

Recently published studies applying tools and techniques discussed in the
Sound Analysis Workshop
April 2012

The papers listed below are a small selection from a much larger list of papers using either Raven or XBAT, just to provide a few illustrative examples of how these techniques have been used. (Note some of these papers are better than others!)

Qualitative descriptions of sounds

Janes, S. W. and L. Ryker. 2011. Geographic Variation in Type I Songs of Black-throated Gray Warblers. *Wilson Journal of Ornithology* 123: 339-346.

Quantitative descriptions of sounds

Lima, A. M. X., M. V. Garey, R. B. Noleto and V. K. Verdade. 2010. Natural History of the Lutz's Frog *Cycloramphus lutzorum* Heyer, 1983 (Anura: Cycloramphidae) in the Brazilian Atlantic Forest: Description of the Advertisement Call, Tadpole, and Karyotype. *Journal of Herpetology* 44: 360-371.

Ramsier, M. A., A. J. Cunningham, G. L. Moritz, J. J. Finneran, C. V. Williams, P. S. Ong, S. L. Gursky-Doyen and N. J. Dominy. 2012. Primate communication in the pure ultrasound. *Biology Letters* published online 10.1098/rsbl.2011.1149.

Rice, A. N. and A. H. Bass. 2009. Novel vocal repertoire and paired swimbladders of the three-spined toadfish, *Batrachomoeus trispinosus*: insights into the diversity of the Batrachoididae. *Journal of Experimental Biology* 212: 1377-1391.

Comparisons of sounds based on multiple measurements

Amezquita, A., S. V. Flechas, A. P. Lima, H. Gasser and W. Hodl. 2011. Acoustic interference and recognition space within a complex assemblage of dendrobatid frogs. *Proceedings of the National Academy of Sciences of the United States of America* 108: 17058-17063.

Goodale, E. and J. Podos. 2010. Persistence of song types in Darwin's finches, *Geospiza fortis*, over four decades. *Biology Letters* 6: 589-592.

Ippi, S., R. A. Vasquez, W. F. D. van Dongen and I. Lazzoni. 2011. Geographical variation in the vocalizations of the suboscine Thorn-tailed Rayadito *Aphrastura spinicauda*. *Ibis* 153: 789-805.

Juola, F. A. and W. A. Searcy. 2011. Vocalizations reveal body condition and are associated with visual display traits in great frigatebirds (*Fregata minor*). *Behavioral Ecology and Sociobiology* 65: 2297-2303.

Millsap, B. A., S. H. Seipke and W. S. Clark. 2011. The gray hawk (*Buteo nitidus*) is two species. *Condor* 113: 326-339.

Opazo, D., N. Velasquez, A. Veloso and M. Penna. 2009. Frequency-Modulated Vocalizations of *Eupsophus queulensis* (Anura: Cycloramphidae). *Journal of Herpetology* 43: 657-664.

Comparisons of sounds based on spectrogram cross-correlation

de Kort, S. R., E. R. B. Eldermire, et al. 2009. Trill consistency is an age-related assessment signal in banded wrens. *Proceedings of the Royal Society B-Biological Sciences* 276(1665): 2315-2321.

McDonald, P. G. and J. Wright. 2011. Bell miner provisioning calls are more similar among relatives and are used by helpers at the nest to bias their effort towards kin. *Proceedings of the Royal Society B-Biological Sciences* 278: 3403-3411.

Rice, A. N. and A. H. Bass. 2009. Novel vocal repertoire and paired swimbladders of the three-spined toadfish, *Batrachomoeus trispinosus*: insights into the diversity of the Batrachoididae. *Journal of Experimental Biology* 212: 1377-1391.

Automated detection of sounds in long-term recordings

Delarue, J., S. K. Todd, et al. 2009. Geographic variation in Northwest Atlantic fin whale (*Balaenoptera physalus*) song: Implications for stock structure assessment. *Journal of the Acoustical Society of America* 125(3): 1774-1782.

Goyette, J. L., R. W. Howe, A. T. Wolf and W. D. Robinson. 2011. Detecting tropical nocturnal birds using automated audio recordings. *Journal of Field Ornithology* 82: 279-287.

Osiejuk, T. S., J. Grzybek, et al. 2007. Song structure and repertoire sharing in the Tawny Pipit *Anthus campestris* in Poland. *Acta Ornithologica* 42(2): 157-165.