

Crowdsourcing the constellation of sea stars with the Biodiversity Volunteer Portal



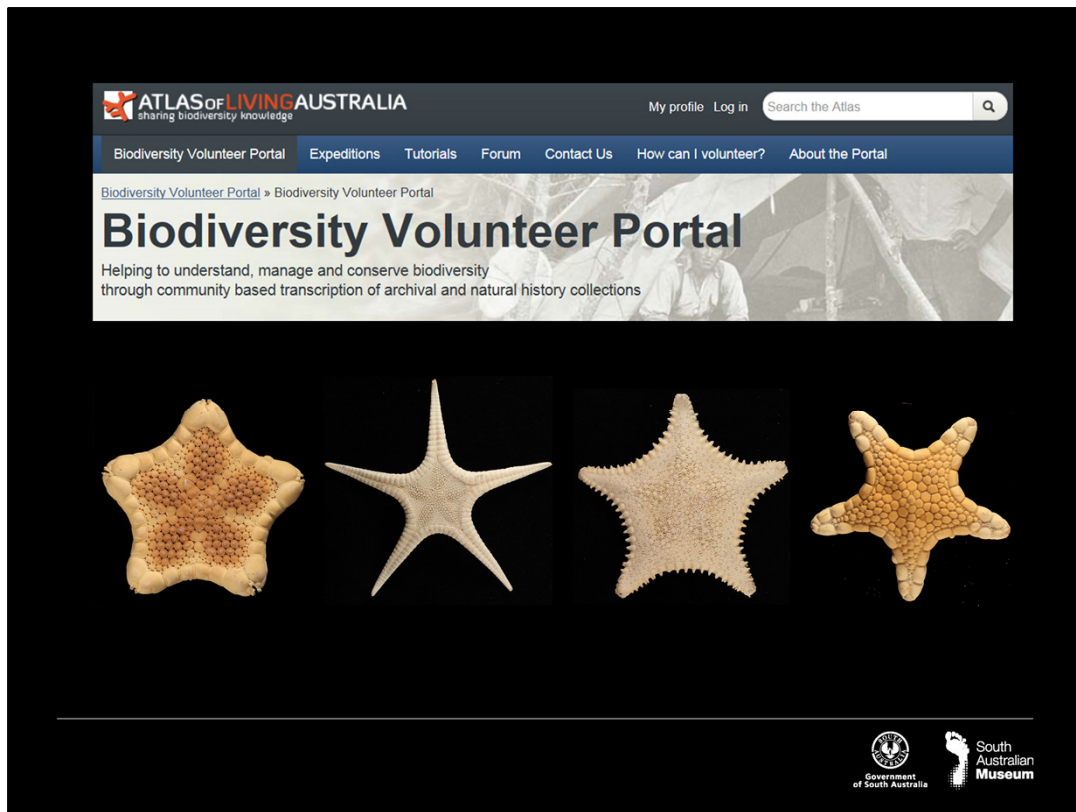
Alexis Tindall, South Australian Museum



South Australian Museum commenced our first online crowdsourcing test, using the Biodiversity Volunteer Portal as an external partner, capturing sea stars from our marine invertebrates collection.

The scale of doing anything in our kind of collections is always a challenge. When an opportunity like this comes up, we're excited by the fact that this might be a shortcut on the many millions of work hours that it would take to make our collections digitally accessible, but at the same time we're intimidated by the scale of the resources required to take part.

My intention? To demonstrate that expeditions can happen at any scale, and with the Biodiversity Volunteer Portal collections can participate according to their capacity.



We started this experiment because the stars aligned.

- one of my photography workstations and a couple of volunteers would be idle
- we have an enthusiastic new marine invertebrates collections manager, and a new interest in tackling that collection's data
- this is one of our least digitally accessible collections.



Presently recorded in registers, excel spreadsheet, and no resources available to migrate to collections management system.

This was a low-risk experiment.

Sea stars aren't fragile, and are consistently sized, so they lend themselves well to efficient digitisation by volunteers.



Supplied drawers of specimens to the volunteers, they took a single photo of each specimen or lot with a scale bar, applying registration numbers as they went.



We made some effort with how they looked. Photographed them on black velvet, which makes *prettier* pictures, which counts when you're trying to entice online volunteers!

Captured as mid-level jpgs, no post-processing. These photos will be useful for quick examination, but as they are not significant specimens so we're limiting the amount of storage space dedicated to this collection. In contrast, we photograph our insect type specimens as high resolution tiffs.

(Manuals, including equipment and camera settings, can be provided on request, please contact alexis.tindall@samuseum.sa.gov.au)





Two volunteers each worked on it for approximately four hours per week.

They captured around 8.5 specimens per hour.

392 specimens took about 6 weeks preparation.

