Summary report for UK introductions

This report gives summaries of UK specific lineages for week 2020-05-01. There are time lags due to batching, curation and analysis, the most recently sampled sequence is 2020-04-25. The analysis (eg time since last sample) is therefore undertaken from this date. 10725 sequences in the UK have been included in this analysis. 478 lineages have been recorded, 387 of which only contain one sequence.

Note: the size of a lineage may be due to a low amount of transmission of this lineage, but it is likely also that it just hasn't been sampled as frequently, especially for newer lineages.

Sequences which were replicates or too error-prone were removed from this analysis.

434 are introductions which only contained five sequences or fewer, and so have been left out of visualisation in the interests of clarity

Of the 44 that remain: 10 are pending extinction, ie last seen three weeks ago. 13 lineages have gone quiet, ie haven't been seen this week. 2 lineages have reactivated. 19 lineages have been continuously circulating.

The following table contains information about lineages and the number of sequences in each country in the UK for each lineage, in reverse size order. Each entry is the count of sequences from each lineage in each country, with the percentage of the total sequences from that lineage that this count represents.

It is also written to "summary_files" as "introduction_summary.tsv" for further use.

Introduction	England	Scotland	Wales	Northern Ireland	Date range	Total sequences	Global lineage	Time since last sample (days)
UK833	3306 (86.09%)	157 (4.09%)	354 (9.22%)	23 (0.6%)	Feb-15, Apr-25	3840	B.1.1, B.1, B.1.24, B.1.10	0
UK74	1632 (69.57%)	396 (16.88%)	314 (13.38%)	4 (0.17%)	Feb-03, Apr-24	2346	B.1.8, B.1.20, B.1.5.3, B.1, B.1.7, B.1.22, B.1.11, B.1.5	1
UK70	975 (92.95%)	27 (2.57%)	45 (4.29%)	2 (0.19%)	Feb-09, Apr-22	1049	B.2.1, B.2	3
UK51	422 (73.91%)	123 (21.54%)	24 (4.2%)	2 (0.35%)	Feb-03, Apr-24	571	B.4, B.3, B.8, B	1
UK65	233 (73.73%)	59 (18.67%)	23 (7.28%)	1 (0.32%)	Feb-13, Apr-22	316	B.2	3
UK15	247 (79.68%)	24 (7.74%)	37 (11.94%)	2 (0.65%)	Mar-06, Apr-24	310	B.1.27, B.1, B.1.3	1

