



Rabies prevention in the Western Cape in context

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Public attention surrounding rabies in the Western Cape waxes and wanes depending on whether there have been recent cases in the province that have received media attention. With a case of rabies occurring in a cat near Malmesbury this month, with associated human contact, interest in rabies is likely to increase temporarily. In order to see the situation in our province holistically, however, it is important to look at the current situation in the context of the historical picture of rabies in our area as well as the situation in the rest of the country (fig 1).

Rabies outbreaks in South Africa occur as a result of the virus circulating in a host population that maintains the cycle of transmission. In the Western Cape, the majority of reported cases occur in bat-eared foxes. The Western Cape has reported an annual average of 12 cases of animal rabies in the last five years: extremely low compared to the rest of the country. However, in other parts of South Africa the cycle is maintained in populations of free-roaming dogs. This is particularly dangerous for people as 99% of human rabies cases are the

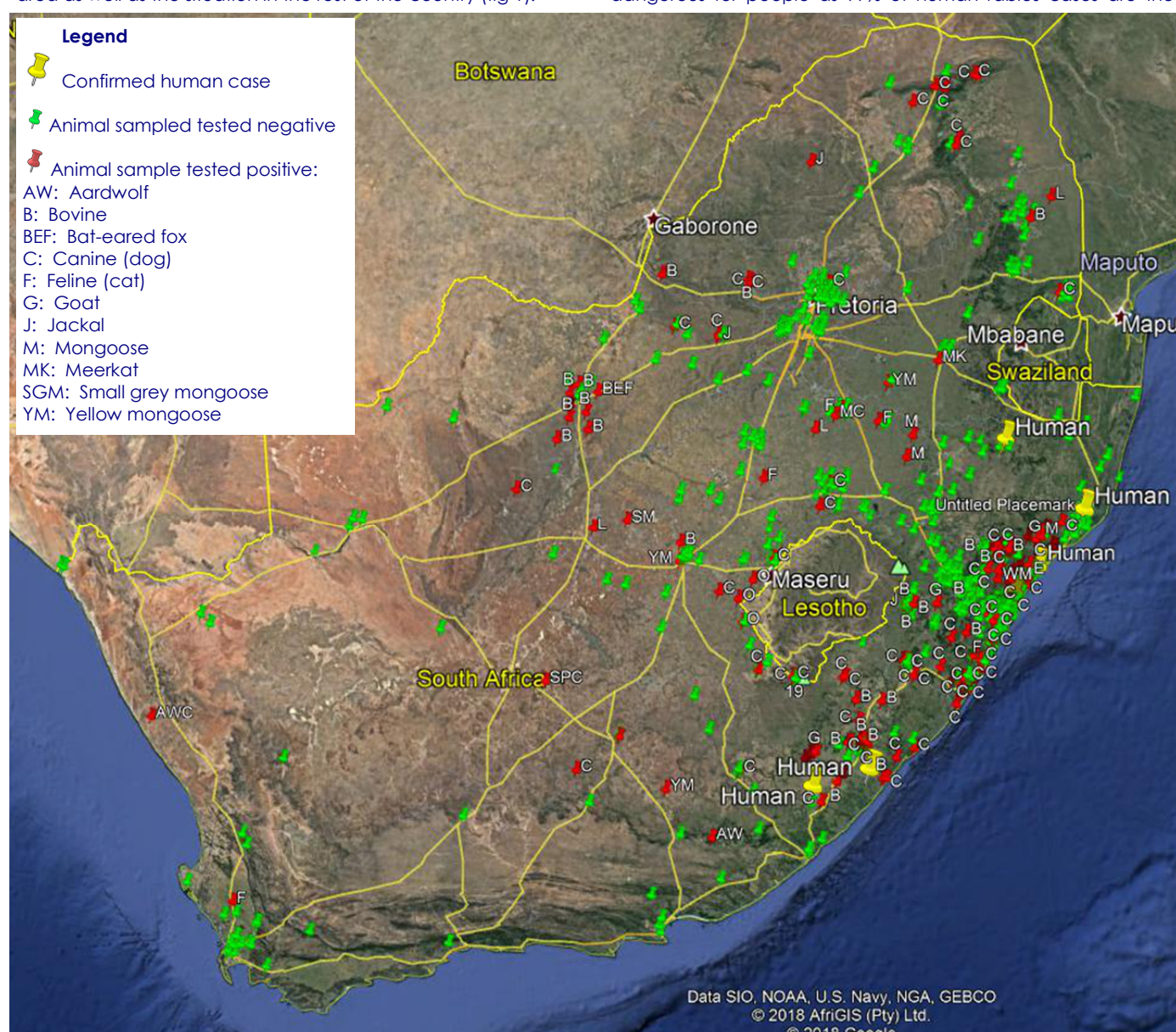


Figure 1: Samples taken for rabies testing in South Africa from January to April 2018.
Map provided courtesy of K Perrett

result of transmission from dogs. As a result, there have been eight confirmed human deaths due to rabies so far in 2018 (not all reflected in fig 1). As human cases of rabies are often not recognised or diagnosed, the actual number of human cases is believed to be much higher.

