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@firefoxx66

A brief update to the focal S:N501 builds to start your Friday off right! This one includes data from 7 Jan 21.

We have about 20 new sequences each in 501Y.V1 (B.1.1.7 #b117) & 501Y.V2.

Let's take a look at the new sequences, starting with 501Y.V1

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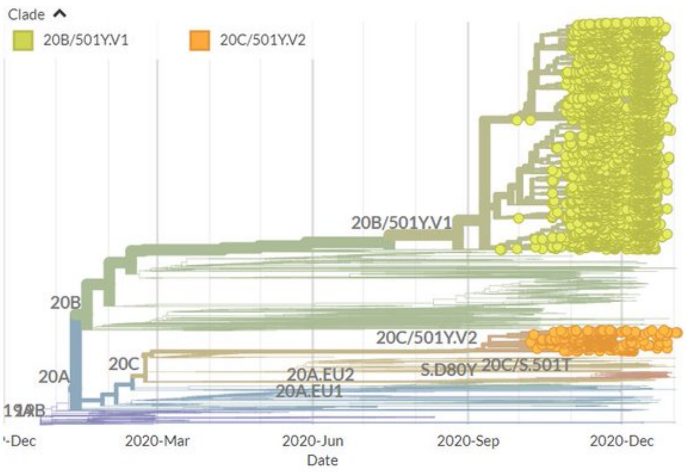
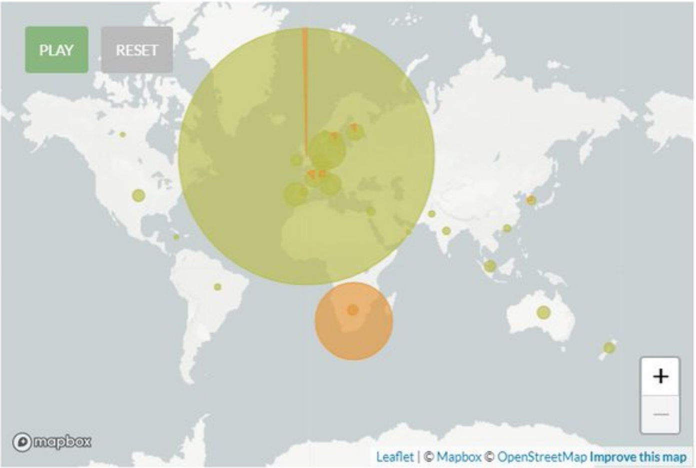
https://t.co/kT1gFsSZn0





There are 22 new non-UK sequences in 501Y.V1, including for the first time from Luxembourg (3), & additional seqs from Singapore (1), Australia (4), France (12), & Switzerland (2).

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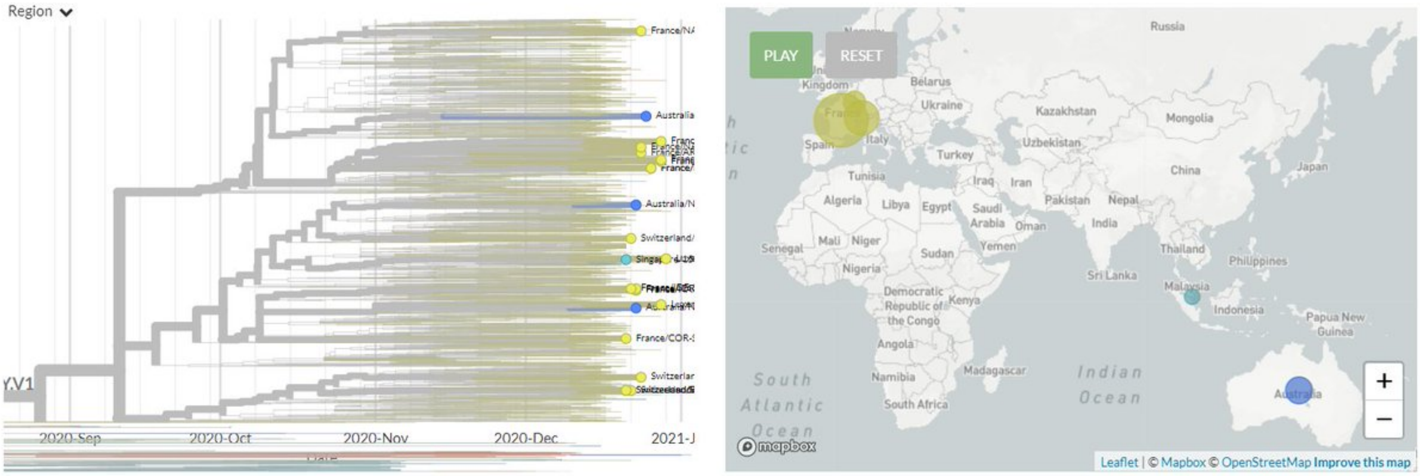

First, Luxembourg has 3 sequences in 501Y.V1 for the first time. Each represents a separate introduction.

