

Follow-up report 3 (Final report)

14/02/2022

The event is resolved. No more follow-up reports will be submitted.

Sender	Country/territory	Report ID
Delegate of Hong Kong	Hong Kong	FUR_154029
Event status	Self-declaration	
Resolved	No	

General information

Country or zone - Country	Disease - SARS-CoV-2 in animals (Inf. with)	Started on - 17/01/2022
Animal type - Terrestrial	Confirmed on - 18/01/2022	Causal agent - SARS-CoV-2
Ended on - 21/01/2022	Disease category - Emerging	Reported on - 14/02/2022
Reason - Emerging disease		

Disease impact

Outbreak morbidity - 1.77	Outbreak mortality - 0.0
Zoonotic potential - Yes	Zoonotic potential description - Both genetic and epidemiological results strongly suggest two separate hamster-to-human transmissions within the pet store involved, leading to subsequent human-to-human transmission.

Epidemiology

Source of the event or origin of the infection - Unknown or inconclusive

Epidemiological comments SARS-CoV-2 was detected in multiple hamsters and/or environmental swabs from a pet shop and its warehouse. The samples were collected because a staff at the pet shop (who had not been to the warehouse) was tested positive for COVID-19 and was found to be infected with a Delta strain of virus that has never been detected in Hong Kong.

All animals (small mammals – hamsters, mice, guinea pigs, chinchillas, rabbits) in the pet shop and warehouse were humanely dispatched to minimize the potential risks of COVID-19 infection and safeguard public safety. Hamsters from all pet shops in Hong Kong were sampled for testing and humanely dispatched, and the other animals of these pet shops had been tested. Members of public were urged to surrender their hamsters purchased from local pet shops after 22/12/21 to the government for testing and humane dispatch.

Subsequently, samples from hamsters in another pet shop outlet under the same group, multiple environmental samples from various outlets under this group and one surrendered hamster were tested positive.

As of 30/1/2022, business for the majority of the pet shops had resumed upon receiving satisfactory results.

The samples were tested by Tai Lung Veterinary Laboratory (Hong Kong SAR's official veterinary laboratory) and The School of Public Health at The University of Hong Kong (WHO COVID-19 reference laboratory). Sequencing results from the WHO reference laboratory indicates that the viral sequences from the hamsters are highly similar to that of the pet shop worker, and are similar to AY.127 sequences found in human cases in Europe. Infected imported hamsters are the most likely source of viral infection in this case.

No further cases have been detected and the event is considered closed.

Control measures at event level

Domestic control measures

Wild control measures

Applied

- Official destruction of animal products
- Movement control inside the country
- Screening
- Surveillance outside containment and or the protection zone
- Traceability
- Disinfection
- Stamping out

Diagnostic

Clinical signs - No

Method of diagnostic - Diagnostic test

Test name	Category	Test type	Laboratory	Species sampled	Outbreaks	Tested from	Tested until	Result
Real-time reverse transcription polymerase chain reaction (rRT-PCR)	Nucleic acid detection	Laboratory Test	Tai Lung Veterinary Laboratory, Agriculture Fisheries and Conservation Department National Laboratory	Cricetidae (unidentified)	2	19/01/2022	22/01/2022	Positive
Real-time reverse transcription polymerase chain reaction (rRT-PCR)	Nucleic acid detection	Laboratory Test	School of Public Health, The University of Hong Kong Local Laboratory	Cricetidae (unidentified)	2	18/01/2022	20/01/2022	Positive

Quantitative data summary

Measuring unit - Animal

Species	Type	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated	Outbreak morbidity	Outbreak mortality
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	New	-	-	-	-	-	-	-	-
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	Total	995	11	0	995	0	0	1.11	0.0
All species	New	-	-	-	-	-	-	-	-
All species	Total	995	11	0	995	0	0	1.11	0.0

Event morbidity - 1.77

Event mortality - 0.0

Morbidity range - 0.12-100

Mortality range - 0-0

Outbreaks

ob_96168-Causeway bay

Outbreak reference - SAD0198, SAD0205 Started on - 19/01/2022

First administrative division - Wan Chai

Ended on - 19/01/2022

Epidemiological unit - Other

Geographic coordinates -
22.27931,114.18335

Approximate location - Yes

Location - Causeway bay

Description of the affected populationA pet shop belonging to the same business group of the first outbreak (ob_95878), the small mammals in the store were supplied from the same warehouse (ob_95877).

