

Gentoo Penguins

For Prelims: H5N1 Avian Influenza Virus, Falkland Islands, World Health Organisation (WHO).

For Mains: Gentoo Penguin, Environmental pollution and degradation.

Source: DTE

Why in News?

The Vision Recently, over 200 Gentoo penguins have been found dead in the Falkland Islands, Antarctica due to the spread of the **H5N1 Avian Influenza Virus**.

• Falkland Islands is an archipelago in the South Atlantic Ocean.

What is Avian Influenza?

About:

- Avian influenza, often referred to as bird flu, is a highly contagious viral infection that primarily affects birds, particularly wild birds and domestic poultry.
- In 1996, highly pathogenic avian influenza H5N1 virus was first identified in domestic waterfowl in Southern China. The virus is named A/goose/Guangdong/1/1996.

Transmission to Humans and Related Symptoms:

- Human cases of H5N1 avian influenza occur occasionally, but it is difficult to transmit the infection from person to person. As per World Health Organisation (WHO), when people do become infected, the mortality rate is about 60%.
 - It can range from mild flu-like symptoms, including fever, cough, and muscle aches, to severe respiratory issues like pneumonia, difficulty breathing, and even cognitive problems such as altered mental status and seizures.

Avian Influenza and India:

Initial Outbreak:

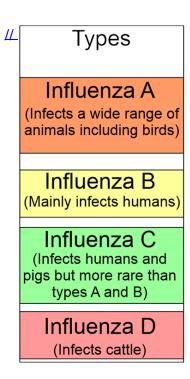
- The initial outbreak of Highly Pathogenic Avian Influenza (HPAI) H5N1 in India occurred in 2006 in Navapur, Nandurbar district, Maharashtra, and was followed by annual outbreaks.
- H5N8 was first observed in India in November 2016, mainly affecting wild birds across five states, with Kerala reporting the most cases.
- The disease has been reported in 24 states and union territories, resulting in the culling of over 9 million birds to control its spread.

Related Initiative:

• India's approach to controlling Highly Pathogenic Avian Influenza (HPAI) follows a "detect and cull" policy as outlined in the National Action Plan for Prevention, Control, and Containment of Avian Influenza (revised - 2021).

Treatment:

 Antivirals have demonstrated effectiveness in the treatment of avian influenza virus infections in humans, lowering severity and the risk of death.



A Subtypes Avian (Can infect humans) H5N1 H7N3 H7N7 H7N9 H9N2

H10N8 Swine (Can infect humans)

> H₁N₁ H₁N₂ **H3N2**

Most common human H₁N₁

H3N2

HPAI vs LPAI

HPAI H5N1 LPAI H5N1 HPAI H5N8 LPAI H5N8

Subtypes can be classified as high path or low path based on the ability of the specific virus strain to kill chickens in the lab setting.

 HPAI stands for Highly Pathogenic Avian Influenza and LPAI stands for Low Pathogenic ne Vision Avian Influenza.

What are the Key Facts About Gentoo Penguins?

- Scientific Name: Pygoscelis papua
- About:
 - They are characterized by a band of white feathers extending across the top of the head from just above each eye.
 - Other distinguishing features include a black throat, a brush tail that is large in comparison with other penguin species, and a bill that is mostly deep orange or red.
- Distribution:
 - They are exclusively located in the Southern Hemisphere, primarily found on the Antarctic Peninsula and numerous sub-Antarctic islands, with a notable concentration in the Falkland Islands in the South Atlantic Ocean.
- Habitat:
 - These penguins are typically situated along shorelines, allowing for quick access to food sources while staying in proximity to their nests. This strategic positioning facilitates efficient foraging and nesting activities.
- Threats:
 - Predators: Vulnerable to predation by South American sea lions, Weddell seals, leopard seals, killer whales, skuas, sheathbills, caracaras, and giant fulmars.
 - Human Impact: Historical practices such as egg collection for supplementation, and harvesting of skins and blubber.
 - Environmental Changes: Changing environmental conditions and competition with humans for prey, potentially impact population sizes.
- Conservation Status:
 - IUCN Red List: Least Concern.

What are the Key Facts About the Falkland Islands?

- Location: The Falkland Islands are a British Overseas Territory located in the South **Atlantic Ocean.** They are about 500 km east of the coast of Argentina.
 - Stanley is the capital and largest city of the Falkland Islands.
- Territorial Status: The Falkland Islands are a British Overseas Territory, but Argentina also

claims sovereignty over the islands, leading to a historical conflict between the two countries.

E.g. 1982 War between Argentina and British forces over the territory of the Falkland Islands.

• English is the official language.

Wildlife: The Falkland Islands are home to diverse wildlife, including various species of birds, seals, and penguins. The islands are known for their large colonies of penguins, such as the King Penguin and the Magellanic Penguin.



UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. H1N1 virus is sometimes mentioned in the news with reference to which one of the following diseases? (2015)

- (a) AIDS
- (b) Bird flu
- (c) Dengue
- (d) Swine flu

Ans: (d)

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