsősorban az Ibériai-félszigeten telenek, és csak 5 (6?) telelőhely található Marokkóban, néhány száz (1983/84-ben 700) egyeddel. Két lehetséges magyarázat van erre: vagy a korábbi becsélések voltak túlzóak, vagy az ország fokozódó elsivatagosodása okozta a csökkenést.
Background

Following previous investigation of Siberian Cranes (*Grus leucogeranus*) used to migrate to southern parts of Iran for wintering at the last seventy years, in order to develop the habitation of their wintering ground and their population, International Crane Foundation decided to work on the primary project that consist capturing alive and marking Common Cranes under the assistant of Iranian researcher.

Following this program so far 252 Common Cranes were captured, marked (the used colour is kept secret and all observers of these cranes are invited to inform ICF-Europe!), and released at the Dasht-e-Arjan and Pahrishan lake at the Four different steps as follows.

<table>
<thead>
<tr>
<th>Areas</th>
<th>°N of the birds</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pahrishan</td>
<td>72</td>
<td>1975—1976</td>
</tr>
<tr>
<td>Dasht-e-Arjan</td>
<td>112</td>
<td>1976—1977</td>
</tr>
<tr>
<td>Dasht-e-Arjan</td>
<td>8</td>
<td>1977—1978</td>
</tr>
<tr>
<td>Dasht-e-Arjan</td>
<td>60</td>
<td>1983—1984</td>
</tr>
</tbody>
</table>

Suitability of Pahrishan lake and Dasht-e-Arjan wetland due to having fresh water and availabilitay of those foods.

Abstracts

Between 1983—1984 sixty Common Cranes (*Grus grus*) were captured using Alpha-chloralose basic techniques for capture, handling, and factors influencing mortality are described.

### Table 1. The age and the iris colour distribution of 60 Common Cranes captured in 1984

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of cranes</th>
<th>Iris colour</th>
<th>Number of cranes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>44</td>
<td>pale yellow</td>
<td>1</td>
</tr>
<tr>
<td>Immaturus</td>
<td>9</td>
<td>yellow</td>
<td>17</td>
</tr>
<tr>
<td>2nd year</td>
<td>6</td>
<td>orange</td>
<td>1</td>
</tr>
<tr>
<td>3rd year</td>
<td>1</td>
<td>pale reddish</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reddish</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>red</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pale brown</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>grey</td>
<td>3</td>
</tr>
</tbody>
</table>

|            | 60               |              | 60               |

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Table 2.

The weight of the 60 Common Cranes captured in 1984

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th>Number of all birds</th>
<th>Number of the imm., 2nd, 3rd year birds</th>
</tr>
</thead>
<tbody>
<tr>
<td>—4.000</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>4.001—4.500</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>4.501—5.000</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>5.001—5.500</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>5.501—6.000</td>
<td>16</td>
<td>—</td>
</tr>
<tr>
<td>6.000—</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>16</td>
</tr>
</tbody>
</table>

Alpha-chloralose (Fish scientific company) was used to capture Florida (*Grus canadensis pratensis*) and Greater Sandhill Cranes (*G. C. tabida*) for banding, colour marking and radio telemetry studies in Alachua, Manatee and Glades counties Florida.

Cranes were also captured using recoilles rocket-net traps (Wildlife materials, inc. and Nichols, Net and Twine company). Between 1975—1983 at the four different steps (Alpha-chloralose) was used to capture Common Crane (*Grus grus*) for banding, colour marking studies in Arjan National park province Fars southern part of Iran (*Dr. G. W. Archibald 1. C. F. head and R. Vaziri—H. Farhadpour*), Ornithology unit member Iran Deparment of the Environment.

Description of capturing area

Capture sites consist of a farmland near by a shallow lake approximately 2000 m in elevation, and 24 km² in size and surrounded by over grazed and partially cultivated land which in former times was probably marshland.

A wall of high mountains of spectacular beauty surrounds the basin, an island, consisting mainly of Phragmites occupies approximately 20 percent of the lake, and presumably serves as a nesting ground for the many thousands of waterfowl inhabiting the lake.

The island appears lush in comparison with the mainland, it is the only area of habitation.

Precipitation, amounting to approximately 1000 mm per year, fell between November and April, snow was normally recorded between December and March inclusive.

Capture sites were prebaited with scattered wheat for up to ten days prior to capture.

Bait was presented in small piles, about ten days prior to the capture attempt. Dosages ranged 0.50 g per 300 cc (cup) of moistened wheat, these dosages are within the safe limits.

There are 92 Common Cranes that they are coming at the bait between 6.5 AM until 11 AM every morning, for that number of the cranes the formula were as follows.

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6900 cc (cup) of moistened wheat mixed with 11.50 g drug that each 300 cc (cup) wheat mixed with 0.50 g drug in the suprat backet. So that 23, backet bait that each backet was enough for 4 cranes. Mixed at the night before capturing, then scuttered each bucket 1.50 sqm² of land apart; so that it would let the cranes to feeding equally without any problem.

The drug which is a powder, was mixed with moistened wheat to insure a constant dosage. Free water in the mixing bucket dilutes the dosage and should be avoided, treated bait was placed before sunrise. The bait facilitate clean up after the capture attempt.

Before sunrise the bait were scattered, one, to ten minutes after one hour, after feeding the cranes got narcotized some of them flew 500 metres around the baiting area, because they were frightened of behaviour change and other narcotized cranes.

Narcotized cranes were captured with hand, by this method, so that one hand must be linked around the birds body, and the birds legs to be kept by the other hand, and then they will belied in a bag and will be moved to the place that already been viewed.

More the number of partners more the capturing would be done, and in a short time all the cranes can be collected it must be annouced. That, if the collecting action is prolonged, after two or three hours we would not be able to collect them, and unable to capture the remaining birds.

Carrying the cranes from the capturing area to the proper place that has been provided, cranes must be taken not to be settling them on one another in the vehicle, otherwise they will be killed by suffocation. The birds must be set in the bags so that, the birds' legs to be put upside of the bag and tied together.

Because the free legs would be in danger of breaking, as it is possible keep the cranes in a room in which there is no flatness. And enough room to be available, the room must be completely dark. Because when the birds see the outside they fly toward that, and their wings or legs possibly be broken due to this act.

Care must be taken to put the Cranes on their feet, and prevent the birds of falling on backside, because the continuing this way causes the paralysis leg of the birds.

As the cranes are taken to the special room, measures and marked. Them and the marked cranes are moved to the separate room.

If the cranes are able to fly or stand and walk on its foot put them in to the bag, and released them in the area.

It is suggested to use colour plastic leg band instead of colour wing tag, wing tag injures or exhausts the birds.

Due to lack of facility we could not be able to collect the blood sample and parasites.

Mortality rate were about 1.8 per cent, one bird from sixty birds. That the bing number was LL10 370, the bird couldn’t be able to stand up and fly due to paralysis.

Author’s address:
Heidar Farhadpour
Dep. of the Environment
P. O. Box 839/71 365
Shiraz
Iran
A daru (Grus grus) befogása Alpha-chloralose használatával

Heidar Farhadpour
Irán

A szibériai daru (Grus leucogeranus) kutatását követően Iránban az elmúlt években megkezdtek a közönséges daru (Grus grus) jelölését. A madarak befogása Alpha-chloralose használatával történik. Összesen 252 darut jelölték. A befogás és a gyűrűzés menetét ismerteti rövid összefoglalásban a dolgozat.