The Digital Roundabout: Data Flow from Field Project to Archive to New Project

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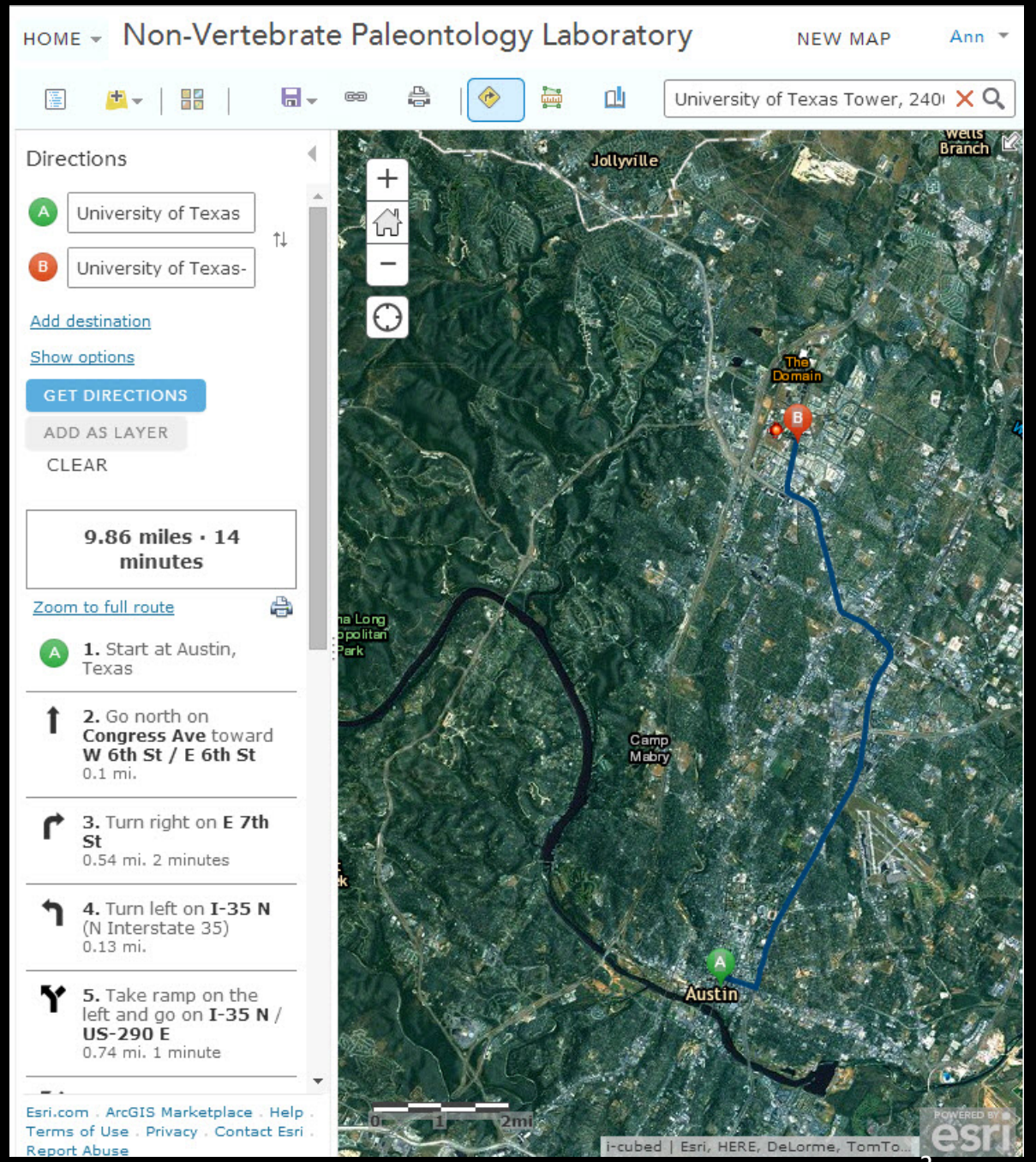
Functional issues even in a digital world

