

Strengthening Public Education on Black Crowned Cranes and its Habitat Conservation in Jimma Zone, Ethiopia

By: Dessalegn Obsi Gemed

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Addis Ababa, Ethiopia



Why conservation is important?

- To protect native plants, birds and animals,
- We can't be healthy in an unhealthy environment
- Saving a species is not a quick or simple process
- Conservation is an interdisciplinary field and not just about the ecology that underpins our understanding of biodiversity

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 nice place to walk
- ✓ People may dislike some species or habitats b/c they see them as dangerous

IUCN Red List Categories

Species are assigned to Red List Categories based on:

- ❖ the rate of population decline,
- ❖ population size and structure,
- ❖ geographic range,
- ❖ habitat requirements and availability and
- ❖ threats.

Cranes

- Cranes are one of the most endangered families of birds in the world, and highly vulnerable to climate change, especially in the places where:
 - ❖ Habitat loss,
 - ❖ water resources development
 - ❖ and invasive species are already taking a toll on cranes (ICF, 2018).
- Cranes are occurring worldwide except for South America and the Arctic region

Dry Season

Wet Season

Cranes frequently occur in large numbers during the non-breeding seasons



Black Crowned cranes (BCC)

- ✓ Tendency for cranes to gather in flocks before the onset of the next breeding season.
- ✓ The juvenile cranes as they leave their parents & join flocks of other young cranes that have yet to reach the first breeding age of 3-5 years.
- ✓ It also is an opportunity for an unpaired bird to pair with another crane.
- ✓ After pairing, male cranes return to the area where they were raised, while females do opposite.

Black Crowned cranes 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

Black Crowned Crane Distributions

The BCC is one of the six crane species in Africa (Harris and Mirande, 2013). Distributed across Africa from Senegal and Gambia in west Africa to Nile River basin in Sudan and Ethiopia.



- Land Regions (1)
- North Africa (1)
 - Egypt (1)
 - Sub-Saharan Africa (1)
 - Benin (1)
 - Burkina Faso (1)
 - Cameroon (1)
 - Central African Republic (1)
 - Chad (1)
 - Congo, The Democratic Republic of the (1)
 - Côte d'Ivoire (1)
 - Eritrea (1)
 - Ethiopia (1)
 - Gambia (1)
 - Ghana (1)
 - Guinea (1)
 - Guinea-Bissau (1)
 - Kenya (1)
 - Mali (1)
 - Mauritania (1)
 - Niger (1)
 - Nigeria (1)
 - Senegal (1)
 - Sierra Leone (1)
 - Sudan (1)
 - Togo (1)
 - Uganda (1)

**National
Birds of
Nigeria**

BCC in Ethiopia

- In April 2019, in collaboration with International Crane Foundation, and the Endangered Wildlife trust we conducted a one week survey on the population and distribution of BCC around Jimma zone and Gambella regional state.
- Around Jimma (Chora Boter, Limu Genet and Kersa district) we found 286 adults and 21 Juvenile cranes.
- Jimma Zone: **307**
- In Gambella (Mading): **1880**
- We counted a total of 2187 BBC in April 2019

BCC Distributions in Ethiopia

In Ethiopia, BCCs are resident throughout the western parts of the country and the rift valley lakes (Nowald et al., 2007; Gemedas et al., 2016).

Use open grasslands, shallow wetlands and grasslands adjacent to water bodies for feeding, breeding and resting (Williams et al., 2003; Diagana, 2006; IUCN, 2012).

The species experience local daily and seasonal movements for searching of feeds and breeding sites (Meine and Archibald, 1996).



BCC Distributions Cont'd

- Its population is declining across its home range and even in some countries disappearing (Meine and Archibeld, 1996; Williams et al., 2003; Boere et al., 2006; Beilfuss et al., 2007; IUCN, 2012; Harris and Mirande, 2013).
- It is predicted that the population decline will continuous in the future due to habitat loss and trapping of cranes for domestication (IUCN, 2012).

Previously published Red List assessments:

- 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*

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)	4	Japans' airlines (Japan)
	2	Shanghai airlines (China Eastern Airlines)	5	Polish airlines (Poland)
	3	Xiamen airlines (China Southern airlines)	6	Uganda airlines (Uganda)

56 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

Main threats Cont'd

Wetland conversions to agricultural lands

Agricultural activity is the greatest threats to cranes worldwide (Austin et al., 2018)



Main threats Cont'd



High number of Black Crowned cranes during the dry season for both feeding and resting



Main threats cont'd

- BCC uses both wetland and grasslands.
- BCC rely on wetlands not only for nesting but also for foraging
- However, these habitats are the most vulnerable habitats to agriculture, and they have greatly impacted primarily by conversion to crops and intensive grazing (Austin et al., 2018).
- Land use transformation increased human activity & BBC disturbance
- Wetland conversion to crop land destroys the breeding grounds of BCC (Aynalem et al., 2018).