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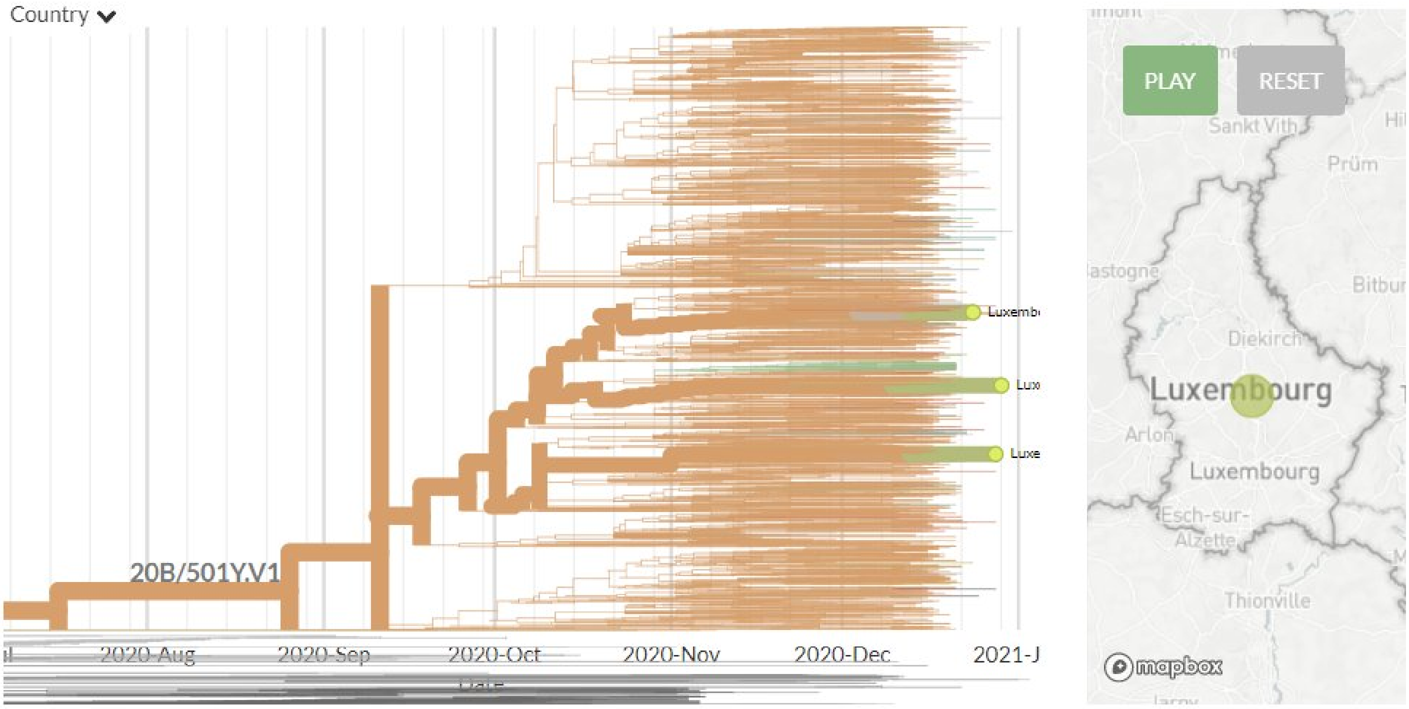

France has 12 new sequences (orange). Many of these represent independent introductions.

Zooming in (divergence view), we can see 2 new sequences are identical (possible local transmission), & 2 differ by 2 mutations (1 each).

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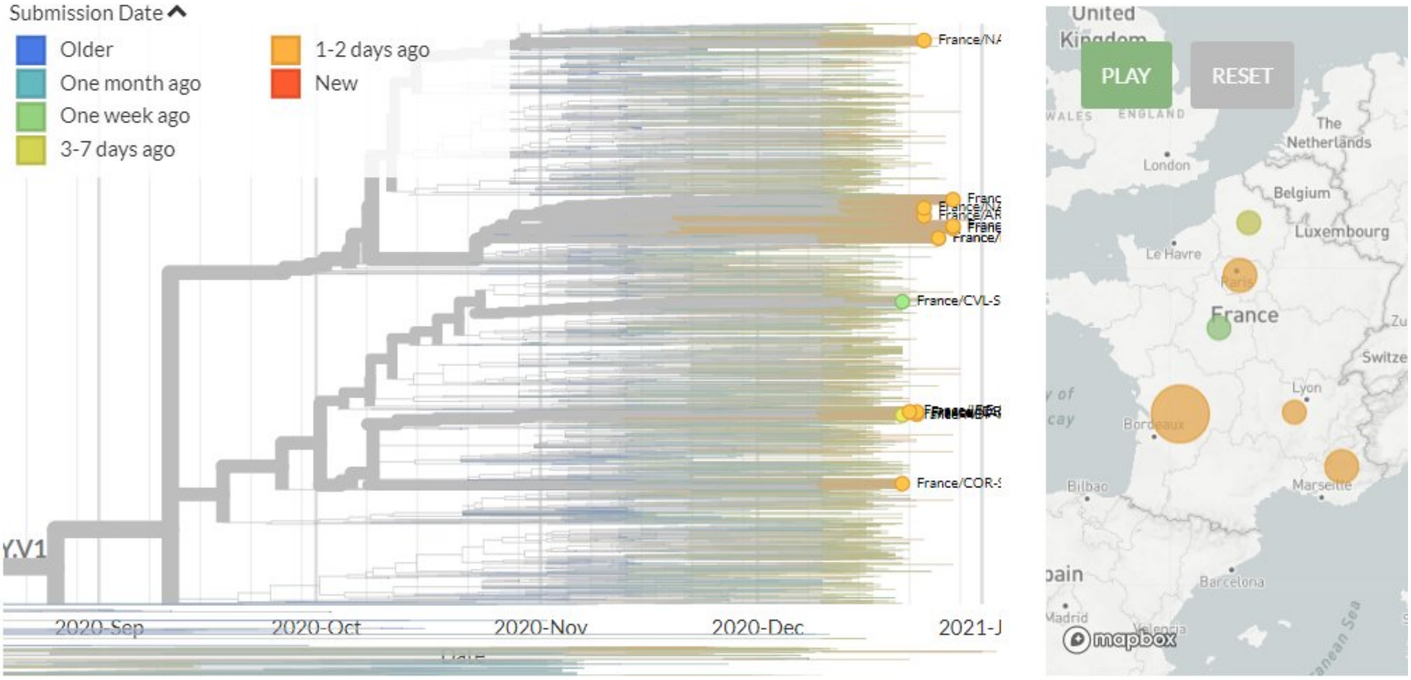

Australia has 4 new sequences (red and orange) which are spread across the tree, representing separate additional introductions.