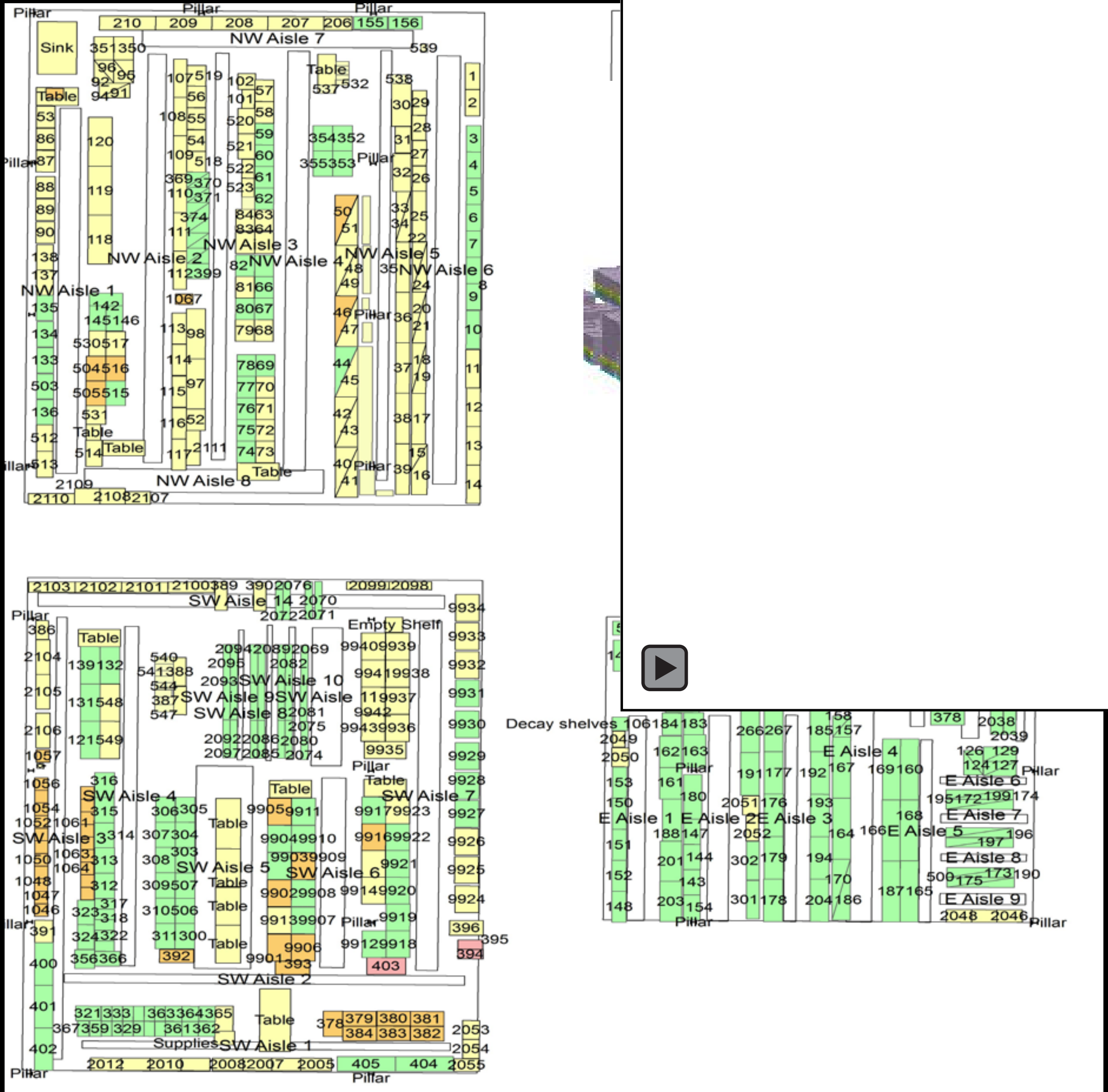
Space-Access-Awareness

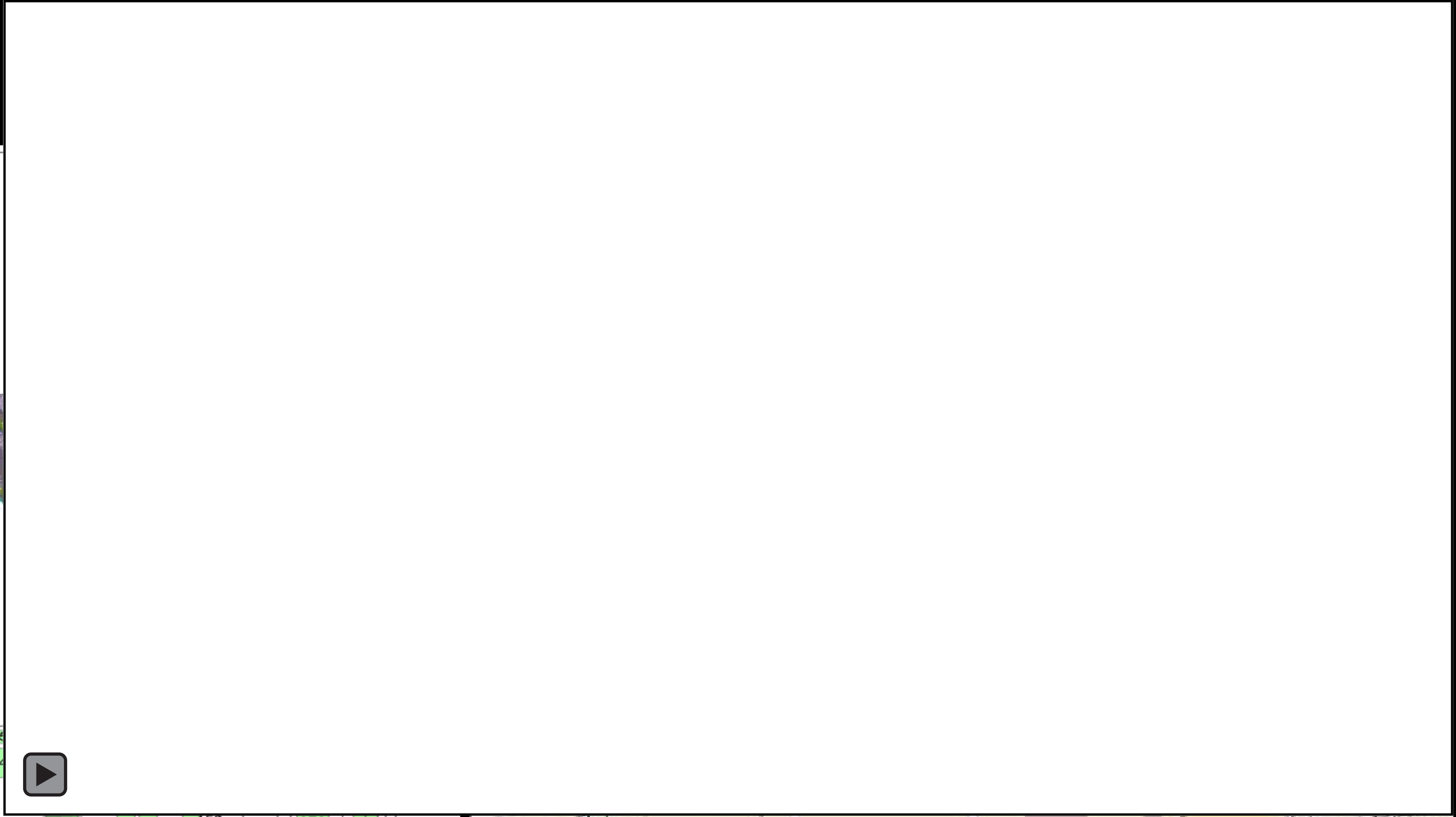
- Archival space
- Accessible collections
- Unaware of resource
- Limited FTE’s
- Volunteer persistence