[+ Add field](#)
[Clean up ordering](#)
[Preview Template](#)
[Export as CSV](#)
[Browse...](#)
[Import from CSV](#)

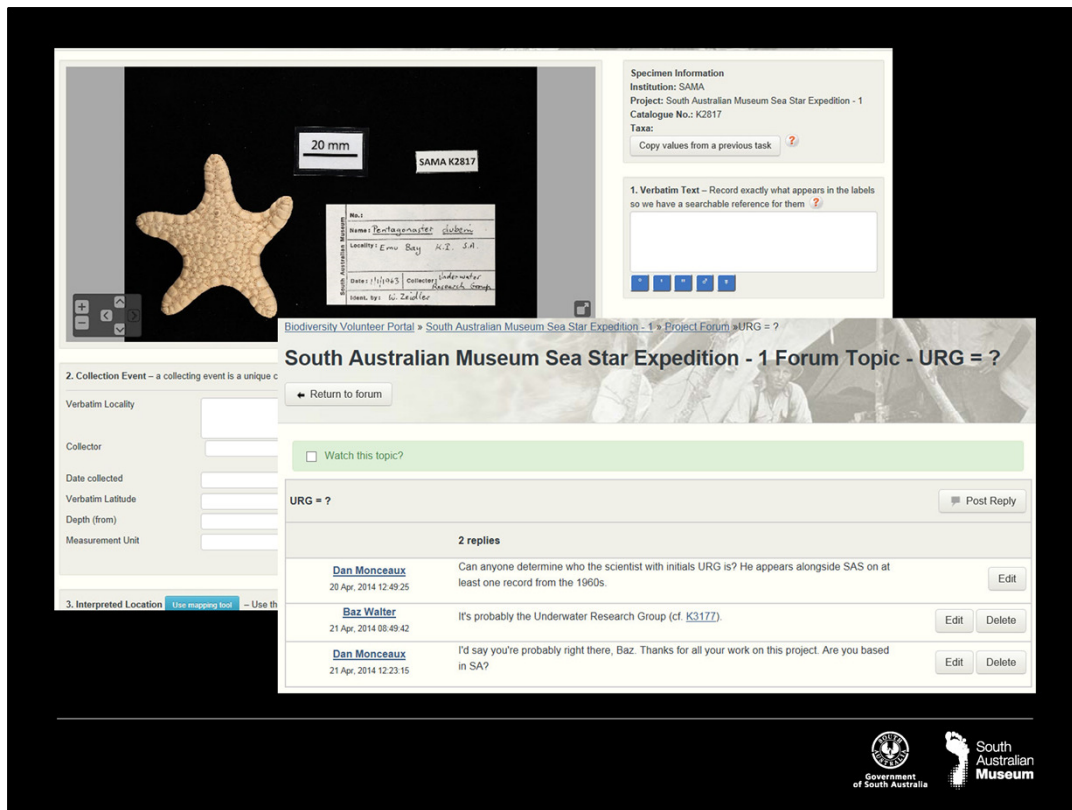
Order	DwC Field	Form type	Label	Layout Class	Validation	Category	Help text	
1	catalogNumber	hidden				none	?	↓ ↑ ⊕ ×
2	institutionCode	hidden				none		↓ ↑ ⊕ ×
3	verbatimLocality	textarea				none	?	↓ ↑ ⊕ ×
4	recordedBy	collectorColumns	Collector			none	?	↓ ↑ ⊕ ×
5	occurrenceRemarks	textarea	Verbatim Text			none	?	↓ ↑ ⊕ ×
6	eventDate	text	Date collected			collectionEvent	?	↓ ↑ ⊕ ×
7	eventTime	text				collectionEvent	?	↓ ↑ ⊕ ×
8	spacer	hidden				collectionEvent		↓ ↑ ⊕ ×
9	verbatimLatitude	text				collectionEvent		↓ ↑ ⊕ ×
10	verbatimLongitude	text				collectionEvent		↓ ↑ ⊕ ×
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I used the BVP tools to create a transcription template and a tutorial for online volunteers.

The template is very flexible, and I designed our template thinking about

- ease of layout to make things as clear as possible for online volunteers
- compatibility with our in-house collections management system, planning to make ingest as simple as possible.