Currently, dog rabies cycles exist in the eastern half of the country, including the Eastern Cape, KwaZulu-Natal, Mpumalanga and Limpopo. However, as dogs are often brought along with people as they move, the potential for establishment of a dog cycle of rabies exists anywhere. In the Western Cape, therefore, rabies control strategy aims to respond to wildlife cases to prevent transmission, but also to prevent the establishment of canine rabies in the province should a rabid dog enter. The principles of this control rely on rapid detection of rabies cases and preventive vaccination of dogs and cats. Education campaigns are also aimed at school children, covering rabies, the importance of vaccinating pets and how to care for and interact with dogs to prevent bites.

It is the legal responsibility of all pet owners to have their dogs and cats vaccinated against rabies: a small thing to do which can protect thousands of pets and families from a deadly illness. Veterinary Services officials aim to fill any gaps that may be left by performing free rabies vaccination campaigns in areas where vaccination rates are low due to lack of access to

veterinary care. Rabies vaccines are also provided to animal welfare associations that cater to underserved communities.

So far in 2018, Western Cape Veterinary Services officials have vaccinated a total of 30600 domestic dogs and cats. These vaccinations are focussed mainly in urban areas where there is a high rate of movement of people in and out of the province. Transmission of wildlife rabies to pets is prevented by vaccination of rural cats and dogs when farms are visited for routine activities (fig 2).

It is commonly believed that 70% of an animal population must be vaccinated against rabies to stop the cycle of transmission. However, due to the low reproduction number (the number of animals an infected animal will infect in turn) of rabies, this figure is actually much lower. To vaccinate 70% of all dogs in the province would be difficult and resource intensive. The same level of protection from rabies outbreaks can be achieved by a lower number of strategic vaccinations in high-risk areas.

Suspect cases of animal rabies should be reported immediately to the local state vet (areas and details at <http://www.elsenburg.com/services-and-programmes/veterinary-services-0#s=Animal-Health-and-Disease-Control>). If human contact has occurred, immediate medical attention should be sought.