Security-safety-control

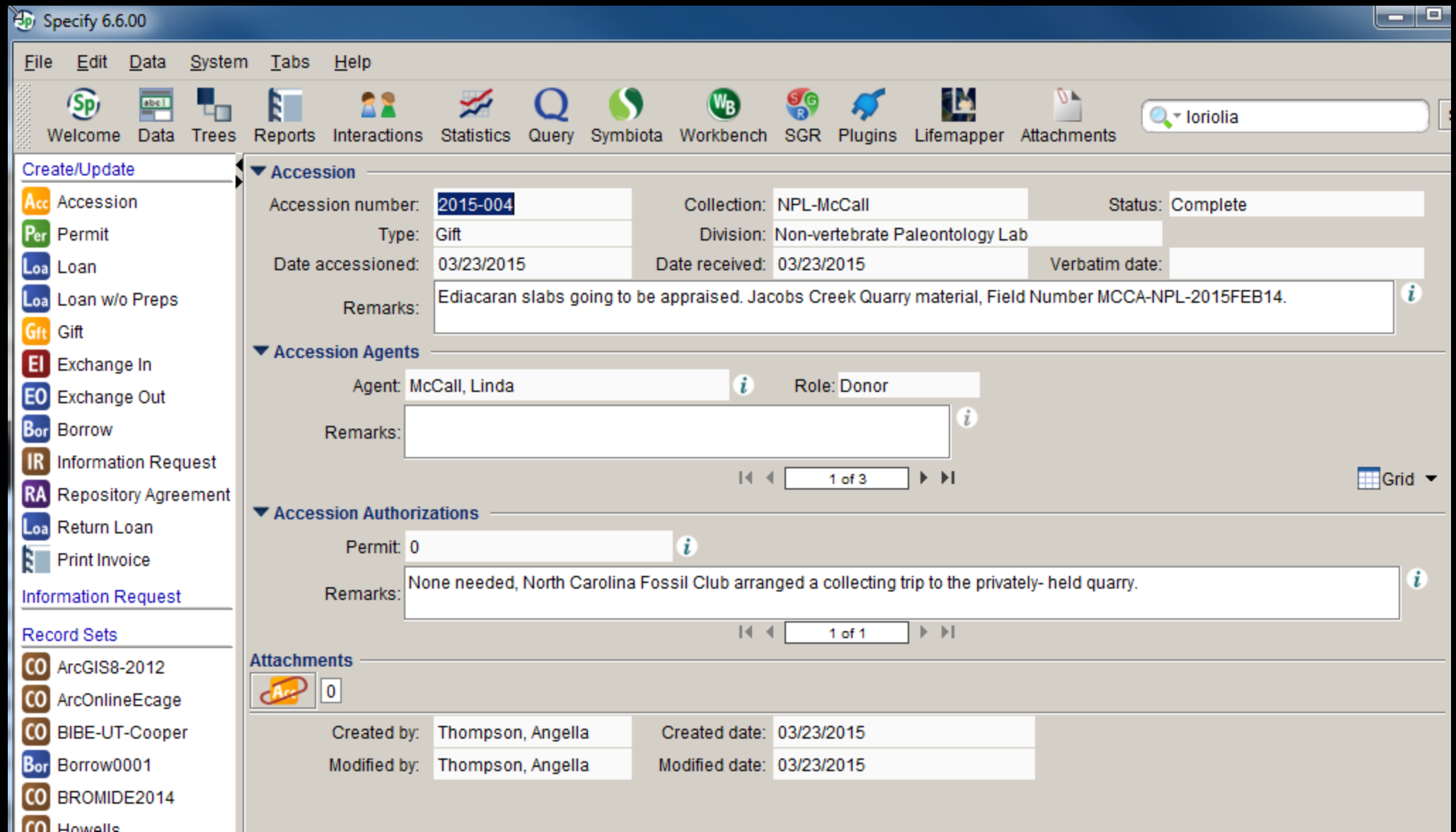
- Specimens
- Users
- Documentation



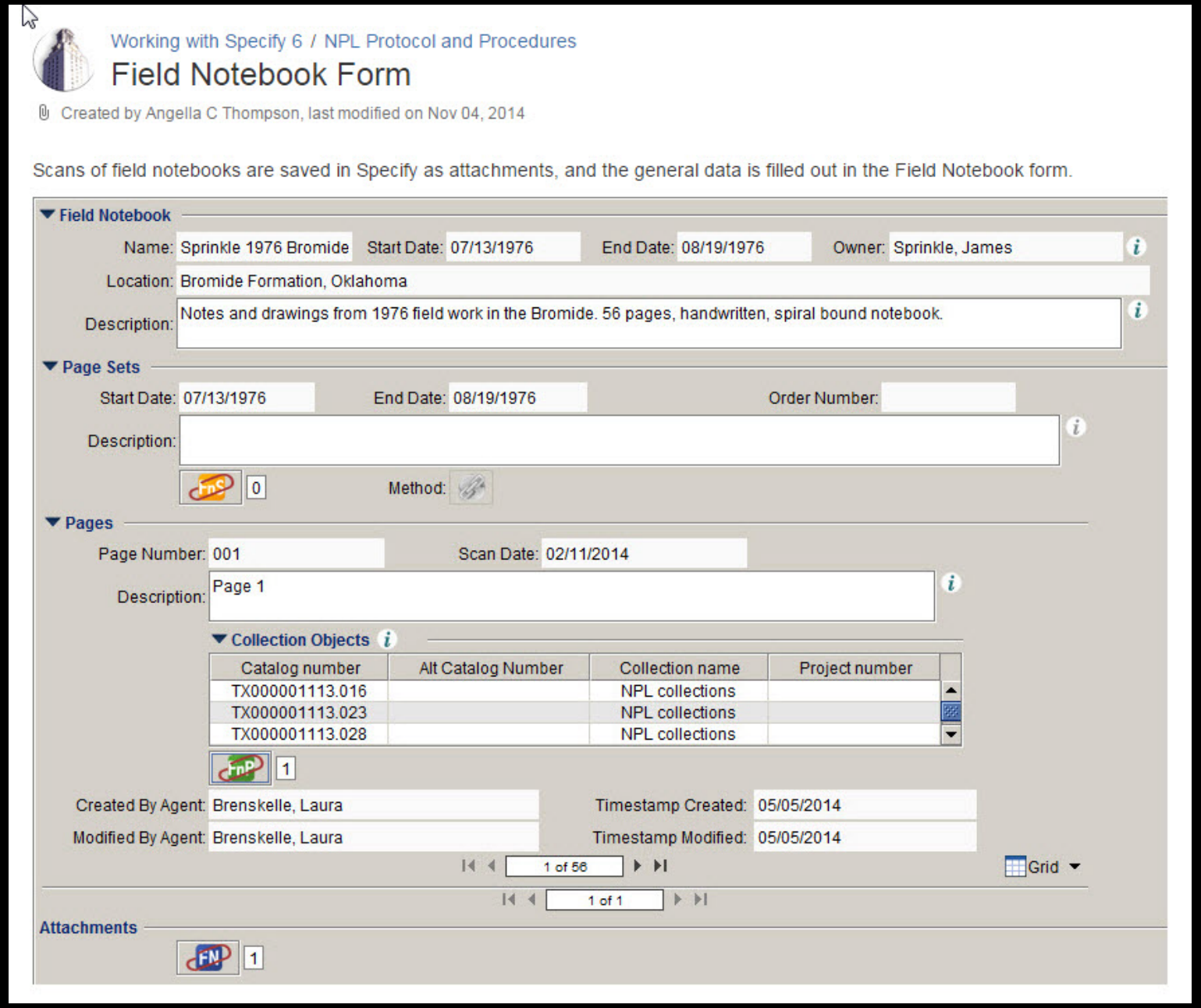

NW Aisle 1
NW Aisle 2
NW Aisle 3
NW Aisle 4
NW Aisle 5
NW Aisle 6
NW Aisle 7
NW Aisle 8
Sink
Table
Pillar
SW Aisle 1
SW Aisle 2
SW Aisle 3
SW Aisle 4
SW Aisle 5
SW Aisle 6
SW Aisle 7
SW Aisle 8
SW Aisle 9
SW Aisle 10
SW Aisle 14
Empty Shelf
Supplies
Decay shelves
E Aisle 1
E Aisle 2
E Aisle 3
E Aisle 4
E Aisle 5
E Aisle 6
E Aisle 7
E Aisle 8
E Aisle 9