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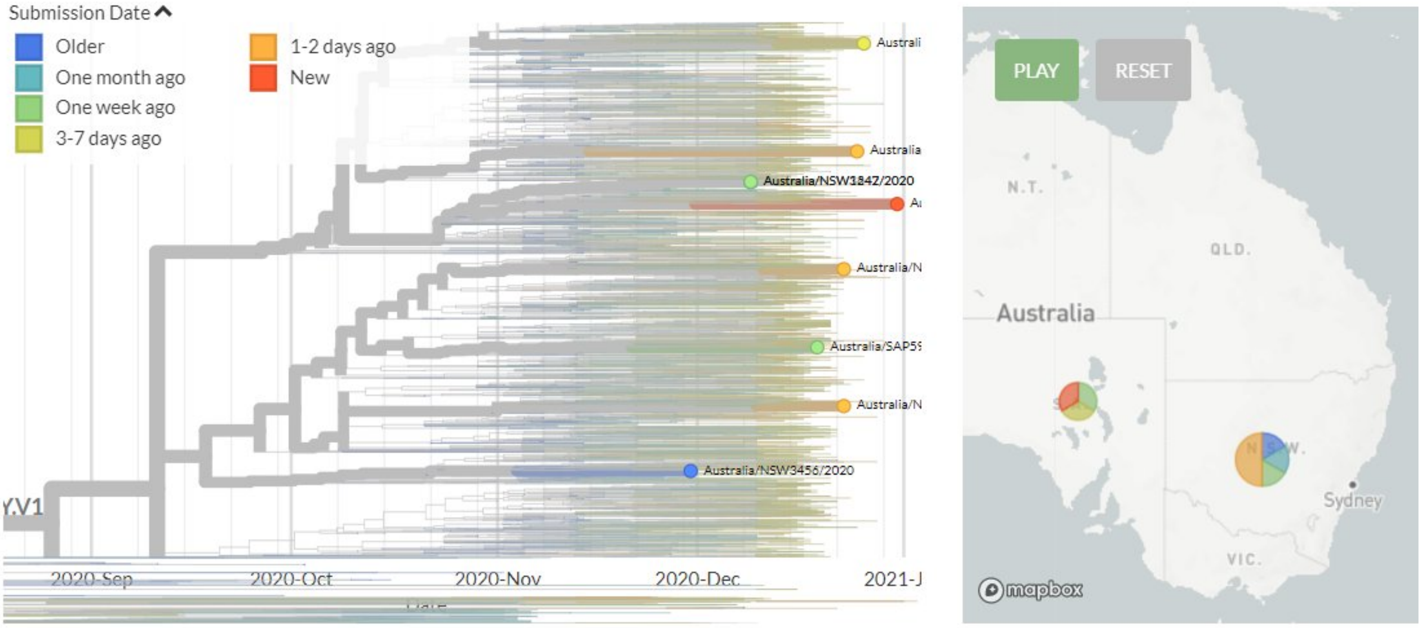

Switzerland has 2 new sequences. One (marked 1st pic) is a clear separate introduction. The other (marked 2nd pic, zoomed, divergence) is from Bern & identical to an earlier sequence from Zurich ('ZH'). This could be local transmission or a common exposure.

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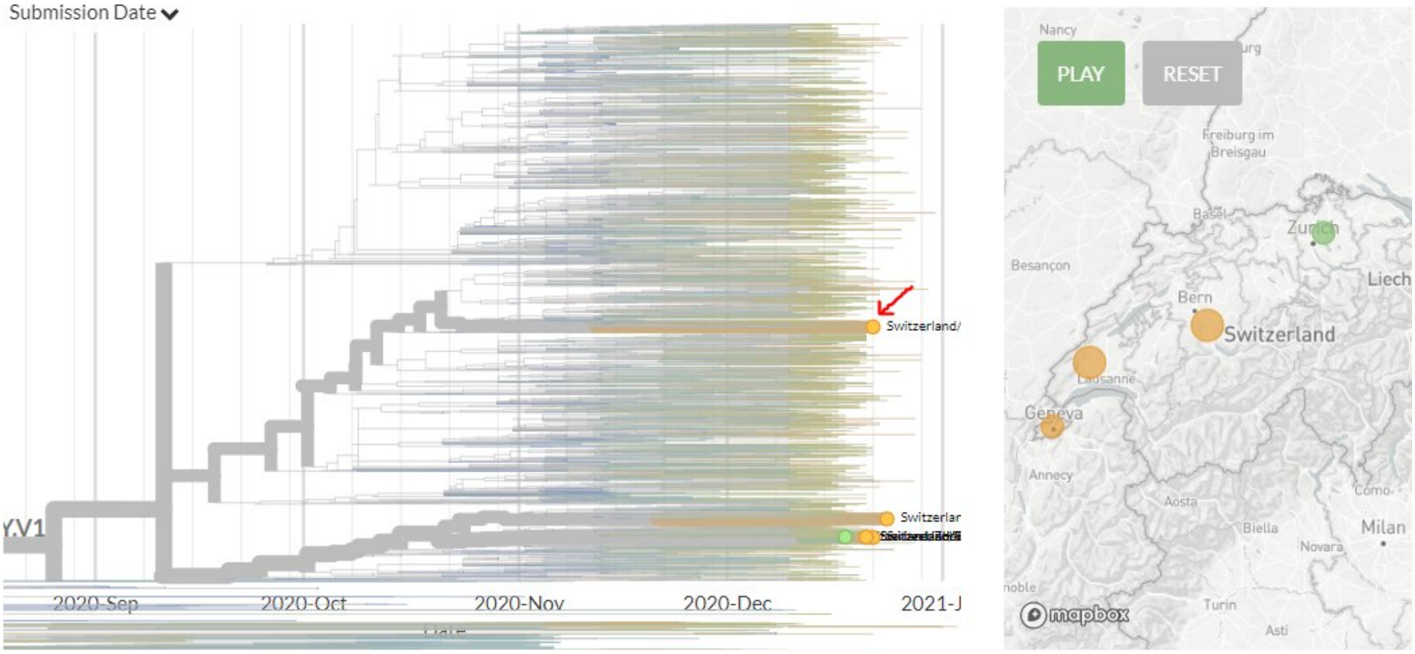