49 samples were collected from the hamsters in this pet shop for SARS-CoV-2 testing and the virus was detected in oral/faecal samples from 2 hamsters with no observable clinical signs, other small mammals including guinea pigs and rabbits were tested to be negative. To minimize the potential risks of COVID-19 infection and safeguard public safety, all 62 hamsters in the shop were humanely dispatched on 19/1/22.

Species	Type	Measuring unit	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	New	Animal	-	-	-	-	-	-
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	Total	Animal	62	2	0	62	0	0
All species	New	Animal	-	-	-	-	-	-
All species	Total	Animal	62	2	0	62	0	0

Control measures different from event level

Additional measures - Official destruction of animal products

ob_96169-Sha Tin

Outbreak reference - 22-01057

Started on - 21/01/2022

First administrative division - Sha Tin

Ended on - 21/01/2022

Epidemiological unit - Other

Geographic coordinates -
22.37527,114.19967

Approximate location - Yes

Location - Sha Tin

Description of the affected populationAs of 23/1/2022, 113 samples were collected from hamsters surrendered to the Government's animal management center. These animals were humanely dispatched shortly after being surrendered. Oral/faecal samples from one hamster with no observable clinical signs were tested positive for SARS-CoV-2.

Species	Type	Measuring unit	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	New	Animal	-	-	-	-	-	-
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	Total	Animal	1	1	0	1	0	0
All species	New	Animal	-	-	-	-	-	-
All species	Total	Animal	1	1	0	1	0	0

Control measures different from event level

Additional measures - Official destruction of animal products

ob_95878-Causeway bay

Outbreak reference - 22-00748, 22-00749 Started on - 17/01/2022

First administrative division - Wan Chai

Ended on - 18/01/2022

Epidemiological unit - Other

Geographic coordinates -
22.27983,114.18523

Approximate location - Yes

Location - Causeway bay

Description of the affected population A staff of this pet shop was diagnosed with COVID-19 on 17/1/22. Subsequently, samples from 50 hamsters were collected for SARS-CoV-2 testing and the virus was detected in oral and faecal samples from seven hamsters with no observable clinical signs in this pet shop, other small mammals in the pet shop including rabbits and chinchillas were tested to be negative. To minimize the potential risks of COVID-19 infection and safeguard public safety, all 97 animals in the shop were humanely dispatched on 18/1/22.

Species	Type	Measuring unit	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	New	Animal	-	-	-	-	-	-
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	Total	Animal	69	7	0	69	0	0
All species	New	Animal	-	-	-	-	-	-
All species	Total	Animal	69	7	0	69	0	0

Control measures different from event level

Additional measures - Official destruction of animal products

ob_95877-Tai Po

Outbreak reference - WHP5292

Started on - 17/01/2022

First administrative division - Tai Po

Ended on - 19/01/2022

Epidemiological unit - Other

Geographic coordinates -
22.45687,114.16683

Approximate location - Yes

Location - Tai Po

Description of the affected population This warehouse stores small mammals and supplies to 35 pet shops selling hamsters in Hong Kong including the pet shop in causeway bay which a staff had been diagnosed with COVID-19. Samples from 79 hamsters were collected and oral sample from one hamster in the warehouse was tested SARS-COV-2 positive, samples from other small mammals including mice, rabbits and guinea pigs were tested negative. Among the 863 hamsters in the warehouse, four were found dead and two were found to be weak, others with no observable clinical signs. It is uncertain whether this has any relation to the virus.