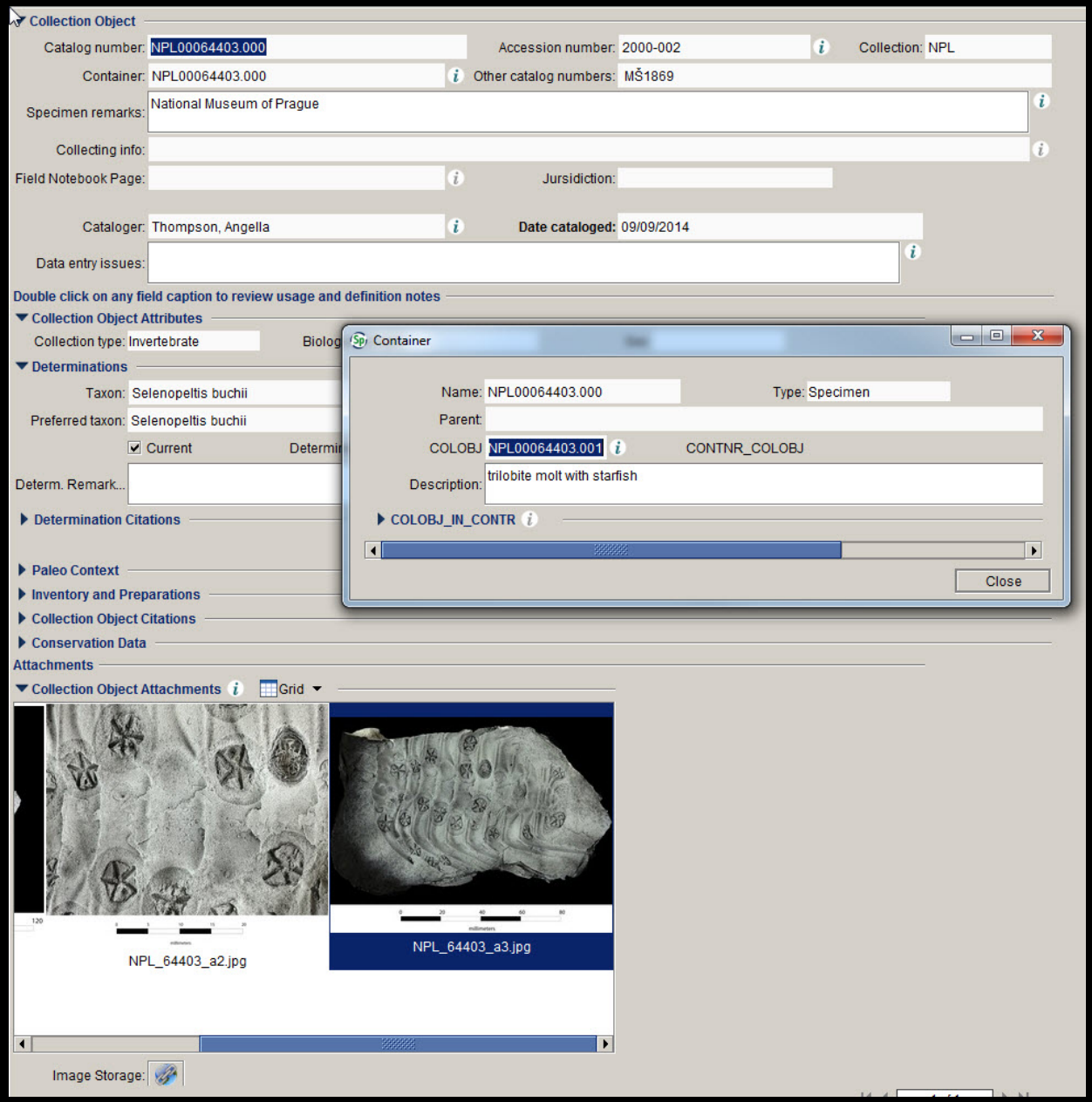
Data capture – direct entry



Data capture



Data capture



Data capture - OCR

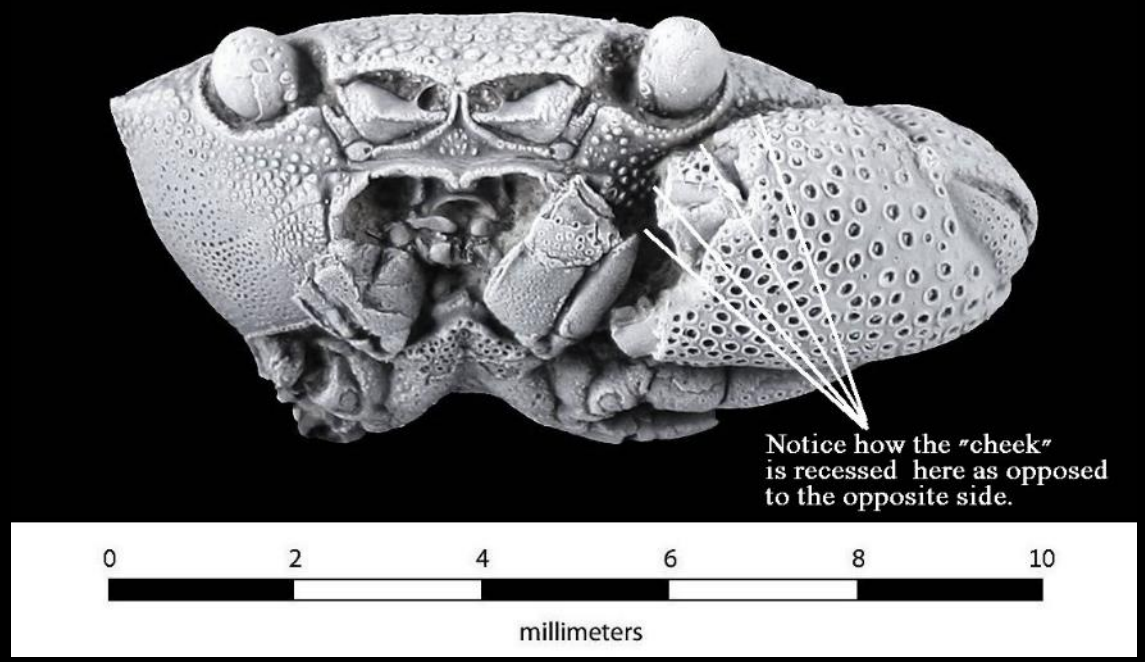
- Catalog BEG Book 5 (30001-34000) - 198 pages.
- “I started working on this one and it should be doable. I am noting where there are