Agamyxis pectinifrons stridulation and Ap type II swim bladder sound

100 Amp (%) Relative amplitude (%) 0 100 -100 75 2000 1500 50 1000 25 500 0 0.00.10.20.30.40.50.60.70.80.91.01.11.21.31.41.51.6500 1000 1500 2000 Frequency (Hz) Agamyxis pectinifrons stridulation and Ap type I swim bladder sound 100 Amp (%) Relative amplitude (%) 0 100 75 -100 2000 50 1500 1000 25 500 0 0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16 0.18 0 500 1000 1500 2000 Frequency (Hz) Acanthodoras cataphractus stridulation and Ac type I swim bladder sound 100 Amp (%) Relative amplitude (%) 0 100 -100 75 2000 50 1500 f(Hz)1000 25 500 500 1000 1500 2000 0.05 0.10 0.15 0.20 0.25 0.30 0 0.35 0.40 -34 dB Time (s) 0 dB Frequency (Hz)

**Fig. S1. Simultaneous swim bladder and stridulation sounds of** *Agamyxis pectinifrons* **and** *Acanthodoras cataphractus*. Sound waveforms and corresponding spectrograms (left) are shown alongside power spectra (right) for each sound. Braces over each waveform indicate where stridulation sounds were occurring simultaneously with swim bladder sounds. Filled

arrows on the spectrogram show dominant frequency and harmonic bands of swim bladder sounds visible during and after stridulation. Open arrows indicate dominant frequency peaks of the swim bladder component of the sound on the power spectra. Note the strong peaks at 105 Hz on the power spectrum of the *A. pectinifrons* stridulation and Ap type II swim bladder sound, a weaker peak at 94 Hz is present the *A. pectinifrons* stridulation and Ap type I swim bladder sound, and a strong peak at 102 Hz is present in the *A. cataphractus stridulation* and Ac type I sound. Spectrogram parameters: sampling rate 4 kHz, 256-point fast Fourier transforms (FFT), Hanning window, frame size 100%, overlap 75%. Power spectra produced from 1024-point FFTs on zero-padded data with a Hanning window.