Success stories (So far)

- A successful public education on BCC and its habitat conservation was held in several times .
- Many youth, students, teachers, local community and stakeholders from different bureaus participated since May 2015 onwards
- Social media, mass media, various organizational website were used for information destination
 - ❖ Rufford Foundation project web page
 - ❖ Conservation leadership Programme
 - ❖ Jimma University
 - ❖ CEPF



Success stories cont'd

■ Workshop and outreach activities



Success stories cont'd



Youth awareness creation at Bage High School



Youth awareness creation at Ayate primary school



Local community awareness creation at Dire Mecha Village, Chora boter, Jimma Zone



Community consultation workshop around chalaleka wetlands, Jimma zone



In first round (Feb 2015 to Feb 2016)

- Local community **311** (in October 2015)
- Students **653** (Out of which 53 is NRM)
- **29** stakeholders (at district level)
- **17** teachers
- Social media: YouTube, Twitter and face book also used

In Second round (May 2016 to May 2017)

- **More than 1000 people (Excluding mass media)**
- **52** students: May 24th 2016
- **28** key stakeholders, July 25th 2016
- Site visit with journalist and media staff, August 3, 2016
- **750** students and **14** teachers, November 29th 2016
- **55** students, December 8, 2016 (NRM)
- **191** students, December 13, 2016
- **40** local community, Feb 2017
- **48** students, May 24, 2017



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

Critical review on Black Crowned cranes Conservation guideline in Afan Oromo Language



Review

**Black Crowned crane (*Balearica pavonina* L.)
conservation guideline in Chora Boter district of Jimma
zone: The case of Ethiopia****Dessaiegn Obsi Gemed**Department of Natural Resources Management, Jimma University College of Agriculture and Veterinary Medicine,
P. O. Box 307, 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

**Qajeelcha Kunuunsa Simbira Abbaa Waaqoo
Godina Jimmaa Aanaa Cooraa Botor**

**Conservation Guidline for Black Crowned crane (*Balearica
pavonina* L.) in Chora botor district of Jimma Zone**

Qopheessan: Barsiisaa Dassaleny Obsii, Yuunivarsiitii Jimmaa

Kan Gulalaan:

Obbo Hirphaa Baqqalaa (Barataa MA) Yuunivarsiitii Jimma
Obbo Derejje Akkassa (Barataa MA) Yuunivarsiitii Jimma
Obbo Alamaayyoo Gammadaa (Barataa MSc) Yuunivarsiitii Jimma
Obbo Maazgabuu Sanbatoo (Barataa MSc) Yuunivarsiitii Jimma
Addee Baalatuu Chaala (MSc)
Addee Hanna Yasiin (MSc)

Adooleessa, 2016

Jimmaa, Itoophiyaa

CRITICAL ECOSYSTEM PARTNERSHIP FUND

CLP workshops - Ethiopia & Indonesia



July 23, 2015

Funding for black-crowned crane as a result of CEPF-funded workshop

We're delighted to announce the first successful result of a 5-day workshop run in Ethiopia in October 2014 to train early-career conservationists in project planning and fundraising.

Funded by the Critical Ecosystem Partnership Fund (CEPF) and co-led by Fauna & Flora International (FFI) and the Conservation Leadership Programme (CLP), we trained 15 participants who are working in, or planning to work on threatened species conservation in Key Biodiversity Areas across the Eastern Afromontane Hotspot. The training was a unique opportunity to get researchers working across Ethiopia together in one place to discuss their work and challenges as well as plan, draft and review each other's proposals. Participants were also able to meet two prospect donors for their projects which covered a range of species including the Endangered Ethiopian wolf, African wild dog and several species of crane.



Workshop participant Dessalegn Obsi from Jimma University informed us recently that the training helped him to develop a proposal to conserve the black-crowned crane which was funded by the Rufford Foundation in February. "I and my teams have benefited in a multi-dimensional way" explains Dessalegn. "The workshop provided skill enhancements, an opportunity to network with other participants and also to help each other in buddy reviews before sending proposals to prospective donors."

http://www.cepf.net/news/top_stories/Pages/Building-conservation-that-lasts-in-the-Eastern-Afromontane.aspx

An impact in Africa



Crowning glory

Derelegn Olay Gemedie, based at the Department of Natural Resource Management at Jimma University College of Agriculture and Veterinary Medicine, participated in the 2014 Ethiopia workshop. The opportunity to network with other conservation working groups has since proved invaluable, particularly for post-review of proposals before submission, he subsequently used the skills and knowledge he acquired at the workshop to apply for funding from Rufford Small Grants for Nature Conservation. In February 2015 Rufford approved his application for a project entitled *Enhancing the Conservation of the Vulnerable Black Crowned Crane in Amu Chora of Jimma Zone, The Case of Ethiopia*. The following year, Rufford was sufficiently impressed with the results to approve a follow-up project on the same species.