hand-drawn images so that you can figure out what to to with that information at some future point.”

Data capture - media

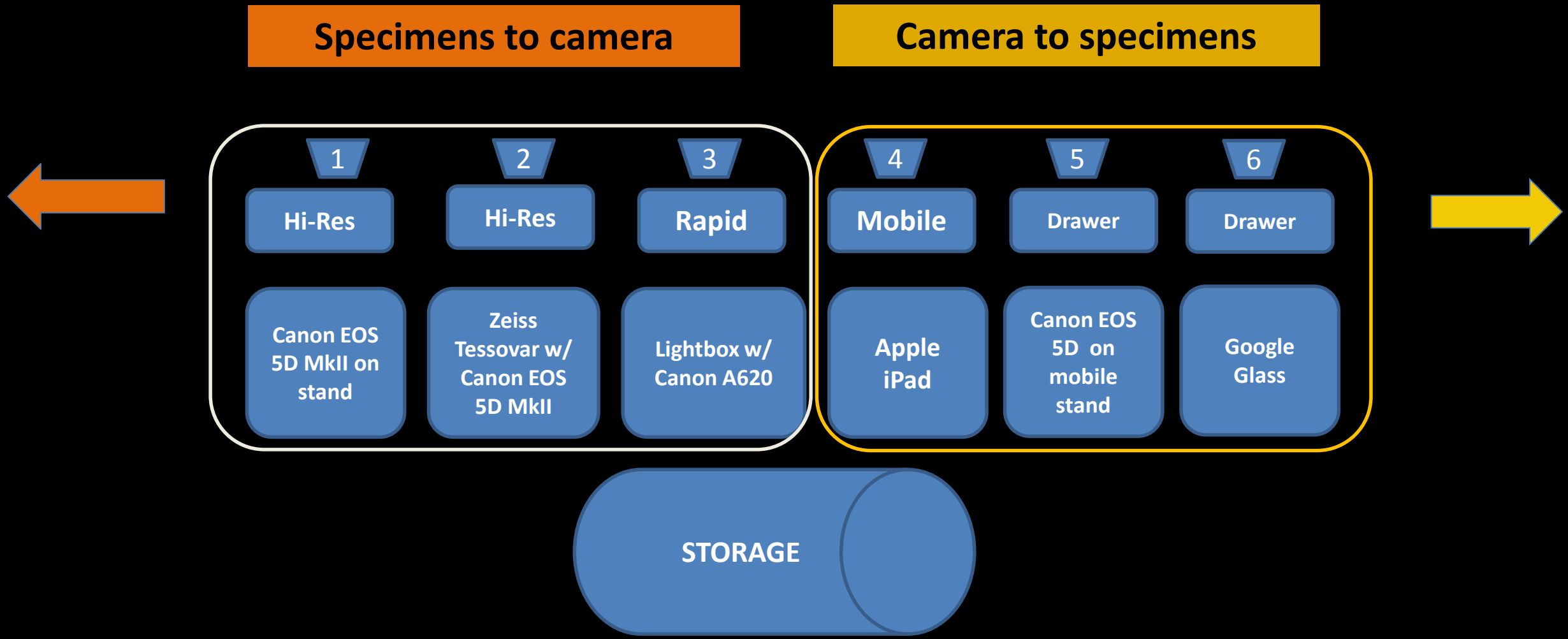
Specimens to camera

1	2	3
Hi-Res	Hi-Res	Rapid
Canon EOS 5D MkII on stand	Zeiss Tessovar w/ Canon EOS 5D MkII	Lightbox w/ Canon A620

