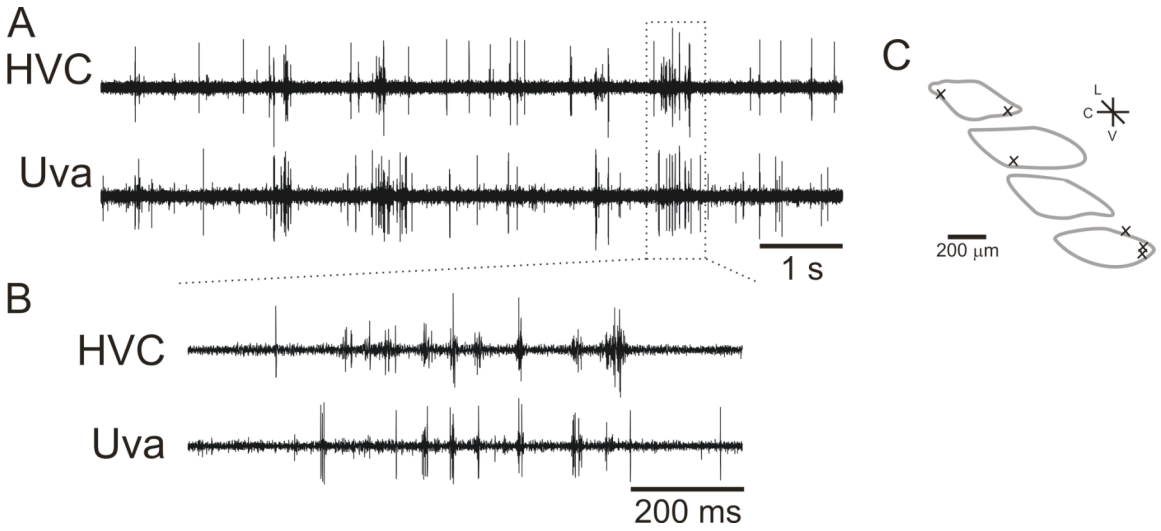
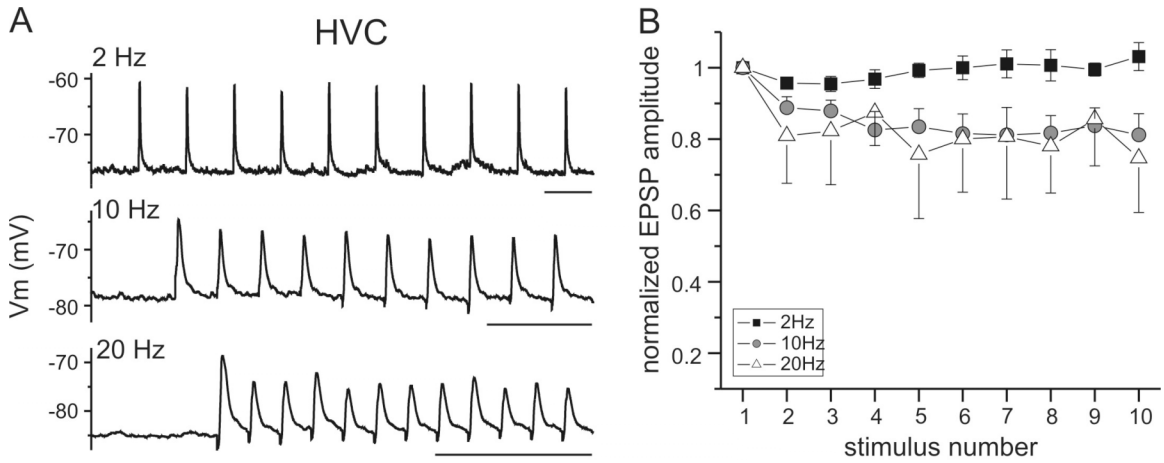


Supplementary Figure 1. Spontaneous activity in simultaneously recorded Uva and HVC. *A*. *Top*, Spontaneous multiunit activity in HVC. *Bottom*, Simultaneously recorded multiunit activity in Uva. *B*. Expanded view of the boxed section in *A*. Schematic of Uva recording sites (×) that had simultaneous bursts of activity with HVC.



Supplementary Figure 2. Effect of Uva stimulation frequency on PSP amplitude in an HVC neuron. *A*. Uva was stimulated at 2, 10 and 20 Hz and the responding EPSPs were recorded in an HVC neuron. Scale bar = 500 msec for 2 Hz and 250 msec for 10 & 20 Hz. Tonic hyperpolarizing current (–0.4 nA) was injected into the neuron throughout the recording. *B*. Normalized EPSP amplitude of the first 10 PSPs for 2 Hz (black boxes, n = 4 neurons), 10 Hz (grey circles, n = 4 neurons) and 20 Hz (white triangles, n = 2 neurons) Uva stimulation. EPSP amplitudes were normalized to the amplitude of the EPSP evoked after the first Uva stimulation. There was no difference in EPSP amplitudes at 2 Hz stimulation (repeated measures ANOVA, $p = 0.279$). At 10 and 20 Hz, there was no change in EPSP amplitude after the 3rd Uva stimulus (ANCOVA, $p = 0.791$ at 10 Hz, $p = 0.061$ at 20 Hz). At 10 Hz Uva stimulation, there was an average -0.189 mV change in amplitude for every stimulus, after the 3rd stimulation. There was a significant difference in the EPSP amplitude between 1st and 2nd Uva stimulus (repeated measures ANOVA, $p < 0.05$). At 20 Hz Uva stimulation, after the 3rd stimulation there was an average -0.224 mV change in EPSP amplitude for every stimulus. There was a significant difference in EPSP amplitude between the 1st and 2nd Uva stimulus (repeated measures ANOVA, $p < 0.05$).