

CHAFC Annual General Meeting

Perth Wed 9 –11 Nov 2011

VENUE: CHAH, CHAFC, HISCOM, FCIG and MAHC will be held at the new
Western Australian Conservation Science Centre
17 Dick Perry Ave (off Hayman Rd), Kensington, Perth -

MINUTES

ATTENDEES:

Member agency	Representative
Queensland Museum (QM)	John Hooper (JH) (Chair)
Secretary/ Treasurer	Sarah Verschoore (SV)
Australian Museum	Penny Berents (PB)
Western Australian Museum (WAM)	Mark Harvey (on behalf of Di Jones)
Australian National Fish Collection – (ANFC)	Alastair Graham (on behalf of Peter Last)
Australian National Wildlife Collection – (ANWC)	Leo Joseph
South Australia Museum (SAM)	Steven Donnellan
Tasmanian Museum & Art Gallery (TMAG)	Catherine Young
Museum Victoria (MV)	Dermot Henry (on behalf of Mark Norman)
Australian National Insect Collection – (ANIC)	David Yeates
Australian Biological Resources Study (ABRS)	Michael Preece

GUEST ATTENDEES:

SEWPaC	Rod Harvey
Atlas of Living Australia (ALA)	John Tann

APOLOGIES:

CHAEC	John Jennings
Museum & Art Gallery of Northern Territory (MAGNT)	Chris Glasby
Queen Victoria Museum & Art Gallery	No appointment made in the biosciences

Day 1 CHAFC AGM - Wednesday 9 November 2011

Morning session was a joint meeting with FCIG & CHAFC.

ITEM 1 – Introduction from the Chair of CHAFC & FCIG

ITEM 2 – FCIG report to CHAFC by EW

FCIG report, copies of their presentations and draft minutes are available from wiki link.

Brief list of topics covered:

- FCIG met with HISCOM.
- Imaging workshop run for FCIG
- SAM – ALA Volunteer Digitisation project update (Entomology collections)
- Paul Flemons— Bulk digitisation of drawers of entomological specimens without registrations & labels – using volunteers to apply them.
- Beth Mantle – attended a variety of international conferences all with an emphasis on digitisation.
- Strategies to standardise imaging and equipment discussed, and whether there is a need to standardise.
- ANIC – SatScan of full draws which can be cut up or rastered for individual images
- MV – has been imaging live animals – catch, photo, release
- Emphasis so far on: Entomology specimens, namely bees and cicadas; Malacology, Invertebrate types (GBIF Funded).

- New images – ALA funding comes with a productivity requirement for X number of images.
- EW – Looked at how to deliver images to ALA, WAM images and proposition to use URL links which won't be noticed by the end user.
- EW discussed the capability of the OZCAM HUB option as being quick and powerful (as requested through institutional surveys). It has a mapping tool, which is simpler, capable of producing bio-maps of multiple species at any taxonomic level based on information from surveys and existing data. Based on a search on records from OZCAM. Its easy to use and fast.

FCIG recommended to CHAFC to go live with OZCAM HUB as soon as technically possible with stipulated conditions:

1. Service guarantee (there's only one version of the HUB, no replication in case of failure or data corruption)

Solution: To put three FCIG programmers (not a committee) and three HISCOM programmers to work with the ALA. So skills and knowledge are spread across the groups.

Ensure proper technical documentation of the system and its setup by bringing in a highly competent Technical writer.

Have a 'hot spare' second version of the system in case it falls over. Suggestions have been for one in NZ through the Herbarium.

2. Data mobilisation: Only 800,000 records are in OZCAM / ALA. Process is very manual for uploading data and the results are patchy. Bryn's contract is ending and FCIG would like to ensure the 13 institutions have an understanding of how to deliver the data sets to the Darwin Core fields. And, that these fields are prioritised so you know what quality needs to be in there. The implication for CHAFC is to find a person at each institution who knows their database, to have a greater understanding of Darwin Core so data can be mapped correctly. Institutions identified were: QVMAG, ANFC and MAGNT – (see also Item 19)

FCIG encouraged CHAFC to inform users to report any issues via the ALA website, should they have any, immediately so there is time for the ALA to respond while there is funding.

CHAFC agreed to take FCIG's advice and support the decision to go ahead with the OZCAM HUB as soon as possible.

ACTION: CHAFC Chair requested that FCIG (EW) contact the institutions to see how CHAFC can help facilitate the above understanding of Darwin Core.

ACTION: CHAFC also agreed to provide funding from the MoV pool of OZCAM funds (or from the recently transferred pool of OZCAM funds from AM) to support

the travel cost of FCIG members or their nominees to travel to institutions for the above stated purposes. No further action.

FCIG recommended CHAFC institutional representatives to view the 'Collectory pages' which give details for each institution, who contributes to OZCAM, of useage, changes, uploads made and also how many downloads of their information have occured and from who.

FCIG has requested that there be a little more explicit information ie by asking them why they've chosen to download the information and the intended purpose. FCIG has put together a list of reasons/selections for the ALA to develop into a drop down list on the webpage for users.

ACTION: CHAFC website: Morgan (FCIG) will fix up issues with CHAFC logo. To do

ACTION: For CHAFC to notify Beth Mantle of any images on the OZCAM website without a CC BY license and supply a replacement.

ACTION: To revisit relationships with forums at GBIF, Oceania-asia and whether there needs to be a representative from our collections committees. PB has stepped in. COMPLETE

Commercial access to museum datasets via OZCAM/ ALA

FCIG & CHAFC discussed the issue of the request for data information from Rio Tinto and agreed that they need not have asked as it was already available and that since they did ask, nicely, that they were free to use it – but guiding them to the legislative page of the website.

If however, an organisation was after more clarity or interpretation of the data available, or other data that was not on the OZCAM/ALA website (e.g. R&T data filtered or omitted for various reasons, then they would need to contact the relevant institution and it would be at their discretion how they handled the request (ie whether to charge or specify particular use of data etc.)

FCIG & CHAFC joint meeting concludes.

ITEM 3 – OZCAM MOU

CHAFC agreed to make amendments to the current MOU after legal opinion from CSIRO and will re-circulate to CHAFC member agency Directors/CEOs for signing. Following clauses to be emended as below.

- Amend clause 4 as follows:
 - “4. Participants agree to make available inputs of data to OZCAM. The Participants will develop a data management strategy for OZCAM based on the creative commons licensing framework.

- Amend clause 7 as follows:
 - “7. Each of the Participants remains the custodian of data held in its system and based on its collections or publications and as such, will determine what data and the basis upon which such data will be made available through OZCAM.”
- Amend clause 10 as follows:
 - “10. The use of data made available to OZCAM for commercial purposes will be at the discretion of the Participant that made the data available.
- Insert new clause 15 (wording taken from OZCAM MOU signed in 2002):
 - “15. Intellectual property rights in the interconnecting software which will link the databases of the Participants will be jointly owned by the Participants as partners in the OZCAM project, where those rights are not already assigned.”
- Insert a new clause 16:
 - “16. This MOU does not constitute, nor is it intended to be a legally binding arrangement or contract. It does not create any legally binding or enforceable obligations, express or implied. It serves only as a record of each party’s separate intention pending execution of specific agreements governing the undertaking of activities as contemplated by this document.
“
- Insert a new clause 17:
 - “17. Nothing in this MOU is to be treated as creating a partnership, agency, trust, joint venture or otherwise.”
- Insert a new clause 18:
 - “18. Any dispute, controversy or difference as to the interpretation of this MOU will be settled amicably by mutual consent between the parties.”

ACTION: SV to redraft MOU as per recommended changes and resend to member CEOs/ Directors under CHAFC Chair signature. COMPLETE

3.1 OZCAM website

CHAFC reviewed the Copyright page of the OZCAM website and have various changes to submit to FCIG (BM).

CHAFC tried to determine who received an email enquiry from when using the weblink email. MH sent an email and has since received a response from Beth Mantle. OZCAM needs contact details.

ACTION: SV to send agreed changes discussed at the meeting of OZCAM copyright page to EW.

ACTION: FCIG (BM) to add CC BY to the bottom of each OZCAM webpage.

ACTION: CHAFC (JH) requested each institution to please review OZCAM copyright webpage, for comment and suggestions, and these to be forwarded to EW.