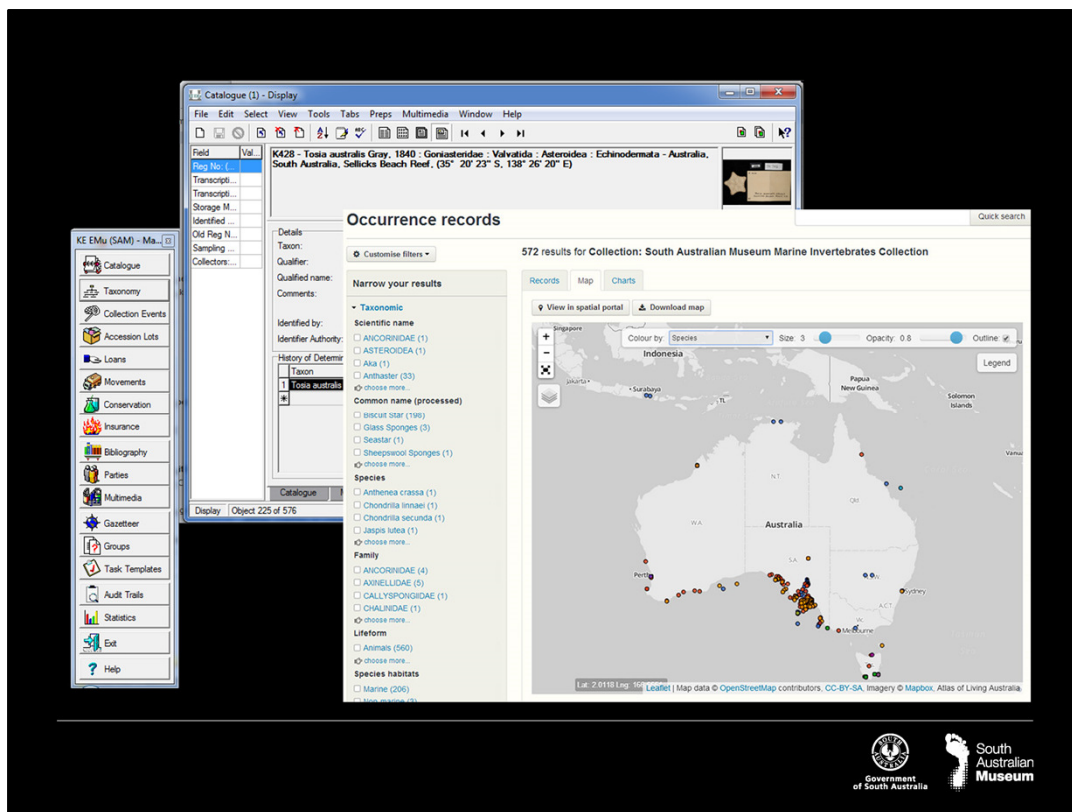
Once the template and tutorial was ready, we loaded the pictures and launched the expedition. We promoted it on SA Museum’s social media, and the Australian Museum made it the featured ‘Expedition of the Day’.

Ten online volunteers took nine days to transcribe all the records.

Two people did more than half the records between them, and considerable effort was put in by the president of the Marine Life Society of South Australia.

Some keen volunteers used the project forum, alerting other volunteers to issues and answering each other’s questions. Even in this small expedition, a community established quite quickly.

The BVP allows the expedition owner to validate the records, checking the work of online transcribers. For this first expedition I validated the records, which was a useful learning experience, but in future I’m confident an in-house volunteer can do it.



When finished we:

- Downloaded a csv of the data
- Data manager did quite a bit of cleaning and tweaking, and imported the 392 new records
- I added images to new records using KE EMu multimedia module.

We loaded these records just before the latest harvest of SA Museum data to the Atlas, so they flowed through online pretty quickly.

So within 10 weeks, we went from having no marine invertebrates in our own collections management system or accessible online, to having around 400 records on the map. 400 records isn't huge but it's an improvement on zero.

Good decisions?

- sea stars are well labelled, quick to photograph and appealing to online volunteers.
- Importing data into KE EMu wasn't straightforward but it was good to test the process with a small group, and in doing so, we learned a great deal.

Bad decisions? The biggest one being that I loaded the expedition and went on leave for a week! If I validated as we went, we could have gotten better results by communicating with the online volunteers. We could have clarified instructions on the expedition front page as we noticed errors appear. Many records were perfectly transcribed, most were very good, but some did have errors.



Key benefits for the museum

- a small but significant start on getting our marine invertebrates records into the collections management system, and thus onto the ALA.
- These records display the picture of the specimen, and it's handy to have such an accessible photo.
- Each specimen been viewed and photographed, which is useful for audit purposes.

We've also generated a small community of supportive online volunteers. It gives some enthusiasts an opportunity to contribute to the museum on their own time, and volunteer for a limited engagement.

Museums are looking for the 'silver bullet', wanting to get these massive collections documented, digitised and online instantly and easily. This is fast, but it isn't instant. Preparation and processing returned data takes staff time, but every staff hour is amplified by the amount of volunteer hours it leverages.

The Biodiversity Volunteer Portal is a great resource, allowing partners with limited technical capacity to benefit from current trends in crowdsourcing. The model of a single portal for multiple institutions helps smaller organisations participate as they don't need to keep a constant supply of expeditions, those online volunteers can be hard to keep up with.

Like this happy fellow, we're jumping for joy about the success of this experiment. We're about to load our second expedition, and collections managers across the museum have pricked up their ears. Expect to see further expeditions coming out of the South Australian Museum, crowdsourcing is something that's here to stay.