

# Australian Museum

The Art of Science: matching ALA data  
and heritage artworks in a mobile app

Anna Namuren: Archives and Records

nature culture **discover**



# The Art of Science app

- A showcase of detailed paintings by prominent natural history illustrators, sisters Harriet and Helena Scott.
- From the 1850s they documented the life histories and immature stages of Australian moths and butterflies.

[Video of the app features](#)



# Background



- Apps4nsw competition



- \$15,000 funding for an app (3 month deadline)

- Developed by  beaconmaker

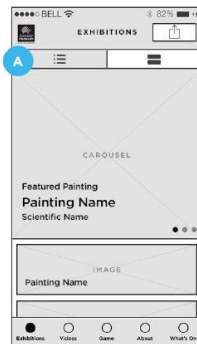
- We had worked with Biodiversity Volunteer Portal and knew of extensive specimen data on ALA site

**Aim: merge a historical collection with contemporary science to demonstrate its ongoing value as an archive of science for new audiences**

# Big content, big data

Challenge: to structure and standardise a large volume of information from the 1800s to the present day so that it's meaningful for the audience and appropriate for the medium

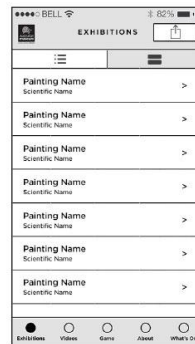
## Scott Sisters App 01 / Paintings



### 1.0 Painting Card View

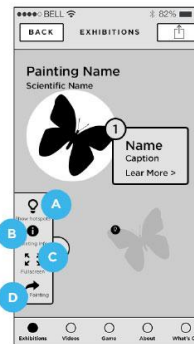
After tapping on 'Start Exploring' from '0.0 - Introduction', you will land on this screen. This screen will display a carousel of three featured paintings from the Scott Sisters collection, followed by the remaining paintings in 'card' format.

By tapping on A, you will move on to screen '1.1'. Tapping on any of the other cards, will bring you to screen '1.2'. 'Painting name' will be the relevant 'common name' of each painting.



### 1.1 Scientific List View

This screen displays an 'easy to browse' list of all the paintings. By pressing on individual rows, you will move on to screen '1.2'.



### 1.2 Painting Details

This is a screen where you can zoom & navigate the painting. By tapping on a butterfly/item hotspot, it will be highlighted by introducing a grey overlay on the surrounding area.

By tapping on A from the retractable left hand tool box, interaction hot-spots will show up on the painting prompting user to tap for more info. By tapping on B, a pop-up (1.2.1) will appear.

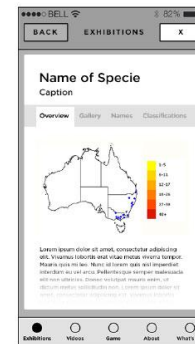
By tapping on the 'Learn More' button on a butterfly/item, another pop-up (1.2.2) will appear. By tapping on C, top and bottom menu bars will disappear. Tapping on D will take the user to the next painting.



### 1.2.1 Painting Info

This pop-up will display more information on the painting (in text format).

Related images of this painting will be displayed in thumbnail format. Tapping on the thumbnails will enlarge the image to a full screen view.



### 1.2.2 ALA Info on Species

This pop-up will display more information on any specific species within the painting. This data is fed from the ALA website.