JH: Question was asked by the hierarchy in one of the member agencies as to 'Why do we need OZCAM?' The meeting resolved that the Answer was still clear and unambiguous that related to recognition of the independent ownership of the data but which benefitted from inter-agency collaboration through OZCAM, and that both this independence and critical mass through collaboration was stated as: 'It is fundamental to the ALA.' This question however should be revisited every five years to ensure that OZCAM remains relevant and doesn't become superfluous over time.

ITEM 4 – ALA Discussion paper: Establishment of a Digitisation Working Group

Email from Bryan Kalms (ALA) 11 Oct 2011

The attached draft paper (prepared for FCIG & HISCOM) suggests the establishment of a digitisation working group or groups and offers a number of options for establishing the group(s). The main thrust is that this group will facilitate getting Commonwealth funding for digitisation when such funding becomes available. ...

...Ideally the paper would be considered at the joint CHAH/CHAFC meeting as well, given its strategic focus. How do we get any CH recommendations to CABC, if appropriate?

CHAFC deemed the paper a bit simplistic and a matter for institutions. Not discussed at joint FCIG meeting.

ITEM 5 – Inconsistencies in collection codes for different taxa – CY

CY questioned whether there should be standardisation of 'collection codes' in the Darwin Core field. ALA definition is that it relates to taxa. However it relates purely to institution numbers/references.

ACTION: Ask FCIG for the intent of 'collection code' field, and whether it should be standardised? E.g. QM Sponge Collection vs AM Porifera Collection (as a fabricated example of synonymy - different terminology, same meaning). This item was also omitted from the joint CHAFC - FCIG meeting. SV to follow up with CY on specific examples and circulate.

ITEM 6 – Vulnerability of suspected new species delivered via the web

6.1. Barcoding of Lepidoptera. CY raised concerns over potential vulnerability of morphospecies illustrated together with their barcodes and ANIC registration numbers on iBOL website which may be undescribed, and hence "taxonomically stolen" by "bio pirates".

This relates to a number of publications where people have used the web images and other available data including registration number, description or barcodes, nominate Holotype and publish as their own species (particularly in Europe).

MH mentioned he was a Commissioner of the ICZN but that it would take a great deal of lobbying to make changes to the code as there are 30 commissioners across the world and change was hard to negotiate. There is currently no regulation against bad taxonomy or unscrupulous "taxonomic piracy".

Whilst it was recognised by CHAFC this particular case was a matter for the ANIC and iBOL resolve, members recommended that since Lepidoptera was a particular target of certain European amateurs (more so than most other insect orders) the images of the barcoded and suspected undescribed species should be protected (e.g. fuzzed in resolution so as to be not particularly useful) or the freely visible data emended to make it difficult to comply with the ICZN as available for type designation of a new species (e.g. given a separate cross reference numbers such that the true voucher number was not associated with the image/ specimen).

ACTION. Chair to write to Head of collections at ANIC regarding these concerns, especially in relation to the popularity of Lepidoptera, and the experiences of the herpetological community with the huge effort required to repair the damages done by Wells & Wellington during the 1990s-2000s. ON HOLD – DY to produce a paper for publication in *Tree* on the subject.

ACTION: LJ to circulate papers written by David Madison and others suggesting alternative ways of identifying species.

6.2. IP associated with access and use of collections. Members discussed the various requirements of their institutions concerning IP agreements with visitors/ researchers using/ accessing their collections, e.g. recent experience at NHM London with ownership of photographs made of their collection objects.

DY & LJ stated that CSIRO requires all visitors sign agreements (which have evolved) before visiting the collections that clearly states CSIRO's ownership of certain aspects of the IP associated with the use of their collection. PB also noted AM had similar visitor agreements.

ACTION: DY & PB to circulate CSIRO & AM visitor agreements to SV for circulation to CHAFC. JH to check his emails for receipt of documents.

ITEM 7 – Collection repatriation

MH received notification that Lou Roth (Harvard) died with large numbers of specimens on loan from various Australian institutions, with the response from Harvard that there were no resources to repatriate material. While a solution to send someone to the US to pack and send the loans back would be effective, this would be expensive, the expense would be at the lending, not borrowing institution, and it ignores the (likely) loans

agreement that the loan might be to the CEO/ Director of the institution, not the original researcher (as per CITES loans).

ACTION: MH to forward email to CHAFC Members. COMPLETE

ACTION: Members notify their respective Entomological sections to check their registry for loans to Harvard, Lou Roth and action to have them returned. If unsuccessful it was suggested for agencies to write to the Director/CEO of the Harvard collections notifying of moratorium of any further loans until they are returned. QM COMPLETE

ITEM 8 – Correspondance

- Endorsement of JH as ALA representative & PB as Proxy.
CHAFC agreed that JH would stay as representative until ALA wrap-up in June 2012 for continuity, whereas Chair of CHAH would stay on as acting Chair of CABC for the same reason.
- JH will attend both CABC, ALA (along with PB) & ABRS Advisory Committee meetings in mid-December in the capacity of Chair of CHAFC.
- JH confirmed that G. Cassis had accepted the terms of Bush Blitz payments (as per agreement with ABRS & CHAFC)

ITEM 9 - Report by the Director, Australian Biological Resources Study (ABRS) - by Michael Preece, Director

Purpose: To update CHAFC on ABRS activities undertaken since May 2011.

1. Staffing:

- The ABRS undertook recruitment processes for three (existing) APS6 positions and the successful applicants have been appointed:
 - o Grants and Business Officer – Samantha Cocks
 - o Bush Blitz Senior Project Officer – Mim Jamrecina
 - o Taxonomy Advisor – Annabel Wheeler
- Erika Alacs has left the ABRS Fauna Team to take up a permanent position within the Heritage and Wildlife Division of the Department. Beth Tully has been recruited as Erika's replacement in the Fauna Team until 30 June 2012.
- Richard Park who had been engaged until 30 June 2011 backfilling Robyn Lawrence's data basing position while she is on secondment to the ALA, left earlier in the year and returned to Sydney. Following a recruitment process, John Hook was appointed to the position on a non-ongoing basis. John will continue with data migration work associated with ALA projects. Robyn's secondment has been extended to 30 June 2012.

2. Budget:

- The ABRS budget for 2011-12 will maintain NTRGP funding at the 2010-11 level. Administered funding more generally, will also be maintained at the 2010-11 level. Departmental (operational) funding is expected to be under pressure.

3. Churchill Fellowships:

- The 2011 round of ABRS Churchill Fellowships was advertised in early November 2010. Applications closed on 28 February 2011.

The two successful applicants were:

- o Anna Kearns (QLD) - taxonomy of the Pacific Island Robin, and
 - o Haylee Weaver (ACT) – parasitology of thorny headed worms in fish.
- The ABRS has received approval from the Minister to partner with the Winston Churchill Memorial Trust for another year, and will provide total funding of \$50,000 to support two \$25,000 ABRS Churchill Fellowships for early career taxonomists in 2012-13.

Applications for the 2012 round will open soon.

1. Publications:

- The Australian Echinoderm volume is in the final stages of page preparation for handover to CSIRO Publishing in early 2012. This work will also be considered for e-publication.

1. Grants administration:

- Recommendations for ABRS Research grants for 2011-12 were approved by the Minister.

Twelve new grants totalling \$0.585 million were approved including nine fauna grants totalling \$0.415 million.

- The 2012-13 round of ABRS Research and Capacity-Building Grants and Bush Blitz PhD Research Supplements opened on 1 August 2011 and closed on 28 October 2011.

A strong number of applications were received for this round. The ABRS and Bush Blitz Capacity-Building Grants will be reviewed and recommended in December at the ABRS Advisory Committee meeting.

The ABRS Research Grants will be reviewed in March/April 2012.

6. Atlas of Living Australia (ALA):

- Additional ALA funding of \$466,000 for further work to the faunal component of the ALA has previously been reported. Contracts to individuals and institutions to undertake this work are now in place and work is proceeding.

7. Australian Faunal Directory (AFD):

- As at 1 November, the AFD includes 96,969 species/subspecies online, in 5,983 families. Compilers are mostly keeping to schedule and ABRS staff have been kept busy checking reassigned groups. Large groups newly loaded include many of the mollusc and beetle families; smaller groups include some of the so-called 'Minor groups', Gastrotricha, Loricifera and Nematomorpha. Levels of detail vary considerably from group to group, with nothing more than names, types for genera and primary references added for many of the larger groups.
- Problems with the AFD Editor have slowed work at times. ABRS and IT staff have endeavoured to be responsive, accepting helpful advice when changes can be made without significant cost. We thank the community for their input and patience with this ALA-funded project to complete and update the AFD. We have had a significant number of very positive comments from users in government agencies, NGOs, collections institutions and private individuals.
- We anticipate there will be challenges in maintaining the rate and volume of taxa updated beyond mid 2012 when ALA funding ends. We will be examining a range of options to continue this important work and we may need to seek assistance from taxonomists in the community to at least alert us to recently published works on various groups.