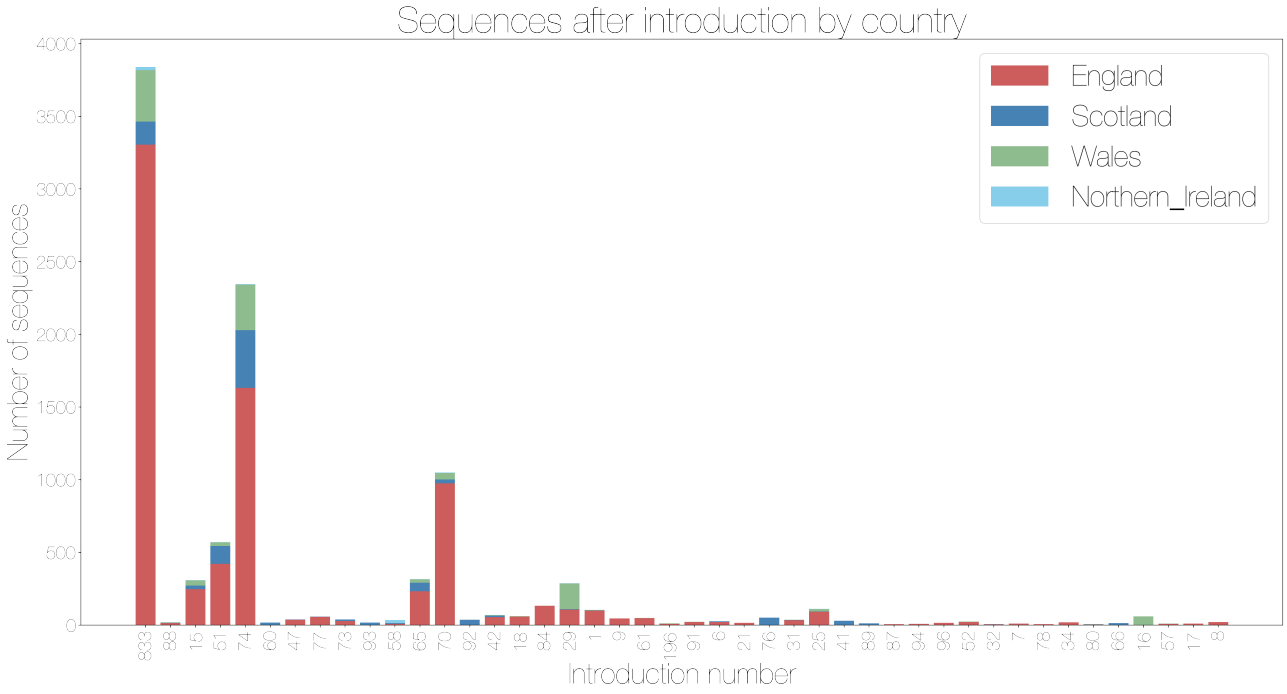
Introduction	England	Scotland	Wales	Northern Ireland	Date range	Total sequences	Global lineage	Time since last sample (days)
UK29	107 (37.28%)	3 (1.05%)	176 (61.32%)	1 (0.35%)	Mar-09, Apr-19	287	B.3	6
UK84	133 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-11, Apr-20	133	B.1.13	5
UK25	92 (82.88%)	2 (1.8%)	16 (14.41%)	1 (0.9%)	Feb-25, Apr-13	111	B.2, B.2.2	12
UK1	99 (95.19%)	2 (1.92%)	3 (2.88%)	0 (0%)	Feb-27, Apr-19	104	B.2.5	6
UK42	55 (80.88%)	11 (16.18%)	2 (2.94%)	0 (0%)	Feb-27, Apr-20	68	B.1	5
UK18	58 (95.08%)	0 (0%)	3 (4.92%)	0 (0%)	Mar-11, Apr-20	61	B.2, B.2.4	5
UK16	0 (0%)	0 (0%)	60 (100.0%)	0 (0%)	Mar-10, Mar-30	60	B.3	26
UK77	57 (96.61%)	2 (3.39%)	0 (0%)	0 (0%)	Mar-06, Apr-23	59	B.1	2
UK76	1 (1.96%)	50 (98.04%)	0 (0%)	0 (0%)	Mar-16, Apr-14	51	B.1	11
UK61	48 (97.96%)	0 (0%)	1 (2.04%)	0 (0%)	Mar-17, Apr-19	49	B.1.30	6
UK9	45 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Feb-24, Apr-19	45	B.1	6

Introduction	England	Scotland	Wales	Northern Ireland	Date range	Total sequences	Global lineage	Time since last sample (days)
UK73	28 (73.68%)	10 (26.32%)	0 (0%)	0 (0%)	Mar-20, Apr-23	38	B.1	2
UK47	37 (97.37%)	1 (2.63%)	0 (0%)	0 (0%)	Mar-12, Apr-23	38	B.3	2
UK92	0 (0%)	36 (100.0%)	0 (0%)	0 (0%)	Mar-22, Apr-21	36	B.1	4
UK31	34 (94.44%)	1 (2.78%)	1 (2.78%)	0 (0%)	Mar-06, Apr-13	36	B.3, B	12
UK58	9 (25.71%)	5 (14.29%)	0 (0%)	21 (60.0%)	Mar-13, Apr-22	35	B	3
UK41	2 (6.67%)	27 (90.0%)	1 (3.33%)	0 (0%)	Mar-12, Apr-12	30	A.2	13
UK6	21 (77.78%)	6 (22.22%)	0 (0%)	0 (0%)	Mar-01, Apr-17	27	B.1	8
UK52	21 (84.0%)	0 (0%)	4 (16.0%)	0 (0%)	Mar-11, Apr-08	25	B	17
UK91	20 (90.91%)	0 (0%)	2 (9.09%)	0 (0%)	Mar-12, Apr-18	22	B.1	7
UK8	20 (95.24%)	0 (0%)	1 (4.76%)	0 (0%)	Mar-12, Mar-28	21	B.2.1	28
UK88	14 (73.68%)	1 (5.26%)	4 (21.05%)	0 (0%)	Mar-15, Apr-24	19	B.2	1

