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Biosecure Rescue and Surveillance of a Debilitated Asian Openbill Stork (*Anastomus oscitants)* in Wayanad, Kerala

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Abstract

On 03 January 2026, a debilitated Asian Openbill (*Anastomus oscitans*) was rescued from a football ground near Kerala Veterinary and Animal Sciences University (KVASU), Pookode, Wayanad, Kerala. The bird presented with severe emaciation ("going light") and respiratory discharge. Concurrent outbreaks of highly pathogenic avian influenza (H5N1) in Alappuzha and Kottayam necessitated heightened biosecurity measures. The case was managed using a strict One Health approach, prioritising biosecurity and the protection of nearby poultry assets over routine wildlife rehabilitation. The bird was isolated and handled with appropriate personal protective equipment and provided supportive care, including broad-spectrum antibiotics. Despite treatment, the bird succumbed three days post-rescue. Oropharyngeal and cloacal swabs preserved in viral transport medium (VTM) tested negative for highly pathogenic avian influenza. This report highlights the clinical, biosecurity, and regulatory challenges involved in managing high-risk migratory avian species near agricultural systems during active zoonotic disease outbreaks.

The Asian Openbill (*Anastomus oscitans*) is a colonial, tree-nesting waterbird species that nests in both wild woodlands and urban landscapes across India. The Asian Openbill Stork (*Anastomus oscitans*), locally known as 'ചേരാക്കൊക്കൻ' (Cheraa Kokkan), is a gregarious wetland bird distributed across the Indian subcontinent (Ali & Ripley 1987). The species inhabits paddy fields, tanks, and river floodplains, where it feeds primarily on molluscs using its specialised mandible (Goswami & Raut 2015). Notably, this species plays an important ecological role in pest control by feeding on these snails, which are known to

cause significant damage to rice crops. In Kerala, they are increasingly observed in agricultural landscapes, particularly from September to February (Wikipedia 2026). Asian Openbills are highly susceptible to avian influenza (AI), and their congregatory nature and long-range migrations create high risks for transboundary viral transmission (Gaidet et al. 2010; Newman et al. 2012). It has predominantly white plumage with contrasting black wings and tail feathers. The bill features a gap, which is a distinctive trait of the Asian Openbill. They are common foragers in wetlands, including marshes, flooded rice paddies, and riverbanks. They reported the use of n ative, introduced, and exotic tree species, such as *Azadirachta indica*, *Vachellia nilotica*, and *Eucalyptus spp*., for nesting. In the Indian subcontinent, the movements of this species are synchronised with the monsoon, and nesting in northern India typically begins between July and September (Ali, S., & Ripley, S.D. 1974). Colonial waterbirds are also considered reliable bioindicators because of their broad ranges, site fidelity, and frequent use of human-dominated habitats. Their presence reflects the quality of the habitat; any alteration in the habitat affects the behavior of waterbirds

Figure 1*: The debilitated Asian Openbill (Anastomus oscitans) upon arrival at TVCC, Pookode KVASU.*

On 03 January 2026 at 10:40 am, local residents brought a weak Asian Openbill to the Teaching Veterinary Clinical Complex (TVCC) at KVASU, Pookode. The bird was found standing lethargically on a football ground (11.55ºN, 76.02ºE) and failed to fly upon approach. Clinical examination at 10:45 am revealed the bird was extremely thin with a prominent keel bone and wasted pectoral musculature, a condition known as "going light" (Worell 1991). Slight mucous discharge

Figure 2: Collection of a cloacal swab from the Asian Openbill for diagnostic testing.

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was noted from the nares. During handling, care was taken to prevent capture myopathy, a metabolic muscle necrosis that is highly susceptible in stressed long-legged waterbirds (Williams & Thorne 1996).

Due to active H5N1 outbreaks in Alappuzha and Kottayam districts, a 'One Health' approach was adopted to minimise zoonotic risk (WHO 2022). Consequently, the bird was not admitted to the Centre for Wildlife Studies rehabilitation facility due to its proximity to poultry farms; it was instead isolated to prevent potential pathogen transmission to the university's poultry assets (Sanders et al. 2021). Before transfer, oropharyngeal and cloacal swabs were collected at 10:54 am with the assistance of the Department of Preventive Medicine, KVASU. These were preserved in viral transport medium (VTM) for diagnostic testing following standard surveillance protocols (FAO 2007).

The bird was administered enrofloxacin (10 mg/kg IM) at 10:55 am to address potential secondary bacterial infections (Carpenter & Marion 2017). The emergency handling and sampling of the specimen were justified under Section 11(1)(a) of the Wildlife (Protection) Act, 1972, as the bird was diseased and disabled beyond recovery. Legal compliance was ensured through immediate notification and handover to the Kerala Department of Forests and Wildlife (Ministry of Environment, Forest and Climate Change 1972) at 11:15 am.

Despite supportive care, the bird exhibited persistent anorexia and succumbed to its condition three days after rescue. Diagnostic results from the Department of Veterinary Microbiology, KVASU, returned negative for highly pathogenic avian influenza on 04 January 2026. This case highlights the importance of adaptive decision-making, in which biosecurity and local food security are prioritized alongside individual clinical care (Sanders et al. 2021).

Table 1: *The clinical timeline from arrival (10:40 am) to handover (11:15 am).*

Date/Time	Event	Notes
03-01-2026 / 10:40 am	Bird brought to the TVCC	Local residents reported
03-01-2026 / 10:45 am	Physical examination	Lethargy, inability to stand
03-01-2026 / 10:54 am	Sampling (oral/cloacal)	VTM
03-01-2026 / 10:55 am	Antibiotic treatment	Enrofloxacin 10 mg/kg IM
03-01-2026 / 11:15 am	Handover to Forest Dept	FD staff name- Vishal
04-01-2026 / 10:30 am	Diagnostic test result	Negative

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