6. Council of Australian Biological Collections (CABC):

- The establishment of a national Council of Australian Biological Collections (CABC) has previously been reported. The ABRS provides secretariat services to the Council.
 - The Council's Terms of Reference have previously been circulated but are attached again for information.
 - CABC held its first meeting by teleconference on 8 March 2011. The Council has met twice since then (by teleconference on 13 July and 9 September) and is scheduled to meet in Canberra on 15 December 2011.
 - The Council has contributed submissions to the Department of Innovation, Industry, Science and Research (DIISR) on its '2011 Strategic Roadmap for Australian Research and Infrastructure Discussion Paper' (in response to both the Discussion Paper and the Exposure Draft); provided comments to the ALA in relation to data provision and attribution; and submitted comments on a consultation paper on proposed cost recovery initiatives under the EPBC Act.
 - CABC has also provided letters of support to the ALA in relation to a continuation of its infrastructure initiatives beyond mid-2012, and to the ALA/CSIRO in relation to a funding proposal for an Australian Virtual Taxonomy Laboratory (AVTL) project submitted to the National eResearch Collaboration Tools and Resources (NeCTAR).
 - CABC priority will be to carry on legacy of ALA style projects.
- CHAEC and CHACM. JH was concerned that the entomology and microbial collections communities weren't receiving enough support/ and or representation on the peak collections councils, including participating in the leadership.

MP mentioned that depending on the outcome of the NeCTAR bids there might be funds to help support some of the data issues and some of the smaller groups like CHAEC

7. Bush Blitz:

This item will be reported on separately to the combined CHAFC/CHAH meeting.

ITEM 10 – Commonwealth proposal to levy fees for administering EPBC

Summary of response developed by Penny on behalf of CABC regarding cost recovery and the EPBC Act.

PB stated that it seemed that the items listed were an oversight but is awaiting a response.

ACTION: DH asked for a copy of the letter.

ITEM 11 – NeCTAR proposal (National eResearch Collaboration Tools and Resources) proposal

- JH circulated the proposal to everyone prior to the meeting.

Summary: the proposal is for an Australian Virtual Taxonomy Laboratory to leverage products and services developed by TRIN and ALA for a new user tool (AVTL), and trialling a couple of botanical and zoological datasets.

- If successful this project will help keep the ALA operational at a certain level in the interim of 2012-13.

JH was uncertain how many agencies competed for the project.

DY noted that the proposal had made it through the internal CSIRO project filter.

CAMD had support as PB wrote a draft report for them.

MP stated that it met key capability criteria's for the Federal government.

JH believed it was a strong project as it builds on something that has already been well developed.

ITEM 12 – Moveable Cultural Heritage Issue (Arts Act)

All biological export items (loans) including objects worth more than \$1000, all types, all meteorite and all paleontological material and items of cultural significance are required to be reported and tracked under the MCH Act. This is on top of the current CITES paperwork.

PB stated the AM received a letter in Feb 2011 requiring that one of the obligations under Permit 1 is to report on anything that has travelled into (returned) or out of Australia yearly. The report was due by July 2011 and prior to this year they had forgotten to chase up the reports. DH also stated that MV had reported on Holotypes only and that it wasn't such an onerous task. This applies to anyone with a Permit 1 under the MCH Act.

ACTION: Institutions to check their obligations and comply.

ACTION: SV to copy email from AG to Jeff Johnson to CHAFC members.

ACTION: PB to circulate the letter to AM regarding the Moveable Cultural Heritage Act.

ITEM 13 – ALA report John Tann

ALA major funding concludes on June 2012 and Donald Hobern has resigned from his position to head up GBIF.

JT Stressed the need to hit the 'Feedback' button on ALA so they can make changes and improve before the end of the funding. Each record can be annotated. Annotation goes to the ALA but will be forwarded to the relevant institution, depending on the quantity of corrections.

JT stated that all data goes through a series of (75) data quality checks automatically before going live.

LJ commented that there seemed to be quite a number of inaccuracies namely with observation data.

JH suggested that data sources need to be listed, ie whether it is observational or vouchered data.

JT stated that ALA had put aside EIF funds for a skeleton crew to continue maintaining ALA for another 12 months after NCRIS funding finished in June 2012, and that CSIRO had made a commitment to recruit an Interim Director of ALA.

JT proposed that CHAFC write to CSIRO highlighting that we are still stakeholders and committed to ongoing input, and that CHAFC have a vested interest/partnership in the project and show enthusiasm to use the data.

There was agreement to build up local understanding of how the ALA runs so the partners have a greater stake in the ALA – and raise awareness in our institutions.

ACTION: PB suggested that AM needs an ALA roadshow to promote appreciation of ALA. JT stated that MC was keen to travel and show with JT.

DY suggested that the entire site of the ALA be mirrored offsite, such as at MV. JT claimed that would work as a 'hot spare'. Risk planning for worst case scenario – and also that it is essential that OZCAM be maintained as a dataset independent of ALA as a risk management strategy.

JH commented that the perception is that the ALA is complete, whereas many datasets are still awaiting loading from individual institutions who have not yet been able to export their data to OZCAM, or data are not fully compliant with Darwin Core, etc. Further, while there is a perception that because ALA is winding down in terms of development until further funding can be found, this does not mean that it is not being maintained or switched off.

ACTION: Chair of CHAFC write a letter of support on behalf of member agencies to CSIRO (as the host of ALA) committing to continuing data input, data

improvement and other inputs including listing continuing contributions such as FTE commitments. **COMPLETE**

Day 2 CHAFC AGM, Thursday 10 November

Welcome to WACS by Margaret Byrne, A/Director Science at DEC

ITEM 14 – Nominations and voting for OFFICE BEARERS for 2012

Chair and Executive committee were declared vacant, with PB as returning Officer.

PB previously had nominated John Hooper to return as Chair, Seconded by DY at AGM - JH duly elected as Chair and PB noted that this will be his last eligible year as Chair according to the Constitution.

Penny Berents to remain as outgoing Chair for 2012 as per ex-officio rules.

PB called for nominations of the two other officers.

David Yeates nominated to Executive committee / Public Officer by PB. Seconded by JH.

Steve Donnellan nominated to Executive committee by DY, Seconded by JH

ITEM-15 – CHAFC Inc accounts & members registration updates

ACTION: SV to check signatures for Bank account, whether any changes were needed re: SD election to Executive Committee.

ITEM 16 – Running costs & Membership fees 2011-2012

Further information available on request.

TOTAL INCOME:	\$12,180.00
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JH talked through the accounts and presented the Auditors report. The Chair moved to declare audit and account books were true and correct and recommend the meeting accept this motion. Seconded by PB.

CHAFC agreed that current agency membership fees were sufficient and that there were funds available for ongoing OZCAM costs.

ACTION: SV to send out invoices for 2012 membership at current rate.
COMPLETE

ITEM 16b – Future investments

JH proposed that precious CHAFC member agency subscriptions were being consumed by bank fees, and no interest was being earned on the capital investment to offset these fees. He proposed that CHAFC invest existing funds in a range of term deposits, based on timing of payment deficits, to better balance CHAFC financial viability.

The meeting agreed unanimously.

ITEM. 17 – OZCAM Funds

MV (\$18,468.91) funds to be used for OZCAM website maintenance and data development, including new initiatives to support member agencies capabilities re: achieving Darwin Core Schema for their collection data through visits by FCIG expertise, as noted above .

AM (\$40,636) funds are now cleared to transfer to CHAFC account. The meeting agreed to include these funds in a medium term interest bearing term deposit to offset bank fees, as noted above.

ITEM 18. Support for CHAFC representatives to attend meetings CSIRO

LJ tabled the possibility that, given the recent amalgamation of collection agencies in CSIRO Ecosystems Sciences into one infrastructure, it maybe difficult for both LJ & DY to be funded to attend future meetings, and moreover to justify two membership payments by CSIRO.

Subsequent to the meeting JH sought the opinion of the Head of ANIC within CSIRO Ecosystem Sciences, John LaSalle, about this issue, who expressed verbal support for the continued representation of the diverse commonwealth biodiversity collections by those who best represented them.

