

## BIRD SOUND SPECTROGRAMS--Understanding and Learning about Bird Sounds

Matt Hunter, 2016 NOV 14, Elmer's Restaurant

The following 5 articles are from Nathan Pieplow's EARBIRDING.COM/BLOG (<http://earbirding.com/blog/>)

Go through each blog article, look at examples, think of others with the quality and check spectrograms.

Describing Variation in Bird Sounds: <http://earbirding.com/blog/archives/4709>

The Seven Basic Tone Qualities: <http://earbirding.com/blog/archives/4621>

Changes in Speed and Pitch, and Multi-Noted Series: <http://earbirding.com/blog/archives/4606>

The Four Basic Song Patterns: <http://earbirding.com/blog/archives/4598>

The Five Basic Pitch Patterns: <http://earbirding.com/blog/archives/4585>

### SPECTROGRAM SOURCES

Xeno-Canto (<http://xeno-canto.org/>). Pros: Catalog of birds sounds from all over the world. Can search for specific species and browse for specific call types, locations, etc. Can scan through samples of spectrograms. Cons: spectrogram does not scroll through live with the bird sound.

Dendroica (<http://www.natureinstruct.org/dendroica>). Pros: catalog of bird sounds in the Americas. Can listen a desired species. Spectrogram scrolls along with the bird sound. Cons: cannot narrow search by date or location or other factors.

eBird (<https://ebird.org/media/catalog>). Pros: catalog of bird sounds from all over the world. Can narrow search by species, date, location, and contributor. Spectrogram scrolls along with the bird sound.

### DETAILED SPECTROGRAM ANALYSIS (use with sound files you obtain or download)

Audacity---Free at <http://www.audacityteam.org/>. Relatively simple program to use to examine sounds in slightly more detail than you can at the above sites.

Raven (Pro/Lite)--- Raven Lite is free and more than you will ever need unless you go professional. From Cornell (<http://www.birds.cornell.edu/brp/raven/RavenOverview.html>). This is for very detailed and sophisticated sound analysis. I have Raven Lite, but have not put it to much use yet, as I am mainly interested in interpreting commonly available (black and white) spectrograms.