Digitising Activities in Australia

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nature culture **discover**

Australian **museum**

An Overview

- Herbaria and Museums are managed as separate entities in all states and at the federal level.
- Herbaria have been more successful in attracting funds for digitising their collections and so have a greater proportion of their collections digitised.

- Estimated status of digitisation:
  - Major herbaria – state and federal
    - 74% complete
  - Major Natural History Collections – state and federal
    - 21% complete

An Overview

Major Museums

Breakdown of statistics on digitising : from here

	Vertebrates			Invertebrates			All Collections		
Institution	Digitised	Est-Size	%	Digitised	Est-Size	%	Digitised	Est-Size	%
AM	443331	453000	98	635215	2703000	24	1078546	3156000	34
WAM	307846	286600	100	111739	1100000	10	419585	1386600	30
MV	180142	526000	34	387252	3750000	10	567394	4276000	13
TMAG	13528	125000	11				13528	125000	11
QVMAG	14813	20560	72	12439	85700	15	27252	106260	26
NTMAG	52974	297532	18	16419	174500	9	69393	472032	15
QM	171587	174000	99	260534	3795000	7	432121	3969000	11
SAM	211573	198000	100	84284	3270000	3	295857	3468000	9
CSIROANIC				193591	12000000	2	193591	12000000	2
CSIROANWC	128114	200000	64				128114	200000	64
CSIROANFC	32425	148000	22				32425	148000	22
Total			**62**			**10**			**21**

Museum Digitising Activities

Institution	Collections	Digitising Efforts	Estimated Exp on Digitising in 2013/14 – includes in kind staff time	Specimens digitised in 2013 (rough estimate)
Australian Museum	Ento, Malacology, Marine Inverts, Archives	Volunteer based imaging,Crowdsourced transcriptions, direct database entry by volunteers and technical staff	Internal = $20k to $50k, External = $20k to $50k	50000
Queensland Museum	Arachnology, Birds, Corals, Crustaceans, Entomology, Fishes, Herpetology, Mammals, Molluscs, Protozoa, Other Inverts	Direct database entry or imports by technical staff	Internal - $20k to $50k	16,000
South Australian Museum	Terrestrial Inverts, Marine Inverts, Parasitololgy, Mammals, Herps, Fish	Volunteer based imaging under supervision, Direct database entry by volunteers and technical staff	Internal < $20k External = $20k to $50k	10,000
Tasmanian MAG	1.Vertebrate and invertebrate zoology. 2.Herbarium	1.Direct database entry by technical staff. 2. Imaging by staff and volunteers	Unknown	33000
Northern Territory MAG	Ichthyology, Terrestrial Vertebrates, Polychaetes, Molluscs, Coelenterates,Entomology, Crustaceans, Porifera, Minor Invertebrates	Direct database entry by curators and technical staff	Internal - $20k to $50k	5800
Western Australian Museum	Malacology, Entomology, Crustacea, Arachnology and Marine Inverts.	Direct database entry or imports by technical staff	Internal - $20k to $50k External <$20k	20000
CSIRO	Entomology (ANIC)	Crowdsourced transcriptions; Direct database entry by volunteers and technical staff; Whole-drawer imaging	Internal - $20k to $50k External <$20k	10000
ANWC	Birds, Reptiles, Mammals, Amphibians, Eggs, Sounds, Paleo	Direct database entry by technical staff. Bulk appends to the database. From data captured by more mobile data capture systems in field and lab. Analogue-to-digital conversion of sounds	Internal - $20k to $50k	7,804
Museum Victoria	Entomology, Marine Invertebrates, Herpetology, Mammalogy, Ichthyology, Genetics lab, Ornithology,	Project – getting a minimum viable record for unregistered specimens. Direct database entry by collections staff and volunteers. Photography of collection specimens, focusing on types and mounts	Internal > $100k	39,975

An Overview

Major Museums

Time to complete

	Museums: All Collections			
Institution	Digitised	Est-Size	Current Rate of Digitising	Time to finish (years)
AM	1078546	3156000	50000	42
WAM	419585	1386600	20000	48
MV	567394	4276000	40000	93
TMAG	13528	125000	33000	3
QVMAG	27252	106260	0	Never
NTMAG	69393	472032	5800	69
QM	432121	3969000	16000	221
SAM	295857	3468000	10000	317
CSIROANIC	193591	12000000	10000	1181
CSIROANWC	128114	200000	7804	9
CSIROANFC	32425	148000	?	
Total				1984

