



## Highly pathogenic avian influenza (H5N1) update

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By the end of June, 40 outbreaks of H5N1 highly pathogenic avian influenza (HPAI) had been detected in poultry in South Africa, and have been reported by the National Department of Agriculture, Land Reform and Rural Development (DALRRD) to the World Organisation for Animal Health (OIE). Fourteen of these outbreaks were reported from June: four in the Eastern Cape, two in Gauteng, one in North West, one in Kwazulu-Natal and six in the Western Cape (Fig. 1).

The poultry (as defined by the OIE) outbreaks in the Western Cape comprised:

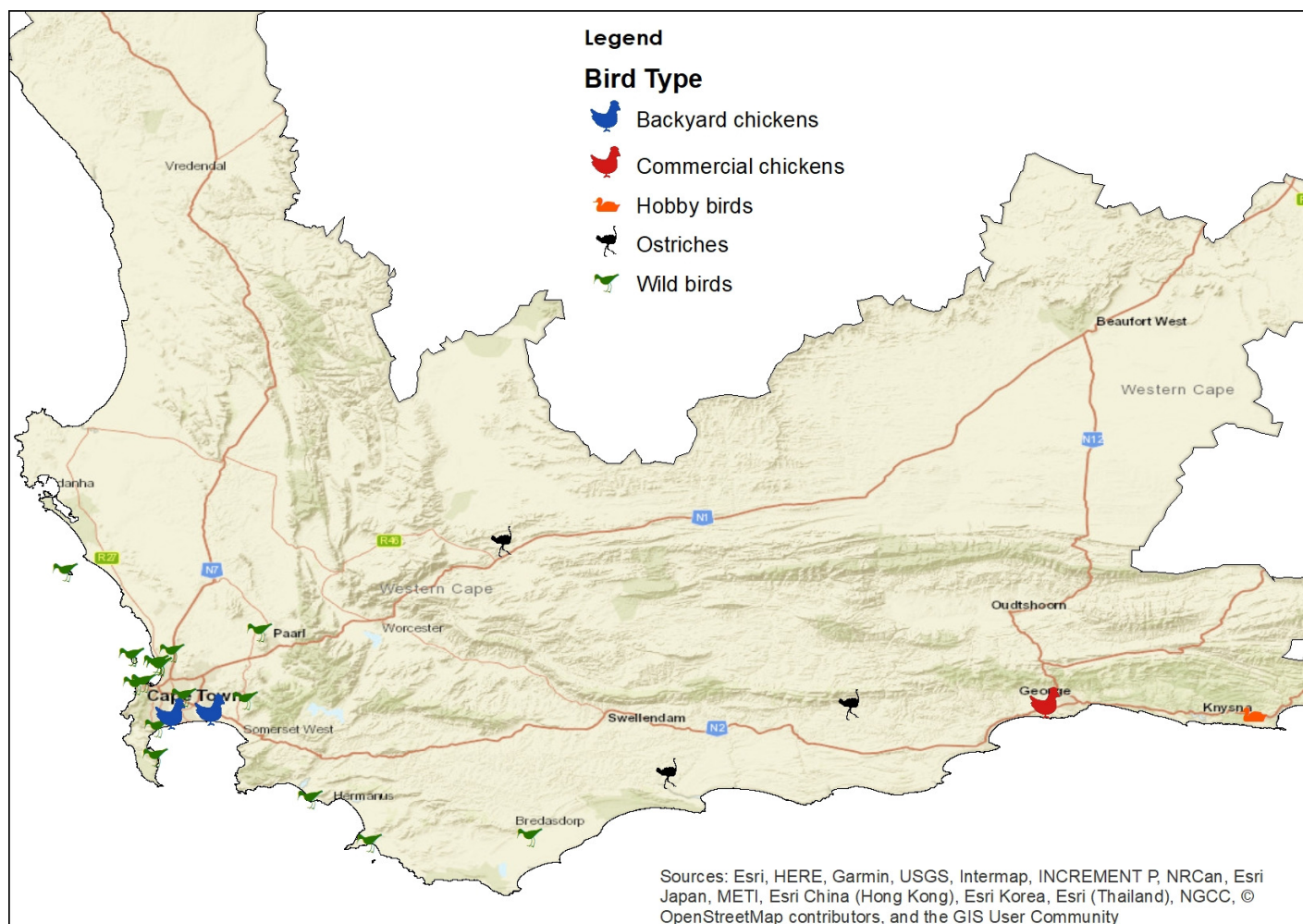
- one commercial layer operation (outbreak onset 5 June)
- two in backyard chickens (latest outbreak 28 June)

- three in commercial ostriches

In the third ostrich outbreak, the mortality rate rose in June but positive laboratory results were only received in July. There were also significant mortalities and post-mortem indications of viraemia, including petechial haemorrhages, on one of the other affected properties. The virus was detected by PCR on all three affected properties.