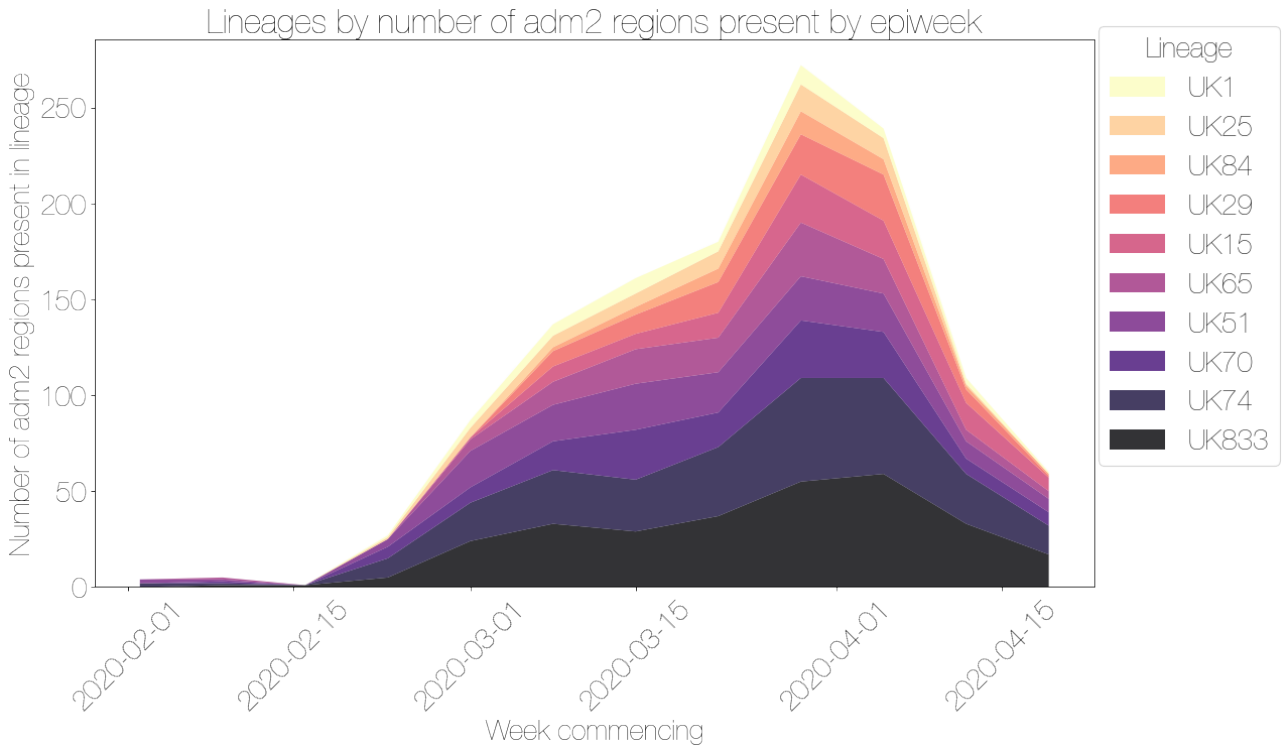
Introduction	England	Scotland	Wales	Northern Ireland	Date range	Total sequences	Global lineage	Time since last sample (days)
UK34	19 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-14, Apr-02	19	B.2.1	23
UK93	0 (0%)	18 (100.0%)	0 (0%)	0 (0%)	Mar-21, Apr-22	18	B.1	3
UK60	0 (0%)	17 (100.0%)	0 (0%)	0 (0%)	Mar-18, Apr-23	17	B.1	2
UK96	15 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-19, Apr-10	15	B.1	15
UK21	15 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-13, Apr-14	15	B.2	11
UK66	1 (7.14%)	13 (92.86%)	0 (0%)	0 (0%)	Mar-12, Apr-01	14	B	24
UK196	8 (66.67%)	1 (8.33%)	3 (25.0%)	0 (0%)	Mar-26, Apr-18	12	B.1	7
UK89	0 (0%)	12 (100.0%)	0 (0%)	0 (0%)	Mar-13, Apr-11	12	B.1	14
UK17	10 (90.91%)	0 (0%)	1 (9.09%)	0 (0%)	Mar-12, Mar-29	11	B.1.11	27
UK7	10 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-07, Apr-03	10	B.8	22
UK57	9 (90.0%)	0 (0%)	1 (10.0%)	0 (0%)	Mar-16, Mar-30	10	B.8	26

