

2-10 Other surveillance

Wildlife surveillance

Wild animals have been considered one of the sources of infection for livestock. Even for the disease eradicated among livestock, the disease may be maintained among wild animals. For this reason, it is necessary to study the status of animal infectious diseases in wild animal populations. MAFF is conducting surveillance of wild animal species for infectious diseases relevant to the livestock sector.

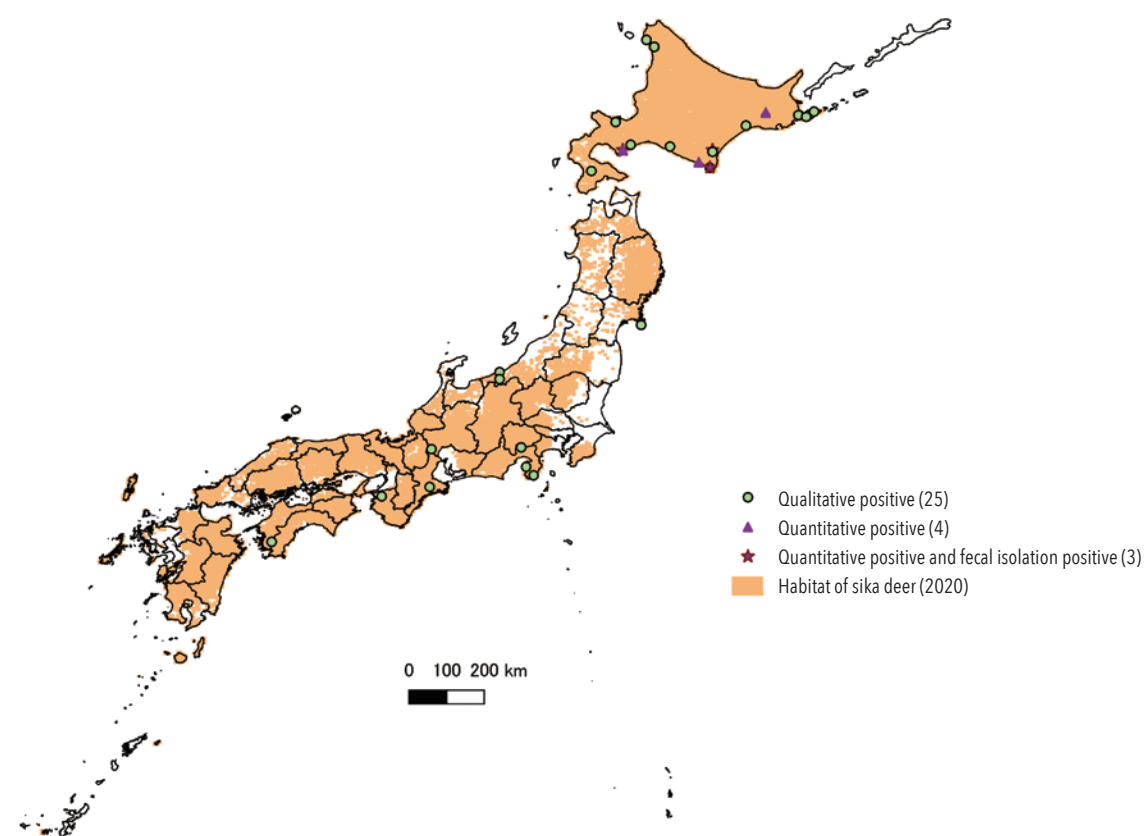
(1) Johne's disease surveillance targeting wild sika deer

From FY 2016 to FY 2022, 1,648 specimens (fecal matter) were tested for Johne's disease. 25 samples were determined as qualitative positive (i.e. *MAP* gene was detected, but low concentration). 7 samples were determined as quantitative positive (i.e. *MAP* gene was detected above the reference level) and out of them, 3 samples were confirmed positive by fecal culture (Fig.2-10-1).

(2) Chronic Wasting Disease (CWD) test for wild sika deer

Of the samples collected in FY2022, 80 samples (medulla oblongata) were tested for CWD, and all tested negative.

