**Figure 1:** The distribution ofcontinuous variables across each DVO area within Northern Ireland. A number of variables exhibited little variation in the median values per-DVO and are therefore not displayed (outbreak reactors, median = 1 for all DVOs; MLVA Richness, median = 1 for all DVOs). Category cut-offs are based off quartiles and are shown below.[[1]](#footnote-1)

**Figure 2A-B:** The (A) frequency distribution and (B) cumulative distribution of the breakdown length variable. The three different cut-offs (180 days, 300 days and 420 days) are shown as vertical lines

**Figure 3:** Comparison of parameter estimates for the six explanatory variables obtained from the ordinal regression model with four categories (full model), compared to parameter estimates obtained from three binary logistic regression models (model type).

**Figure 4A-D:** Relationship between (A) MLVA genotype richness and categorical breakdown duration; (B) how the number of reactors over a breakdown differs between production types; (C) how the breakdown length differs between production types and; (D) the confounding between the number of reactors over a breakdown and MLVA type, and how these differ between production types.

**Figure 5A-D:** Correlations between (A) mean breakdown length per DVO and main sett density; (B) mean patch-level bTB prevalence and main sett density. Panel (C) shows the relationship between main sett and breakdown duration on a per-DVO basis, including only data available for each DVO, (D) the same as with (C), but without confidence intervals and predicted against the full range of values for all DVOs.

1. Breakdown Length: Quartile (Q) 1: 157-162 days, Q2: 163-178 days, Q3: 179-191 days, Q4: 192-212 days.

   Herd Size: Q1: 66-86 cows, Q2: 87-98 cows, Q3: 99-116 cows, Q4: 117-141 cows.

   Total Reactors: Q1&2: 2 cows, Q3: 3 cows, Q4: 4 cows.

   Yearly Patch Prevalence: Q1: 5.5-6.8%, Q2: 6.9%-8.5%, Q3: 8.6-9.6% cows, Q4: 9.7-12.2%.

   Total Patch Prevalence: Q1: 5.9-7.8%, Q2: 7.9%-9.2%, Q3: 9.3-11.2% cows, Q4: 11.3-16.9%.

   Main Sett Density: Q1: 0.52-0.55%, Q2: 0.56%-0.66%, Q3: 0.67-0.78% cows, Q4: 0.79-1.30%.

   Out-moves Before Breakdown: Q1: 35-52 cows, Q2: 53-56 cows, Q3: 57-64 cows, Q4: 65-82 cows.

   In-moves Before Breakdown: Q1: 5-8 cows, Q2: 9-10 cows, Q3: 11-19 cows, Q4: 20-23 cows. [↑](#footnote-ref-1)