



<http://www.natsca.org>

## The Biology Curator

---

Title: The Fundamental Relationship between Biological Collections and Scientific Knowledge

Author(s): Cotterill, W.

Source: Cotterill, W. (1995). The Fundamental Relationship between Biological Collections and Scientific Knowledge. *The Biology Curator*, Issue 3, 7.

URL: <http://www.natsca.org/article/526>

---

NatSCA supports open access publication as part of its mission is to promote and support natural science collections. NatSCA uses the Creative Commons Attribution License (CCAL) <http://creativecommons.org/licenses/by/2.5/> for all works we publish. Under CCAL authors retain ownership of the copyright for their article, but authors allow anyone to download, reuse, reprint, modify, distribute, and/or copy articles in NatSCA publications, so long as the original authors and source are cited.

## CALCULATING THE REAL VALUE OF SYSTEMATIC BIOLOGY COLLECTIONS

*Professor Stephen Blackmore, Ms Nicola Donlon and Ms Emma Watson, UK Systematics Forum, The Natural History Museum, Cromwell Road, London, SW7 5BD.*

It is often suggested that systematic biology is a "cheap" science in comparison with astronomy or particle physics, both of which require enormous capital investment. In systematic biology the experimental instrument is the collection. The UK's systematic biology collections have been assembled through centuries of effort and their real value is rarely appreciated. Not only do they contain the specimens brought back from expeditions that were, in their time, as complex as the Apollo moon missions but they have subsequently required a huge investment in curation and research.

The enormous scientific and cultural value of these collections have been emphasised by many contributors to this symposium. We will attempt to illustrate the real value of a major systematic biology collection by considering the example of the Natural History Museum in London.

## THE FINANCIAL VALUE OF CULTURAL AND HERITAGE COLLECTIONS

*Professor G.D. Carnegie, Head, School of Accounting and Finance, Deakin University, Geelong, Australia 3217 and Professor P.W. Wolnizer, Dean, Faculty of Management, Deakin University, Geelong, Victoria, Australia 3217.*

While the cultural and scientific values of museum and like collections are widely appreciated, the propriety of assigning monetary values to collection items for financial reporting purposes merits critical examination. That is the object of this paper.

Some government and accounting policy makers in the English-speaking world have found the notion of valuing museum and other cultural and heritage collections for financial reporting purposes to be appealing. However, our study provides evidence that the capitalization of collections as assets is not mandated in the USA, UK, Canada and Europe; and that collections are not commonly recognised as assets in the financial statements of major arts institutions. Nevertheless, accounting standard setting bodies in Australia and New Zealand now require capitalization of cultural and heritage collections and H.M. Treasury in the UK has recently foreshadowed a similar requirement.

We argue that museum and other cultural and heritage collections cannot properly be described as financial assets. Upon examination of the nature of the repositories of such collections, and the statutes that govern the operations of public arts institutions in Victoria, Australia, we demonstrate that those collections do not satisfy the criteria for recognition as an asset as specified by the standard setting bodies.

To represent the cultural and scientific values of museum and like collections in financial terms for inclusion in balance sheets would be an "intellectual vulgarism" (Adam, 1937, p.2) and an accounting fiction.

## THE ETHICS OF DISPOSAL

*Mr David T D Clarke, 1 Orchard Close, Combe Withey, Oxfordshire*

[Abstract awaited]

## THE FUNDAMENTAL RELATIONSHIP BETWEEN BIOLOGICAL COLLECTIONS AND SCIENTIFIC KNOWLEDGE

*Woody Cotterill, Biodiversity Foundation for Africa, Secretariat: P.O. Box FM730, Famona, Bulawayo, Zimbabwe*

Biological collections are repositories of information on the natural world, yet the relevance of this stored information to science and society is widely disregarded. This paper explores the relationships between biological collections and the scientific knowledge of the biosphere where specimens originate. Collections constitute historical references: their specimens are irreplaceable and cannot be valued in economic terms. The accuracy of existing biological knowledge ultimately depends on scientific specimens - maintaining its integrity requires the preservation of these collections. Taxonomy and systematics interpret the identities and origins of specimens, supplying and organising accountable information essential for all biological sciences. Specimens are the foci in this process. They underpin any biological investigation seeking to interpret complexities of the natural world and generate reliable knowledge. If specimens are preserved for future interpretation, scientific findings can be independently verified and results of studies compared. This central dependence of biology on collections is insufficiently appreciated within the scientific community. Solutions to the problems facing humanity and the environment requires scientific knowledge of a complex natural world: our existing knowledge is seriously inadequate. The fundamental relationship between collections and this knowledge, and thus their value, underpins their future management, utilisation and expansion.

## THE SCIENTIFIC VALUE OF COLLECTIONS

*The Earl of Cranbrook, Chairman, English Nature, Northminster House, Peterborough PE1 1UA*

Nature conservation is one of many science-based applications of biological knowledge. English Nature (EN) is the statutory body responsible for wildlife and natural features, and adviser to government for nature conservation in England. With the Countryside Council for Wales (CCW) and Scottish Natural Heritage (SNH), EN shares wider national and international responsibilities administered through the Joint Nature Conservation Committee (JNCC).

The global action plan Agenda 21 adopted by the United Nations Conference on the Environment and Development (UNCED) at Rio de Janeiro in 1992, together with Convention on Biological Diversity, call for participating countries to establish national strategies to inventory and understand their own biodiversity and develop programmes