



Archives of a small planet: The significance of museum collections and museum-based research in invertebrate taxonomy*

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Abstract

Museum natural science collections are valuable, in many cases irreplaceable, and vital to research in many disciplines including taxonomy. Since 96% of known multicellular animals belong to one or another of the 34 invertebrate phyla, the value of those collections for invertebrate taxonomy (of both living and fossil taxa) is even higher. Systematic work that does not rely on museum specimens to verify or falsify the identities of the taxa studied is not science. Whether the techniques used are molecular or morphological, high tech analysis, or careful observation, systematics is the primary and most essential use of museum invertebrate collections. Their value and the case for their support for this primary and many other compelling reasons has been argued eloquently time after time, yet support still lags far behind needs.

Key words: value of natural history collections, systematics funding

Introduction

Where would an alien scientific visitor go to learn about Planet Earth? Of course, it/she/he would have accessed everything that was available on the Internet during the interplanetary voyage. However, in order to separate fact from fiction the visitor would turn on arrival to the true archives of Earth's history, to the artifacts and specimens found in the world's natural science collections and to the scientists who study them. No doubt the alien scholar would appreciate the cost-effectiveness of way the records were collected, while deploring their geographically scattered nature, and lack of complete accessibility.