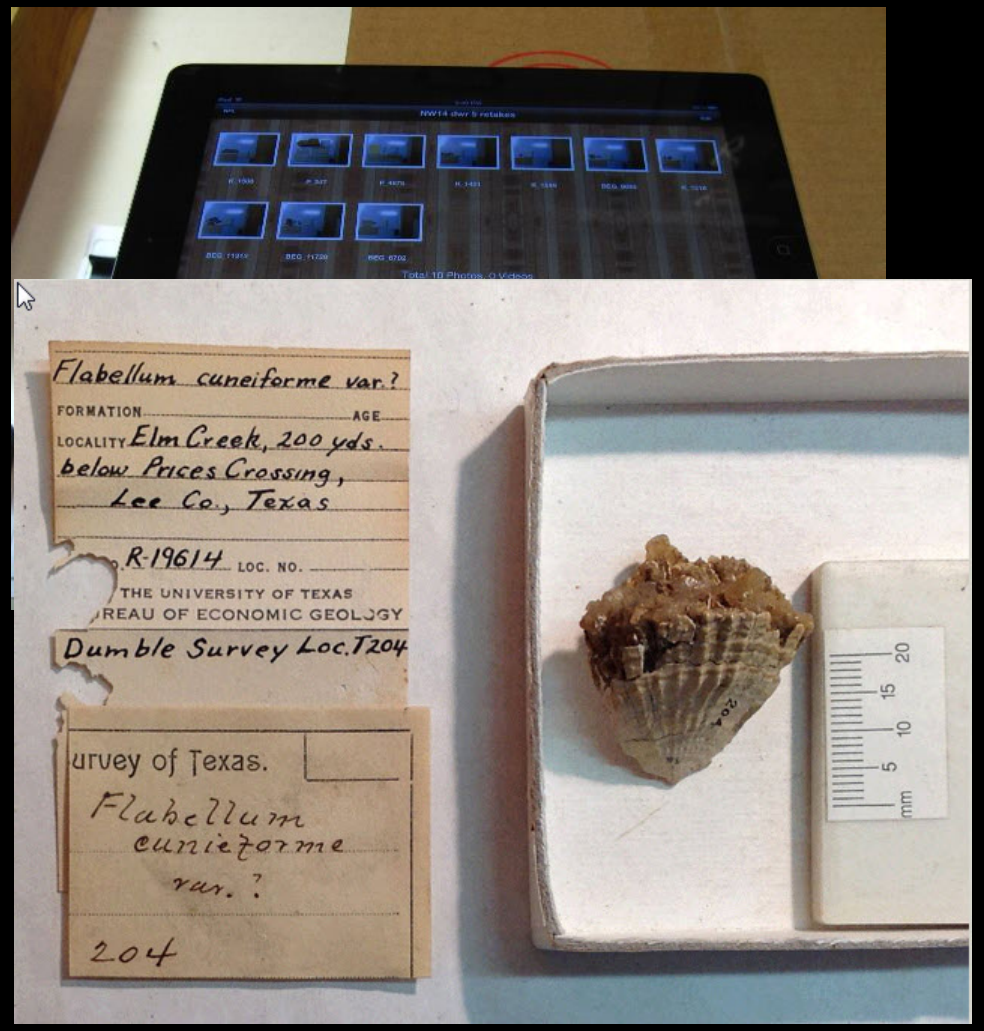
STORAGE



Data capture-media



Data capture - media



Data capture-images

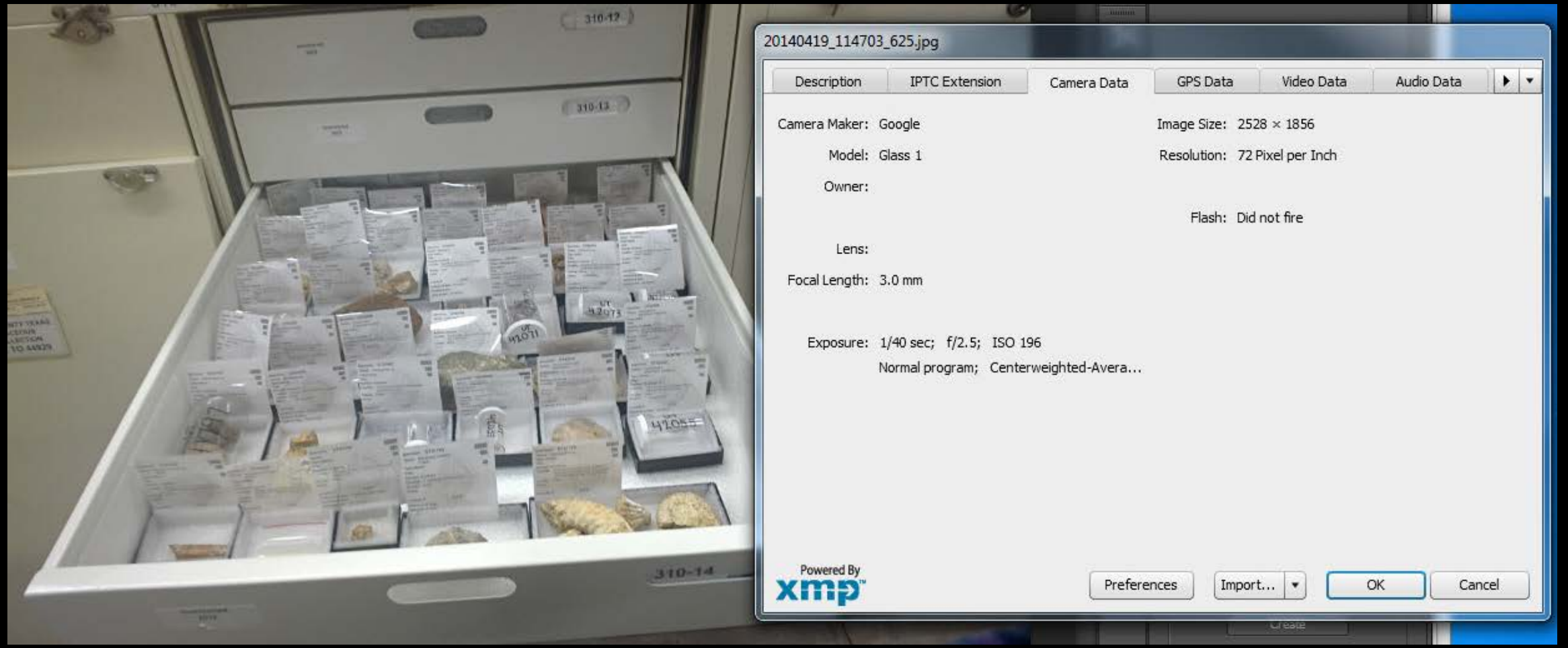
Entomological collections

- Thousands of same sized specimens
- Drawers have similar taxonomies
- Standard pinning
- Standard labeling
- Standard drawers