Introduction	England	Scotland	Wales	Northern Ireland	Date range	Total sequences	Global lineage	Time since last sample (days)
UK94	9 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-16, Apr-11	9	B.2	14
UK87	7 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-21, Apr-11	7	B.1	14
UK78	7 (100.0%)	0 (0%)	0 (0%)	0 (0%)	Mar-10, Apr-02	7	B.2.1	23
UK80	3 (50.0%)	2 (33.33%)	1 (16.67%)	0 (0%)	Mar-20, Apr-01	6	B.1	24
UK32	5 (83.33%)	1 (16.67%)	0 (0%)	0 (0%)	Mar-05, Apr-03	6	B.2.2	22

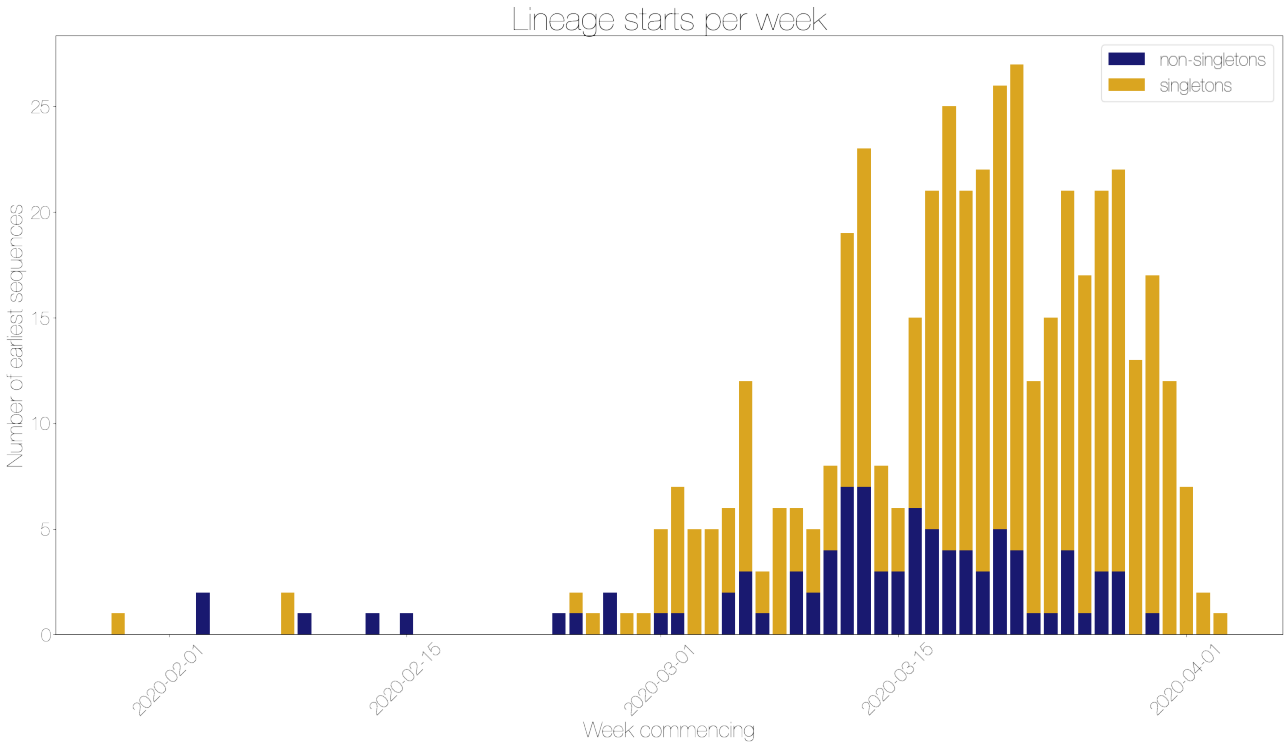
These data is represented in the stacked bar chart below. Note that the number of sequences is likely to be due more to differing sampling efforts in different regions, rather than genuine differences in numbers of cases.



