

Space and Species Conservation with special emphasis on Black Crowned crane

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Contemporary Conservation

- Conservation today is an evidence-based, problem solving science.
- What does it mean to be evidence based? This means designing projects that are based on the best available science and this is particularly important for justifying our interventions as well as building support for conservation among different groups.

How Do We Put Conservation into Action?

- Working across disciplines has created new ideas to tackle today's conservation challenges and these include novel uses for technology.

In need of protection

- Species that are already threatened with extinction clearly are in more urgent need of protection than species that are still doing well.
- In order to make decisions, conservationists first need to work out how threatened, or vulnerable, a species is? IUCN....

Public Capacity Building

- There is ever increasing pressure on the world's natural habitats which leads to species loss
- Saving a species is not a quick or simple process - it may take several years or more of intensive management
- Conservation is an interdisciplinary field and not just about the ecology that underpins our understanding of biodiversity

Solutions

- Combining people's affection and inspiration for nature with a call to action helps convince them to change their behaviour

Love + Action = Public change

- Connecting need to action helps businesses and policymakers build a rationale and case for change

Love + Action = Public change

The Role of People in Conservation

- People have different feelings about the importance of conservation b/c they value nature in d/t ways:
 - ✓ Some people value nature for what it gives to them than in a material sense, like food, shelter, clean water and medicine which they need
 - ✓ Others care more about less tangible things that nature provides for them , such as spiritual well-being or even a nice place to walk
 - ✓ People may dislike some species or habitats b/c they see them as dangerous

In Need of Protection

- Species that are already threatened with extinction clearly are in more urgent need of protection than species that are still doing well.
- To make decisions, conservationists first need to work out how threatened, or vulnerable, a species is.
- On a global scale, the IUCN has produced the IUCN Red list¹ which classifies species according to their current vulnerability to extinction.

Black Crowned Crane

- The Black Crowned Crane is mostly black, with distinctive white upper and under wing coverts.
- The head is topped with a crown of stiff golden feathers.
- Cheek patches are red and white
- They use both wet and dry open habitats
- They are considered both year-round residents and local migrants,

Habitats

- **Wetlands (inland)**

- ✓ Permanent
Rivers/Streams
- ✓ Marshes, Swamps
- ✓ Freshwater lakes

- **Marine costal**

- **Savanna- Dry**

- ✓ Pasture land

- **Grasslands**

- ✓ Subtropical/Tropical Dry
- ✓ Subtropical/Tropical
Seasonally Wet
- ✓ Subtropical/Tropical High
Altitude

- **Artificial/Terrestrial**

- ✓ Arable land

Previously Published Red List Assessments for the Status of Black Crowned Cranes:

- 2016: Vulnerable (VU)
- 2012: Vulnerable (VU)
- 2010: Vulnerable (VU)
- 2008: Near Threatened (NT)
- 2006: Near Threatened (NT)
- 2004: Near Threatened (NT)
- 2000: Lower Risk/near threatened (LR/nt)
- 1994: Lower Risk/least concern (LR/lc)
- 1988: Lower Risk/least concern (LR/lc)

Why We Focus on Birds?

- Bird-watching tourism world-wide appears to be growing rapidly amongst Western travelers which substantially enhance local economies (Jones and Buckley, 2000).
- Diversity of birds and calls of birds constituted a major components of visitor satisfaction (Tisdell and Wilson, 2004).
- Bird-watching Can Help Eco-Tourism Fly High in a Green Economy (UNEP, 2012).
- ...God blessed them, saying 'be fruitful, and multiply, and fill the waters in the seas, and let fowl multiply in the earth (Genesis 1: 22).
- *Bzu tebazum yebayrim hua mulat: wefochim be midir lay yibizu*

Birds Conservation

- Many species of birds occur in landscapes heavily modified for agricultural production (Daily et al., 2001).
- Bird population are influenced by:
 - ❖ Environmental factors
 - ❖ Land use and land cover changes
 - ❖ Climate change

Why Birds?

- About 43 airlines bears birds on airlines and many countries used as stamp designers and postal services to feature the birds as national messengers to be sent around the globe.

What about cranes?