- Specimen often covers label

Invertebrate paleontology collections

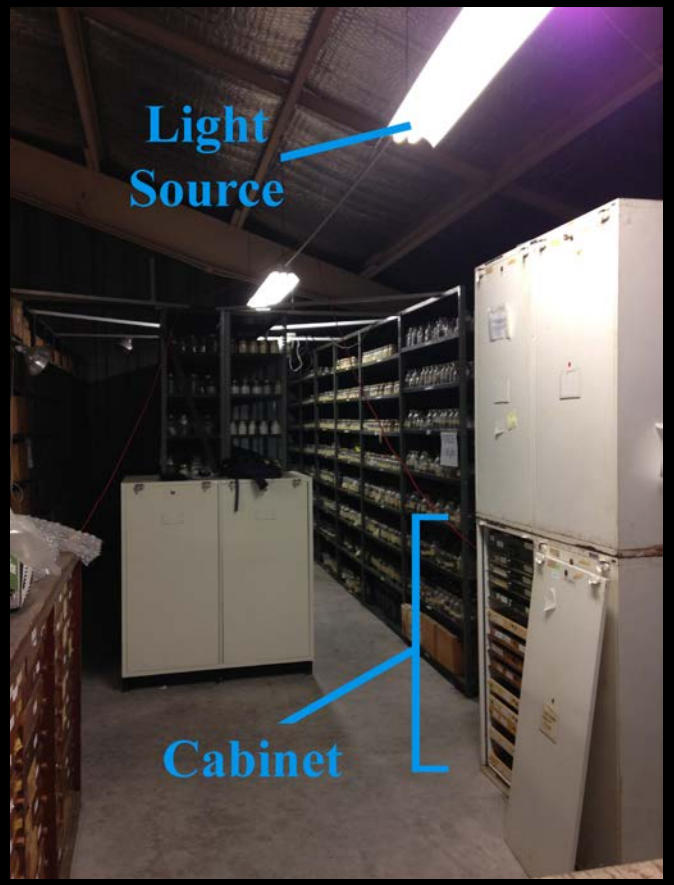
- Variable sized specimens and trays
- Variable taxonomies
- Non-standard labels
- Variable sized drawers
- Specimen often obscures label
- Specimens maybe in vials or other enclosures

