

# Avian Botulism in Rajasthan | Rajasthan | 18 Nov 2024

# Why in News?

Recently, the <u>Centre for Avian Research Institute</u> reported the death of at least 600 migratory birds in Rajasthan.

• **High temperatures and reduced salinity in** Sambhar Lake likely created conditions that triggered <u>Avian Botulism</u>, causing the **mass deaths of** migratory birds.

# **Key Points**

#### About Avian botulism:

- It is a <u>neuro-muscular illness</u> caused by **Botulinum (natural toxin**) that is produced by a bacteria <u>Clostridium botulinum.</u>
  - The bacteria is commonly found in the soil, rivers, and seawater. It affects both humans and animals.
  - It also needs anaerobic (absence of oxygen) conditions and does not grow in acidic conditions.
- It affects the nervous system of birds, leading to paralysis in their legs and wings.
  - Bacterial spores are widespread in wetland sediments and are commonly found in wetland habitats.
  - They are **present in invertebrates** like insects, mollusks, crustaceans, and even healthy vertebrates, including birds.
- The outbreaks of avian botulism tend to occur when average temperatures are above 21 degrees celsius, and during droughts.
- The deaths began on 26<sup>th</sup> October 2024, and continued for approximately two weeks.

#### Contributing Environmental Factors:

- Jaipur district, 70 km from Sambhar Lake, recorded above-average temperatures throughout October.
- Sambhar Lake experienced reduced oxygen levels due to the absence of rainfall.

#### Vulnerability of Migratory Birds

- Migratory birds arrive weakened from long journeys, making them more susceptible to diseases.
- Decaying bird carcasses attract maggots, which further contaminate the water and infect other birds or animals.

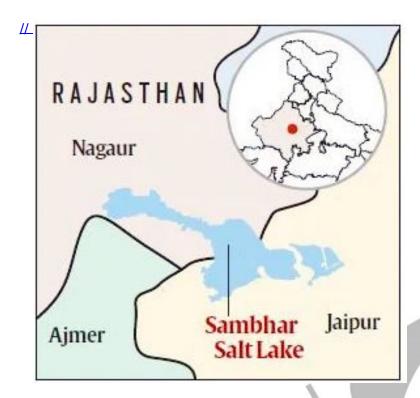
#### Management and Challenges

- Avian botulism cannot be treated, but immediate removal and disposal of affected birds are recommended to limit the spread.
- Sambhar Lake experienced a similar die-off in 2019, resulting in the deaths of nearly 18,000 birds.
- Outbreaks are hard to predict as they depend on specific environmental conditions aligning, such as a shift from high to low salinity coinciding with the arrival of migratory birds.

#### Global Perspective

- **Spores of Clostridium botulinum can survive for years** but produce toxins only under favorable environmental conditions.
- Similar outbreaks have been observed in Australia and the United States during periods of reduced salinity.
- Globally, around 57 diseases have been reported among wild birds, highlighting the

#### Sambhar Lake



#### Location:

Situated about 80 km southwest of <u>laipur</u>, in east-central Rajasthan.

#### Features:

- It is the **largest inland salt lake in India.** It represents the depression of the Aravalli Range.
- The lake's salt supply was worked by the Mughal dynasty (1526-1857) and it was later owned jointly by the Jaipur and Jodhpur princely states.

#### Ramsar Site:

• It is a **wetland** of '**international importance'** under the <u>Ramsar Convention</u>, declared in 1990.

#### Rivers:

 It receives water from six rivers, namely Samaod, Khari, Mantha, Khandela, Medtha, and Roopangarh.

# Vegetation:

- The vegetation present in the catchment area is mostly xerophytic type.
- Xerophyte is a plant adapted for growth under dry conditions.

## The Central Avian Research Institute of India (CARI)

- It is a research institute located at Izzatnagar near Bareilly, Uttar Pradesh.
- It was **established in 1979** under the administrative control of **Indian Council of Agricultural Research (ICAR).**
- It **studies poultry science**, including avian genetics, breeding, nutrition and feed technology, and avian physiology and reproduction, for the betterment of the Indian poultry industry.

