

Most Important

Topic :

Environment

Great Indian Bustard, Highly Endangered Species, Hatches Chick In Jaisalmer

Scientists at the National Conservation Breeding Centre in Jaisalmer hatched a Great Indian Bustard chick to save the endangered bird species.

India News | Reported by [Harsha Kumari Singh](#), Edited by [Aastha Ahuja](#) | Updated: October 23, 2024 1:50 pm IST

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Just 150 left, glimmer of hope for great Indian bustard after first-ever artificial insemination birth in Jaisalmer

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Written by [Parul Kulshrestha](#)

Jaipur | Updated: October 25, 2024 08:08 IST



News / India / From Suda to Tony, a seed of life for Great Indian Bustards

From Suda to Tony, a seed of life for Great Indian Bustards

Behind the success is a back-story fraught with challenges. To start with, the bustard handlers had to achieve “human imprinting”, which required them to forge close bonds with the large birds, enabling them to train the GIBs for simulated mating with dummy birds.

Written by [Nikhil Ghanekar](#)

New Delhi | Updated: October 26, 2024 07:53 IST

 NewsGuard



SC forms expert panel to balance Bustard conservation with sustainable energy goals

The remit of the panel would be to determine the scope, extent and feasibility of underground and overhead electric lines in areas identified as priority spots for the birds in Rajasthan and Gujarat

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THE HINDU BUREAU



Endgame for bustards

Great Indian Bustard has been pushed to extinction in its biggest sanctuary; breeding stops



News:

First successful hatching of a GJB chick through artificial insemination at the Sudasari Great Indian Bustard Breeding Centre in Jaisalmer, Rajasthan

Captive Breeding Programme

- Collaborative conservation efforts between the Centre, Rajasthan government, and WII include a captive breeding programme for GIBs.
- Artificial insemination was successfully used, with the goal of eventually releasing the captive-bred GIBs back into the wild.

Artificial Insemination is a **medical procedure** used to introduce **sperm** into a **woman's reproductive system** without natural mating.

It's commonly used to treat **infertility** issues in both **humans and animals**.




Great Indian Bustard is one of the heaviest flying birds in the world.

An adult male typically weighs between 11 to 15 kilograms, while females are slightly lighter, generally weighing around 8 kilograms.

$M > F$

The Great Indian Bustard (*Ardeotis nigriceps*)

- **State Bird:** It is the state bird of Rajasthan and is considered India's most critically endangered bird.
- **Ecological Significance:** A flagship species for grasslands, symbolizing the health of grassland ecosystems. 
- **Habitat:** Prefers arid and semi-arid grasslands, open areas with thorn scrub, and tall grass mixed with cultivation. Avoids irrigated regions.

The Great Indian Bustard (GIB) is endemic to the Indian subcontinent. Historically, it was found throughout Western India, extending into parts of Pakistan.

Its primary range includes areas in Rajasthan, Gujarat, Maharashtra, Karnataka, and Andhra Pradesh in India.

Behaviour:

- Diet: Omnivorous; mainly feeds on insects, grass seeds, and berries.
- Breeding Season: Occurs between March and September.
- When threatened, hens are said to carry young chicks under the wing.

The male is polygamous. During the breeding season, it is solitary, but congregates to small flocks in winter.

Uses an "exploded or dispersed lek" system, where males display in scattered territories to attract females.



Low rate of egg laying:

- GIBs lay **one large egg** (about three times the size of a chicken egg) annually in ground nests, making the eggs vulnerable to predators.
- GIBs raise each chick for **two years** before laying **another egg, slowing population recovery.**

Why artificial Insemination for GJB:

2 reasons:

1. Limitations of Natural Mating

- Natural mating has timing limitations, as male and female bustards may enter their breeding phase at different times.
- Female bustards typically lay eggs only once or twice, with a low survival rate of around 60%.

2. Enhancing Genetic Diversity

- Artificial insemination enables controlled breeding, enhancing genetic diversity without transferring birds between centres, which could stress them.
- Greater genetic diversity strengthens captive-bred populations for future release into the wild.

- The technique also allows for cryopreservation to preserve and use genetic material, helping to improve fertility rates and support long-term conservation efforts.

Wildlife & Biodiversity

There is an urgent need to know the present status of the Great Indian Bustard population: Sumit Dookia

Down To Earth speaks to wildlife biologist on 64 GIBs being counted by the Rajasthan Forest Department during its annual waterhole survey

Population Status

- No official population count has been conducted since 2018, when the Wildlife Institute of India estimated a maximum of 150 individuals.
- Current field observations suggest approximately 90-100 GJBs in Rajasthan, with only four females in Gujarat.
- Deccan states collectively hold an estimated 5-8 GJBs.