Today, cranes are presented to the public in many variations

6 airlines bear the crane

1. Lufthansa (German)
 2. Shanghai airlines (China Eastern Airlines)
 3. Xiamen airlines (China Southern airlines)
 4. Japans' airlines (Japan) (5), Polish airlines (Poland)
 6. Uganda airlines (Uganda)
- ❖ occupy an important place in the cultural life of the Turkana (Kenya) pastoralists as messengers of peace.
 - ❖ they were believed to get rid of livestock pests and to guard waterholes and swamps

Main Threats

- Climate change and Severe Weather-drought
- Agriculture
- Biological Resources Use
- Human disturbance
- ✓ Children
- ✓ Adults
- Natural System modification: the loss, transformation, and degradation of habitat
- +ve
- ✓ -ve
- Pollution
- ✓ Wetland contamination

Threats

Wetland degradation

- Wetlands are known for their abundance of birds
- The rate of wetland loss is increasing from time to time due to water withdrawal for agricultural, industrial, and urban uses in the surrounding areas.
- Wetlands played a significant ecological role which serves as a major link between the natural resource management and agricultural practices and has a unique biotic communities involving diverse plants and animals (Lameed, 2012).

Key Success of our Rufford Project

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Full Length Research Paper

Community knowledge, attitude and practice towards black crowned crane (*Balearica pavonina* L.) conservation in Chora Boter district of Jimma Zone, Ethiopia

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The black crowned crane is one of the six crane species found in Africa with population declining and considered as vulnerable species. Understanding the knowledge, attitude and practices of local people is important in conservation of black crowned crane. A survey study was conducted in Jimma zone, Chora Boter district in southwestern Ethiopia between February to November 2015 with the aim to investigate knowledge, attitude and practices of the community on the conservation of black crowned cranes. Data was collected through field observation, questionnaire survey (n=105) and focus group discussions. Descriptive statistics such as frequency, percentages, Chi-square test and tabulation were employed to analyze the quantitative data. Qualitative data were analyzed and interpreted thematically. The result of the study revealed that the number of black crowned cranes in the area varies with seasons. Maximum of 273 black crowned cranes were counted in the dry season and less number in the wet season. Most of the respondents, 73% perceived that the population of black crowned crane around Chalalaki wetlands is increasing. The majority of the respondents, 93.3% confirmed that the black crowned crane is not a crop pest and only few, 6.7% claimed that they damage crops mainly maize. The results showed that community knowledge, attitudes and perception on Black Crowned crane

Review

**Black Crowned crane (*Balearica pavonina* L.)
conservation guideline in Chora Boter district of Jimma
zone: The case of Ethiopia**

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This guideline has been developed to provide directions for people working and interested to work on the conservation of Black Crowned cranes to save the species from loss and extinction. The conservation guideline is developed in consultations with the local communities and stakeholders in Ethiopia, Jimma zone, Chora Boter district through: field survey, focused group discussions, community and multi-stakeholders workshop from March 2015 to January 2016. Local communities and

Stakeholders Workshop



Stakeholders Workshop



Existing Opportunities and Challenges of Black Crowned Cranes Conservation in Jimma Zone

Opportunities:

- ✓ The governmental is working on the issues of nature conservation
- ✓ The stakeholders (including farmers) has positive attitudes towards Black Crowned Crane Conservation
- ✓ Human-Black Crowned Crane conflict is not prevalent
- ✓ The government is promoting the values of wetlands (Black Crowned crane habitats)
- ✓ The communities were changing their attitudes towards Black Crowned Crane conservation through our capacity building

Cont'd Opportunities and Challenges

Challenges:

- ✓ Wetland deterioration due to agricultural expansions
- ✓ Shortage of capital for livelihood diversifications
- ✓ Some people do not care about species conservation
- ✓ Free overgrazing on wetlands
- ✓ Shortage of capital for public mobilization on the importance of Black Crowned Crane conservation
- ✓ Shortage of scientific data on the population and distribution of Black Crowned crane in Jimma zone and other regions in Ethiopia

Recommendation

- ❖ Awareness creations are strongly important on the value of wetlands
- ❖ The governmental and NGO's should work on the conservation of Wetlands and cranes
- ❖ The local government should promote Chalalaka wetlands as one of the potential ecotourism site
- ❖ Further research should be conducted on the ecology and distribution of BCCs
- ❖ To protect wetland degradation, the local governments should invest in irrigation network improvements in the surrounding area

Thank you!

Galaatoma!