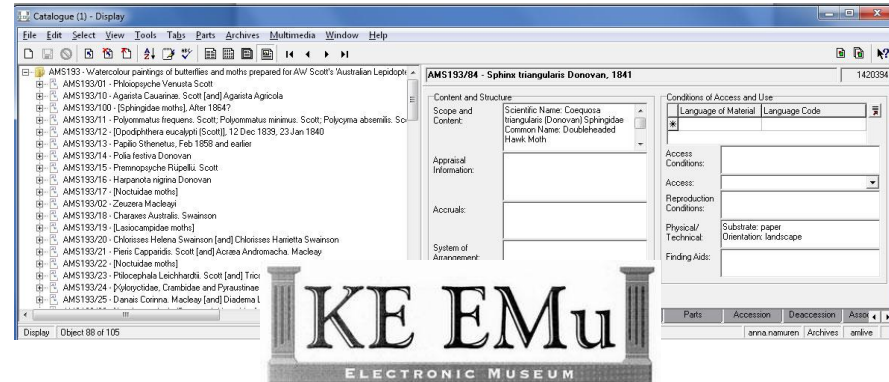
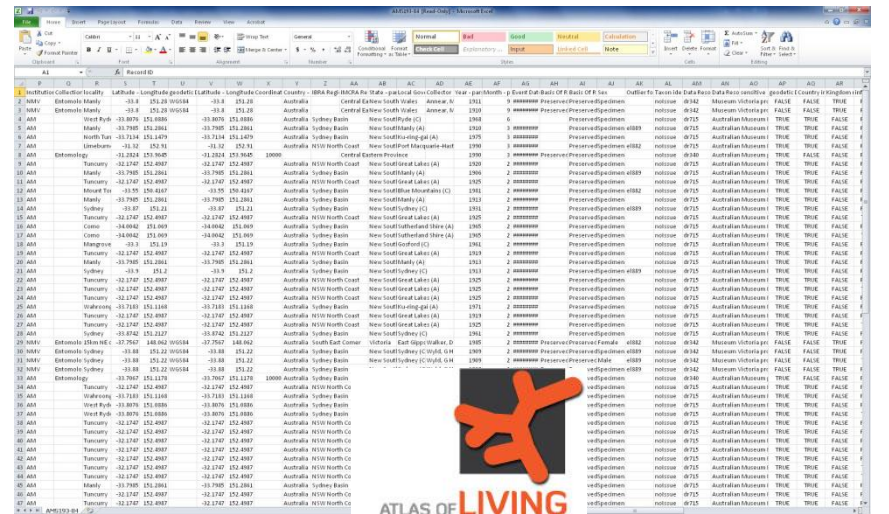
# Big content, big data

Sources of information:

**KE EMu D/B:** Common name, old scientific name, images, exhibition captions, biographies, other narratives. Exported to CSV and JPEG

**ALA datasets:** Common name, new scientific name, geospatial, sightings over time data. Exported to CSV

**Other:** Content from MS Word/Excel, PDFs, video files. Imported into CMS

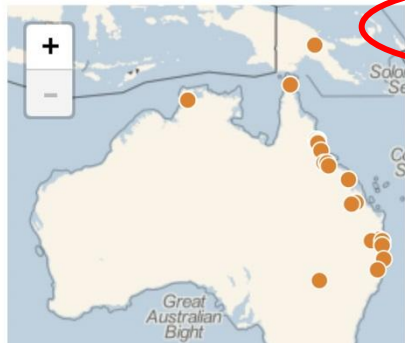
The screenshot shows an Excel spreadsheet with a large dataset of species distribution data. The columns include 'Collector', 'Locality', 'Latitude', 'Longitude', 'Date', 'Country', 'State', 'County', 'Year', 'Number of specimens', 'Sex', 'Age', 'Color', 'Size', 'Weight', 'Length', 'Wing', 'Tail', 'Head', 'Body', 'Legs', 'Feet', 'Claws', 'Eyes', 'Ears', 'Nose', 'Mouth', 'Tongue', 'Throat', 'Gullet', 'Crop', 'Gizzard', 'Intestine', 'Rectum', 'Anus', 'Genitalia', 'Eggs', 'Larvae', 'Pupae', 'Moths', 'Caterpillars', 'Spiders', 'Insects', 'Mammals', 'Birds', 'Reptiles', 'Amphibians', 'Fish', 'Plants', 'Fungi', 'Mosses', 'Lichens', 'Algae', 'Bacteria', 'Viruses', 'Protozoa', 'Fungi', 'Mosses', 'Lichens', 'Algae', 'Bacteria', 'Viruses', 'Protozoa'. The data is organized into rows, with each row representing a specific specimen or collection event. The spreadsheet is titled 'AMS193/84 - Sphinx triangulatus Donovan, 1841'.