# Mass Vaccination of Stray Dogs in Panna Tiger Reserve | Madhya Pradesh | 18 Nov 2024

## Why in News?

To prevent the spread of <u>Canine Distemper Virus (CDV)</u> infection among wild animals, a **mass vaccination campaign for stray dogs** has been launched in and around <u>Panna Tiger Reserve (PTR)</u>, Madhya Pradesh.

# **Key Points**

- Canine Distemper Virus (CDV):
  - It is a **highly contagious and potentially fatal viral infection** affecting a dog's respiratory, gastrointestinal, and nervous systems.
    - In 2015, one tiger and two leopards in PTR died due to CDV, highlighting the threat posed by the virus.
  - The aim is to curb the spread of CDV and protect wild animals in and around the reserve.

#### Vaccination Plan:

- Approximately 1,150 stray dogs in 36 forested villages in the buffer zone of PTR will be vaccinated.
- The campaign will be carried out over three and a half months in two phases.

# Panna Tiger Reserve (PTR):

- Panna National Park was established in 1981. It has a geographical extension in the districts of Panna and Chhatarpur.
  - This national park was declared as Tiger Reserve in the year 1994 by the Central Government.
- <u>UNESCO</u> designated the Panna Tiger Reserve as a <u>Biosphere Reserve</u> on August 25, 2011.
- PTR now houses 62 tigers and over 500 leopards, making it critical to safeguard them from infections.
- Tiger Reintroduction:
  - PTR became famous for **successfully reintroducing tiger**s after poaching wiped out the population in 2009.
  - The Panna Tiger Project began with three relocated tigers: two tigresses from <a href="Bandhavgarh"><u>Bandhavgarh</u></a> and <a href="Kanha National Parks">Kanha National Parks</a> and a male tiger from <a href="Pench National Parks">Pench National Parks</a>.
  - Between 2009 and 2015, three additional tigresses and one male tiger were relocated to PTR from other national parks in Madhya Pradesh.
  - The tiger population in PTR has grown from zero in 2009 to 62 in 2024.

#### **Kanha National Park**

- It stretches over an area of 940 square km in the two districts Mandla and Balaghat of Madhya Pradesh.
- The present-day Kanha area was divided into two sanctuaries, Hallon and Banjar. Kanha National Park was created in 1955 and in 1973 was made the Kanha Tiger Reserve.
  - Kanha National Park is the largest National Park in Central India.

#### **Pench National Park**

- It is located in Nagpur District of Maharashtra and named after the pristine Pench River.
  - The Pench river flows right through the middle of the park.
  - It descends from north to south, thereby dividing the reserve into equal eastern and western parts.
- PTR is the joint pride of both Madhya Pradesh and Maharashtra.
  - The Reserve is located in the southern reaches of the <u>Satpura hills</u> in the Seoni and Chhindwara districts in Madhya Pradesh, and continues in Nagpur district in Maharashtra as

a separate Sanctuary.

- It was declared a National Park by the Government of Maharashtra in 1975 and the identity of a tiger reserve was granted to it in the year 1998-1999.
- However, PTR Madhya Pradesh was granted the same status in 1992-1993. It is one of the major Protected Areas of Satpura-Maikal ranges of the Central Highlands.
- It is among the sites notified as <u>Important Bird Areas (IBA)</u> of India.
  - The IBA is a programme of <u>Birdlife International</u> which aims to identify, monitor and protect a global network of IBAs for conservation of the world's birds and associated diversity.

# Maoists Encounter in Bastar | Chhattisgarh | 18 Nov 2024

# Why in News?

In an **anti-insurgency operation in Chhattisgarh's Bastar region,** five Maoists were killed and two security personnel were injured.

# **Key Points**

- Forces Involved in the Operation:
  - The operation involves personnel from the <u>Border Security Force (BSF)</u>, <u>District Reserve</u> <u>Guard (DRG)</u>, and **Special Task Force (STF)**.
  - **The Border Security Force (BSF)** is a paramilitary force established in India in 1965 primarily for guarding the country's land borders and maintaining peace and security in border areas.
- Maoist Casualties in Bastar Region:
  - In 2024, a total of 197 Maoist bodies were recovered in separate encounters across the Bastar region.