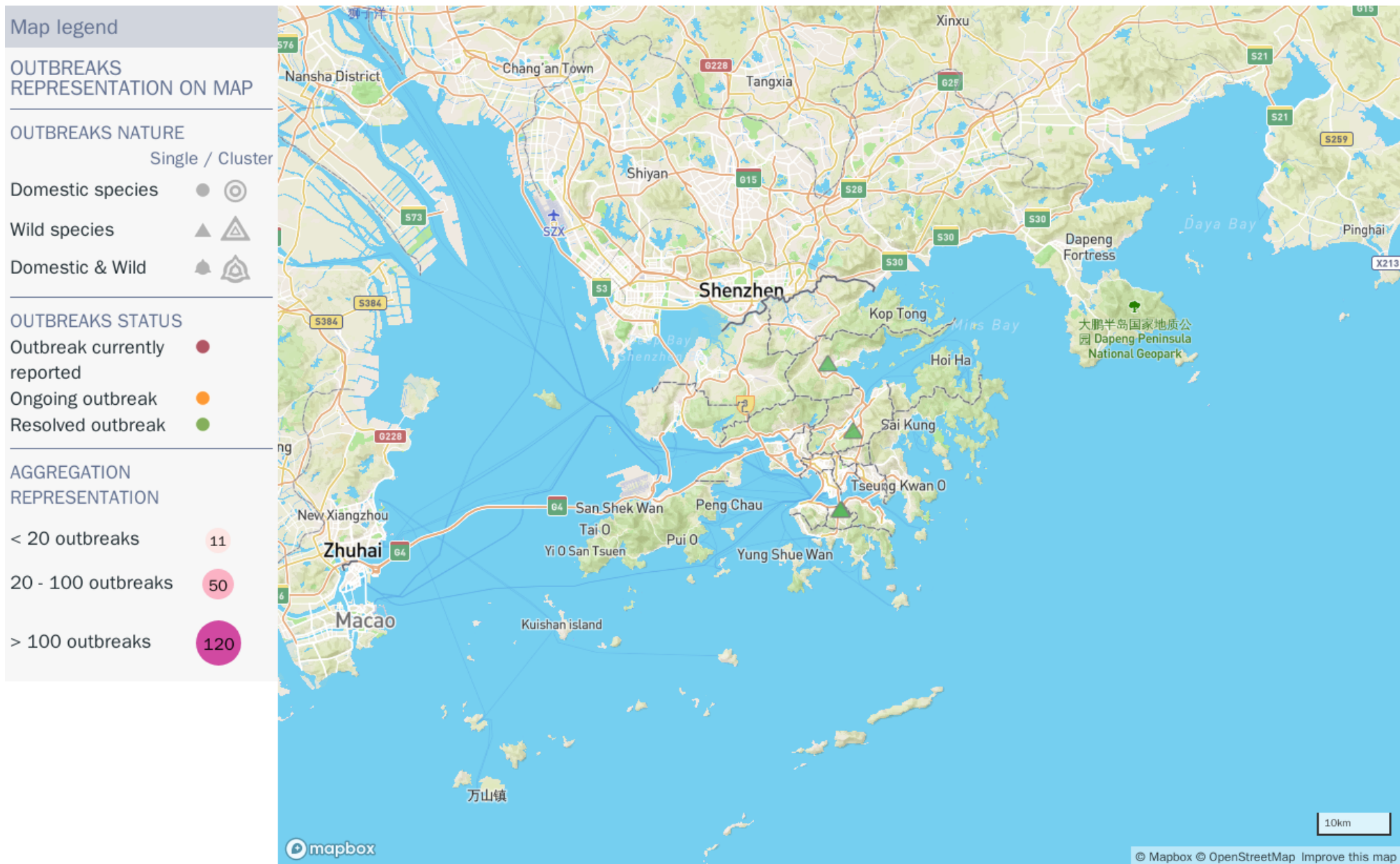
To minimize the potential risks of COVID-19 infection and safeguard public safety, all 1116 animals in the warehouse were humanely dispatched.

Species	Type	Measuring unit	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered	Vaccinated
Cricetidae (unidentified) (Cricetidae (incognita)):Cricetidae-Rodentia	New	Animal	-	-	-	-	-	-
Cricetidae (unidentified) (Cricetidae	Total	Animal	863	1	-	863	0	0

(incognita)):Cricetidae-Rodentia								
All species	New	Animal	-	-	-	-	-	-
All species	Total	Animal	863	1	-	863	0	0

Control measures different from event level

Additional measures - Official destruction of animal products



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