The losses in commercial chickens in the Western Cape are estimated to be just over a million birds that died or were culled. This translates to a loss of approximately 17% of the layer chickens and 11% of the broiler breeder chickens in the province.

Non-poultry cases in the Western Cape included an



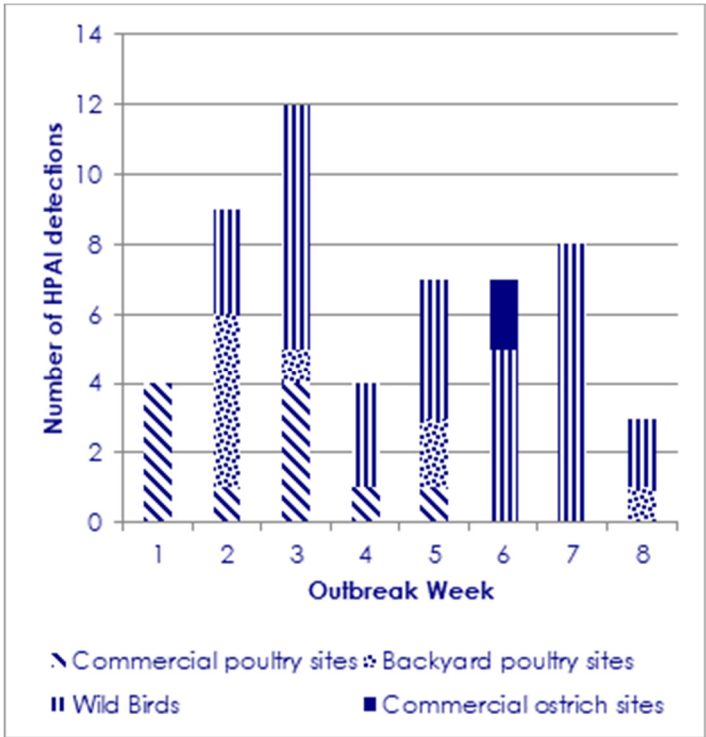
**Figure 1: Approximate locations of outbreaks of confirmed and suspect H5 highly pathogenic avian influenza in the Western Cape in June 2021**

outbreak in black swans, among birds kept as a hobby, and detections in wild birds at 13 sites. The latest wild bird case was reported on 30 June, in a great white pelican from Cape Town International Airport. Only two non-poultry cases were reported from outside the province: a pink-backed pelican from a zoo in Gauteng and swans from the Eastern Cape. Table 1 shows the total number of wild birds of different species that have tested positive for HPAI in the Western Cape in 2021.

Figure 2 shows the epidemic curve and contribution of different bird types.

**Table 1: Wild bird species testing positive for HPAI (H5N1) in the Western Cape in 2021**  
(species and numbers in bold tested positive in June)

Species	No.	Species	No.
Blue crane	1	Yellow-billed duck	1
Great white pelican	4 (3)	Grey headed gull	1
Egyptian goose	1	<b>African fish eagle</b>	<b>1</b>
Spur-winged goose	1	African penguin	1
Kelp gull	6 (5)	<b>Brown skua</b>	<b>1</b>
Hartlaub's gull	11 (4)	<b>African sacred ibis</b>	<b>1</b>



**Figure 2: Western Cape HPAI (H5N1) epidemic curve (4 May- 30 June 2021)**

## Foot and mouth disease outbreak in KwaZulu-Natal

On 27 May 2021, clinical signs of foot and mouth disease (FMD) were seen by Veterinary Services officials during routine inspection of cattle at a dip tank in the Mtubatuba Local Municipality, KwaZulu-Natal (KZN).

Extensive tracing and surveillance was done after the detection of the first outbreak and, by the end of June, 17 more locations tested positive (Fig. 3). Cattle at some locations showed classical signs of FMD and were asymptomatic at others.

The majority of affected locations are dip tanks in communal grazing areas. One feedlot has also been confirmed infected. All of the positive locations are within the FMD Free Zone of South Africa. South Africa's FMD free status in this zone has been suspended since January 2019 after previous outbreaks of FMD in 2018.

A disease management area has been declared in KZN with movement restrictions on cloven-hoofed animals and their products.

The source and extent of the outbreak are still under investigation. The virus has been identified as a SAT 2 serotype that is most closely related to a virus that caused an outbreak in the Protection Zone of northern Limpopo in 2019.



**Figure 3: Foot and mouth disease positive locations in South Africa as of 2 July 2021. Map courtesy of DALRRD**



## Outbreak events

Cases of **highly pathogenic avian influenza** that occurred in June are detailed on pages 1 and 2 of this report.

An outbreak of **African swine fever** was reported in **pigs** belonging to small farmers in the **Kraaifontein** area of Cape Town. Several farmers experienced abnormal mortalities in their pigs after the pigs showed a lack of appetite and redness of the skin on the abdomen and hind legs. It is suspected that one of the farmers in the area introduced pigs from Mfuleni, where there is an ongoing outbreak of African swine fever.

