

# THE GOMPOU

A NEWSLETTER OF THE KORI BUSTARD  
SPECIES SURVIVAL PLAN



EDITED BY:  
JOCELYN WOMACK  
Kori Bustard SSP Keeper Representative  
jocjakfitz@aol.com

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Welcome to the third edition of the Gompou- a newsletter of the kori bustard SSP! Gompou is the Afrikaans name for kori bustard and translates to gum-eating bird- a reference to the bird's habit of eating gum from acacia trees.

## SSP HAPPENINGS

Three chicks hatched this year, one female at the Dallas Zoo and two chicks at Waco Zoo.

Waco Zoo's chicks were the first ever produced by two captive born birds: the sire, a parent-reared bird from Dallas Zoo, and the dam, a hand-reared bird from National Zoo.

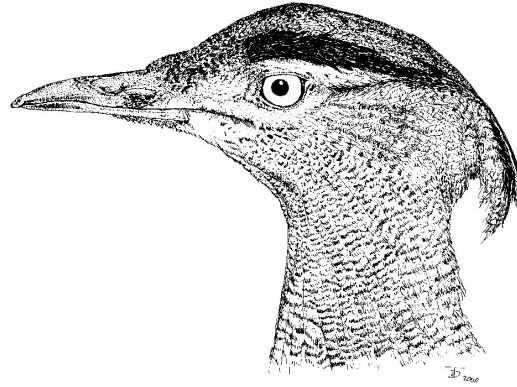
## FEATHER COLLECTION FOR FLY TIERS

Several institutions have begun collecting feathers for distribution to fly tiers in the U.S. The first feathers have been distributed this year and the reaction from the fly tiers has been ecstatic. Most notable of the comments, "Nothing will beat the black market demand for these feathers quicker than giving them away for free."

The distribution has also generated some donations to the SSP and the purchase of some of the SSP merchandise; a success all around.

If you would like to participate, it is as simple as collecting the molted feathers from your birds. Contact me or Sara Hallager, [hallagers@si.edu](mailto:hallagers@si.edu) to find out how to participate.

## DID YOU KNOW?



- Kori bustard egg color can vary from a pale tan, to dark brown, to blue, to dark green and all the shades in between.
- Egg color within the same clutch can vary. A female at the Dallas Zoo commonly lays a green egg and a brown egg in every clutch.
- The name “kori” comes from the Sichuana language. Sichuana (or Sechuana) is a dialect of Sotho spoken by the Tswana people in Botswana. *The first person who can discover what “kori” actually means will receive a free kori bustard t-shirt! Send your answer to Sara Hallager- hallagers@s.edu*
- The kori bustard GI tract is typical of an insectivorous bird. The esophagus is not as pronounced as that of a carnivorous bird and the ventriculus is thick and muscular (a trait characteristic of birds consuming complex food items such as insects and plant material. Additionally, koris have a pronounced cecum, which is common in omnivorous birds such as ostriches, rheas, cranes, and quail.

## THE KORI SSP NEEDS YOU

In order to support the goals of the kori bustard SSP, we need to increase our fundraising efforts. Please consider selling items currently offered by the SSP, including T-shirts, pins, mugs and prints. Christmas is coming! Who wouldn't want something with a kori bustard on it? Can't think of something to give someone who has everything? How about donating to the SSP in someone's name? You can feel confident that the money will go directly towards helping the goals of the kori bustard SSP. For more information, contact Sara Hallager at 202-633-3088 or by email at [hallagers@si.edu](mailto:hallagers@si.edu).

## DISNEY WILDLIFE CONSERVATION FUND SUPPORTS KORI BUSTARD CONSERVATION IN BOTSWANA

Botswana is the stronghold for the kori bustard in Southern Africa, but very little is known about the conservation status of kori bustards in the country. Limited information suggests that it is rapidly declining, but the causes of the decline are unknown -although often attributed to rangeland overgrazing in unprotected areas and poaching. To reverse the population decline, it is important to establish the potential threats and their relative importance, and based on these, compile a recovery strategy- i.e. a kori bustard National Species Action Plan.

To begin the process, the Disney Wildlife Conservation Fund has awarded BirdLife Botswana a grant to investigate the threat and extent of poaching. Through this funding, BirdLife Botswana will:

- 1) Investigate and document threats facing kori bustards (in particular the extent of poaching and what could be done to reduce it);
- 2) Develop 'Site Support Groups' – comprising community groups and other stakeholders with an interest in wildlife conservation – to promote community participation and sustainable use of Botswana's avifauna, including piloting activities to address poaching of kori bustards (and other birds);
- 3) Set up a monitoring scheme/information-sharing network to collect and collate abundance and distribution data for kori bustards and other threatened birds;
- 4) Initiate an environmental awareness program on the conservation of kori bustards and all other natural resources within our environment; and
- 5) Use the information to develop the chapter on kori bustards in the Red Data Book on Birds of Botswana (in development), as well as draw a recovery strategy i.e. bustard National Species Action Plan.

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**The following is the write-up from a poster recently presented at the ICEE enrichment conference in New York in July 2005.**

**The Effect of Visitors on Space Usage in Captive Kori Bustards**

**(*Ardeotis kori*) Jennifer Brostek, Sara Hallager**, Department of Animal Programs, Smithsonian National Zoological Park, Washington D.C.

