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WHY INTERNATIONAL STANDARDS MATTER TO SCIENCE

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Unless localised information is linked to national and international standards, information only has value in a local context. For example, a locally named, but broadly distributed species has no currency in a broader geographic context unless it can be linked to a more widely recognised name. International standards and protocols maximise the value of scientific data by providing a universal language for discovery, description and interchange.

Before computers, data volumes were lower and the sharing of data was minimal by today's standards. While data volumes and analysis have grown rapidly over the past decade, the ability to share data has until recently remained a barrier to broad scale data integration. This is not academic as multidisciplinary studies depend on effective data integration.

International standards developed over the last decade are providing highways between once isolated data repositories. Internet search engines such as Google provide a service linking repositories of text information that is dependent on standards such as TCP/IP and HTML. Metadata and XML standards are equivalent standards linking scientific data repositories.

More specifically, the success of the Census of Antarctic Marine Life will depend significantly on standards developed through the Taxonomic Database Working Group and the Global Biodiversity Information Facility. Bio-interoperability standards will enable Antarctic biotic information to be managed, discovered and shared efficiently. Science managers and bio-scientists should know the implications of such standards rather than details if they are to maximise research effort.