Invasive Alien Species - Concepts, Terms & Context (IAS-CTC)
2005 Review

The Invasive Alien Species - Concepts, Terms & Context (IAS-CTC) database (www.cabi.org/ias_ctc.asp) became publicly available in October 2005 as part of the IAS Website (www.cabi.org/ias.asp).

Background:
The project followed on from the 2004 PF-funded project '*Terminology for communication: Towards Knowledge Organization Systems and Terminology Reference Systems for 'invasive alien species' researchers and managers*', and arose from deliberations within CABI's IAS Network.

The 'IAS Terminology Project' in 2005 was funded through CABI's Partnership facility, based on funds allocated by the Australian Centre for International Agricultural Research (ACIAR), Canadian International Development Agency (CIDA), Swiss Agency for Development and Cooperation (SDC) and UK Department for International Development (DFID). It can be more formally designated 'Invasive Alien Species - Concepts, Terms and Context project', and breaks down into 3 phases:

- **Phase I**
  - Code: PX2-618
  - Lead Investigator: James Brooks
  - Duration: April-September 2005;
  - Purpose: To examine data structure for collating terms and their definitions from various documentary sources; to examine means of dissemination; to collate a data set for later dissemination; to examine possible requirements and desired features from the IAS Network.
  - Outcome: A simple tabular format for arrangement of material was chosen, based on: TERM from Document; SYNONYMS or QUASI-SYNONYMS from Document; DEFINITION from Document; NOTES or COMMENTS from Document; and DOCUMENT CITATION. This format enabled sorting alphabetically by term or from source document. A data set was collated, containing data from representative legal instruments, policy documents and the scientific literature. Possible enhancements to meet the needs of users were identified. A searchable Web database was chosen as the preferred means of dissemination.

- **Phase II** - within IAS Website project
  - Code: P3800/PX2-623/PX2-623
  - Team: Project Manager - Carol Steel; Content Editor - James Brooks; Developer - Sinead Garvey
  - Duration: October-December 2005;
  - Purpose: To produce a Web presence for the IAS-CTC approach, specifically, a searchable database.
  - Outcome: A searchable database was created and populated with data, and launched in time for the International PHRA Workshop in Niagara in October 2005. An online user survey mechanism has been created. Issues arising from this means of dissemination have been identified.

- **Phase III**
  - Code: P6066 CABI-ARC
  - Team: Lead - James Brooks; Database Update - Tim Ison
  - Duration: November-December 2005;
  - Purpose: To address rights issues regarding re-use of source data; to expand data within the IAS-CTC database.
  - Outcome: The legal situation concerning re-use of definitions from cited source documents within an electronically searchable database is complex. For reasons relating to both courtesy and rights issues, it was found desirable to investigate copyright ownership and permissions policies of all source data 'owners', and to communicate with them directly. A mechanism is in place for new database content, and permissions have been sought retrospectively. The IAS-CTC database has been updated.

Summary of IAS-CTC Features:
- Search box for terms
- Browse alphabetical term list
- Web links to source data
- Copyright owner is identified
- Online user survey questionnaire

Summary Data (Live Database):
- Number of individual source documents: 34 (plus 3 in near pipeline)
- Number of individual terms: 225 terms (but this includes single vs plural / spelling variants)
- Number of unique records: 297 records

Coverage of sources:
1 book publisher (Island Press)
7 journal publishers (Blackwell, Elsevier, ESA, IAPT, Springer, Taylor & Francis, Wildlife Society)
5 international & regional organizations (CBD, Council of Europe, ICES, IUCN, WTO)
4 governments (Canada, Sri Lanka, UK, USA)
3 government departments, agencies, etc (DEFRA (UK), Department of Fisheries & Oceans Canada, JNCC (UK))
1 other (Canadian Wildlife Service)

Pending (in 'pipeline'):
APEC, IPPC, OIE, various from scientific literature (including use of such terms as 'biotic homogenization', 'neobiota', 'xenodiversity', etc.)

Not yet addressed:
e.g. legislation from Belize, Japan, New Zealand, Norway, Western Australia; various EU Council Directives on plant health; EPPO / NAPPO re-use of IPPC terminology

Promotion: A4 poster produced via CABI-ARC and distributed at International PHRA Workshop, Niagara, October 2005, and elsewhere.

User survey:
- online form has been extensively tested;
- ca 15 'empty' responses;
- only 1 'legitimate' response: Sergej Olenin, Head of Science Council, Coastal Research and Planning Institute, Klaipeda University, Lithuania
  - He anticipates use of IAS-CTC as specific projects arise; prefers Web format; wants terminology from scientific journals, national & international legal documents; wants linkage to source docs, term hyperlinks within database, version histories, multilingual coverage.

External interest:
- Bundesamt für Naturschutz, Germany (Frank Klingenstein, 21/11/2005): "The "German" expressions/understandings are mostly missing ('neozoan', 'neobiota'..) or the definitions given (*e.g.* for 'neophyte' and 'archaeophyte') are not in line with the common understanding here"
- CBD (Ryan Hill, 09/01/2006): "a nice piece of work. … a valuable resource … extremely timely"

Permissions:
- 'Courtesy' dictates letting authors know and asking permission from publishers.
- Publishers' procedures often geared to re-use of whole documents, lengthy parts or tables / figures from publications. Checking rights-associated processes is costly for them.
- Lengthy process of checking copyright / data re-use / linkage policies of data 'owner', documenting data to be re-used, determining contact person and/or e-mail address, and corresponding with appropriate contact.
  - Individual publishers have non-standard procedures, and impose different criteria for re-use of their data (e.g. permissions statements, data in format incompatible with database structure); international & regional organizations may not want older versions of their material cited, even if useful to users.
- 3 journal publishers have given permission: ESA, IAPT, Springer Science+Business Media B.V.

Coverage Issues:
- boundaries for subject domain of IAS when impinges on so much, *e.g.* import risk analysis, risk assessment, biosecurity, biodiversity conservation, biogeography, ecosystem functioning …

Terminological issues:
- lack of 'formal' definitions in documents even for some neologisms;
- 'process' terminology (*e.g.* stages in invasion process) is not easily amenable to concise definition;
- philosophical / ideological assumptions underlying use of specific terms may not be made explicit to a user in a simple definitions field

Database issues:
- The DOCUMENT CITATION (*i.e.* source document) field is best re-structured to permit search of authors, organizations, document titles, serial titles, publication dates, publishers, regions or countries or sub-country entities, etc. (*i.e.* new table in underlying database)
  - restructuring would also allow easier retrospective addition or alteration of hyperlinks, or alteration of citation text
- No field for editorial comments / annotations
- Chronological versions of same legal instrument (*e.g.* IPPC 2002, 2004, 2005) and associated term / definition change processes are not well handled in current database
- Multilingual terms and definitions from same legal instruments are not handled in current system

Management issues:
- Intellectual input, rights management, manual content update are all labour intensive
- Database reconfiguration and subsequent data re-population will also be labour intensive
- Given the costs, how to manage sustainably into the future?

James Brooks
13th January 2005