There is 1 new sequence from Singapore (orange).

Zooming in (divergence view), we can see it is identical to 2 older sequences, which may indicate local transmission or a common exposure.

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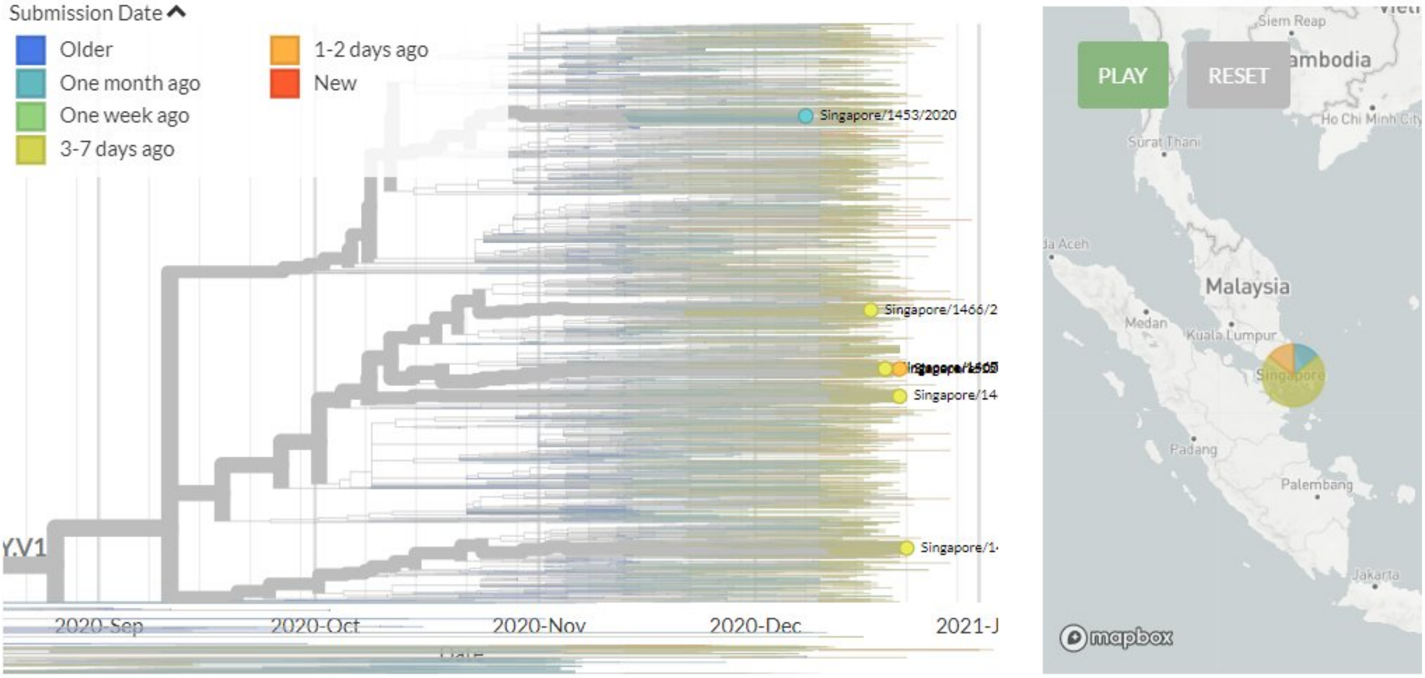

There are ~19 new non-South African sequences in 501Y.V2, including for the first time from Botswana (6), South Korea (1), & France (1), as well as additional sequences from the UK (~9).

(UK data may be affected by subsampling due to large sequence numbers.)

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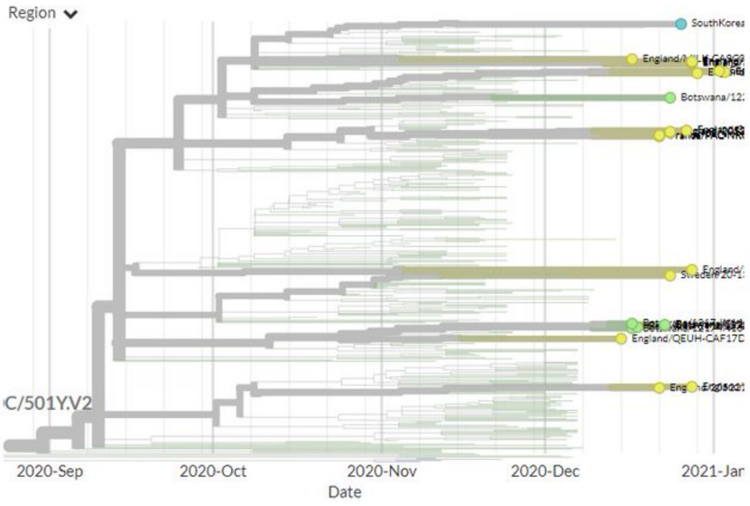

At least 9 new sequences from the UK are now in 501Y.V2 (UK data may be impacted by subsampling).

