Natural history collections: digitization and use

Open Entomology Project

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Background

Imagine that you've been recruited to contribute to a white paper about the importance and utility of natural history collections. A major granting agency is considering a substantial investment—tens of millions of dollars—in this type of collection, with the intention of making the specimens and their associated data more accessible for science (broadly defined). Your responsibility is to provide an entomological perspective: how have arthropod specimens and data been used in science (and maybe even beyond science)? The richer your collective set of examples is, the more likely this agency is to commit funding to collections.

Your assignment

Below you'll find a reference [1] that should "prime the pump"—i.e., get you started on a search for articles that support the notion that collections are invaluable resources. Can you (1) find an article that describes research that would impossible without natural history collections? Can you then (2) find one or two articles that yield $novel^1$ uses of natural history specimens?

In the contexts of your selected articles and the collections you're building for this course, think about what "accessibility" means. This major granting agency might allocate tens of millions of dollars to "digitization". What are the data that should be made available and how? Is this a good investment?

References

[1] Suarez, Andrew V. and Neil D. Tsutsui (2004) The value of museum collections for research and society. BioScience~54(1):~66-74.~DOI:~10.1641/0006-3568(2004)054[0066:TVOMCF]2.0.C

¹That is, uses of specimens that surprised you