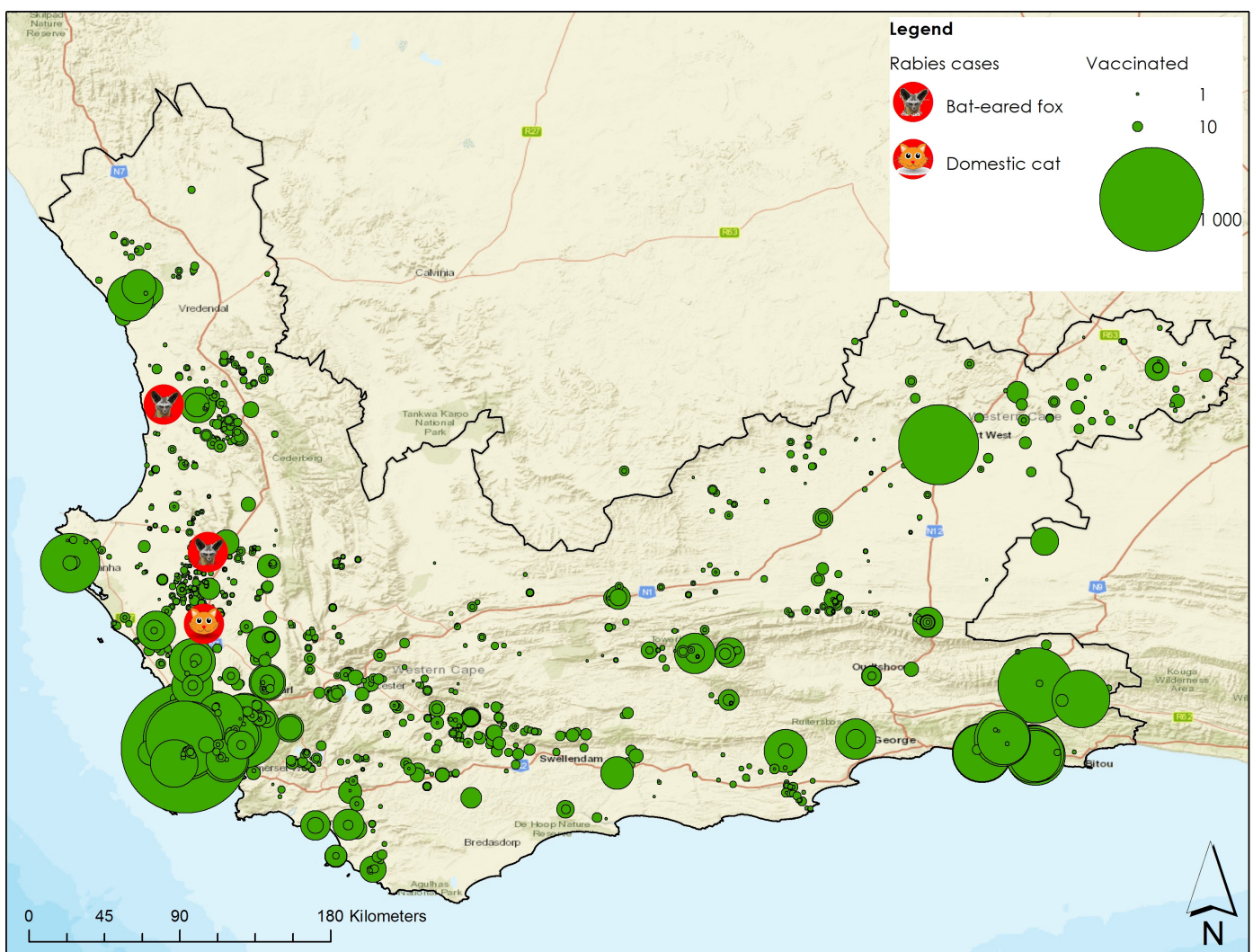
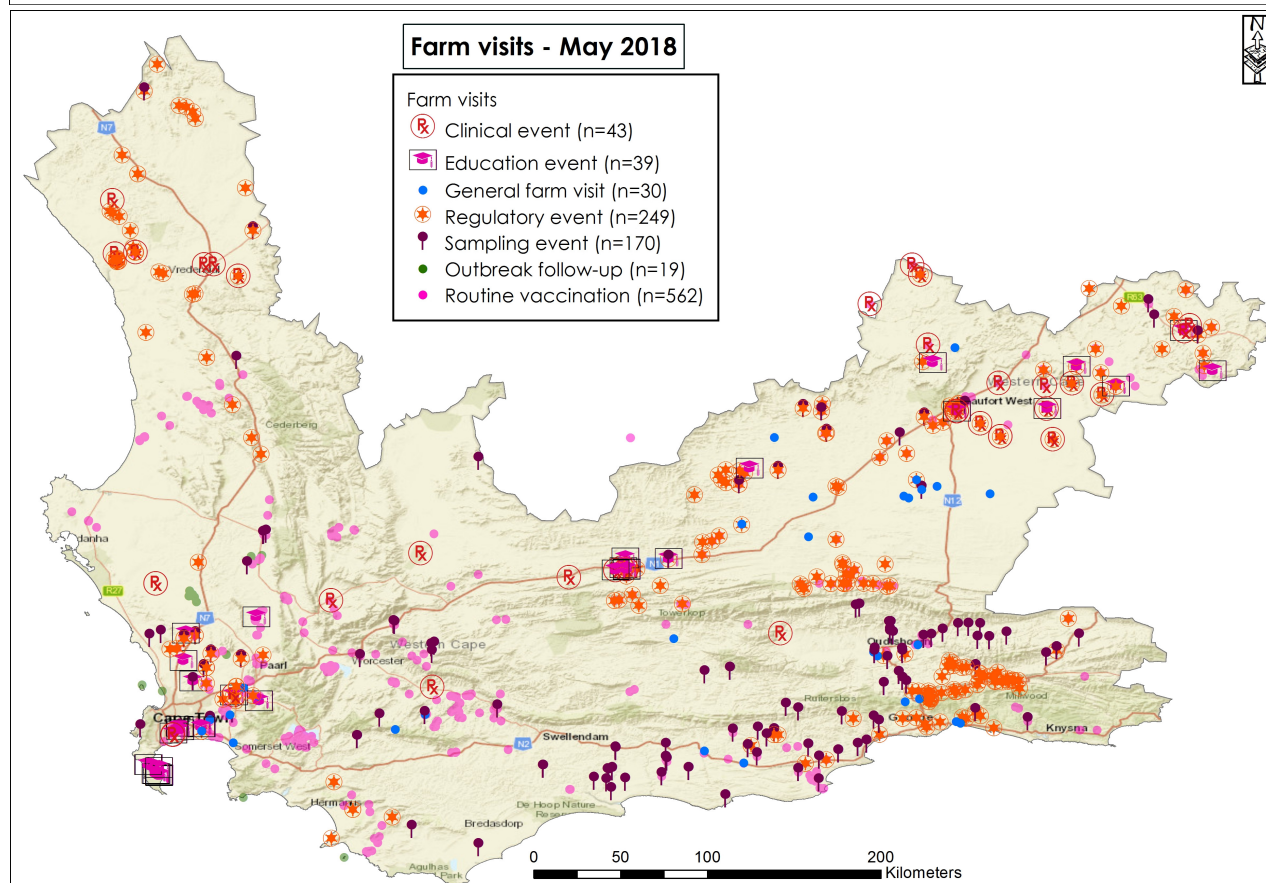