These are a mix of separate introductions & local transmission.

Connections to French sequences are in the next tweet...

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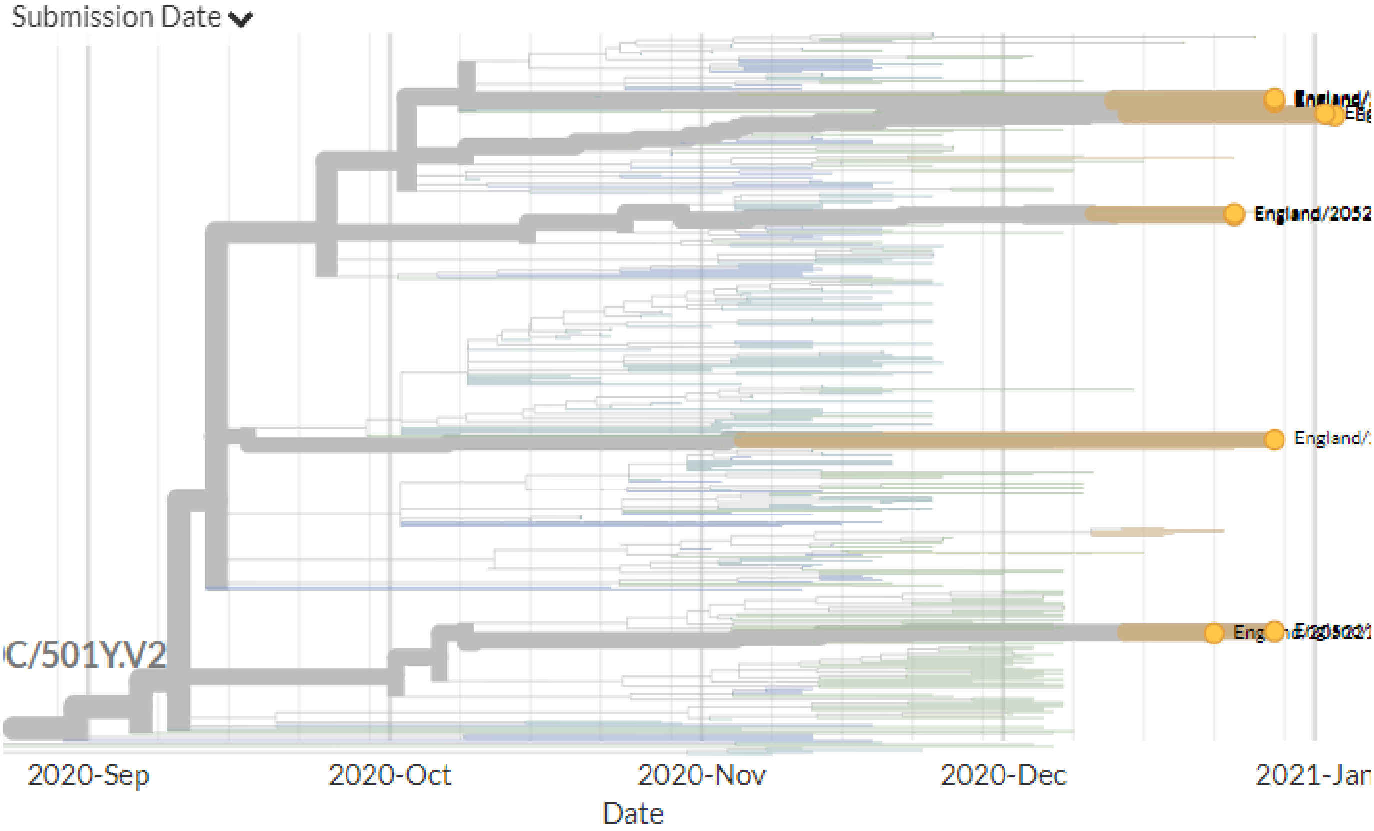

France has 2 sequences in 501Y.V2. They cluster together, which may indicate local transmission or a common source. They are related to seqs from England, but whether this is European transmission or exposure to common diversity in S Africa can't be distinguished clearly.