- The Rajasthan Forest Department's annual "waterhole survey" counted 64 GIBs in Jaisalmer district.

Waterhole Survey Methodology

- This direct count process involves skilled workers and volunteers stationed near a water body (natural or artificial) during peak summer.
- They count all animals visiting the water source within a fixed 24-hour period, assuming all animals in the area will visit the water body at least once in that timeframe.

Threats:

- Threats include increased human activity, predation on eggs, and collisions with overhead power lines.

Impact of Power Lines

- A 2020 study by the Wildlife Institute of India (WII) revealed that overhead power lines kill around 84,000 birds annually in the 4,200 sq km GJB habitat in and around Desert National Park, with GJBs especially vulnerable due to their narrow frontal vision and large size.

- In April 2021, the Supreme Court ordered power lines in the GIB habitat to be buried underground, but the central government raised practical challenges, leading the Court to consider reviewing the order.

Founder Population of Great Indian Bustards (GIBs)

- The captive breeding centres house a "founder population" of 45 GIBs.
- Of these, 32 birds were hatched from eggs collected from the wild, while 13 were born to birds mated in captivity.

- The founder population aims to establish a minimum viable population while maintaining genetic diversity.
- A minimum of 20 adult birds, including 15 females, is required for a viable population in captivity.

Wildlife & Biodiversity

Great Indian Bustard conservation efforts struggle as numbers dwindle to 2 in Karnataka

State pushes for GPS tracking, community awareness, and afforestation as urgent measures to protect the last of Karnataka's GIBs

Conservation status:

- IUCN Red List: Listed as **Critically Endangered** since 2011.
- **Project Great Indian Bustard**: Launched by Rajasthan on World Environment Day 2013; includes identifying and fencing breeding grounds within and outside protected areas.

Explained: Critically endangered Great Indian Bustards' recovery program, and what lies ahead

Only around 140 Great Indian Bustards are left in India today. They face major threats to their survival and any chance that the large birds have to survive in the wild depends on mitigating the risks posed by these threats.

Written by [Nikhil Ghanekar](#)

New Delhi | July 3, 2024 18:05 IST



The EXPRESS Shorts logo features a red flame-like icon to the left of the text "EXPRESS Shorts" in a bold, sans-serif font. The logo is positioned within a white rounded rectangular box that has a black border on its top and right sides.

Great Indian Bustard and Lesser Florican Recovery Program:

Funding: Rs 56 crore approved by the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for the 2024-2029 phase.

Wildlife Institute of India (WII), under the Ministry of Environment, Forest and Climate Change.

Objectives:

- Rewilding captive-bred GIBs.
- Developing artificial insemination techniques.
- Conducting population studies in Rajasthan and other range states.

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Sperm of a male GJB named "Suda" from the Ram Devra GJB Breeding Centre was inseminated into a female GJB named 'Tony' at the Jaisalmer Centre.

Lesser florican



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Physical Appearance:

- Males have striking ~~black~~ plumage with white shoulder patches, especially during the breeding season, whereas females have a more camouflaged brownish plumage to blend with the grasslands.

Male floricans are noticeably smaller and lighter than females and are known for their aerial courtship displays.

Habitat: The Lesser Florican inhabits tall grasslands and sometimes agricultural fields such as those of cotton and lentils

Found in Gujarat, Rajasthan, Madhya Pradesh, and parts of Andhra Pradesh.



Conservation Status:

IUCN Red List: Classified as "Critically Endangered" due to a significant population decline over the past three generations.

Indian Wildlife Protection Act, 1972: Listed under Schedule I, providing the highest level of legal protection.

Lesser Florican Conservation breeding facility in
Bijainagar, Ajmer

Endgame for bustards

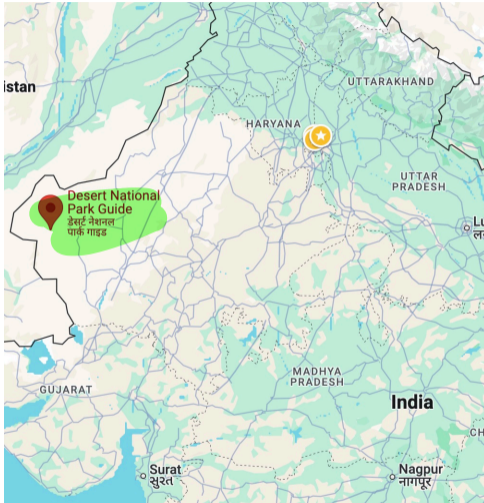
Great Indian Bustard has been pushed to extinction in its biggest sanctuary; breeding stops



Desert National Park

Desert National Park is located near Jaisalmer, Rajasthan, in the northwestern part of India.

