Conference Abstract

# Species Information pages, how are the data discovered, consolidated and presented.

Jeff Gerbracht ‡

‡ Cornell Lab of Ornithology, Ithaca, NY, United States of America

## Abstract

A number of different projects consolidate species information from widely disparate datasets and compile them into a single resource. These projects vary in several dimensions, including taxonomic coverage, depth of information and audience, such as humans or machines. Some focus on Life History information, others focus on observations and specimens or taxonomies and phylogenies. Encyclopedia of Life (eol.org) was one of the early projects and in 2007 took on the challenge of creating a web page for every species in the world, from bacteria to birds. Other projects focused on specific taxonomic groups or regions such as FishBase (fishbase.org) and Atlas of Living Australia (ALA). Efforts such as the Global Biodiversity Infromation Facility (GBIF) consolidate observational data globally. At least 5 projects focus solely on the life histories of birds including Birds of North America, Neotropical Birds, Handbook of Birds of the World Alive ( HBW) and others. The species data included can range from genomic sequences to studies on demography and behavior, from photos and sound recordings to museum specimens. All these various resources are scattered around the globe and discovering the data of interest and accurately resolving the data to the correct 'species' is an ongoing and significant challenge. Publishing taxonomic concepts is still in it infancy, yet is key to discovering and resolving these types of data. Additionally, biological and environmental trait data are often consolidated within a species account, yet the discovery of these data is frequently a difficult and labor, intensive process.

In this talk, we will review Jaguar, a content management system (CMS) being used by the Cornell Lab of Ornithology to manage species account projects focused on birds and currently includes Birds of North America, Neotropical Birds, Merlin and All About Birds. This custom CMS was designed with taxonomic concepts at the foundation and utilizing these taxonomic concepts, species accounts are automatically extended with observation maps, multimedia and results from various big data analysis projects. A set of common trait data associated with species is managed using controlled vocabularies and displayed within these species accounts. We have defined a set of traits, focused on birds, that are generally known and which are most useful to a broad ornithological audience. We will discuss challenges we have faced in managing these species accounts and future opportunities to extend and enhance these accounts, especially as taxonomic concepts are published and adopted and trait ontologies are defined and, most importantly, applied.

## Keywords

Species Account, taxonomic concept, trait, life history

## Presenting author

Jeff Gerbracht