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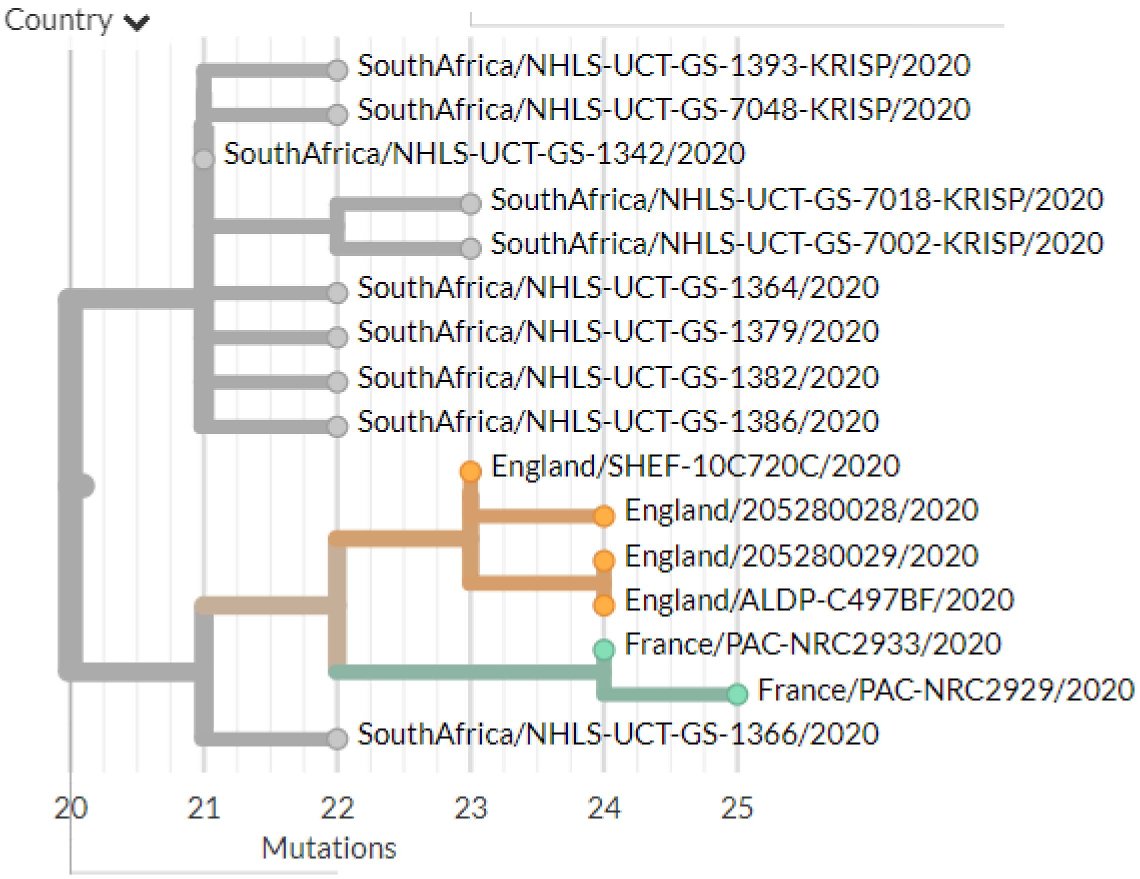

Botswana has 6 sequences in 501Y.V2. One sits apart from the others, indicating at least 2 introductions.

The other 5 cluster together, but are separated by a 1-3 mutations. This could indicate local transmission or transmission from unsampled South African diversity.

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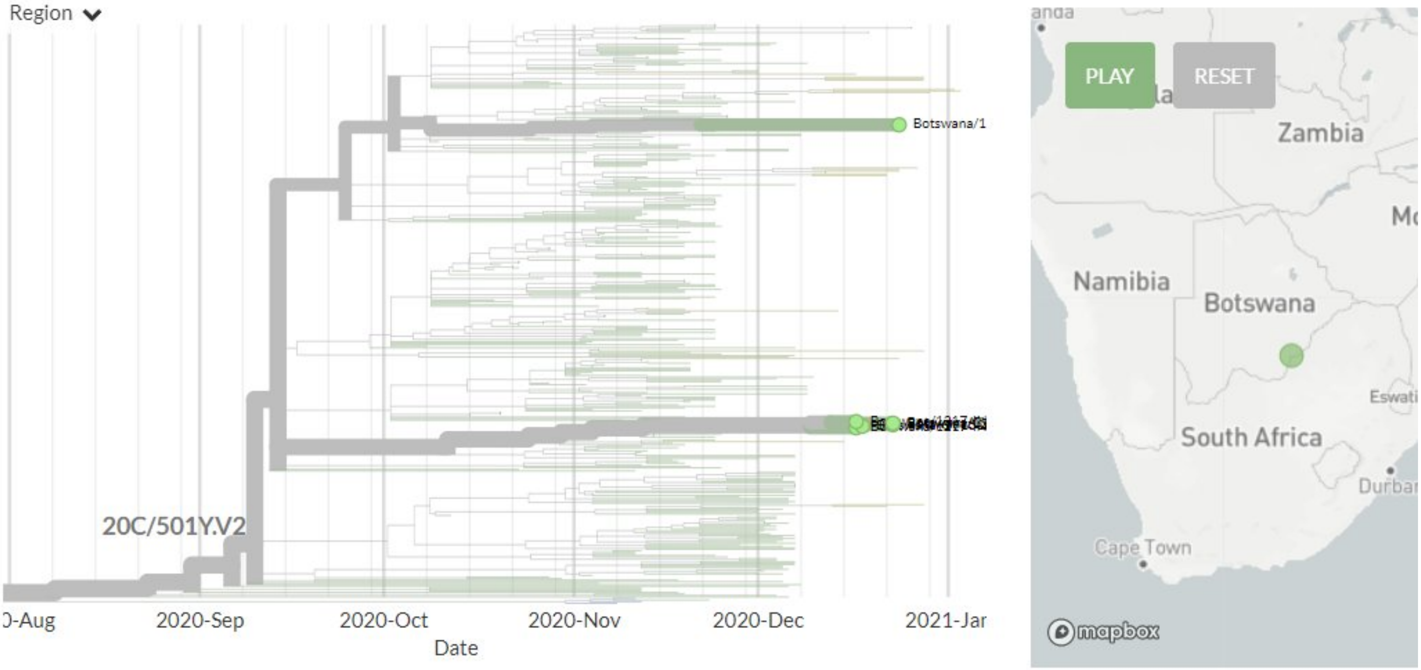

Lastly, South Korea has a sequence in 501Y.V2 for the first time.