Fig. 2-10-1 Johne's disease surveillance in sika deer (2016-2022)



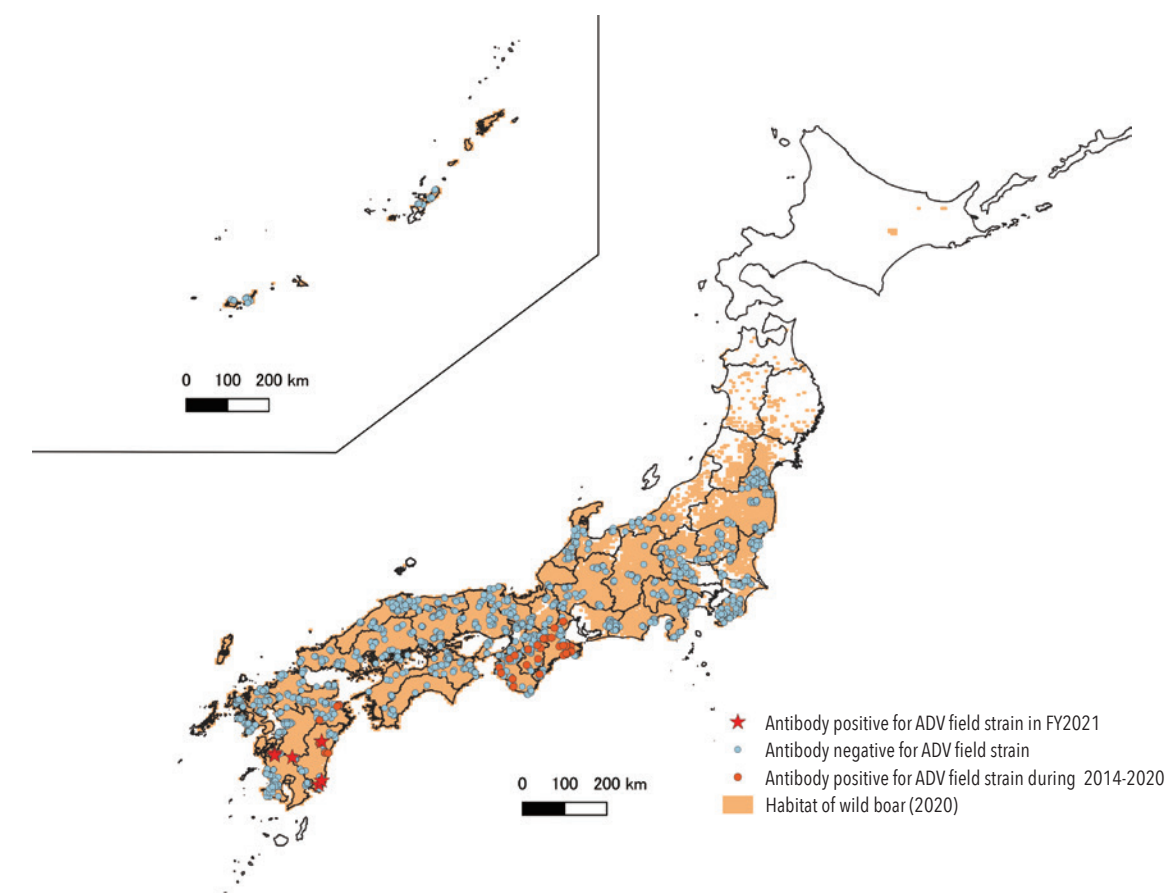
(Note: Habitat of sika deer is based on data published by the Ministry of the Environment (<https://www.env.go.jp/press/109239.html>))

(3) Aujeszky's disease surveillance targeting wild boars

Aujeszky's disease is a swine disease designated as a Notifiable infectious disease. Major clinical signs are abortions in pregnant sows, neurological symptoms and high mortality in young piglets. Japan has been pursuing eradication based on disease control guidelines and no outbreaks have been reported in domestic

pigs since 2017. With regard to wild boars, each of 20 samples collected in 4 prefectures in the Kyusyu region were tested for Aujeszky's disease, and 7 samples collected in 2 prefectures (Miyazaki, Kumamoto), where antibodies for field strain have been detected in the past tests, were confirmed positive for antibodies in 2021 (Fig.2-10-2). Tests are ongoing as of the end of FY2022.

Fig. 2-10-2 Aujeszky's disease surveillance in wild boars (FY 2018-2021)



(Note: Habitat of wild boar is based on data published by the Ministry of the Environment (<https://www.env.go.jp/press/109239.html>). Although the map indicates wild boar habitat includes Hokkaido, according to Hokkaido, they originated from a captive boar-pig hybrid, and no wild boars in their natural state have been confirmed in Hokkaido.)