#### **District Reserve Guard (DRG)**

- The District Reserve Guard (DRG) is a **specialized police unit in Chhattisgarh, established in 2008** to combat Maoist violence.
- It consists of specially trained personnel operating in affected districts, conducting anti-Maoist operations, search and seizure, and gathering intelligence.
- The DRG collaborates with other security forces, like the <u>Central Reserve Police Force (CRPF)</u>, to counter the Maoist insurgency.



# Drive Launched to Curb Child Labour | Jammu & Kashmir | 18 Nov 2024

# Why in News?

Recently, the administration in Jammu and Kashmir's Baramulla district has intensified efforts to combat <a href="mailto:child-labor">child-labor</a> and <a href="mailto:begging">begging</a> while taking measures to address the challenges faced by children living on the streets.

# **Key Points**

According to the officials, collective efforts are essential to eradicate child exploitation and

create a safer environment for children.

- Authorities urged citizens to stay vigilant and report any instances of child exploitation or violations.
- Anti-Beggary Drive in Katra:
  - A joint 'Anti-Beggary and Children in Street Situations' drive was conducted in Katra by the Child Helpline, in partnership with the Police and Health Departments.
  - During the drive, 11 children forced into beggary were rescued.
- Ongoing Rescue Initiatives:
  - The Social Welfare Department will continue similar drives across the district.
  - The objective is to rescue children from exploitation and ensure they lead a dignified life.

#### Child Labour in India

- According to the last available Census 2011, there were 10.1 million child labourers in India.
- India's biggest child labour employers states are Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, and Maharashtra.
- Constitutional Provisions:
  - The <u>Article 23</u> of the Indian Constitution prohibits human trafficking and begar (forced labour without payment) to protect the millions of underprivileged and deprived people of the country.
    - The right is available to citizens of India as well as to non-citizens.
    - The right provides against human trafficking in the form of:
      - Selling and buying of men, women and children.
      - Prostitution
      - Devadasis
      - Slavery.
  - The <u>Immoral Traffic (Prevention) Act. 1956</u> has been enacted to deal with violations of this fundamental right.
  - Article 24 of the Indian Constitution forbids employment of children below the age of 14 years in hazardous work like factories and mines.
    - However, it did not prohibit their employment in any harmless or innocent work.
    - The <u>Child Labour (Prohibition and Regulation) Act, 1986</u> (renamed as <u>Child & Adolescent Labour (Prohibition and Regulation) Act, 1986</u> in 2016) specifically deals with the violations related to Prohibition of employment of children (below the age fourteen years) in factories, etc.
      - The <u>2016 amendment</u> of this act completely prohibited employment of children below 14 years of age in all occupations and processes.
      - It also **prohibited the employment of adolescents** (14-18 years of age) in hazardous occupations or processes.
  - Articles 39 states that, the State shall in particular, direct its policies towards securing:
    - Right to an adequate means of livelihood to all the citizens.
    - The ownership and control of material resources shall be organised in a manner to serve the common good.
    - The State shall avoid concentration of wealth in a few hands.
    - Equal pay for equal work for both men and women.
    - The protection of the strength and health of the workers.
    - Childhood and youth shall not be exploited.

# Kashmir | 18 Nov 2024

### Why in News?

Due to less rainfall in the <u>Kashmir Valley</u>, the <u>wetlands</u> are left severely dry adversely affecting the arrival of **migratory birds**.