# Visualising data

**Common name:**  
Emperor Moth

**Scientific name:**  
*Syntherata janetta*

## Sightings in Australia



Latitude	Longitude	Coordinate	Country	BRA Regi	IMCRA Re	State	Local Gov	Collector	Year	Month	Event
-12.45	130.83		Australia	Darwin Coastal		Northern	Darwin (C. Bleaser, F.	1897	10		
-16.82	145.63		Australia	Wet Tropics		Queensland	Tableland Stirling, S.	1970	1	28/	
-16.92	145.77		Australia	Wet Tropics		Queensland	Cairns (R) Olive, J.	1987	10	27/	
-16.92	145.77		Australia	Wet Tropics		Queensland	Cairns (R) Olive, J.	1987	10	25/	
19.5958	146.8986	100	Australia	Brigalow Belt North		Queensland	Townsville Dale, Ian	2008	10	20/	
-16.88	145.7		Australia	Wet Tropics		Queensland	Cairns (R) Hunter, B.	1939	1		
-16.82	145.63		Australia	Wet Tropics		Queensland	Tableland Stirling, S.	1970	1	28/	
-16.82	145.63		Australia	Wet Tropics		Queensland	Tableland Stirling, S.	1970	1	28/	
-27.33	152.77		Australia	South Eastern Queensland		Queensland	Moreton Hiller, C.	1979	1	20/	
19.3811	146.4492	100	Australia	Einasleigh Uplands		Queensland	Charters Towers Mr	2008	1	24/	
19.3811	146.4492	100	Australia	Einasleigh Uplands		Queensland	Charters Towers Mr	2007	1	12/	
-23.72	149.67		Australia	Brigalow Belt South		Queensland	Central Highlands Barrett, C.	1893			
-16.82	145.63		Australia	Wet Tropics		Queensland	Tableland Dodd, F. P.	1912			

Overview Classification Occurrences

## Occurrence Records



Family	Genus	Species	Entomolo	Location	Latitude	Longitude	Coordinate	Country	BRA Regi	IMCRA Re	State	Local Gov	Collector	Year	Month	Event	Preserved	Preserved	Sex	Issue	DR	Data Reso	Data Re	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Thorn, L. B.				Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tablelands (R)				Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Dodd, F. P.	1912			Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Thorn, L. B.				Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Thorn, L. B.				Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Dodd, F. P.	1912			Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Probably f	-27.47	153.02	WGS84	-27.47	153.02		Australia	South Eastern Queensland	Queensland					Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Probably f	-27.47	153.02	WGS84	-27.47	153.02		Australia	South Eastern Queensland	Queensland					Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Probably f	-27.47	153.02	WGS84	-27.47	153.02		Australia	South Eastern Queensland	Queensland					Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Brisbane	-27.47	153.02	WGS84	-27.47	153.02		Australia	South Eastern Queensland	Queensland	Hillidge, R.	1895			Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Probably f	-27.47	153.02	WGS84	-27.47	153.02		Australia	South Eastern Queensland	Queensland					Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Dodd, F. P.	1912			Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Gordonva	-17.1	145.78	WGS84	-17.1	145.78		Australia	Wet Tropics	Queensland	Cairns (R) Jarvis, Edr	1918			Preserved	Preserved	Male	el889	noIssue	dr342	Museum
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Dodd, F. P.				Preserved	Preserved	Male	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Darwin	-12.45	130.83	WGS84	-12.45	130.83		Australia	Darwin Coastal	Northern	Darwin (C.Hill, G. F.				Preserved	Preserved	Female	el889	noIssue	dr342	Museum
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Kuranda	-16.82	145.63	WGS84	-16.82	145.63		Australia	Wet Tropics	Queensland	Tableland Dodd, F. P.	1912			Preserved	Preserved	Female	noIssue	dr342	Museum	
ATURNIII	Syntherat	Syntherat	NMV	Entomolo Gordonva	-17.1	145.78	WGS84	-17.1	145.78		Australia	Wet Tropics	Queensland	Cairns (R) Jarvis, Edr	1918			Preserved	Preserved	Female	el889	noIssue	dr342	Museum

# Final thoughts

- The experience of using ALA data: it's all there if you know what you're looking for. Should content/data for historical collections be made available in the same way?
- Merging heritage content and science data: will need to be re-structured for different audiences and platforms. Where do we archive the remixed version?
- The future: let's collaborate to merge contemporary science with our historical collections to demonstrate their ongoing value as an archive of science

# Thank you

(PS: You've seen the virtual collection, catch the real thing from June 23, 2014: the Scott sisters exhibition at the Australian Museum)

[www.australianmuseum.net.au](http://www.australianmuseum.net.au)

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