

Primary source material in science: the importance of archival field notes

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SPECIMENS



Specimens document physical characteristics, such as plumage color, morphology or DNA, of a taxon (e.g., species).

Before Brewster described it, the American Black Duck was not recognized as a separate "species." MCZ 230252 was collected at Lake Umbagog in Maine.

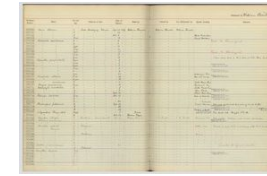
WHAT CAN WE LEARN FROM PRIMARY SOURCES?

Historical collections of field notes may be the only documentation of a scientist's thought processes, ideas and observations, particularly if only a portion of the research material was ever published. Field notes fill in gaps on missing or poorly documented specimens & ideas. They can connect past and current research, documenting changes through time. They may record information about the objectives of a collecting trip, species absences, and collecting effort: all pieces of information that may appear nowhere else, but are vital to contemporary studies of species composition and distribution changes. Examining field notes allows stronger scientific arguments as one can potentially infer intent.

This poster follows the research cycle leading to the discovery of the American Black Duck by William Brewster, a highly published ornithologist working during the late 19th and early 20th centuries. Selected specimens, field notes & other archival materials have been digitized as part of an ongoing IMLS grant.

Documents have been deposited in the Biodiversity Heritage Library. The presentation of these notebooks enhances contemporary studies and makes the entire research cycle of this scientist's work available for analysis by historians of science, scientists, social scientists, humanists or anyone interested in the process of discovery, by creating a richer and more interactive history of science resource.

LEDGERS

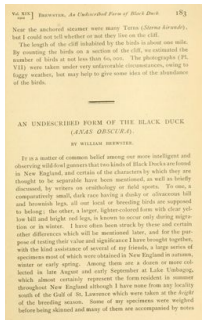


Ledgers display the official institutional catalog record for specimens. The first few lines in the image above are the record for the black duck. The image below shows the modern electronic version.

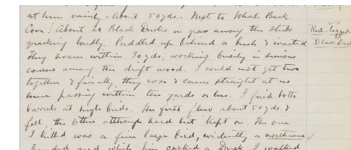


PUBLICATIONS

Publications are often the culmination of a scientist's work & may be pre-saged in field notes. This article is the description of the American Black Duck: Brewster, W. 1902. *Auk* 19: 183-188. View this article in the Biodiversity Heritage Library.



FIELD NOTES



Field notes are the raw observations of a scientist & may contain anything from detailed scientific observations to descriptions of how he felt on a particular day. In these pages are Brewster's observations of the American Black Duck in Maine. Brewster was lucky to have an assistant to transcribe these notes.