**David Powell**, Department of Mammalogy, Wildlife Conservation Society, Bronx Zoo, Bronx NY

**INTRODUCTION**

Understanding the effect of visitors on captive animals in zoos is important for assessing animal welfare, interpreting behaviors and promoting breeding. Previous studies of the "visitor effect" have focused almost exclusively on mammals and have found mixed results. Consequently, little is known about the effect of visitors on the majority of species commonly held in captivity. Understanding the visitor effect may be particularly important for species such as the kori bustard (*Ardeotis kori*), which in the wild, has a low tolerance for human activity and whose breeding season in captivity generally coincides with peak crowd levels at many zoos. Crowd levels around the kori bustard enclosure at the National Zoo vary significantly. Additionally, the extent to which the birds are exposed to visitors changed from 2003 to 2004. In 2003, visitors were allowed access to one side of the exhibit. In 2004, a new visitor pathway was opened, allowing visitors access to an additional side of the exhibit. This study examines the effect of high and low visitor levels on the behavior of captive kori bustards under these differing visitor access conditions.

## METHODS

Subjects were 5 kori bustards (1 male, 4 females) at the Smithsonian National Zoological Park. Data were collected from March through December in 2003 and 2004 between 6:00 and 17:00, resulting in 416 hours of observation. The location of each bird was scored at 5 minute intervals during one hour observations. An overall number of visitors was recorded for each session. Session counts of fewer than 20 individuals were considered "Low Crowd Level", while counts of 50 or more people were considered "High Crowd Level". Enclosure usage by each bird during low crowd levels and restricted access was compared to usage during the other 3 conditions (high crowd/restricted access, low crowd/expanded access, high crowd/expanded access) using 95% confidence intervals.

## RESULTS

When visitor access was limited, enclosure usage was not affected by crowd levels for any of the females. However, the male (Noname) increased his use of the front, right quadrant of the exhibit when crowd levels were high. When visitor access was expanded, enclosure usage differed significantly for three of the five birds. After the new visitor pathway opened on the right side of the exhibit, one female (Zuri) significantly decreased the amount of time she spent in the front right of the enclosure and increased the amount of time spent in the back left, farthest from visitors, in response to high crowd levels. In contrast, the male (Noname) significantly decreased the amount of time spent in the area farthest from visitors (back left) during high crowd levels and increased the amount of time he spent in the front right, closest to visitors. Similarly the dominant female (Mama) decreased her use of the back left of the exhibit when the new pathway opened. During high crowd levels she increased her use of the back right area. She also increased the time spent in the front of the exhibit when the pathway opened. There was no effect on enclosure use in the remaining two birds.

## DISCUSSION

These results suggest that changes to enclosure design, which increase public access, may be stressful to certain birds. This effect may be independent of crowd levels for some birds. Changes in visitor access to an enclosure may cause animals to move from previously preferred areas of an exhibit. Our results suggest that this effect may be different for dominant and subordinate flock members. Understanding the differing responses of individual kori bustards to increased crowd levels may be particularly important when designing enclosures for captive birds. Enclosures that provide areas free from human disturbance could help to reduce stress levels for certain birds. Future analyses will focus on the effect of crowd levels and visitor access on the activity budgets of captive kori bustards.

We would like to thank the Friends of the National Zoo Volunteers who collected the data for this study.

## **PRELIMINARY RESULTS FROM THE KORI BUSTARD KEEPER SURVEY**

*Submitted by Sara Hallager*

Many of you are probably wondering what happened with the information you compiled from the kori bustard survey that was distributed in November 2004. The data analysis turned out to be quite complicated and took longer than expected. However, the manuscript is nearly complete and will soon be submitted. The text below is taken from the abstract and should provide a brief overview of the conclusions. Many thanks to everyone that provided information for the survey. Several clear results emerged from the data analysis which if implemented, should improve breeding in the population.

**Abstract** As wild populations of kori bustards (*Ardeotis kori*) decline, the need for a greater understanding of the species' biology becomes increasingly critical. As of 2001, a breeding program for the kori bustard in the United States has been managed by the American Zoo and Aquarium Association (AZA) as a Species Survival Plan species.

Recent years have seen an increase in the number of chicks born in American zoos. However, all of these births are attributable to a small number of birds that produce numerous offspring. To determine reasons for this low breeding success we undertook a cross-institutional comparison of environment, husbandry, individual bird behavior and breeding history. We examined the effects of environment on individual behavior, and behavior on reproductive success to highlight factors affecting willingness to breed in captive kori bustards. We found that birds whose keepers had worked with both kori bustards and the given bird longer were less timid and cautious. Additionally, kori bustards showing signs of negative interactions with enclosure-mates of other species were more timid during the non-breeding season. Overall, birds that were less timid, more aggressive and showing more behaviors associated with dominance were more likely to exhibit breeding behavior such as performing courtship displays or laying eggs. Based on these results, we recommend that zoos maintain stability of keepers on a long-term basis and house kori bustards in single-species exhibits in an effort to improve reproductive success in captivity for this species.

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