Chain-Free Elephant Corral Pilot Project
National Trust for Nature Conservation – Biodiversity Conservation Center
Chitwan, Nepal

Bi-annual Report
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Submitted by

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In collaboration with

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INTRODUCTION

In May 2012, we constructed a chain-free elephant corral at NTNC-BCC as a pilot project to study the benefits of elephants living chain-free.

Eight-year-old Prakriti Kali, a captive-born elephant living at NTNC-BCC, was chosen to participate in the project due to her incessant stereotypical head-bobbing behavior, which she engaged in nearly the entire time she was on chains (an average of 17 hours per day).

The fence is solar-powered with a battery back-up. Three hours of sunlight is required to keep the battery charged for 10 days. Specifically designed for wildlife, the fence administers a mild shock upon contact but, due to the pulsating current, the fence is virtual harmless. Elephants are highly sensitive to the clicking sound of the pulsating current. As result, most elephants avoid the fence without ever coming into contact with it.

The area chosen for the project is three-quarters of an acre, a combination of barren and forest land. The fence stands seven feet tall and is constructed of rust-free steel posts and flexible “smart posts,” which enable it to absorb the impact of wildlife without collapsing or breaking.

The electric fence system, including power source and storage battery, is housed inside a building occupied by mahouts. The solar panel that powers the fence is attached to the roof of the same building, above the mahout housing.

The fence line was cleared and fence construction completed in four days by an outside contractor.

GOALS AND OBJECTIVES

- Reduce or eliminate the occurance of stereotypical behavior
- Increase physical activity
- Encourage engagement in natural, species-specific behavior, such as foraging, dusting, walking and exploring
- Eliminate injuries, joint damage and low-level long-term stress caused by chaining
- Improve foot health
- Maintain elephant's compliance with mahout authority

METHODS

- Ethogram
- Husbandry protocol
- Management protocol
- Feeding protocol

1. ETHOGRAM

In order to identify the effectiveness of the chain-free corral, an ethogram spreadsheet was created to track a list of natural and stereotypical behaviors exhibited by Prakriti Kali. The behaviors recorded included walking, eating, dusting, exploring, drinking, sleeping and bobbing.

2. HUSBANDRY PROTOCOL

Manure removal and corral cleanliness standards were established to ensure the highest level of hygiene.

3. MANAGEMENT PROTOCOL

Training and management practices for inside the corral were established to give Prakriti Kali a sense of freedom and security.

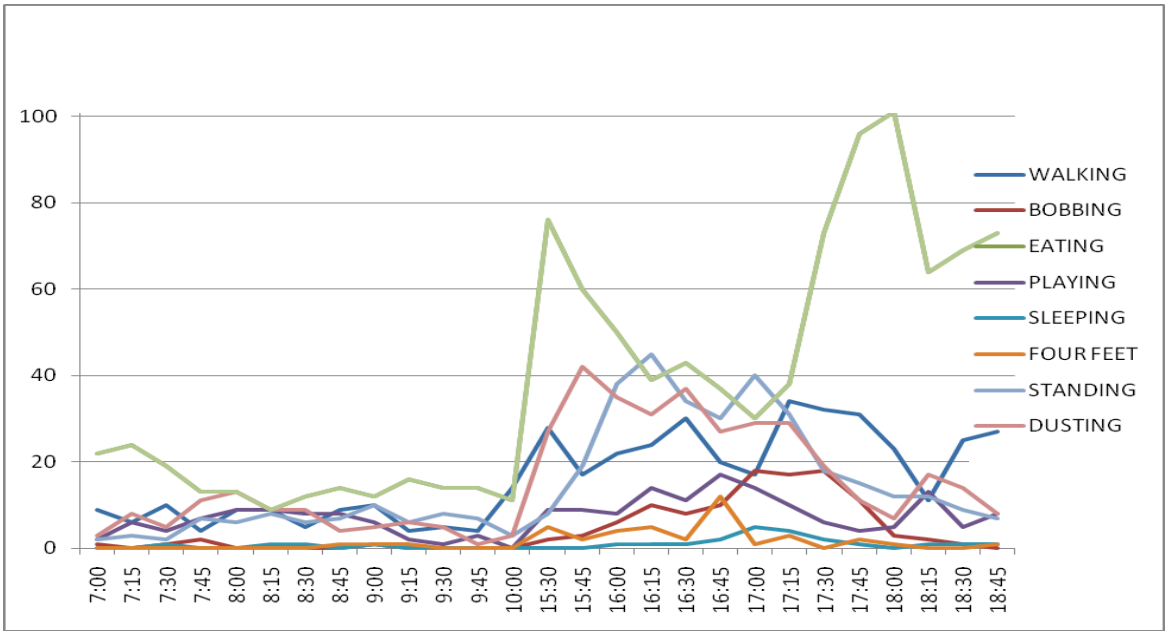
4. FEEDING PROTOCOL

Changes to traditional feeding practices were established to promote activity and alleviate boredom.

PROGRESS AND PRELIMINARY RESULTS

Prakriti Kali spends approximately 17 hours each day in the chain-free corral. The remainder of her time is spent in Chitwan National Park engaged in grass collecting and anti-poaching patrol.

Immediately upon introduction to the chain-free yard, Prakriti Kali engaged in beneficial species-specific behavior more than 90% of the time. This represents a substantial improvement in natural activity and reduction in stereotypical behavior. Prakriti Kali's increased engagement in beneficial activity was a direct result of being off chains and having a relatively large space to explore.



Prakriti Kali has sharp tusks and engages in tree tusking. This species-specific behavior is beneficial for elephants but can be fatal for trees.

Protectors have been installed around select trees

Mahout compliance has not changed. Prakrii Kali continues to respond to her mahouts---both inside and outside her corral---at the same high level as before she was introduced to the corral.

Prakriti Kali sometimes engages in stereotypical behavior in anticipation of “scheduled meals” (9am and 5pm). Steps are being taken to ensure that her food is dispersed at regular intervals to more closely mimic natural eating behavior and counter the unnatural and potentially harmful stereotypical behavior.

Prakriti Kali’s pads and nails are supple and appropriately worn. Her feet are free of decay and infection.

CONCLUSION

The goal to eliminate stereotypical behavior is nearly realized. The stress Prakriti Kali displays around traditional feeding times will be addressed by adherence to the established feeding protocol. Since being introduced into the chain-free corral, Prakriti Kali engages in appropriate, beneficial, species-specific behavior more than 90% of the time; her feet are healthy; and she continues to respond appropriately to her mahouts, an indication that the chain-free corral is successful.