A Naturalist's Guide to Soundscape Ecology

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Abstract

Soundscape ecology has recently been showcased as a new science that leverages an assortment of new sensor technologies; leading scientists down a path of creating "big data" warehouses which are generally associated with other areas of discovery, such as physics, genomics and satellite remote sensing. Such a characterization of this new science – that it is an enormous digital form of discovery – would seem like it is centuries from the days of the great observational naturalists like Darwin, Humboldt and Wallace. Indeed, today we often we pay homage to these great naturalists who spent decades in nature with only the simplest of technologies, a pen and paper. Over the past three years, the first author has developed a set of naturalist observational techniques that trains our ears, focuses our thoughts that connect the sounds to ecosystem patterns and processes, and links the human psychological attachment of place to the sensory inputs generally experienced by what we would classify as 19th century naturalists. This presentation will focus on the logistics, form, style, and interface of these naturalist's observational activities and their interface to the 21st century scientific discovery process that is "big data" driven. Indeed, soundscape ecology provides unique opportunities for scientists to discover nature in a very unique AND personal way – through solitude and a deep connection to nature that is emotional, cultural, symbolic and scientific.

Keywords: Sense of place, big data, soundscape tools

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