MAGNT

The Chair of CHAFC was informed that the MAGNT's CHAFC representative was only approved to attend the 2011 AGM as part of their Professional Development funding, and consequently CG was an apology.

ITEM 19. Data mobilisation assistance to member agencies

PB questioned the best way to deliver assistance for data mobilization to TMAG, MAGNT & ANFC, to assist getting their data into OZCAM. Members agreed that FCIG's proposal to contribute funds from CHAFC's MoV OZCAM pool, to cover the travel costs of museum programmers, was the best strategy to assist these member agencies to deliver to OZCAM (and thence ALA). For example, AG noted that ANFC needed help from the CHAFC community to massage their Excel files into Darwin Core compliant fields, to speed up the process of delivering GIS data to the ALA.

ACTION: AG to speak to CSIRO Marine data group on how best to resolve this issue with the assistance of Bryn Kingsford from the ALA.

ACTION: PB to discuss with Paul Flemons on who to contact and how to make it happen, and also to check with Bryn Kingsford on how he might help.

NB: ALA is negotiating Bryn's contract to continue and assist museums only.

ITEM 20 – Member reports

REPORT - Australian National Fish Collection (ANFC)

Author: Alastair Graham Date: 25 October 2011

Collections and Informatics

- **Staff** – 2.6 FTE. Our photographer, Louise Conboy is currently on leave-without-pay until 1 July 2012 and has been replaced by Carlie Devine.
- **Types** – 1 holotype and 10 paratype lots added this year. The Collection now holds 198 holotype and 1559 paratype lots for 330 species. Staff members are currently undertaking a number of projects which have identified additional taxa requiring description in the near future.
- **Database** - The collection database contains 48,858 lots (149,190 specimens), of which 31,520 lots (or approximately 65% of the records) with valid species identifications can be made available on OZCAM. A further 6,840 lots (14% of the records) are larvae identified only to family level. These records do have latitude/longitude data and could also be made available to OZCAM.

PB stated that if the information is broad you can put in precision references. PB, JH, DY stated that OZCAM and ALA want any information. SD stated that people need to know its there.

- **Loans** – 11 researchers borrowed 136 specimens.
- **Tissue collection** - continues to grow and now contains over 15,000 tissues covering 2,000 species from the Indo-Pacific. More than 11,000 tissues have been COI barcoded as part of the Barcode of Life initiative.

AG stated that they have an issue with tissue requests as they don't have the time to service the number of requests coming in, as demand is so high. SD suggested that people come in and do it themselves. MH stated that WAM put in place a tissue loans policy and it has been very useful. SAM also has a tissue loans policy as the requests became costly and it helps with cost, control and promotes collaboration.

DNA under the new Nagoya Protocol may need to come back to the institution. LJ considers it important that DNA does return as there will potentially be important information to gain.

AG stated that ANFC don't have a molecular capacity for storage nor a loan agreement. Just an informal agreement.

SD stated a condition of SAM loans is that they not be passed on to a third party and, if this happens the first institution will be refused loans in the future.

ACTION: Those who have tissue loans agreements (AM, SAM, WAM) to circulate to all CHAFC members (and links).

- **Tissue grants** – 8 grants to researchers, totally 621 tissues.
- **Photographic Index of Australian Fishes** - expanded and now contains 40,793 images, covering more than 3,000 species from the Indo-Pacific region.
- **Visiting scientists** - hosted 7 visitors, who spent 89 days working in the Collection.

Research

- **Staff** – 3.0 FTE

- **ALA fishes** – project co-invested by the ALA and the Wealth from Oceans (WfO) Flagship to create an online spatial mapping and identification tool for all Australian marine fishes (c. 4500 species). The demonstration project will highlight the capability of infrastructure developed by the ALA, and enable users to create customisable, illustrated species lists for any region in Australia's continental marine jurisdiction. We are providing images, taxonomic validation of specimens depicted in images and distribution data.
- **Indonesian teleosts** – Surveys of Indonesian fish markets continued. This ACIAR-funded project is examining the species composition and conducting rapid market assessments to characterize the fisheries. Over 800 species have been collected so far. One of the end products will be a field guide to the fishes.
- **Historical spearfishing data** – working with spearfishers in Victoria and New South Wales to investigate climate-related changes in coastal fishes using historic data dating to the 1970s. The project is supported by funding from the FRDC - DCCEE on behalf of the Australian Government.

Selected Publications

Last, P.R and Gaudiano, J. P. 2011. *Gollum suluensis* sp. nov. (Carcharhiniformes: Pseudotriakidae), a new gollum-shark from the southern Philippines. *Zootaxa*, 3002: 17-30.

Last, P.R., White, W.T., Gledhill, D.C., Hobday, A.J., Brown, R., Edgar, G.J. and Pecl, G. 2011. Long-term shifts in abundance and distribution of a temperate fish fauna: a response to climate change and fishing practices. *Global Ecology and Biogeography*, 20: 58–72.

Last, P.R., White, W.T., Gledhill, D.C., Pogonoski, J.J., Lyne, V. and Bax, N.J. 2011. Biogeographical structure and affinities of the marine demersal ichthyofauna of Australia. *Journal of Biogeography*, 38: 1484–1496.

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QM – John Hooper

Queensland Museum Report to CHAFC. November 2011

INFRASTRUCTURE & FUNDING

- Brisbane floods and cyclone Yasi closed 4 of the 5 QM campuses during the year for varying lengths of time, the longest being at QM South Bank (QMSB) for 6 weeks for which final repairs, painting etc now being completed. Yet we still managed to get 858,000 physical visitors to 4 sites (600,000 at QMSB). Estimated financial impact to QM's owned premises was about \$890,000, including from the Biodiversity Program's perspective new freezers on Levels 1 & 6 (QM does not own QMSB building, and for which the actual repair costs would have been probably considerably higher for this campus).
- QM turns 150 in 2012 and hence there has been a lot going on gearing up to a celebration with our communities. For over a decade QM has been requesting additional support for its public interface that truly reflects our core business,

especially in Brisbane, so this is a very exciting and challenging time for all staff, and very apt for our forthcoming 150th birthday.

- QMSB facilities are getting very tired and aging after 28 years of minimal infrastructure refurbishment. So the public areas are currently closed for about 3 months, and the Qld Govt has committed around \$12.5m for refurbishment of the building, including new lifts, escalators, central open stairs, extensions out from existing cafe, completely new lighting in galleries, amongst other initiatives. Re-opening is anticipated for late January 2012.
- There was also announced \$5.5m of Qld Govt funding to support some new exhibitions at QMSB, and a matching \$5m from the Board, over the next 3 years. There was also an \$8m expenditure on extensions and refurbishment of the Cobb&Co Museum at Toowoomba completed that at least doubled the size of the existing facility.
- Other infrastructure investments included a \$2.1m completion of storage furniture upgrade at QMSB and Hendra, that rehoused about 2.8 million specimens and objects (+28% space efficiency, giving our potential collection storage capacity another few years of grace).
- Geosciences Program at the Hendra offsite store received refurbishments of the type collection store, fossil preparation, acid preparation, moulding and modeling laboratories, a new roof, and a new environmentally controlled store to house the larger collections of whale bones and mammals.
- QM Biodiversity & Geosciences staff won over \$2.2m in external grants and other research contracts, approximately 43% of total funding (we have an aspirational target of 30% externally earned revenue), including grants from ABRS, ARC Discovery and Linkage, US NSF, Australian Antarctic Division, Alfred P Sloan Foundation, Australian Institute of Marine Science, GBR Research Foundation, BHP Billiton, BMC Coal, amongst others.
- The ALA funded the purchase and installation of Visionary Digital and Passport camera systems, primarily to illustrate specimens associated with collection data that are being delivered to the ALA, especially type specimens and including whole specimen drawers. The gel documentation system was also upgraded in the Molecular Identities Laboratory, thanks to fundraising efforts of the QM Foundation.

PEOPLE

- The greatly admired and well respected Chair of the Board of the Queensland Museum, Prof Peter Swannell AM, retired in 2011. He was replaced by the equally capable Dr David Hamill AM, former Treasurer of Queensland and previous Deputy Chair of the Board.