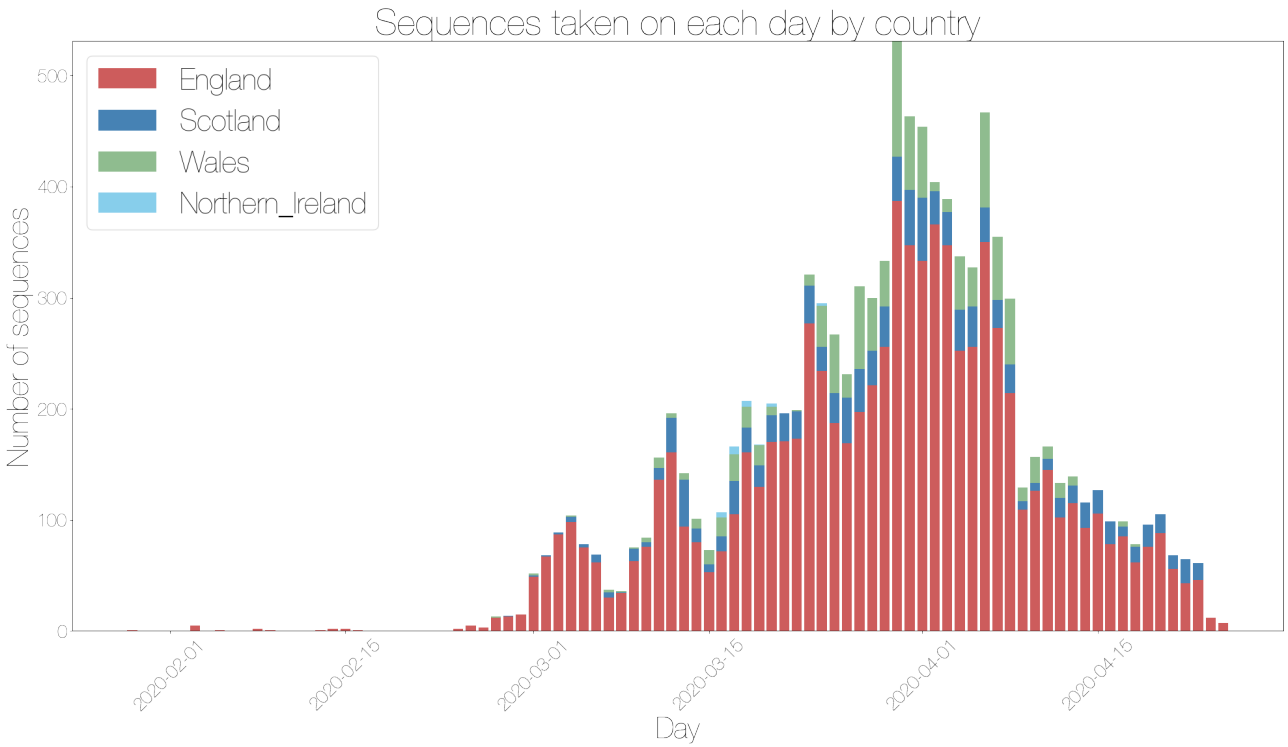
The relative growth and decline of the ten most sampled lineages in terms of number of counties they are present in is shown below.



