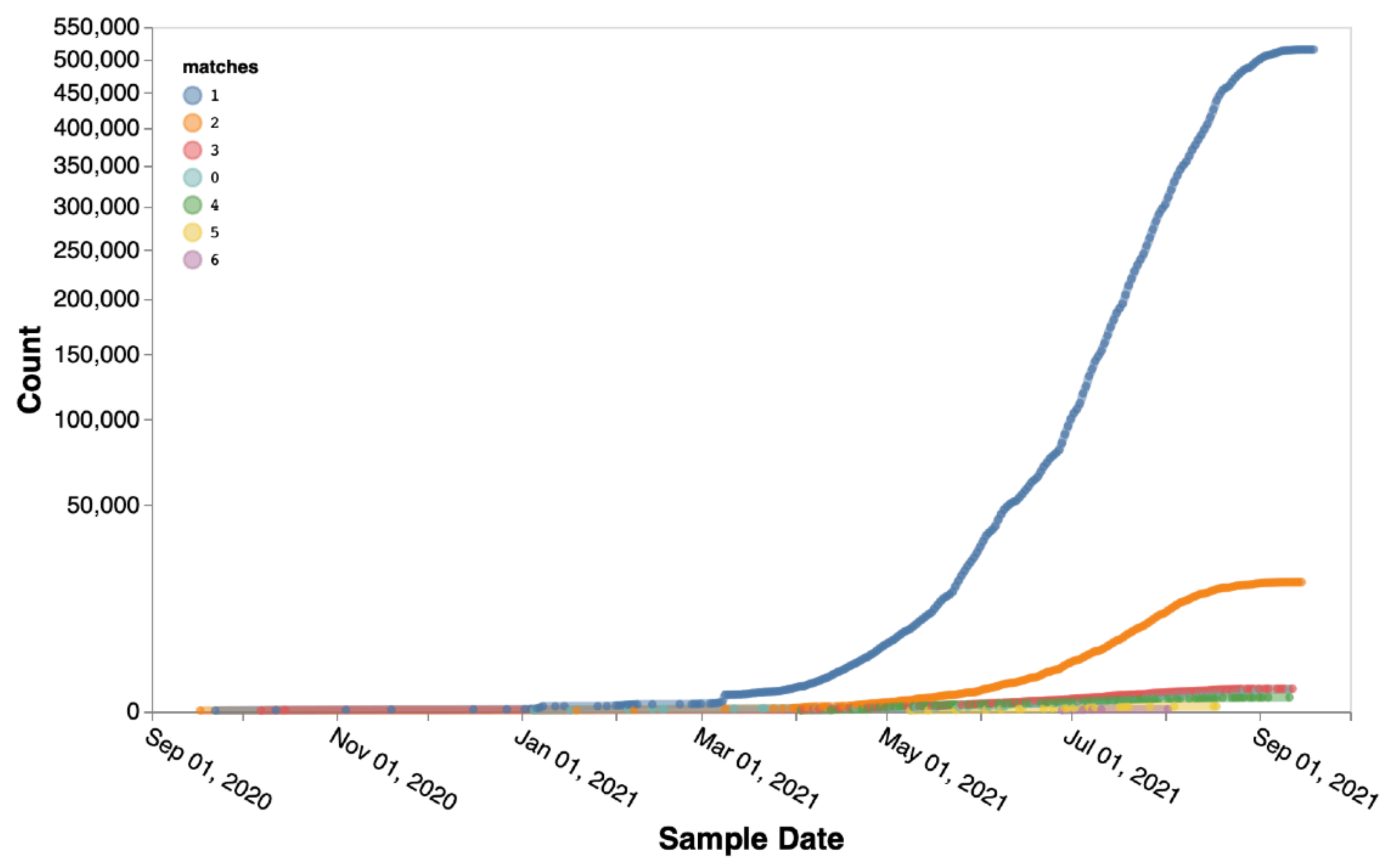





December 2019

November 2020

May 2021

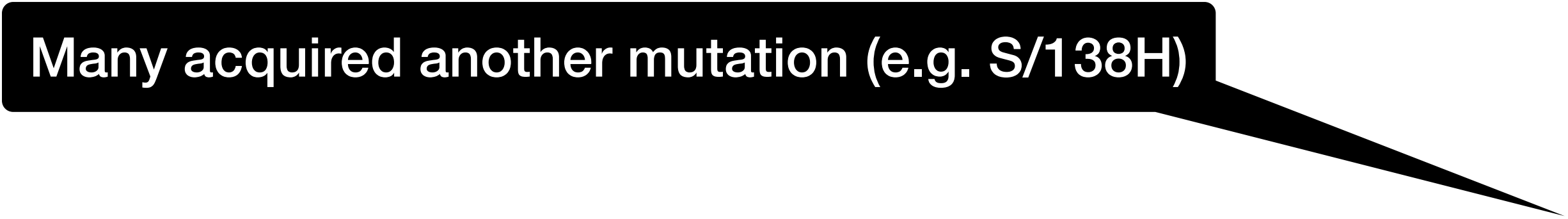


<https://obseivabehq.com/@spend/spike-trends>



**Some sequences acquired 3, 4 or 5 additional
signature mutations**

**Most sequences in B.1.617.2 have a single match to
the meta-signature in Spike (S/681R)**



Many acquired another mutation (e.g. S/138H)