- There was slight restructuring of the QM in 2011 such that the existing Senior Management Team (SMT) was disbanded, and two new teams formed: the Executive Management Team (EMT), that focusses on business delivery, budget and compliance issues; and Museum Leadership Team (MLT) whose role is to focus on content delivery, collections, research, community engagement and other operational issues. No doubt there will be more "structural adjustments" at QM as it becomes more business and visitor focused.
- Head of Geosciences position was finally filled by Dr Andrew Rozefelds, recruited (back to QM) from his role as Deputy Director at TMAG after nearly 17 years since leaving QM. Senior Curator Geosciences Dr Alex Cook was seconded to a mining exploration company in the Great Artesian Basin for a year to gain industry experience, and is expected to return to his position early in 2012. In the interim he was replaced by Dr Julien Louys, recently returned from a postdoc in the UK, and who has subsequently won a UQ postdoctoral fellowship which will maintain his ongoing collaboration with QM's Geosciences Program for at least the next few years.
- Two (20% funded) cross-appointments were maintained with Griffith University (Senior Curator Entomology, Dr Chris Burwell) and James Cook University (Senior Curator Tropical Marine Invertebrates, Dr Niel Bruce), whereas the existing cross-appointment with the University of Queensland of the Head of Marine Zoology (Dr Rob Adlard), was "downgraded" to an adjunct appointment due to cut backs in parasitology courses being delivered at UQ.
- QM has a current freeze on staff recruitment through attrition, which is a major concern for the Biodiversity Program: with Senior Curator Vertebrates, Dr Steve Van Dyck, Principal scientist and Corals curator, Dr Carden Wallace, Collection Managers MTQ, Barb Done and Denise Seabright, all indicating their intentions to retire sometime in 2012. The usual EB and salary 'progression creep', and the imposed 'annual productivity dividend' continue to eat into our abilities to maintain budget parity with real costs of employment - like all publicly funded institutions - and threatening our core capabilities as members of Australia's gradually shrinking national taxonomic expertise. Over the next decade or so - like many other CHAFC agencies - approximately half of the existing QM expertise will be of retirement age, with a very patchy existing program to mentor new generations of recruits, and which is funded entirely from external (ephemeral) grant funds (ie maximum 3 year funding cycles).
- Notwithstanding these impending retirements, the current core staffing in the Biodiversity & Geosciences Programs across all campuses remains at 29.9 FTEs, with an additional 16.8 FTEs funded by external grants and contracts in 2010-11, including postdocs, and an additional 28 postgraduate students supervised by QM staff over this period.

- 342 volunteers contributed 5,271 volunteer days across to whole of QM, with a approximately 25% of these working with the Biodiversity & Geosciences Programs in 3 of the 5 campuses.

PUBLICATIONS & COMMUNITY ENGAGEMENT

- The popular publication 'Wild Guide to Moreton Bay' 2nd Edition (2 volumes) was published, containing 1,700 species, 1,600 full colour images, including many of the new species discovered in Moreton Bay during the International Marine Biology Workshop in 2005 and subsequently published in the 'Memoirs of the Queensland Museum' (and other peer-reviewed journals) over the period 2007-2010. The 'Wild Guide to the Great Barrier Reef' popular publication project commences in 2011-12, with the possibly up to 5 volumes being considered on various of the many unique features of this World Heritage Area, and with the first volume being a general introduction to the iconic GBR through a series of cameos of GBR stories/ taxa (i.e. not an ID guide like the Moreton Bay books, but with subsequent volumes potentially including this ID functionality for particular groups).
- The 'Backyard Explorer' project was completed (active over the past 18 months), funded by CSIRO SCOPE and QM, that took terrestrial invertebrate taxonomy into the regions, engaging with communities and schools in regional Qld to raise awareness of local wildlife. The project trained diverse members of a wide span of communities to watch and record wildlife as 'Citizen Scientists' using standardized collection, recording and reporting protocols. The project trained about 670 people during 16 separate workshops and other events, from communities across the broad geographical span from Eromanga in SWQ to Thursday Island in FNQ. Sadly, it is unlikely there will be subsequent funding from either of these sources for the continuation of this very successful initiative in 2012.
- The QM hosted the ALA launch in Brisbane, followed by a user symposium to encourage contribution to and use of this new eResearch initiative funded by the NCRIS, EIF Superscience and the significant contributions from the many member organizations, to promote awareness of Australia's natural heritage through virtual access to the nationally distributed collections of Australia's natural history held by the state, territory, commonwealth, university and other community biodiversity collections.
- Using ALA citizen science tools, and in partnership with Quest Newspapers, QM also launched the 'Wild Backyards' website, hopefully soon destined to be a Smart Phone App, that encourages the participation of young individuals and community groups to record and build collaborative libraries of wildlife sightings within their backyards, local reserves and public spaces throughout SE Qld.
- 51 volumes (issues) of the Memoirs of the Queensland Museum were scanned, dating from 1891, and are awaiting the call from the MoV Biodiversity Heritage Library project, to be delivered online through the Australian node of the BHL.

- Two volumes of the Memoirs of the Queensland Museum were published in 2010-11 (one on the natural history of Moreton Bay, mentioned above) with 738 pages. Two new volumes of the MQM are about to be published in 2011, one presenting scientific research results of the IBISCA's Biodiversity At The Heights (BATH) project, that established a firm baseline for future monitoring of changes to species inventories and their altitudinal distributions within the Lamington Plateau National Park (southwest of Brisbane), as a consequence of our rapidly changing ecosystems, including climate change responses. Trends in publishing within the MQM appear to be increasing interest in special thematic volumes, such as those mentioned above, and decreasing contributions to general volumes with the growing stable of online publication across many specialist and general subject areas. In the interim, however, the costs of continued publication of hard copies of the MQM that are exchanged with many hundreds of reciprocal international biodiversity and palaeontological journals well-outweigh the costs of subscribing to these journals if QM had nothing to exchange. There is no doubt, however, as demonstrated by recent dramatic changes within the botanical taxonomic literature, that zoological journals will eventually follow suit as online publishing only. In the interim, we continue to strive for adequate budgets to maintain basic MQM productivity.
- National Science Week at QM has traditionally been a major celebration of 'science on the floors', and in 2010-2011 was celebrated with 35 events with an estimated visitation of 9,500 participants.
- Scientific productivity remained fairly constant, with Biodiversity & Geosciences staff publishing 155 papers in 2010-11 (96 peer-reviewed publications, 27 technical and popular reports, 37 conference papers, posters, abstracts etc), with the whole of QM producing 186 publications (including Cultures & Histories Programs - not included in this report).
- 74 research and collection development projects were undertaken in 2010-11, 23 new and 43 ongoing, and including 42 national and 92 international collaborators. As noted above, these were predominantly funded by a record \$2.2m in external grants and research contracts to the Biodiversity & Geosciences Programs. Anticipated financial performance in 2012 is expected to be considerably lower due to the propensity for the commonwealth to provide funding in advance for outgoing years, whereas productivity from this funding is expected to continue over subsequent years.
- QM & AM partnership in the Australian Land Snails book won the 2011 Whitley Award for best natural history publication, (John Stanisic et al., 794 species in 294 genera, 308 and 70 new, respectively), and John was also awarded the QM Medal for 2011 (together with Qld's Chief Scientist, Prof. Peter Andrews co-founder of the IMB at UQ)

COLLECTIONS & EXPEDITIONS

- The final Australian Census of Marine Life CReefs expeditions were completed, with QM staff participating in all 9, and now looms the final year of ABRS CReefs project funding during 2012, working up various aspects of these collections. A QM photographer, Gary Cranitch, also participated in most of these expeditions, with many of his photos forming the basis of the planned 'Wild Guide to the Great Barrier Reef' publications mentioned above, and for which he also won several professional photographic awards. Gary & Marine Biodiversity staff also produced an exhibition at QMSB to celebrate the end of CReefs project, featuring some of his best photographs and 'curious' marine specimens and collecting paraphernalia.
- The Central Queensland Bush Blitz is now abandoned (flooded) by directive of ABRS Bush Blitz team, and unlikely to be rescheduled. To date no more Bush Blitz's are scheduled for Queensland during the current program. Other field programs included terrestrial surveys with the IBISCA Project in the rainforests of Borneo and China, field work in the cloud forests on Mount Abbott (Qld's 2nd highest peak), and retrieval of samples and traps from the now cancelled Central Queensland Bush Blitz; marine invertebrates from PNG, Christmas Island, Singapore, Moreton Bay and participation in WAM's Woodside expeditions to the Kimberley coast; parasitological sorties to Morea French Polynesia, North Stradbroke and Lizard Islands; cetacean retrievals from central and southern Qld; fossil excavations at South Walker Creek mine, Mt Etna Caves, community dinosaur digs at Eromanga and Winton. We continue to experience ongoing issues around the ownership of fossils in Qld - due to the vagaries of existing state legislation - and growing demands of many small regional palaeontological museums requiring collaboration with QM but detracting from QM's own capabilities to mount significant exhibitions of Qld's unique fossil fauna.
- The former University of Queensland Insect Collection is now fully incorporated into the QM Entomology Collection, more than doubling the size to around 3.5 million specimens, and within the same footprint as previously (I.e. using compactus storage). Transfer of the collection, and installation into the QM at QMSB was funded entirely by UQ, including some small additional funds for databasing some key groups. While there are obviously overlaps between the two collections, which will be rationalized over time, the two collections are largely complementary, each with different strengths reflecting the history of collectors in each institution. The issue of naphthalene within the entomology and some other dry collections is being confronted, but it is highly unlikely that there can be any resolution within the existing building (ie no physical vermin barriers) or using existing collection storage furniture (all deeply impregnated with naphthalene).
- 20,000 fragments and DNA extracts of sponges and octocorals were made as part of the MarBOL (Sloan Foundation funded) project, and exported to LMU Munich for optimization and sequencing, the former to be delivered via the Sponge Barcoding Project (barcoding gene) and to PorTOL at various US institutions (US NSF funded) (multiple genes).
- Vernon CMS is now nearly fully functional (I.e. nearly capable of talking to OZCAM), with mirror site being hosted by Vernon for direct export of data and images etc. Just