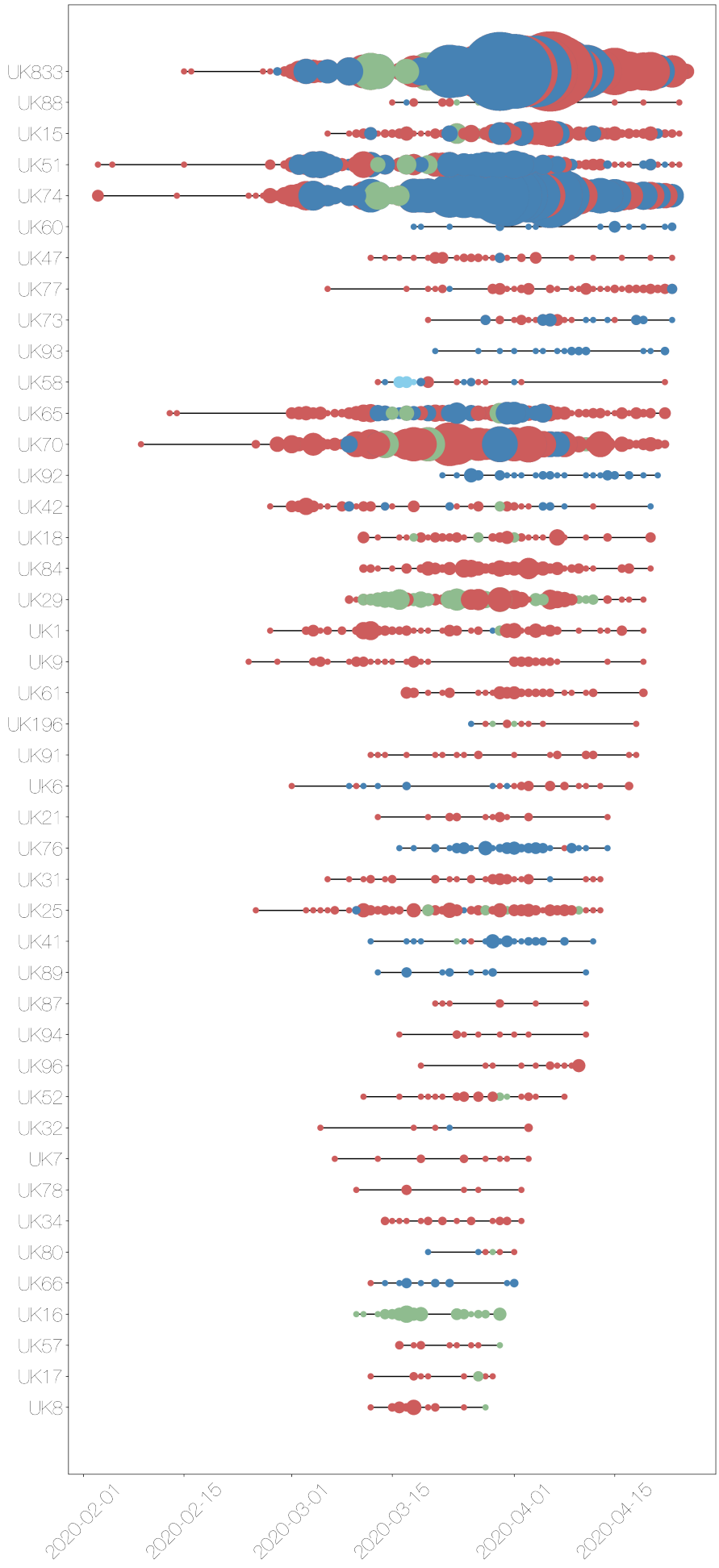
The date of first sequence in the cluster is shown below for every cluster with date information.