"I am proud of my project," says Derelegn, who addressed the issue of black-crowned crane conservation through public outreach work that included training, workshops and focused group discussions. "Several hundred community members, several governmental authorities from Chora (near) District and thousands of students at different levels gained awareness about the importance of conserving the black-crowned crane and its habitat. Above all, I was able to send a strong message to several million people on the issue of conservation by getting national media coverage through television and radio via the Ethiopian Broadcasting Corporation."

March 2015 (1)
January 2015 (1)
November 2014 (2)
August 2014 (1)
July 2014 (1)

POST CATEGORIES

Community involvement (4)
Conservation Awarded (5)
Learning-exchange (2)
Research (5)
Training (1)
Uncategorised (8)

RECENT POSTS

An impact in Africa 11th April 2017
Building bridges and breaking down barriers 18th December 2016
Turning dreams into reality 2nd September 2016
A leap in the right direction 31st August 2016
Blind, deaf, frogs and others 18th August 2016

Conservation
Leadership
programme
April 11, 2017

Mass media coverage's: Sept 7 & 8, 2016



Chora boter district administration receiving the picture of Black Crowned cranes with photo frame



Figure 6: Chora boter district administrative head with happy face after receiving beautiful images of Black Crowned cranes (© Dessalegn Obsi Gameda).



Figure 7: Providing reference books to strengthen the environmental education (© Akalu Daffisa Sima)

Book donation (22)

Seven: Elementary School

Ten: High School

Five: Preparatory School

July 25th 2016

Motivation: for best performer of six students twice: **12 books**

3rd round

FM Radio Utilization

- Interview on the urgent need to conserve BCC and its habitat, particularly on wetland.
- The FM Radio, transmitted the first interview on Friday June 30th 2017 from 11:20 -11:33 AM and the second part on Friday July 14th 2017 from 11:16-11:37 AM
- Conservation message on the importance of BCC and its habitat conservation for more than 5,000,000 people for a total of 43 minutes.

3rd round

Multi-stakeholders workshop on BCC conservation at Seka Chekorsa Town - August 8th 2017

39 participants; six experts from Jimma University, one journalist (Mr Muktar Taha, Fana Radio), and 32 experts from various offices of Seka Chekorsa district.



Figure 4: PowerPoint presentation by Prof. Debela Hunde Feyssa



Figure 5: PowerPoint presentation on the workshop by Mr. Dessalegn Obsi Gemedo (Photo by Mitiku Hailu)

3rd round

Space and Species Conservation with special emphasis on BCC



3rd round



3rd round

Stakeholders Consultation Workshop on Scaling up the conservation of Black Crowned Cranes, Jimma University, Ethiopia, June 8, 2017

A multi-stakeholders consultation workshop was conducted at Jimma University on June 8, 2017 in which 30 stakeholders participated.

Two papers was presented and followed by discussions

- (1). Wetland Ecosystem and Current Challenges by Dr Debela Hunde (Associate Professor at Jimma University)
- (2). Scaling Up public education and awareness creations towards the conservation of BCC in Jimma Zone by Dessalegn Obsi Gemed

Strengthening Public Education on Black Crowned cranes and its Habitat Conservation in Jimma Zone, Ethiopia

4th round

- Strengthening Environmental Conservation through Planting Trees
- Conservation is an evidence-based problem solving science. If a species or their habitats are under threat we have to work our best to save from loss.



A total of 900 Seedlings (600 Gravilia, 200 Cordia Africana, and 100 acacia tree seedling) was planted

Transporting seedling for rehabilitation of degraded land

4th round

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Original Research Article

Assessment of black crowned crane and wattled crane population and spatiotemporal distribution in Jimma Zone, Southwest Ethiopia

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Review

Effects of habitat loss and human influence on the survival of black-crowned cranes in Africa

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<https://youtu.be/dkK99bSB8vs>



4th round

Students awareness creation at Seka High school on the importance of conservation



4th round



4th round

Students awareness creation on the importance of species conservation at Seka chekorsa primary school, Jimma zone, Ethiopia



Existing opportunities and challenges of BCC conservation in Jimma Zone

Opportunities:

- ✓ The governmental is supporting the idea of wetland and species conservation
- ✓ Water bodies have special significant to people
- ✓ The stakeholders (including farmers) has positive attitudes towards BCC conservation
- ✓ Human-BCC conflict is not serious in the area
- ✓ Use of public and social media for promoting the conservation of the species and its habitat

Opportunities and challenges Cont'd

Challenges:

- ✓ Wetland deterioration due to agricultural expansions
- ✓ Lack of farmers alternative livelihood diversifications
- ✓ Some people do not care about nature conservation
- ✓ Free overgrazing on wetlands
- ✓ Shortage of resources to reach all communities to aware the importance of BCC conservation
- ✓ Shortage of scientific data on the population and distribution of BCC in Jimma zone and other regions in Ethiopia

Thank you for your attention!

