

Response to the classical swine fever outbreaks

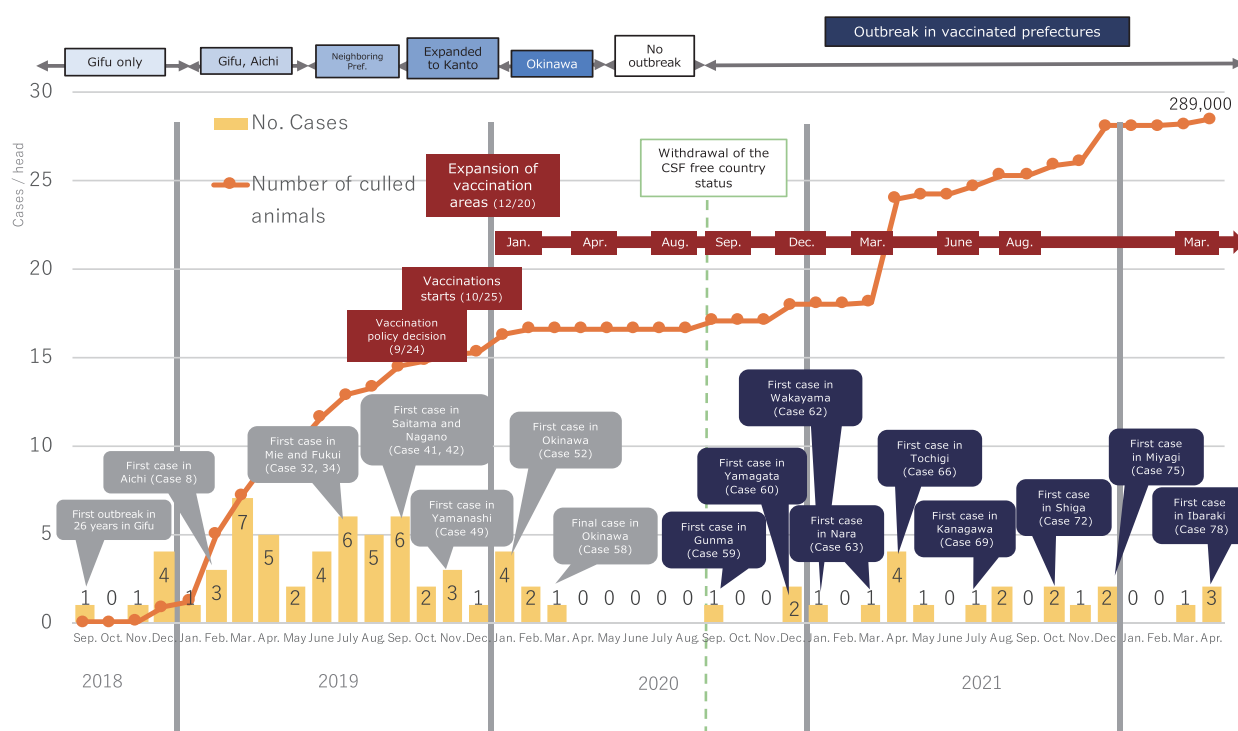
In September 2018, the first outbreak of classical swine fever in Japan in 26 years was confirmed on a swine farm in Gifu prefecture. As the disease spread in domestic pigs with the expansion of infection in the wild boar population, Japan initiated the application of oral vaccine (bait vaccine) for wild boars in March 2019 and vaccination of domestic pigs on a farm in the designated area in October 2019. Sporadic outbreaks have been confirmed on farms even after the CSF vaccination began in domestic pigs.

Outbreaks in domestic pigs

By the end of FY2020, 63 outbreaks had been reported in pig farms in 12 prefectures (Gifu, Aichi, Mie, Fukui, Saitama, Nagano, Yamanashi, Okinawa, Gunma, Yamagata, Wakayama, and Nara Prefectures). In FY2021, there were new outbreaks in Tochigi, Kanagawa, Shiga, and Miyagi prefectures, bringing the total to 77 cases in 16 prefectures by the end of FY2021.

The designated areas for vaccination of domestic pigs are determined through discussions in an expert committee, taking into account the infection situation in wild boar and the wild boar habitat. In FY2021, nine prefectures were newly designated as areas recommended for the vaccination of domestic pigs, and in

Figure S1-1 CSF history in Japan since 2018



total, 39 prefectures (excluding Hokkaido and Kyushu) were designated. All outbreaks during FY2021 occurred within the vaccination areas.