ID	Sampled	Location	Clade	Matches ↓
2485255	2021/08/02	North America, USA, Nevada	B.1.617.2/21A (Delta)	69-, 70-, 98F, 138H, 144-, 681R
2485522	2021/07/11	North America, USA, Oregon	B.1.617.2/21A (Delta)	69-, 70-, 98F, 138H, 144-, 681R
2249409	2021/07/08	Europe, Greece, Attica	B.1.617.2/21A (Delta)	69-, 70-, 501Y, 681R, 716I, 1118H
1847594	2021/07/05	Europe, Sweden, Sodermanland	B.1.617.2/21A (Delta)	69-, 70-, 144-, 681H, 716I, 1118H
1715407	2021/06/28	North America, Mexico, Quintana Roo	B.1.617.2/21A (Delta)	18F, 26S, 681R, 1027I, 1176F, 1264L

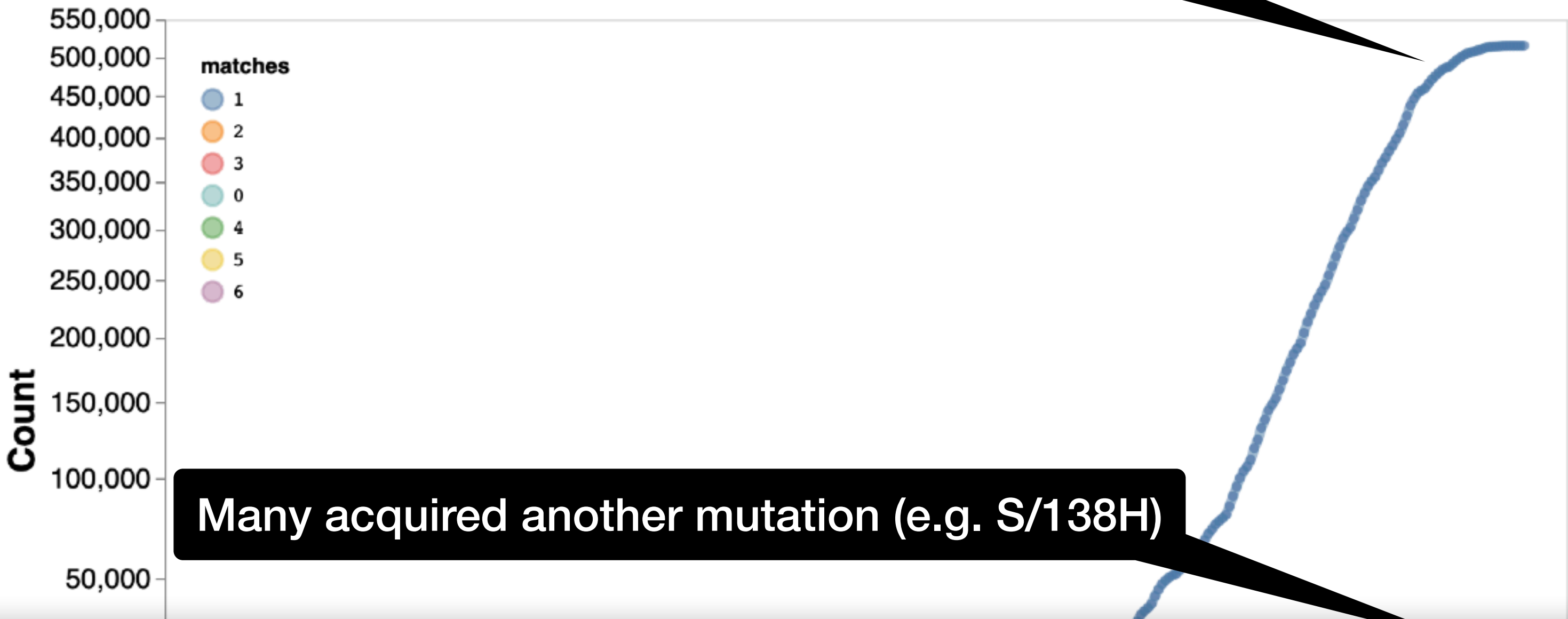
December 2019

November 2020

May 2021

Most sequences in B.1.617.2 have a single match to the meta-signature in Spike (S/681R)

Delta takes over



Many acquired another mutation (e.g. S/138H)

ID	Sampled	Location	Clade	Matches ↓
2485255	2021/08/02	North America, USA, Nevada	B.1.617.2/21A (Delta)	69-, 70-, 98F, 138H, 144-, 681R
2485522	2021/07/11	North America, USA, Oregon	B.1.617.2/21A (Delta)	69-, 70-, 98F, 138H, 144-, 681R
2249409	2021/07/08	Europe, Greece, Attica	B.1.617.2/21A (Delta)	69-, 70-, 501Y, 681R, 716I, 1118H
1847594	2021/07/05	Europe, Sweden, Sodermanland	B.1.617.2/21A (Delta)	69-, 70-, 144-, 681H, 716I, 1118H
1715407	2021/06/28	North America, Mexico, Quintana Roo	B.1.617.2/21A (Delta)	18F, 26S, 681R, 1027I, 1176F, 1264L

Some sequences acquired 3, 4 or 5 additional signature mutations

December 2019

November 2020

May 2021



Continued evolution, complex
selection dynamics, transition to
endemic?

- Can comparative analyses help prioritize genomic variants (and locations of variation) that are important in some sense?
 - Likely to increase in frequency in the near future
 - Involved in adaptation
 - Show “unexpected” evolutionary patterns.