

**Figure 4:** (Top left and bottom left panels) NMDS ordinations of the sandfly (vector and non-vector) community and the vertebrate (host and non-host) community. Percentage forest, percentage pasture, and Julian Day are significant environmental metrics ( $p$ -value  $\leq 0.10$ ) for the sandfly species ordination and shown by vectors. Amount of pasture cover was the only significant environmental metric for the vertebrate community as shown by the corresponding vector. (Top-right and bottom-right panels) Regression coefficients and their 95% confidence intervals. The top-right panel displays the model results for the effects of percentage forest, percentage pasture, distance to urban center, and Julian day on sandfly density (quasipoisson model) and the probability of encountering (binomial models each with a random effect for site) a vector species (*Nyssomyia* spp. and *Psychodopygus davisii*) or a possible vector species (*Psathyromyia aragaii*) in a pooled sample of sandflies. The bottom right panel displays the effect of percentage forest, percentage pasture, and distance to urban on the probability of encountering (binomial models each with a random effect for site) a host, a sylvatic host, *Dasyopus novemcinctus*, *Dasyopus kappleri*, *Tamandua tetradactyla*, *Puma concolor*, a non-host, and *Tapirus terrestris* from a pooled sample of sandflies. Significant results are bolded and colored. Domesticated species found with DNA metabarcoding have been excluded.