An Overview

Major Herbaria

Breakdown of statistics on digitising

Herbaria	Records digitised	Est-size	%
ANH	941696	1117585	84
SydneyRBG	694016	1198515	58
TASHerb	143018	285700	50
MelbRBG	848424	1250212	68
SAHerb	659610	1030000	64
WAHerb	747616	721215	104
NTHerb	203768	243000	84
AustTropHerb	164849	160000	103
QHerb	477321	779455	61
Total			75

Herbaria Digitising Activities

Institution	Collections	Digitising Efforts	Estimated Expenditure on Digitising in 2013/14 – includes in kind staff time 1 <$20k, 2=$20k to $50k, 3>$100k	Specimens digitised in 2013 (rough estimate)
Landcare Research NZ	'Plants', Fungi & Bacteria, Inverts	* imaging, specimen data entry (technical staff) * imaging (summer student)	Internal > $100k	22000
National Herbarium of Victoria (Royal Botanic Gardens Melbourne)	Plants, Fungi, Algae	* specimen imaging (as part of GPI, specimens already databased); * specimen data entry (science staff, curation staff, volunteer)	Internal > $100k External =$20k to $50k	20343
Queensland Herbarium	Vascular plants	herbarium specimens (types) as part of GPI project; virtually all specimens already databased.	Internal = $20k to $50k	14960
University of Melbourne Herbarium	Plants, fungi, algae	* imaging, specimen data entry (casual technical staff) * specimen data entry (volunteers)	Internal <$20k External = $20k to $50k	4880
State Herbarium of South Australia (Dept of Environment Water and Natural Resources)	Plants, Algae, Fungi	specimen imaging (curation staff; volunteer); specimen data entry (curation staff)	Internal< $20k External =$20k to $50k	4700
Tasmanian Herbarium (a department of the Tasmanian Museum & Art Gallery)	Plants, Algae, Fungi	specimen data entry (technical staff, volunteer); imaging of vascular plants (technical staff)	Internal > $100k	4100
Western Australian Herbarium	Vascular Plants	* Specimen imaging (technical staff - as part of the GPI project, specimens already databased); *Data entry for new specimens (technical staff)		15500

An Overview

Major Herbaria

Time to complete

Herbaria	Records digitised	Total	Current Rate of Digitising	No. Years to complete
ANH	941696	1117585		
SydneyRBG	694016	1198515		
TASHerb	143018	285700	4100	35
MelbRBG	848424	1250212	20343	20
SAHerb	659610	1030000	4700	79
WAHerb	747616	721215	15500	-2
NTHerb	203768	243000		
AustTropHerb	164849	160000		
QHerb	477321	779455	14960	20
Total				152

Assessing success of digitising

Statistics of data use and/or access from here

Institution	No. Records in ALA	Downloads last 12 months	Ave no. of downloads per record
AM	1078546	18610231	17
WAM	419585	11444100	27
NTMAG	53522	1550632	29
QVMAG	41717	463650	11
TMAG	180576	4021590	22
QM	734693	7938197	11
MV	567394	8599870	15
SAM	215300	6099109	28
ANIC	193591	3680634	19
CSIRO	1460675	6300492	4
ANFC	32425	473742	15
ANWC	128114	2148995	17

Innovation in digitisation

Innovative digitising activities in Australia:

1. South Australian Museum – program using volunteers to take high resolution images of entomology type specimens
2. CSIRO ANIC – drawer imaging
3. Australian Museum – DigiVol project
4. ALA/Australian Museum – Biodiversity Volunteer Portal

Image based Digitising - using Volunteers – DigiVol and BVP


Bayview, NSW.
Verley Cottage.
5th March, 1992.
L.M. Courtney-Haines.
The Haines-Jan Collection.
of Lepidoptera taken at light.
L.C. Haines
Collection
Australian Museum
K 314826
10 mm

Digitising Workflow at the Australian Museum

Stage 1

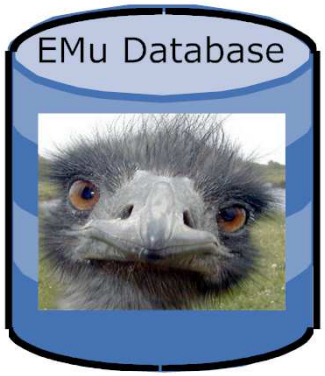
DigiVol

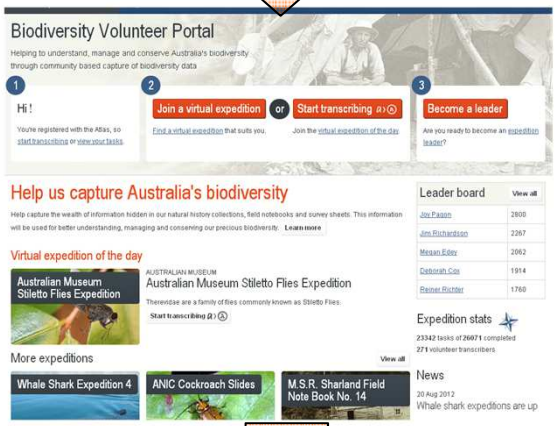
Volunteers Digitising Collections- Capturing images and "partial records"