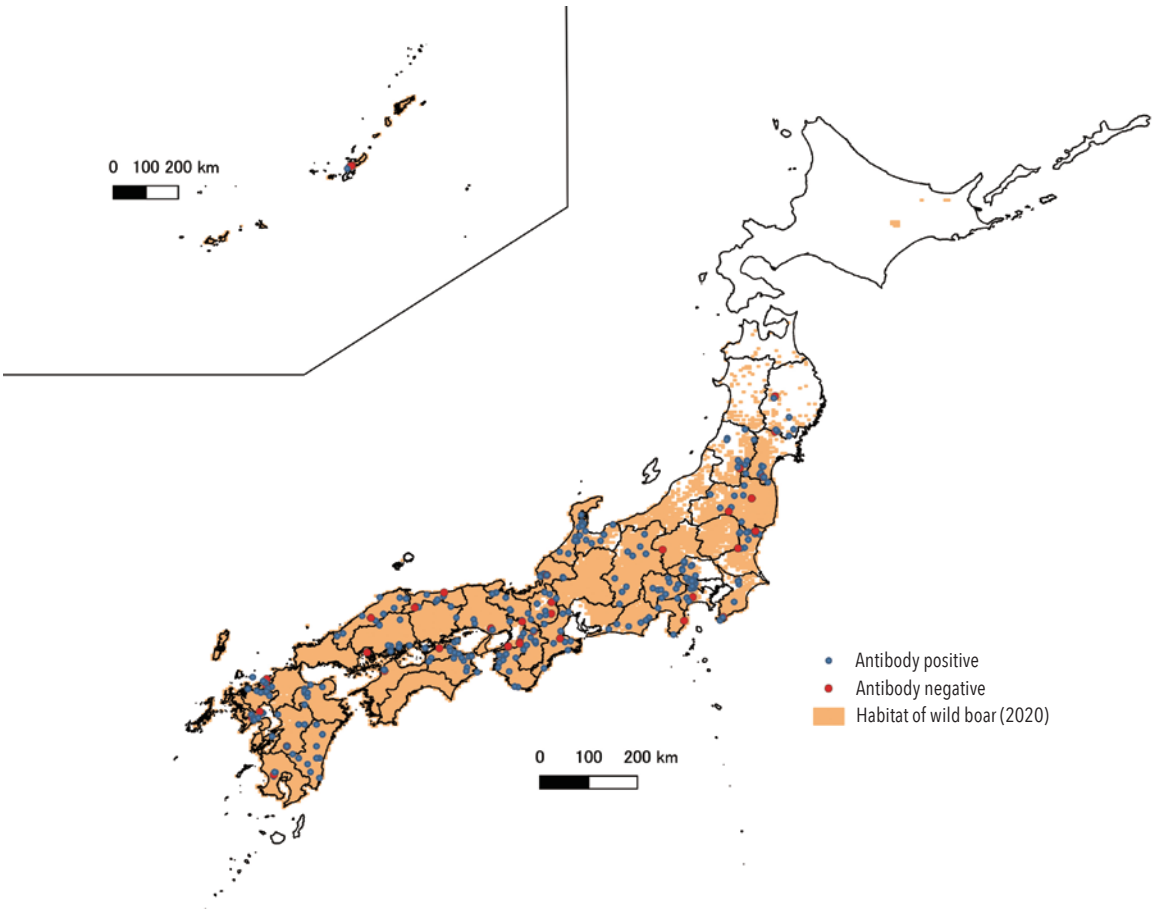
(4) Toxoplasmosis surveillance in wild boars

Toxoplasmosis is a zoonosis caused by infection with *toxoplasma*, a protozoan parasite, which mainly causes fever, diarrhea, and breathing difficulties. In Japan, it is designated as a Notifiable infectious disease of pigs, boars, sheep, and goats, and outbreaks have occurred in domestic pigs only in some prefectures. For wild boars, testing has been conducted since FY2014, and in FY2022, 358 samples collected in 36 prefectures were tested for antibodies against *Toxoplasma*. 42 samples tested positive, and at least one animal was confirmed to be antibody-positive in 27 prefectures.

More information on wildlife surveillance can be found at;
https://www.maff.go.jp/j/syouan/douei/katiku_yobo/wildlife_surveillance.html



Fig.2-10-3 Toxoplasmosis surveillance in wild boars



(Note: Habitat of wild boar is based on data published by the Ministry of the Environment (<https://www.env.go.jp/press/109239.html>). Although the map indicates wild boar habitat includes Hokkaido, according to Hokkaido, they originated from a captive boar-pig hybrid, and no wild boars in their natural state have been confirmed in Hokkaido.)

Appendixes