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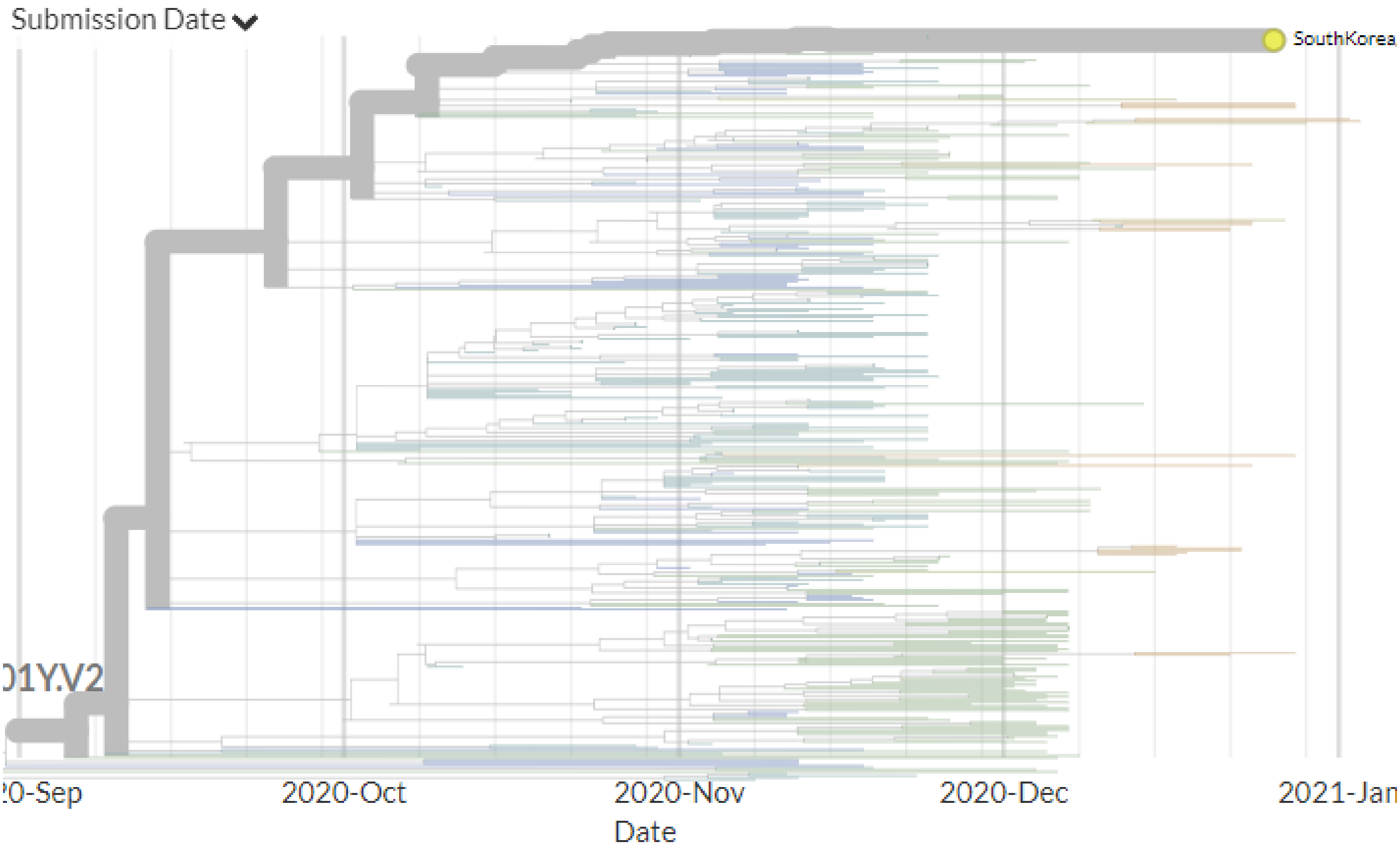

As previously, the country plots are also updated. Lithuania is now added!

Remember: many countries are currently focusing sequencing efforts on S:N501 variants, so frequencies are often not true representations of the 501Y variants.

