**Supplementary Figure 1:** Horses recruited in August and September 2019. (A) Correlation between IL-31 and IL-31RA transcription in equine whole blood leukocytes following overnight culture and stimulation with saline (0.9% NaCl) solution (left) or 0.26 µg/ml *Culicoides nubeculosus* (right): n = 42 saline solution samples and 37 *C. nubeculosus* samples. (B) Correlation of transcription of either IL-31 (left) or IL-31RA (right) in equine whole blood leukocytes between saline solution and 0.26 µg/ml *C. nubeculosus* overnight stimulation: n = 33 paired samples. (C) Correlation of EPVAS scores with transcription of either IL-31 (top) or IL-31RA (bottom) in equine whole blood leukocytes stimulated with saline solution (left, n = 42) or 0.26 µg/ml *C. nubeculosus* (right, n = 37) overnight stimulation. (D) Correlation of EPVAS scores with IL-31RA transcription in samples from IBH horses only, stimulated with 0.26 µg/ml *C. nubeculosus* overnight: n = 12. Transcription is expressed as relative expression ratio (R). * p < 0.05, ** p < 0.01, *** p < 0.001, **** p < 0.0001.