It covers an area of approximately 3,162 square kilometers and is one of the largest national parks in India.



Near the towns
of Jaisalmer and
Barmer.

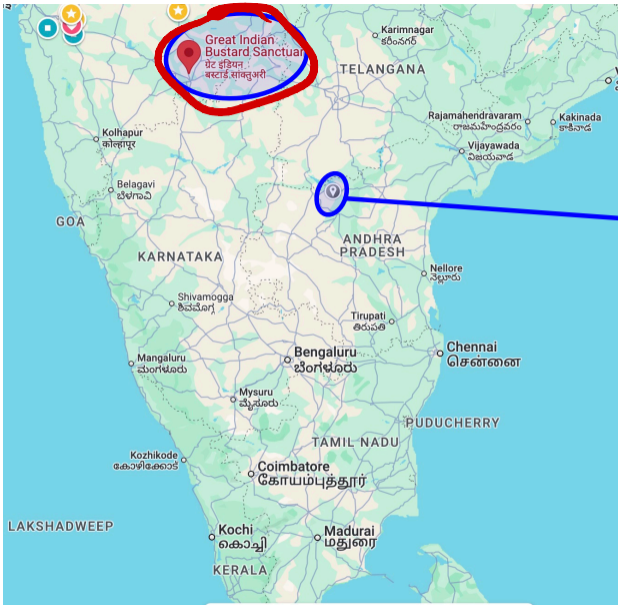
Sand dunes form around 44% of the park. Rocky formations, compact salt lake bottoms.

It is only place where Rajasthan
State Bird (Great Indian Bustard),
State animal (Chinkara)
State tree (Khejri) and
State flower (Rohida) are found naturally.

Great Indian Bustard Sanctuary

The Great Indian Bustard Sanctuary, also known as the Jawaharlal Nehru Bustard Sanctuary, is located in the Solapur and Ahilya Nagar districts of Maharashtra, India.

Established in 1979, it was specifically created to protect the habitat of the critically endangered Great Indian Bustard.



Rollapadu Bird
Sanctuary

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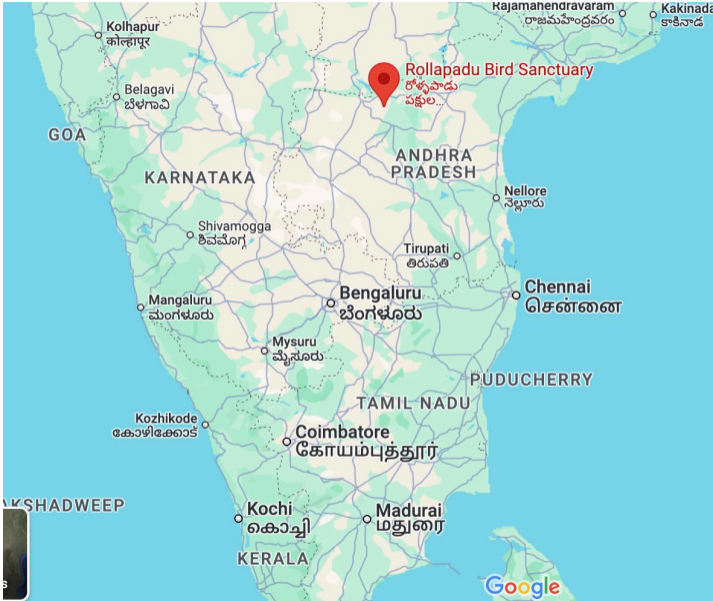
Flora and Fauna: Besides the Great Indian Bustard, the sanctuary is home to other species like Indian wolves, chinkaras (Indian gazelles), and a variety of bird species such as the Indian roller and larks.

The grasslands also support various plant species adapted to the semi-arid climate.

Rollapadu Bird Sanctuary

Rollapadu Bird Sanctuary, Andhra Pradesh:

Though the population of Great Indian Bustards here has decreased over the years, the sanctuary is still considered a habitat for these birds and is critical for their conservation.



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Artificial insimination

Captive breeding program

Great Indian bustard

Basics

Habitat

IUCN

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→ Threat

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EXPRESS Shorts

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Lesser florican

→ Basics

- Habitat
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Protected areas

- ✓ Desert National Park
- ✓ Great Indian Bustard Sanctuary
- ✓ Rollapadu Bird Sanctuary