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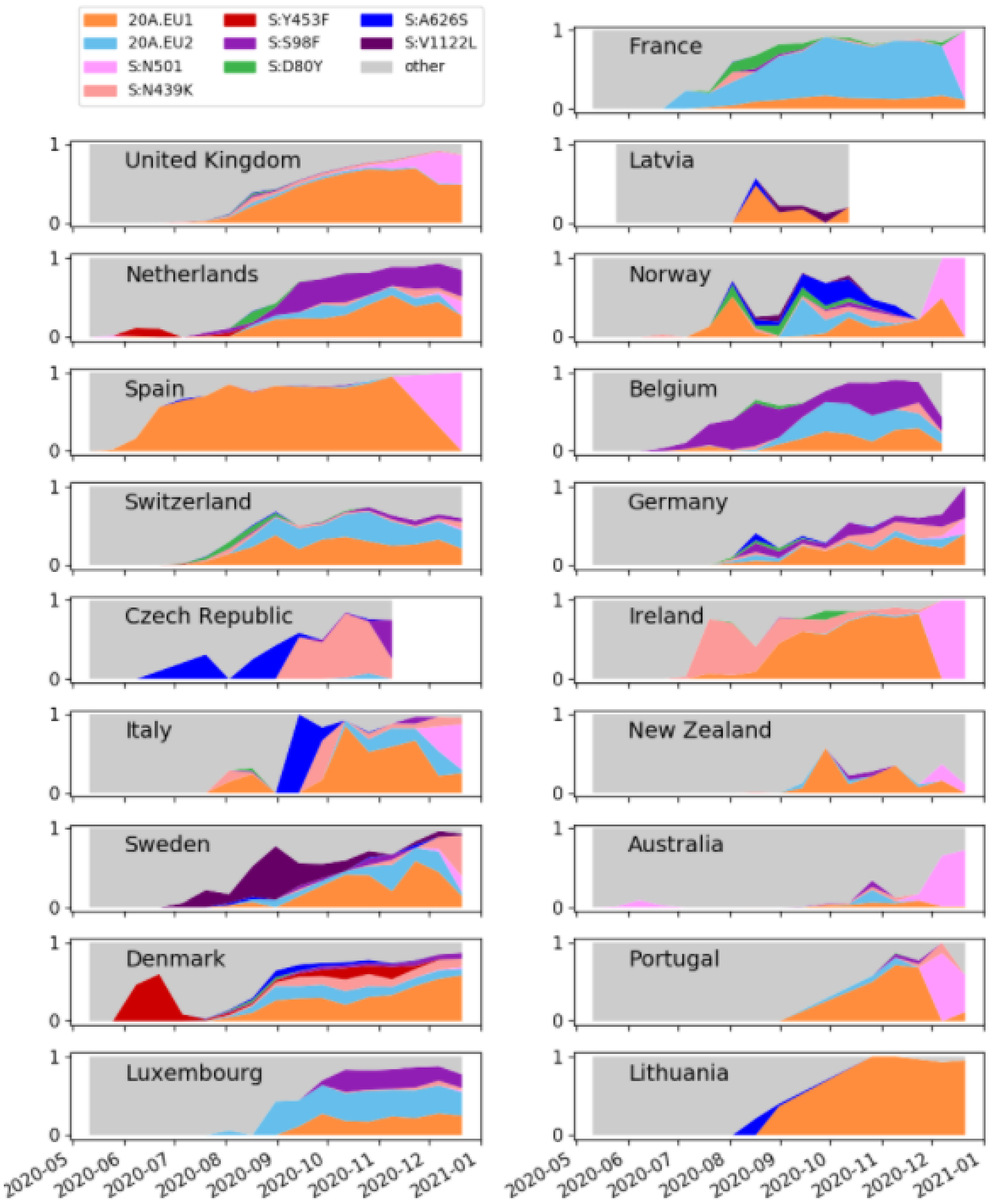
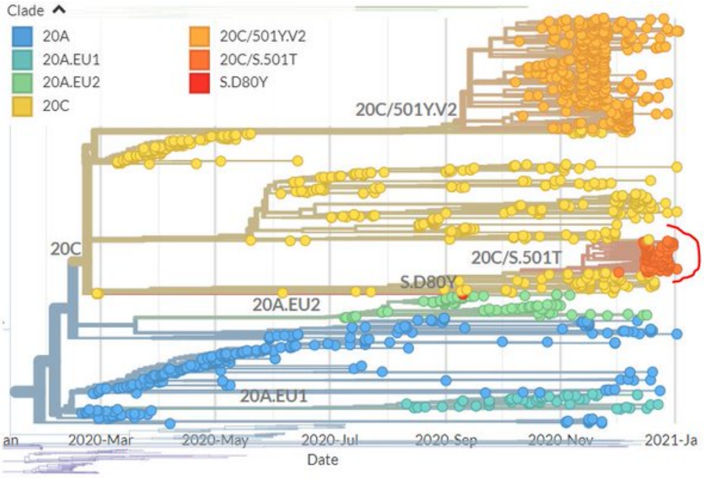
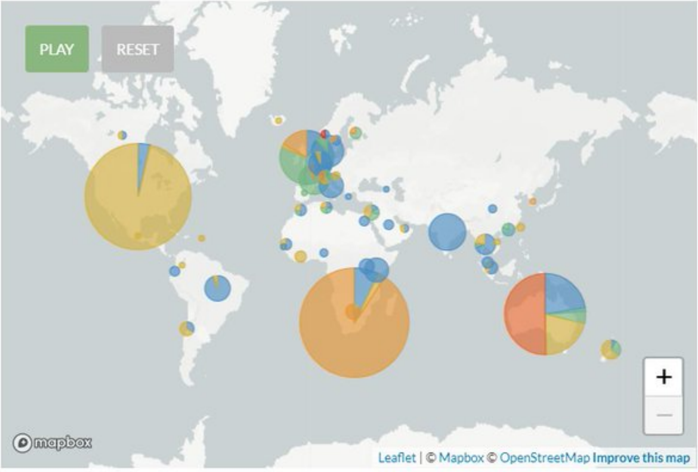
https://t.co/c7wlQOLRiq



Finally, we've added a new label to help identify a cluster of sequences with a S:N501*T* mutation currently circulating in Australia.

This is another independent appearance of a S:N501 (again, to T, not Y) mutation, & is not related to 20C/501Y.V2 or 20B/501Y.V1.


Clade
20A
20A.EU1
20A.EU2
20C
20C/501Y.V2
20C/S.501T
S.D80Y
20C/501Y.V2
20C
20C/S.501T
S.D80Y
20A.EU2
20A.EU1
an
2020-Mar
2020-May
2020-Jul
2020-Sep
2020-Nov
2021-Ja
Date


PLAY
RESET
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Leaflet | © Mapbox © OpenStreetMap Improve this map