Nicole and Louise

Image, species name, catalogue number

Image, species name, catalogue number

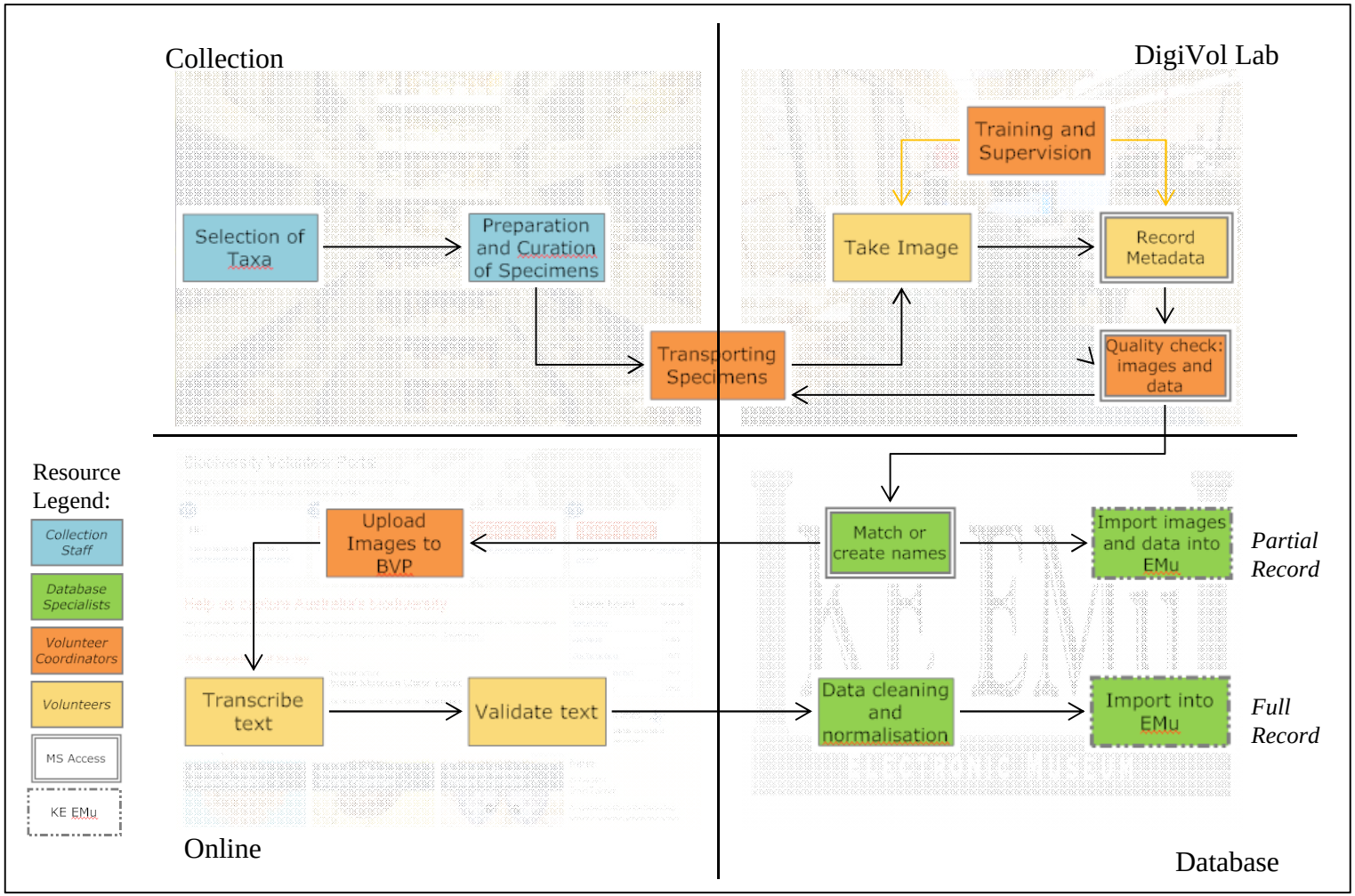




Complete record and georeference

Stage 2

Workflow – lots of data quality checks



Thank you

www.australianmuseum.net.au

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