



Patuxent Science Meeting 2004 Poster Abstract

Utilization and Contribution of Natural History Collection Data to Biodiversity Assessment in National Parks

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A thorough assessment of biodiversity requires an historical perspective so that managers can fully evaluate current resource conditions and changes that have occurred. To gain that perspective we must compile biological information, and most of which is available is located within natural history collections in the world's museums and herbaria. However, there is a widespread disregard for natural history collections and their value (Cotteril 1995), the information is often difficult to access, and museums have not done a good job of marketing their services (Cotteril 1997). In fact, museums and their collections are considered a mystery to many outside the museum environment. To date, research on collections has focused on estimating species richness and diversity, documenting species declines, mapping species distributions, and determining areas of conservation importance. Little work, however, has been devoted to the efficient retrieval of the full complement of specimen records available and the role and contribution of scientific collecting. Thus, we attempt to examine these issues. This work was funded by the Inventory and Monitoring Program of the Northeast Region of the National Park Service.

1-Two hundred and seventy four collection managers (299 collections) were contacted and eight state natural heritage programs. Twenty-two collections were searched, 10 via the Internet and 12 manually (randomly selected and grouped by size of collection).

2-Thirty thousand specimens were identified as originating within and around 14 northeastern national parks. Specimen records were found for all parks. The greatest number of specimens was generally collected in the largest parks and placed in collections in the region of interest. However, specimens also were placed in museums around the world.

3-Scientific collecting declined corresponding to significant sociopolitical events (e.g., wars, Great Depression).

4-Cost of manual searches ranged from and average of \$0.03/specimen searched to \$24.15/ specimen found.

5-Inverse relationship detected between number of records located and the size of the collection searched (as the size of the collection increased the number of specimens decreased).

6-Number of records located increased exponentially with the size of the park.