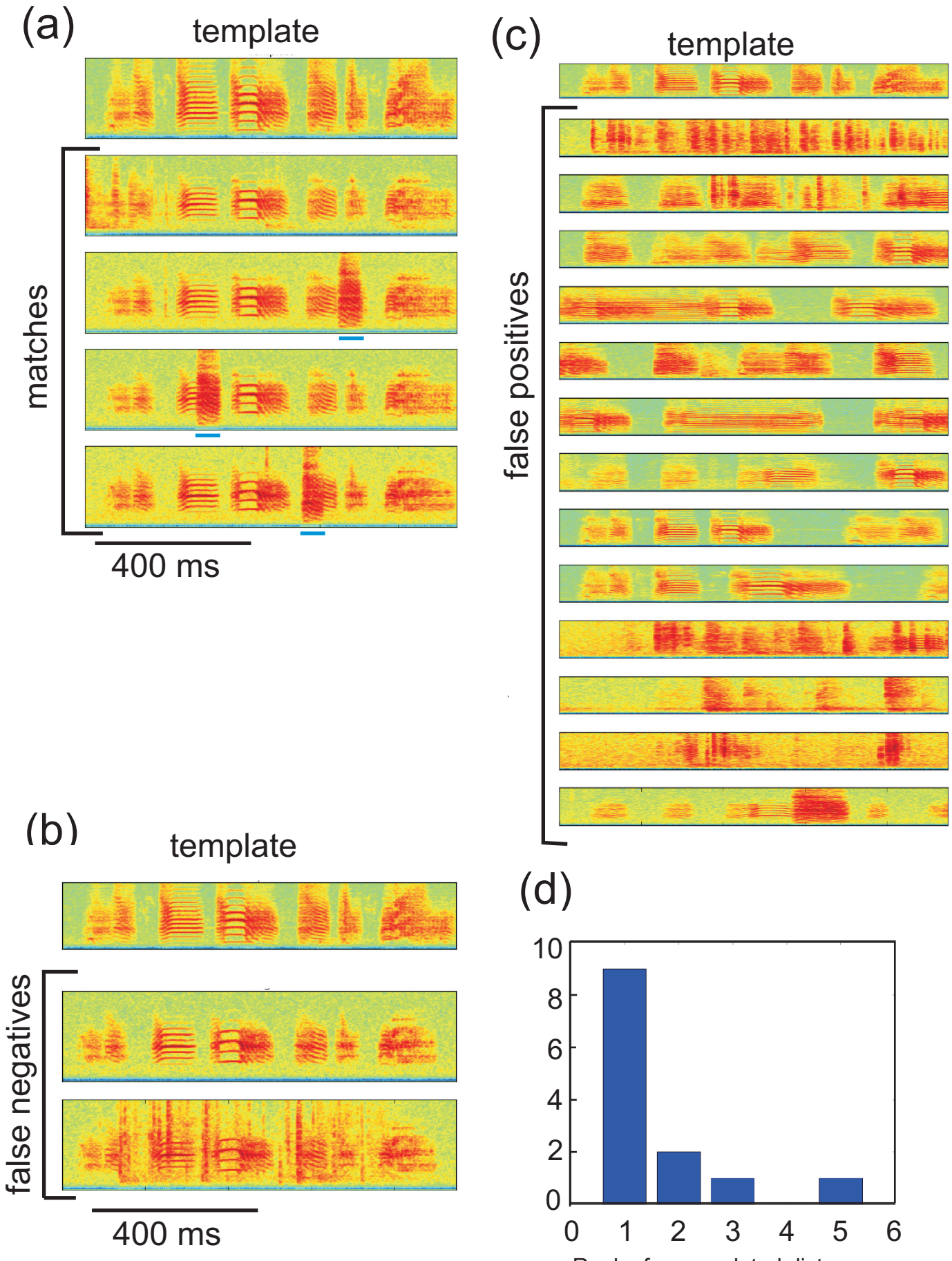
Supplemental Materials

Finding Motifs in Birdsong Data in the Presence of Acoustic Noise and Temporal Jitter

by A. L. Fantana & A. Kozhevnikov, 2014, *Behavioral Neuroscience*

http://dx.doi.org/10.1037/a0035985

Figure S1. Finding song motifs in the presence of temporally non-uniform noise. (**A**) Finding motif matches with overlapping female calls. The motif template (top) and the correct matches found by the algorithm. The song signal is contaminated with female bird calls (the occurrences of female calls are indicated with blue lines under the spectrograms). The algorithm was able to correctly detect motifs despite the acoustic contamination. (**B**) False negatives in additional data set. Of the two false negatives shown (0.9% false negative rate), one exhibited strong bandpass filtering that reduced the power at low and high frequencies (middle panel), and the second was contaminated with cage noises (bottom panel). (**C**) False positives in additional data set. There were also 13 false positives (5.8% false positive rate) in the additional data set. The relatively high false positive rate is likely to improve with initial filtering and further post-processing, which will help to reduce the number of putative matches relative to the number of actual matches. (**D**) False positive ranking relative to other matches in same recording. Nine out of the 13 matches shown in (C) were the worst matches in their respective recordings. Each recording segment was on average 3 min long and contained an average of 4.9 motifs.



Supplementary Figure 1