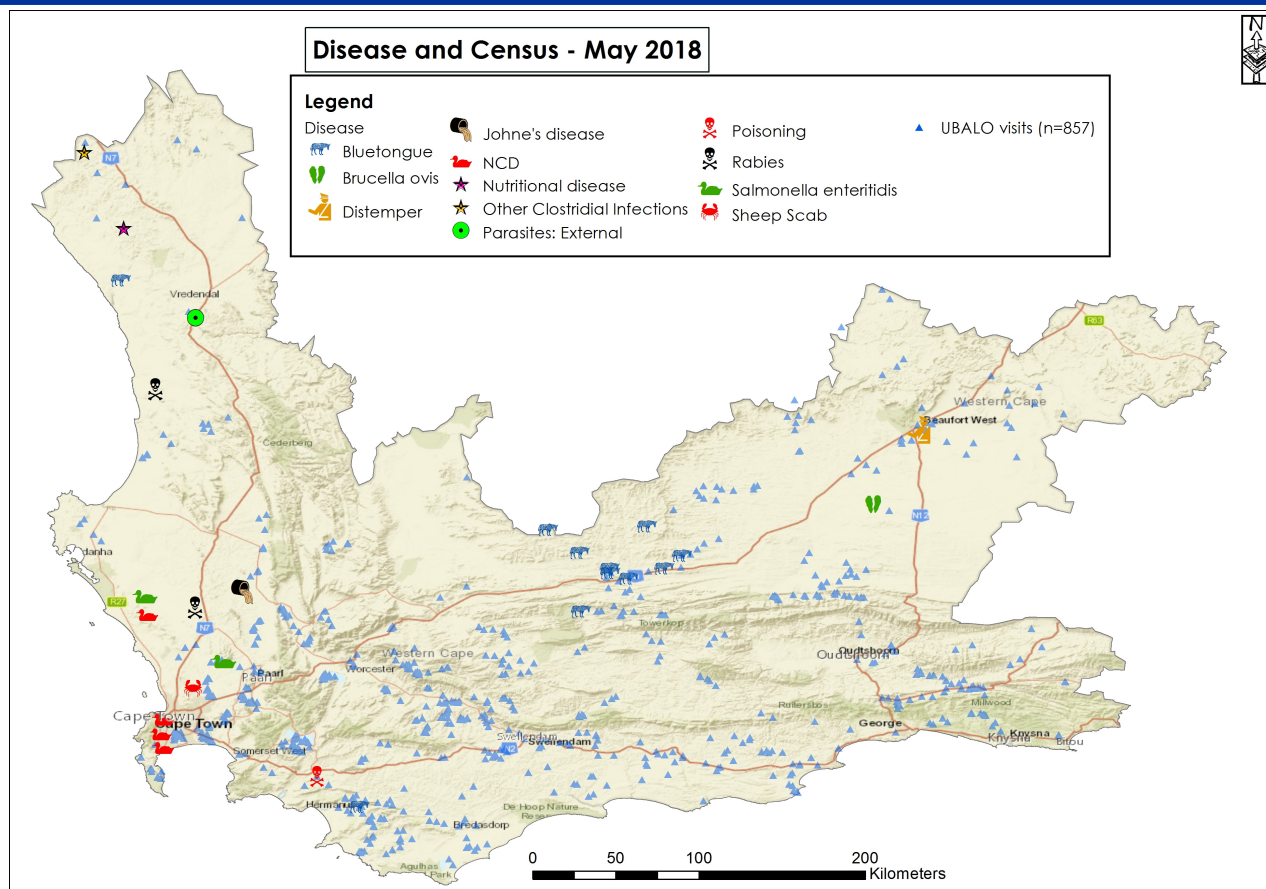