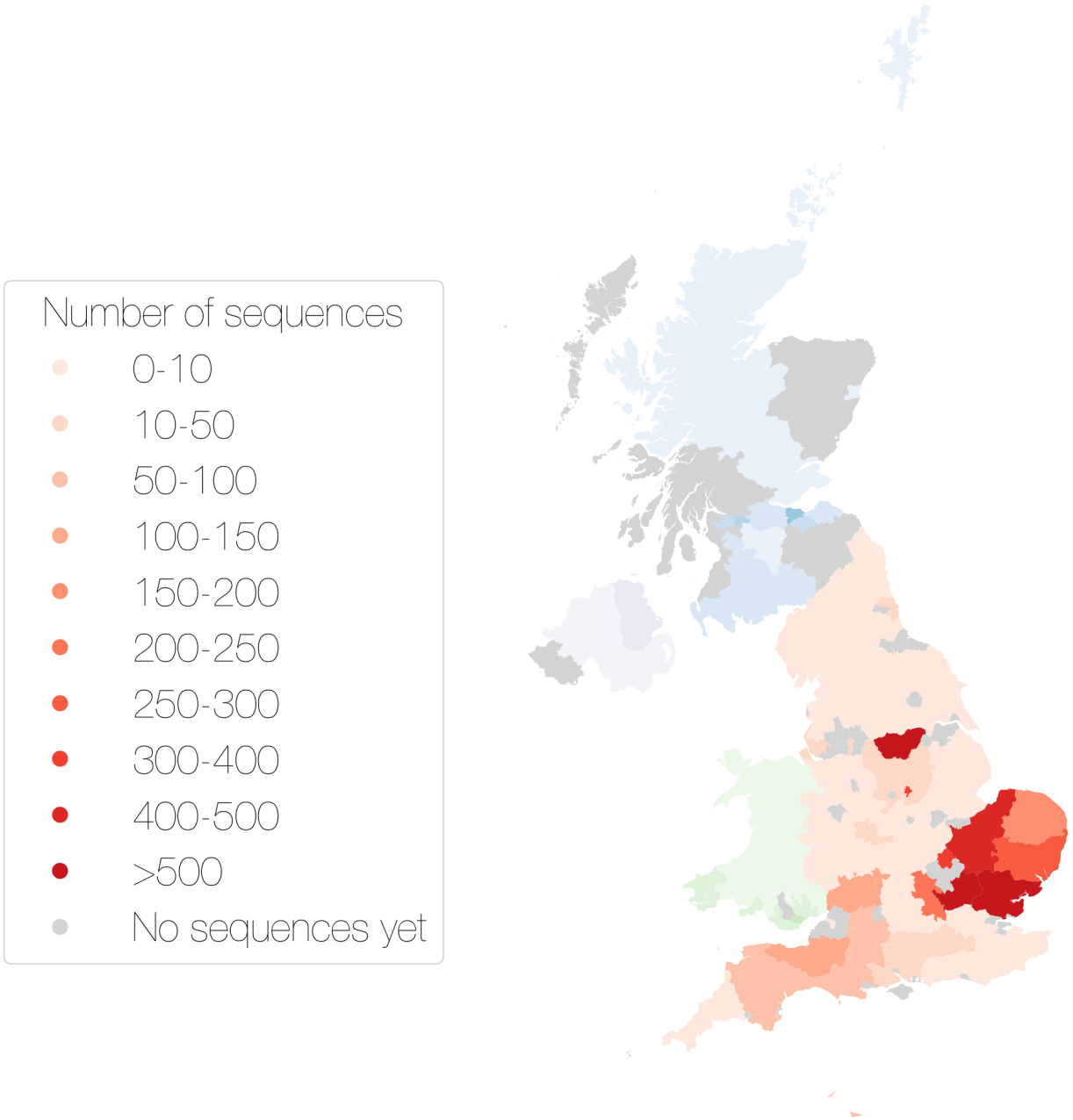
For comparison, here is a plot of the day that every sequence was taken, coloured by country. Note that sequences without dates were not included.



These introductions are shown on the timeline below. Each line represents the length of the cluster, from oldest to most recent sampling date. The dots are sized by the number of sequences taken on that date, and again are colour coded by country.


UK833
UK88
UK15
UK51
UK74
UK60
UK47
UK77
UK73
UK93
UK58
UK65
UK70
UK92
UK42
UK18
UK84
UK29
UK1
UK9
UK61
UK196
UK91
UK6
UK21
UK76
UK31
UK25
UK41
UK89
UK87
UK94
UK96
UK52
UK32
UK7
UK78
UK34
UK80
UK66
UK16
UK57
UK17
UK8
2020-02-01
2020-02-15
2020-03-01
2020-03-15
2020-04-01
2020-04-15

COVID-19 sequences from each Admn2 region UK



Other results modules for UK introductions can be added in here if required.

Appendix

The plot below shows the number of sequences from each country that don't have specific enough location data to plot on the map.