over 30,000 zoological collection data were exported to OZCAM (although not all of these are online yet ?), being primarily type specimens. Over 700,000 specimen records are ready to be ported. In 2010-11 data for about 16,500 specimens were added to Vernon, and about 8,000 images. Vernon CMS also performs crucial function of defining the State Collection, and annual collection verification and valuation for Audit purposes. About 74,000 specimens and objects were loaned by QM, but only about 2,000 scientific loans, with the remainder education loans kits to regional Queensland schools and community groups.

- Although meaningless to most of us, QM collections (numerically dominated by biodiversity and geosciences specimens) consist only of the State Collection as defined by a corresponding registration/ accession in Vernon CMS, comprising about 1.2 million registered objects, valued at \$387 million, with an increase in value for 2010-11 of \$7.8 million for about 16,500 specimens (primary types are valued around \$13,000 each based on their putative recollection costs). The real collection (defined as the Research Collection) numbers around 10-12 million more specimens, but because it can't be verified or valued (not registered on Vernon) it cannot be audited as any asset with value needs to be under the accounting standard. So far QM has been able to get acceptance of this process from the Auditor General and Treasury based on the principal that "value" can only be ascribed to a specimen after it has gone through a significance assessment in the context for which it was collected (such as a publication) and not earlier in the collection-taxonomic chain.

PB commented that there was some concern by various colleagues over the Stanisic et al. Book on landsnails, and whether it was peer-reviewed, and fell into the category of a scientific or popular publication, not detracting from its obvious quality as a well produced and useful publication.

REPORT - Australian National Insect Collection (ANIC) Report to CHAFC

Author: David Yeates

People

Volunteers

The volunteer program, coordinated by Tom van Gerwen, continues to provide invaluable support to ANIC research and curation activities. The ANIC currently engages more than 20 volunteers who spend between 7 and 15 hours per week in the collection. This year, Nicole Fisher recruited student volunteers from the ANU to assist with ANIC's imaging projects. Presently, 4 students are engaged in whole drawer imaging with the SatScan, and holotype imaging using the BK+.

Tours

Tours of the ANIC are in high demand from visiting research scientists, conference and workshop participants, school groups, special interest groups and CSIRO staff. Unfortunately, due to the persistent reductions in staff numbers over the last few

years, the ANIC has been forced to put an end to supporting tours in favour of higher priority activities relating to care and maintenance of the collection.

Collection Management & Curation 2010-2011

Loans & Enquiries

The rate at which specimens were dispatched on loan to various domestic and international research partners continued to increase during 2010-2011.

Retrospective loan recovery is continuing. All outstanding loans have been entered into an Excel spreadsheet to make searching and tracking more efficient. Current loans continue to be entered and tracked with BioLink.

Donations

We have received several major donations over the last 12 months, predominantly consisting of collections of Coleoptera, Hemiptera, Lepidoptera, Orthoptera and Phthiraptera.

Whole-drawer imaging

Whole drawer imaging using the SmartDrive SatScan™ system is proceeding well. While waiting on an Australian instance of Morphbank to become available for depositing the images, in the mean time images have been made available on both the ANIC Virtual Taxonomy Laboratory (<http://anic.ento.csiro.au/virtual/accimages.html>) and a Flickr site (http://www.flickr.com/groups/anic_drawers/). They can be viewed and downloaded from both of these locations.

Key Links

Australian National Insect Collection: www.csiro.au/anic

ANIC Staff Profiles: www.csiro.au/places/ANIC-staff.html

ANIC Resources: www.csiro.au/places/ANIC-publications.html

REPORT – Australian Museum (AM)

Author: Penny Berents

Date: 4 Nov 2011

- Change of govt in March, 9 mega depts., we are in Dept Trade, Industry, Regional Infrastructure and Tourism, \$45 million cut across dept but cultural agencies insulated for this year,
- Usual 1.5% efficiency dividend
- Govt passed legislation to restrict public sector salary rises to 2.5%, but not necessarily funded
- Closing Cronulla Fisheries Research Centre and research team in State Forests made redundant
- DEC changed to Office of Environment
- Salary budget increasing but budget allocation decreasing, pressure to make salary savings

- New and expanded temp exhibition spaces
- New AD, Public Engagement v keen to get increase science profile in gallery spaces
- Reorg in R&C to reduce number Branch Heads to 2 and create groups based on discipline

Collections

- Staff – Roger Springthorpe, TO in Marine Invertebrates retired but will be replaced because marine inverts a very active area of research with 5 research staff and 2 post-docs
- Collection valuation – 2010-11 were able to only estimate value of additions to the collection. Next year we have to complete collection valuation
- Performance audit – requirement to prioritise the collection, have now done so with categories of risk and importance, used for specifying display, loan conditions and inventory
- Requirement to improve inventory procedures- now have separate procedure for high importance (200 lots/specimens/quarter/collection) and high risk (all high risk, once per year).
- Inventory project- pilot project to develop automated process to inventory the high risk collection using MVWise and imaging
- Kermadec expedition with Auckland Museum, fish and inverts, successfully argued case for access to acquisition funds in a bequest, including funds for sorting and curation
- 425 loans sent, >28,000 specimens

Research

- Grants , >\$1mill grant funded projects
- Co-funding a challenge
- Natural Science 14 research staff, 4 post-docs, and Senior Fellows
- Biggest group Marine Inverts, no research scientist in Geoscience, Arachnology, Ornithology
- 3rd AM researcher to be awarded Senior Principal Research Scientist
- RACAC will be revised next year, Research and Collection Development Strategy due for renewal next year
- Visiting Fellowship scheme \$33K /yr ; Lizard Island Fellowships doctoral and post-docs
- 1600 visitor days in R&C
- Published 136 papers

Informatics

- Rapid Digitisation Project and Volunteer Portal, lots of records imaged, assessing volunteer portal for importing data to EMu
- developing bid to govt with other cultural agencies for digitization project
- 1.6 million records in EMu but almost 900,000 to OZCAM, need to increase number of records delivered to OZCAM
- now have tissue records in EMu
- Records of the Australian Museum all scanned and on AM web site

REPORT - : Western Australian Museum (WAM)

Author: Mark Harvey

Date: 9 November 2011

Collections

The WA Museum's work in describing new genera and species is highly significant in international terms. In 2010–11 Museum scientists described 5 new animal genera, 2 new meteorite and 61 new animal species. 60 new animal species and 2 new fossil holotypes were added to the collection. The Museum added more than 19,300 wet items and over 6,300 dry items to its storage facilities and more than 6,700 artefacts and over 233 cultural items were registered into the collection this year.

Research

Advanced global research efforts through:

115 collaborative scientific research projects, of which 28 involved international partner agencies and institutions.