# **Key Points**

- Decline in Migratory Birds:
  - Each year, by late September or October, lakhs of migratory birds from Siberia, China,
    Central Asia, and Northern Europe migrate to the Kashmir Valley's wetlands, with
    Hokersar Wetland being the most significant site.
  - In 2024, it noted a sharp decline in bird arrivals compared to previous years.
- Factors Contributing to Fewer Birds:
  - Experts attribute the decline to <u>global warming</u>, with prolonged summers delaying the onset of winter, resulting in a 10-15 day delay in bird arrivals.
  - Reduced rainfall and dry wetlands have worsened the situation, contributing to fewer birds this November. However, experts expect numbers to rise as weather conditions improve.
- Shrinking Wetlands and Habitat Loss:
  - Experts have raised concerns about the shrinking Hokersar wetland, also known as the 'Queen of Wetlands.'
    - From 1969 to 2008, the wetland's area reduced from 18.75 sq km to 13 sq km, with a loss of 150 hectares of marshy land within it.
- Future Threat to Migratory Birds:
  - Without proper action to restore and protect these wetlands, the future of both the habitats and the migratory birds that depend on them remains uncertain.

## **Hokersar Wetland**

- Location:
  - The Hokersar wetland, a <u>Ramsar site</u>, is situated in Srinagar, Jammu and Kashmir. It is **also** known as the 'Queen Wetland of Kashmir'.
- Geographic Setting:
  - It is a natural, perennial wetland that is part of the <u>Jhelum</u> basin and is located in the northwest Himalayan biogeographic province of Kashmir, at the foot of the snowdraped <u>Pir Panchal range</u>.
- Water Source:
  - The wetland receives water from the Doodhganga River, a tributary of the Jhelum.
- Flora and Fauna:
  - It is home to the last remaining reedbeds of Kashmir and serves as a critical pathway for 68 waterfowl species.
  - These birds, migrating from regions like Siberia, China, Central Asia, and Europe, include species such as the little cormorant, common shelduck, large egret, and great crested grebe.
  - The wetland is **vital for local biodiversity,** offering food sources, spawning grounds, and nurseries for fish, along with breeding habitats for various species.

### Why in News?

Recently, the 11-day 'Gita Quiz,' was launched as part of the International Gita Mahotsav 2024 (IGM) celebrations. The competition has daily five questions related to the Gita, and Mahabharata. Odisha is the partner state for IGM 2024.

# **Key Points**

- Objectives of the Gita Quiz:
  - The quiz aims to educate people, especially the youth, about the Gita and Mahabharata.
  - Participants are encouraged to pick up the holy books and explore answers, fostering discussions and awareness.
  - The quiz serves as an orientation course for devotees and pilgrims before the main mahotsav begins.
- Competition Format and Rewards:
  - The guiz has two categories public and student.
    - Each day, 20 winners from each category will receive Rs 500 each.
  - At the end of the quiz,25 winners from each category will receive Rs 1,000 each, with 10 winners from Haryana, 10 from other states, and 5 from Odisha, in the IGM 2024.
  - Top motivators will also be awarded monetary prizes and certificates of excellence.
- Focus on School Students and Quality Questions:
  - School-going children form a significant portion of participants.
  - The number of daily winners has been doubled to encourage participation, while the quality of questions is being improved. lision

# International Gita Mahotsav 2024 (IGM)

- The celebration fosters a moral and cultural resurgence, offering relevance in today's challenging times.
- The festival aims to enlighten people through the timeless teachings of the Bhagavad Gita, often referred to as the "song celestial."
- History of the Festival:
  - The Gita Mahotsav has been celebrated in Kurukshetra, Haryana, since 1989, under the joint efforts of the Haryana Government and the Kurukshetra Development Board.
- International Recognition:
  - In 2016, Haryana declared the celebration as the International Gita Mahotsav, drawing over two million visitors to Kurukshetra.
- Highlights of Recent Celebrations:
  - Participation of international artists and craftsmen.
  - Large craft fairs and exhibitions by religious and spiritual organizations.
  - Indian and foreign scholars attended a seminar on the Gita organized by Kurukshetra University.
  - Global chanting of the Gita by 18,000 students.
  - Gita Sobha Yatra, food stalls from various Indian regions, and a grand craft mela.
- Cultural and Spiritual Impact:
  - The festival promotes cultural exchange and spirituality, attracting global audiences and enhancing its popularity each year.
  - Through its diverse programs, the Gita Mahotsav unites people across regions and nations, celebrating the essence of the **Bhagavad Gita**.