**Cattle** kept near **Stellenbosch** tested positive for **brucellosis** after two cows aborted. The source of the disease is unknown as the owner is a speculator who buys cattle from multiple sources at auctions. A second herd of cattle belonging to a different owner is kept on the same property and the two herds share a crush facility. The property has been placed under quarantine and the two positive cows will be slaughtered. The farmers will decide how to proceed after the next round of testing of both herds.

Four cases of **rabies** were reported in June, with all cases being confirmed positive by laboratory testing:

- ⇒ A feral **cat** attacked a farmer near **Loxton**, fixing its teeth into her boot. The cat was killed by farm staff without anyone being bitten or having contact with saliva. The farmer planned to catch and euthanase the other two feral cats on the farm, and animals on neighbouring farms were vaccinated against rabies.
- ⇒ An **aardwolf** (Fig. 4) near **Murraysburg** attacked farm dogs and bit one of them. The dogs had previously been vaccinated against rabies and were revaccinated. The dog that was bitten will be kept in quarantine for six months and observed for any clinical signs of rabies.
- ⇒ A **bat-eared fox** seen on a farm near **Witsand** appeared lethargic and unable to move. It was shot by the farmer. Dogs and cats on the surrounding farms and in the town of Witsand were vaccinated in response.
- ⇒ A farmer near **Leeu-Gamka** found a dead **bat-eared fox** outside his yard. The farm dog had been previously vaccinated against rabies and was revaccinated in response.



Figure 4: Aardwolf (*Proteles cristatus*)

(Photo: D. Käuferle)

Several outbreaks of **sheep scab** were reported in the province:

- ⇒ A farm near **Heidelberg** received a batch of ewes in November 2020 and distributed them amongst five farms in the area. In June, sheep scab was detected in one of the flocks by a private veterinarian. The sheep on all five farms were treated three times under official supervision. In the surrounding area, 58 farms were inspected and no evidence of sheep scab was found in any other flocks.
- ⇒ Another outbreak of sheep scab affected two farms in the north of the province near **Kliprand** (Fig. 5). Sheep had been bought in from the Wellington area and moved between the two farms. The farmer had treated the sheep for red lice several months previously, after they had been diagnosed by a pharmaceutical representative. The sheep on both farms were treated twice under official supervision.
- ⇒ A farmer near **Darling** reported wool loss to a private veterinarian, who diagnosed sheep scab. The neighbouring farm had been affected by sheep scab earlier this year. All sheep were treated twice under official supervision.
- ⇒ Scratching and wool loss was noticed in sheep on a farm near **Wellington** in May. The farmer notified the private veterinarian, who advised injectable and pour-on treatments without success. When the problem was reported to the state veterinarian more than a month later, sheep scab was diagnosed and the sheep were treated under official supervision.



**Figure 5: Sheep showing lesions of sheep scab (photo: J. Kotzé)**

on a farm near **Worcester**. The chickens were treated with antibiotics.

Wild **laughing doves** were found dying in a suburb of **Cape Town** after showing puffed-up feathers. Samples taken from the doves tested PCR positive for both virulent Newcastle disease and **pigeon paramyxovirus**.

**Erysipelas of swine** was reported on two farms in the **Swellendam** area after skin lesions were identified in pigs after slaughter. One of the farms had previously reported erysipelas in May.

An **ostrich** farm near **Albertinia** tested **avian influenza** seropositive on a slaughter test. No clinical signs or mortalities were observed. Three rounds of follow-up sampling at an intensified sampling rate were done in May and June. All PCR tests were negative and, though one or two birds were seropositive each time, HI tests failed to indicate a H5, H7 or H6 avian influenza infection.

**Lumpy skin disease** was reported on five farms around **Ceres**. Reported morbidity rate ranged from 4 to 40% in affected herds. Affected **cattle** were treated with anti-inflammatories and antibiotics.

A case of **equine encephalosis** (EEV) occurred on a farm near **Clanwilliam**. Cases of EEV were reported from this farm in April and May as well.

**Pasteurellosis** caused mortalities in **lambs** in the **Vanrhynsdorp** area. Affected lambs showed signs of listlessness and heavy breathing before dying.

Infestations of **sheep** with **lice** were diagnosed in flocks near **Paarl** and **Heidelberg**.

Suspect cases of African swine fever were reported where **pigs** died in **Klapmuts**. The cause of death was determined to be **water deprivation**. In **Darling**, deaths of pigs occurred as a result of **sand impaction**. Another pig that died in **Kraaifontein** was found to have **pneumonia** caused by *Streptococcus* bacteria.

Suspect cases of avian influenza were investigated in **chickens** in **Atlantis**. Young chicks died as a result of **early starve-outs** and 20 broiler breeders were diagnosed with acute **septicaemia** after which they had a good response to antibiotic treatment.

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