- The loan of more than 8,400 items to other institutions for scientific research.
- Providing access to its collection by hosting 28 international scholars.
- 47 field trips that took place throughout the State.
- Contributed to the management and sustainability of the State's environment and resources development by providing expert advice and information in response to over 7,280 requests from the government and private sector on biodiversity and culturally significant issues.
- Supported the training of the next generation of scientists, curators and other experts by supervising 29 students of which 14 were post graduate students and 1 undergraduate student: 8 were based in Australia and 6 were based overseas. The Museum also plays a major role in introducing school aged and vocational students to a variety of possible museum and science-based careers.
- Publishing 60 peer reviewed research publications (55 journal articles and 5 book chapters).
- Publishing 236 non-refereed reports, conference papers, popular and other publications (17 non-refereed reports, 26 conference papers, 67 popular publications and 126 unpublished reports to consultants).
- Holding 221 local, 42 regional, 10 national and 32 international public lectures, workshops and presentations.

Achievements

The Western Australian Museum increasingly works in partnership with museums and universities within Australia and around the world as well as the national and international private sector and individual research sponsors. These partnerships deliver a range of benefits to the Museum and the State. They provide access to the WA Museum's collections and knowledge; enable the Museum to increase its networks, and support research work and projects that might otherwise be out of reach due to funding and staff constraints. The work undertaken through partnerships helps inform today's scientific thinking both within Australia and abroad in vital areas including conservation, climate change, biodiversity and sustainability.

Over the past year, the Museum was involved in 115 research projects in a variety of disciplines, of which 87 involved partner agencies and institutions, including 28 international collaborators. Many of the 31 field trips undertaken by Museum staff during 2010–11 were conducted in partnership with other organizations.

Major field trips this year included:

- Lake Hillman and Weld Spring Reserve audits.
- Kimberley Marine Survey at Cassini Island and Long Reef and Wheatstone fish survey at Ashburton River.
- Assessment of Gwalia-Leonora historic townsite.
- Recovery of meteorites from the Nullarbor Plain (Madura area).
- Heritage surveys of Lucky Bay and Cape le Grande areas in Esperance organized by the Gabba Kylie Foundation.
- Survey of shipwreck sites in Georgraphe Bay and Hamelin Bay.
- Rottnest Island bird survey.

- Study of Yilgarn subterranean fauna.
- Biology of Truffle Beetles in North Eneabba region and study of Earth-borer Beetle, Winderie Station (Gascoyne)
- Survey of frog species in the Great Victoria Desert, Ilkurlka.
- Study of Assassin Spiders of Tasmania.
- Fauna sampling from Bundera bores at Ningaloo Coast.
- Study of arachnids of Southern WA and Oregon USA.
- Bird survey of Christmas Island

In 2010–11 major state, national and international research partnership projects included:

- The Woodside Collection (Kimberley) Project Woodside 4 funded by Woodside Energy Ltd; the Western Australian Marine Science Institution (WAMSI) project studying the deep water communities of Ningaloo Reef; the Ningaloo lagoon filter feeding communities in collaboration with Murdoch University and CReefs and Ningaloo deep water species with CSIRO. These projects have forged collaborations across Australian and international museums, universities, and marine organisations. This has resulted in the creation of new marine collections from both the remote Kimberley, an area with high conservation, social and economic value, and from Ningaloo Reef, an area that is being evaluated for World Heritage Listing.
- The WA Marine Bioresources Library (WAMBL) funded by the WAMSI is enabling registration of frozen sponge specimens from the WA Museum collections into the inaugural WA Bioresources Library, making this material available for biodiscovery research.
- Chevron-funded collaborative work with the Australian arm of the US company URS Corporation to survey fish communities at the mouth of the Ashburton River, near Onslow. This fieldwork added fish specimens to the collections from a previously poorly known area of Western Australia.
- In collaboration with the Tyrell Museum, Canada and the University of Alberta, Canada, palaeontologists are studying the ontogeny and life history of the *Cardabiodon ricki*, the largest known shark from the mid-Cretaceous period. The study of these mid-Cretaceous fossil sharks is paramount to our understanding of the evolution of the lamniform sharks, a group that includes modern species such as the great white shark and the Megamouth shark.
- In collaboration with the American Museum of Natural History, Museum scientists are researching spiders belonging to the group Oonopidae.
- Studies of the systematics of Pseudoscorpions are being carried out in collaboration with the University of Connecticut.
- A study on the biogeography of calcareous and recent lithistid sponges of Western Australia in two collaborations with the Federal University of Rio de Janeiro, Brazil and the Institute of Palaeobiology, Polish Academy of Sciences, Poland. These fauna have not previously been examined in the Eastern Indian Ocean.

Information

The Museum continued *The Harry Butler lecture series: In the Wild West*, under the patronage of renowned naturalist Harry Butler and the Chief Scientist of Western Australia, Professor Lyn Beazley. Over 2,600 people attended the lecture series across both regional and metropolitan sites, with over 13,000 watching vodcasts.

The Museum also produced and distributed 5 new books and monographs for national distribution to general and specialist readers, libraries and young readers including:

- *Field Guide to Reptiles and Frogs of the Perth Region* by B Bush, et al.
- *Prehistoric mammals (factfocus)* by Ken McNamara
- *Secret Fleets* by Lynne Cairns
- *Field Guide to Reptiles of the Pilbara* by B Maryan, et al.
- *We Cam By Sea* by Nonja Peters

REPORT - Museum Victoria MV report 2010 – 2011

Organisation: - **Museum Victoria**
Author: - **Mark Norman/Dermot Henry**
Date - **November 2011**

COLLECTIONS

New appointments:

Assistant Collection Manager, Marine Invertebrates, Melanie MacKenzie
Two Collection registration officers (FTE)

Sciences Collection Online staff

Two staff continued on DSE-funded Port Phillip Bay project

Instigated hazardous substance review

Continued testing of mounts and specimens
Air monitoring and testing within Wild gallery and surface testing in some work areas.
Completion of Arsenic handling procedures

Audit project

Audit of all primary type specimens underway (completed in most collections)

Collection activities

Outgoing Loans	-	162 loans
Acquisitions summary	-	12456
Registrations (all NS)		48889

RESEARCH

Staff

Staff Ongoing	-	32.9FTE
Staff Contract	-	12.6FTE

Changes/New Staff

Adnan Moussalli, Senior Curator, Invertebrate Zoology
Julian Finn, Senior Curator, Marine Invertebrate

Grant Summary

Museum Victoria received a total of \$945,674 new grants for Natural Sciences (Administered by Museum Victoria). There were no new ARC Linkage projects in this year.

Students

PhD Students	-	19
MSc Students	-	05ii
BSc (Hons)	-	01

Publications

Scientific papers	-	78
Online publications	-	7
Books	-	2
Chapters in books	-	8
PhD thesis	-	3
Master of Science	-	1

Presentations

Conference presentations	-	53
Lectures/seminars	-	33

INFORMATICS

Total NS registrations in EMu 1,122,090

NS Collections Online (Geology 55,505; Invertebrate Zoology 525,447; Palaeontology 178,774; Vertebrate Zoology 251,004)

Atlas of Living Australia (ALA)	423,946
Ausbee: The Native Bees of Australia	60,000
Bioinformatics	285,980
BioMaps (Equal to contribution available via OZCAM)	519,351
Global Biological Information Facility (GBIF)	519,351
Ocean Biogeographic Information System (OBIS)	28,857
OZCAM, Australia's Fauna	519,351

Attendance data

Total ticketed visitation	-	2,329,558
Immigration Museum	-	128,350
Scienceworks & Melbourne Planetarium	-	447,708
Melbourne Museum	-	1,428,238
IMAX Melbourne Museum	-	325,262
Discovery Program	-	78,540
Website	-	4,685,114
Royal Exhibition Building	-	466,267
Ph		
Membership as at 30 June	-	11,676
Discovery Centre Enquiries	-	2457

REPORT – South Australian Museum (SAM) for Financial year 2010 – 2011 – Steve Donnellan

Contributed by Steve Donnellan, Robert Morris & Alexis Tindall

Staffing

Total staffing 76 FTE occupied by 89 persons, 28 staff in Sciences

New appointment: Researcher Aquatic Invertebrates Rachael King (start May 2011)

Visitation

Over the past 12 months, overall visitation to the museum, its regional events and touring exhibitions was over 790 000. We have received 692 488 visitors to our museum site on North Terrace. Beyond our museum, we delivered activities to 13 locations across South Australia, reaching an audience in excess of 8 000 and a further 6 activities across Australia, reaching an audience in excess of 90 000.

