

Digital Animal Sound Archive: a collaborative repository for bio-acoustics

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A wide variety of animals produce acoustic signals or calls, that are in many cases species-specific. The use of these animal sounds in biological and ecological studies is widespread as they can be used to study species distribution, phenology, ecology and behaviour of organisms that are often visually elusive (e.g. marine mammals, bats). This results in extensive individual collections (tens of terabytes range) that are scattered in many different locations (e.g. scientific institutes, universities, environmental consultants, citizen scientists). A critical aspect of being able to learn from such large and varied acoustic datasets is providing consistent and transparent access that can enable the integration of various analysis efforts. Considering the data sizes, processes are hard to scale up. The overall objective of the Digital Animal Sound Archive (DASA) is to set up a robust data model, and a user-friendly web interface enabling Belgian bio-acoustic workers to collect, archive and explore biological acoustic data and accompanying metadata. The main partners in the project are RBINS and Natagora and Natuurpunt, two nature conservation and citizen science NGOs. Similar projects are ongoing abroad, and reaching out to these initiatives to share experience will be an integrated part of the DASA project. Therefore specialists from the Muséum national d'Histoire naturelle (MNHN) in Paris and the British Trust for Ornithology (BTO) are part of the Follow-up committee.

Keywords

Bio-acoustics; Sound Classifiers; Bats; Marine Mammals; Metadata Models; Large Data Volumes