Figure 2: Number of rabies cases and vaccinations of pets performed by Veterinary Services in the Western Cape in 2018 as of end May

Disease and surveillance



Outbreak events

Outbreaks of **bluetongue** were reported in **sheep** near **Ebenhaeser**, **Stanford** and on several farms in the **Laingsburg** area.

Outbreaks of **highly pathogenic H5N8 avian influenza** continued in seabirds along the coast of the Western Cape. No new locations or species were reported, but positive cases were recorded in a **Hartlaub's gull** and **common terns** in **Blouberg** and in **African penguins** from **Dyer Island** and **Stony Point**.

Many **laughing doves** were found dead in **Darling** and the district municipality was asked to investigate. The dead doves tested positive for **Newcastle disease** (PPMV).

Wild birds were found dead in gardens in **Cape Town**, including a **guinea fowl** (fig 3) in Plumstead and **laughing doves** in Marina da Gama and Observatory. The birds all tested positive for **Newcastle disease** (PPMV).

A feral **cat** was discovered in a barn near **Malmesbury**, having chased the lambs into a corner. When one of the staff approached it, it ran over him and scratched his shoulder, then sat in the middle of the shed where it was caught and killed. Brain samples taken tested positive for **rabies**. The exposed person is receiving treatment and 43 dogs and 26 cats on farms in the area were vaccinated in response.

A **bat-eared fox** was seen on a farm between **Lambert's Bay** and Graafwater near to a ewe and her lamb that had died. One of the staff reported seeing the fox biting the carcass of the lamb and bite marks were found on the ewe when she was examined. The farmer shot the fox, which subsequently tested positive for **rabies**. The exposed ewe was killed and buried with her lamb and dogs and cats on the neighbouring farms will be vaccinated.

A sheep farm north of **Durbanville**, Cape Town was treated after sheep were observed scratching and biting. Wool scraping samples tested positive for presence of *Psoroptes ovis* mites, which cause **sheep scab**.

A farmer near **Moorreesburg** noticed a few sheep becoming emaciated in the flock over time and decided to test for **Johne's disease**. The affected **sheep** were killed and a positive diagnosis was made.

Dead-in-shell eggs and chick box liners from a broiler breeder **chicken farm** tested positive for **Salmonella enteritidis**, as did swabs taken from a rendering plant, both in the **Malmesbury** area.

Twelve of 23 **rams** in a flock near **Leeu-Gamka** tested positive for **Brucella ovis**.

Caseous lymphadenitis was treated in **sheep** near **Vanrhynsdorp**.

Cases of **canine distemper** were seen in **Calitzdorp** and by CCS vets in **Beaufort West**.

Eighteen **sheep** were treated for **milk fever** on a farm near **Nuwerus** after 22 died.

Polioencephalomalacia as a result of thiamine deficiency was seen in **sheep** on a farm near **Rietpoort**.

A **calf** with a severe infestation of **brown ear tick** was treated in **Klawer**.

Pigs near **Caledon** were unintentionally **poisoned** by being fed milk from uncleaned 20 litre detergent containers.

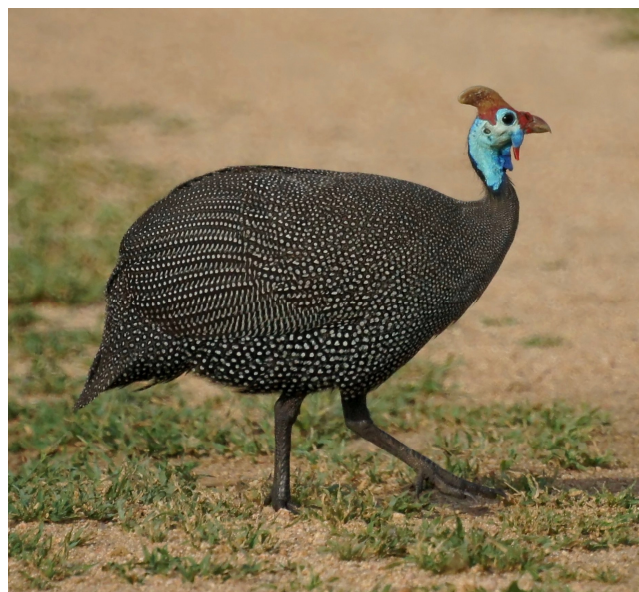


Figure 3: A helmeted guinea fowl was affected by Newcastle disease in Cape Town (Photo: New Jersey Birds)

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