Main Temporary Exhibition Gallery

Waterhouse Natural History Art Prize 17 July until 5 September 2010

In its eighth year, the annual Waterhouse Natural History Art Prize featured 104 artworks, which were selected from a field of 684 Australian and international entries. Judges awarded the \$50,000 overall prize to Canberra artist Nikki Main for her glass work *Flood Stones*. Visitation: 11 708

Images of the Interior 14 May – 26 June 2011

This exhibition showcased the photography of seven different photographers who each documented Central Australia during the half-century from the 1890s to the 1940s. Curated by Philip Jones, the exhibition featured a dozen photographs from each photographer and was accompanied by artefacts relating to the photographer, sourced from the South Australian Museum and private collections. Visitation: 17 323

EDUCATION SERVICES

Our programmes also play an important role in educating young people, both online and through school visits. We hosted 34 473 school visits at our sites in the last year with many other projects reaching pupils not able to visit our museums themselves.

We are working at a strategic level with the Department of Education and Children's Services (DECS) to contribute to the development of the National curriculum. The museum continued to be aided in its delivery of educational services with the provision of two Education Officers on secondment from DECS.

Staff Achievements and Awards

Professor Allan Pring (Mineralogy) was shortlisted as a finalist for Scientist of the Year in the 2010 South Australian Science Excellence Awards.

Our academic research status has achieved new national and international recognition and an ambitious program of research helped enhance access to our collections and knowledge. Over \$5 million in externally won research grants was secured during the year. The majority of this funding was secured in competitively awarded grants from the Australian Research Council (ARC).

Nine externally-funded, museum-based post-doctoral researchers contributed to the work of the museum during the year.

Museum staff directly supervised 42 research students.

The museum also maintained strong collaborative research partnerships during the financial year, in total 152 partnerships were recorded: 27 with other museums, 85 with

tertiary departments (mostly universities), 34 with other research institutions and six with other agencies. Internationally, we continue to cement our enriching collaborations with Canada, Chile, China, France, Iran, Malaysia, New Zealand, South Africa, UK and USA.

Published works continued to be strength of museum staff with a total of 200 scholarly publications and 17 other publications being finalised during the period.

Along with publishing, museum staff were also very active in maintaining academic engagements through the delivery of academic & public lectures (over 50 events), workshops (eight events) and conference presentations (57).

Collections development

- Over one million dollars in donations and acquisitions through the Board, Foundation, Cultural Gifts Program, Australian Valuation Office etc.
- The addition of over 30,000 objects, specimens and lots though fieldwork, research and donations.
- Approximately 105 commercial and non-commercial loans were arranged in 2010, involving 3,865 objects and specimens to 40 different institutions around the world.
- The Museums new website went live in April 2011. With the support of the Museum Board the site was comprehensively redeveloped and redesigned with significantly enhanced functionality. It now provides a stable open source platform that will facilitate content delivery and expansion well into the future.
- Development and rollout of Museum destructive analysis policy to compliment the ABTC Tissue Grants Policy

Digitisation

As yet no further funds have been secured to roll out the preferred collections management system (EMu) to the Invertebrate and Palaeontology collections. As an interim measure, and with the assistance of the ALA, we are mapping all existing 'secondary' datasets against the Darwin Core metadata framework in order to develop a suite of compatible data bases that can be delivered online. It is anticipated that this work will be completed in late 2012.

Volunteer Digitisation Project

The Volunteer Digitisation project is continuing at a great pace. To date, the 15 person team has photographed a series of views of more than 1800 terrestrial invertebrate holotypes, and created database records for a number of those that were not previously documented. Images and data have not yet been delivered online through the ALA because of some incompatibilities with the current version of their image repository. It is anticipated that these will be resolved with the next software upgrade, expected in mid-December.

An extension of funds from the ALA and the SA Museum means that the project will continue for a further twelve months, which will help integrate what has been learned through this project across the institution. SAMA is already using experience gained to advise on improved management of digital assets, and anticipating the development of a Digitisation Strategy for the museum over coming months.

Opportunities have recently arisen to share what we have learned from this project, with manuals being published online for FCIG members, and a workshop for TMAG and the Tasmanian Herbarium. As part of the extended contract, SAMA has committed to working with ALA to produce materials and workshops that may help other partners establish volunteer digitisation programs.

REPORT – Tasmanian Museum & Art Gallery (TMAG) – Catherine Young

Available upon request

REPORT – Australian National Wildlife Collection (ANWC) – Leo Joseph

Available upon request

REPORT – Museum & Art Gallery Northern Territory – Chris Glasby – absent

ITEM 23 – Representative nomination for Biological Consultative Group (BCG)

- LJ was nominated to be the representative for the next meeting for BCG, scheduled March 2012

ITEM 24 – Animal Ethics

Background

Robert R: I am looking through the proposed new Animal Ethics Code and finding issues around museums that need challenging (bolding is mine).

1. AEC Committee composition. A new category has been added: “Category E – a person employed by the institution with responsibility for the routine care of animals.”

“The institution must establish and maintain an AEC that has a membership that will allow it to fulfill its terms of reference (see 2.2.7). **For institutions that operate or maintain animal facilities, the AEC must comprise at least five persons, one from each of the five categories of membership (A, B, C, D, and E).** For institutions that do not operate or maintain animal facilities, the AEC must comprise at least four persons, one from each of four categories of membership (A, B, C, D). In the latter situation, a member from Category E is recommended but not mandatory.”

The issue will be whether keeping live animals, e.g., for display, constitutes “animal facilities” but: “Facility: any place where animals are kept, held or housed including yards, paddocks, tanks, ponds, buildings, cages, pens and containers.” So I think it does mean us.

The above is something to include in the CHAFC issues.

CHAFC discussed the various issues around obtaining Animal Ethics approval for research projects. There was a great deal of variation between the approaches of various agencies, such as governance at agency level with their own AECs, or in

collaboration with a university, or through department level as part of state-wide AECs. All were difficult to varying degrees.

JH commented that the QM (which has its own AEC overseen by the State regulatory committee in DERM), was having difficulty in recruiting the services of vet to volunteer for the QM Animal Ethics Committee, and that furthermore the number of "categories" of AEC members is set to rise due to proposed changes in the Act, nationally, putting even more pressure on the AEC approvals process.

WAM was previously involved with the university for Animal Ethics approvals but it was difficult so they now seek approvals through DPI.

No further action came from the discussion.

ITEM 25 - CURRENT BIG ISSUES IN THE INSTITUTIONS

25.1 Retiring Biodiversity & Geosciences staff, continuity planning

WAM and AM contributed submissions to the Commonwealth Biodiversity Strategy, which MH said helped push WAM issues.

There may be value in assembling a human capability statement. At present collections are valued more than people who work with them. MD stated that for a better appreciation of objects and collections, is that their value can only improve with human capability.

25.2 Museum Journals

JH wanted to know whether institutional peer-reviewed research journals were under threat with increasing budget pressures. Discussion ensued on whether they were going to be relevant in the future with online publishing (i.e. as per recent changes to the Botanical Code that now allows for electronic-only publishing of taxonomic names); the perception by budget committees of the good economic value of in-house publishing for library exchanges, compared to the cost of subscribing to many of the taxonomic journals used by museums; or whether budgets are better spent on subscription to online publishers, like *ZooKeys*, *Zootaxa* etc.

TMAG – their journal ceased momentarily due to skill shortage (departure of Andrew Rozefelds to QM), under threat at times, MAGNT – under threat, WAM – no threat, MV – supported, AM & QM – supported currently but is vulnerable as budgets shrink.

LJ suggested CSIRO Publishing may be interested in a joint publication, although it was noted that because of the distributed nature of the collection agencies, each required their own libraries, as opposed to one or few centralized physical libraries if there were one or few joint museum journals. SD stated that as everything comes online soon no one will have a need to access libraries for paper copies, although it was again noted that many taxonomic journals are not available through the Web of Knowledge, and institutional subscriptions are not cheap, especially for the smaller institutions or those without university adjunct

appointments that provide this access. MP noted that ABRS is heading to ePublishing as there are constraints on institutions to deliver material to a range of people is restricted with hard copies.

**ITEM-26 - Consortium for the Barcode of Life (CBOL)
CBOL presentation by Steve Donnellan (SAM)**

- Tissue mining (PB) Includes reading material
- Vertebrate (SD)

SD gave a presentation on Barcoding and DNA extraction / processing and the need for a comprehensive framework to support barcoding.

- Need to seek resources to build up tissue libraries. Every state should have a repository for tissue.
- SD believed the best time for barcoding is at the point of registration as it will then become a standard part of collection management and have the maximum impact right from the start of the specimens' history in the collection.
- Digitisation of collections.

ITEM 23 - Any other business

Included earlier in the meeting.

Day 2 of Meeting concluded