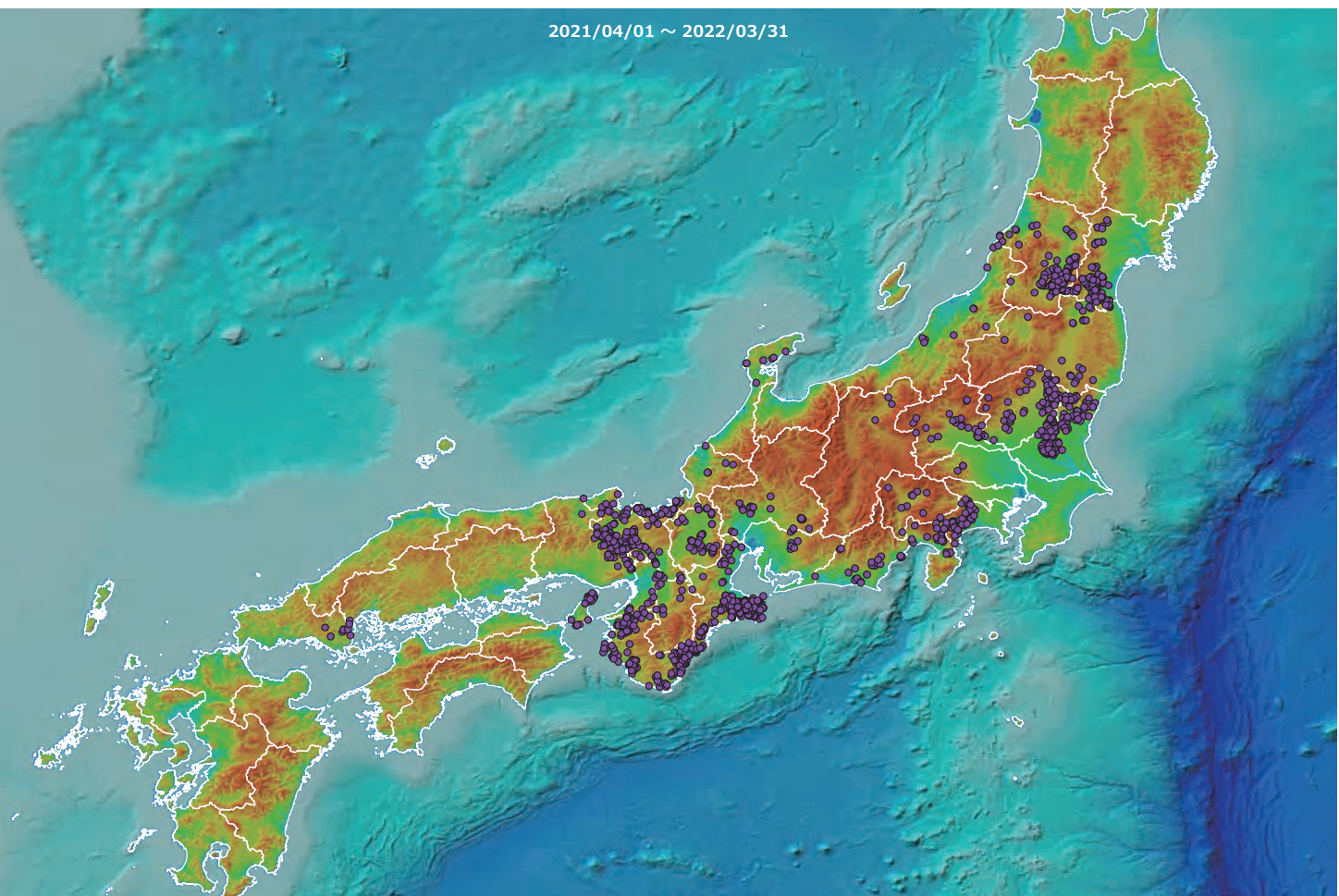
Infection in wild boars

CSF cases in wild boars, confirmed in only two prefectures in FY2018 at the beginning of the outbreak, had been confirmed in 24 prefectures by FY2020. In FY2021, CSF cases in wild boars were reported in three more prefectures counting 27 prefectures in total at the end of FY2021.

Notably, in March 2022, an infected wild boar was

reported in Yamaguchi Prefecture, located approximately 280 km west of Hyogo Prefecture, the westernmost wild boar-infected area in Honshu until then. According to the of whole genome analysis, the CSF virus derived from the wild boar detected in Yamaguchi Prefecture was found to be most closely related to a virus derived from the infected wild boar found in the eastern Kii Peninsula, approximately 500 km away, rather than to a virus derived from the infected wild boar found in Hyogo Prefecture and other relatively close locations. This finding raised concerns that the virus may have been introduced to the remote area through human activity.

Figure S1-2 Locations of CSF positive wild boars as the end of FY2021



Background map: GSI Geographical Survey Institute Tiles (color-coded elevation maps); ocean areas were created using data from the Japan Coast Guard's Maritime Information Department.