Data capture - media



Data capture - images

Data capture

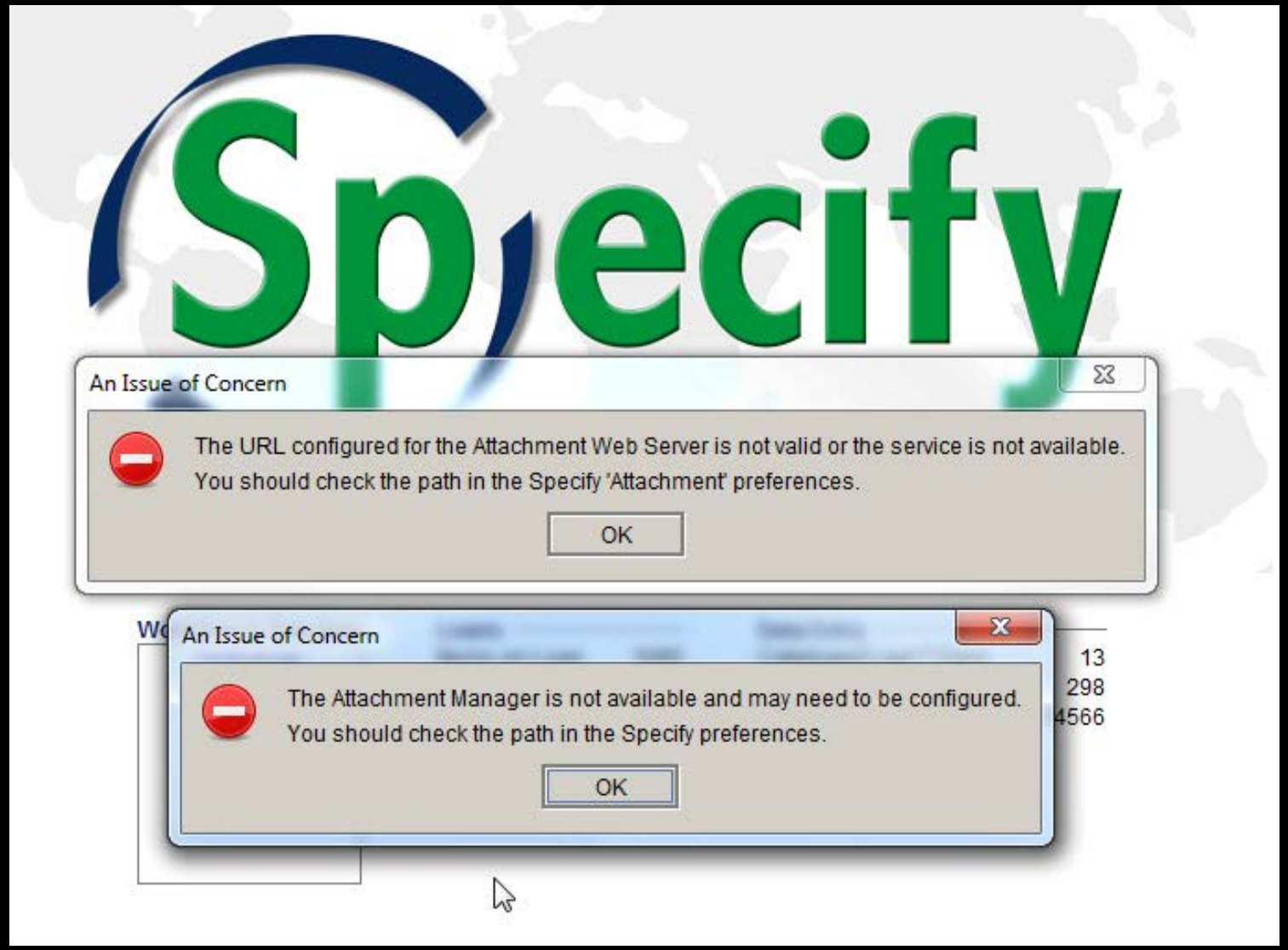


RESULTS:
Both the iPhone and Google Glass have moderate resolution to record object data (i.e. the fossils are recognizable).
The iPhone outperforms Google Glass in text resolution, but Glass only takes about 75% of the time.

USE that data for it can provide useful information

Not shown: cabinet of extra undergrads

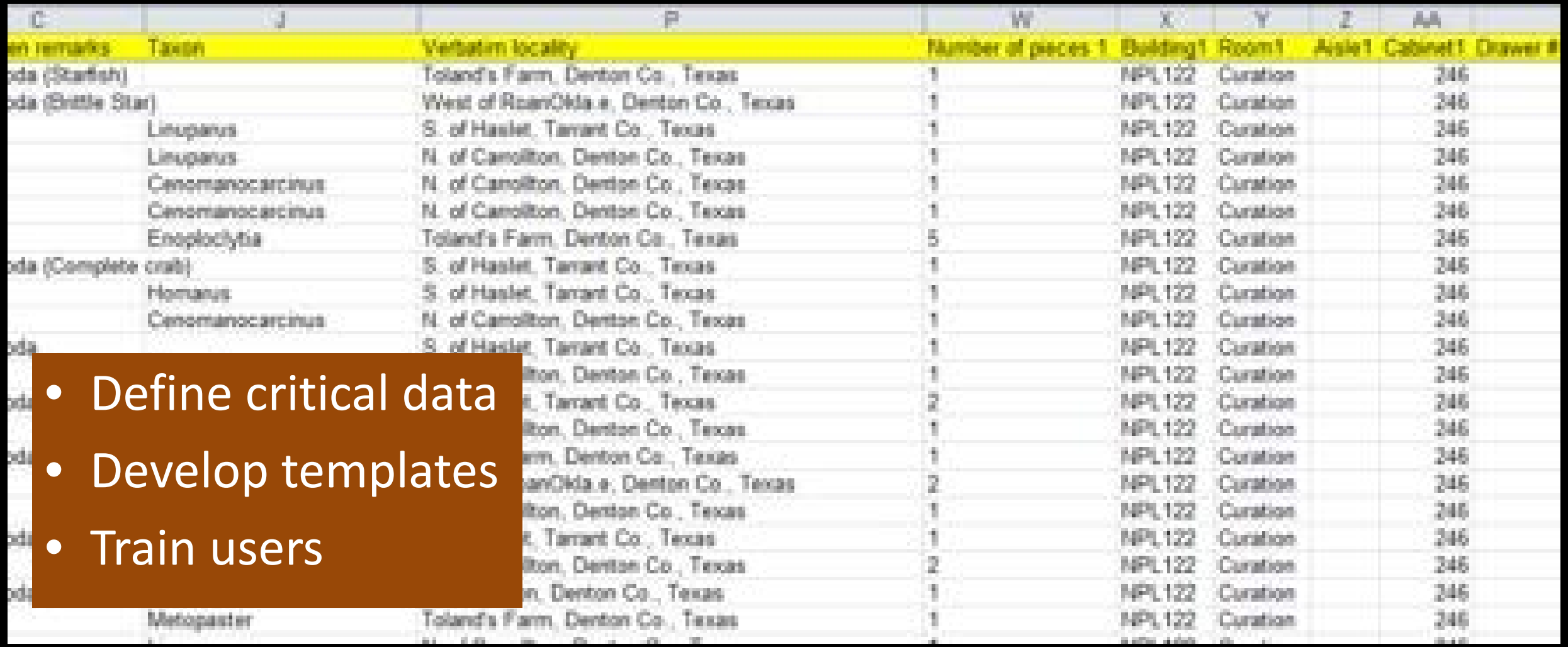
Data access


Specify
An Issue of Concern
The URL configured for the Attachment Web Server is not valid or the service is not available.
You should check the path in the Specify 'Attachment' preferences.
OK
An Issue of Concern
The Attachment Manager is not available and may need to be configured.
You should check the path in the Specify preferences.
OK
13
298
4566

Data capture

- Step 0 – design template
- Step 1 – collect raw data
- Step 2 – use MS Access to run translation tables for taxonomy and geologic formations
- Step 3 - import into Refine and clean up data, add necessary columns, separate unique collecting events and add field numbers
- Step 4 – check workbench mapping needs to before import the final spreadsheet
- Step 5 – Data imported into workbench and to Specify.

Data capture- Step 0-1

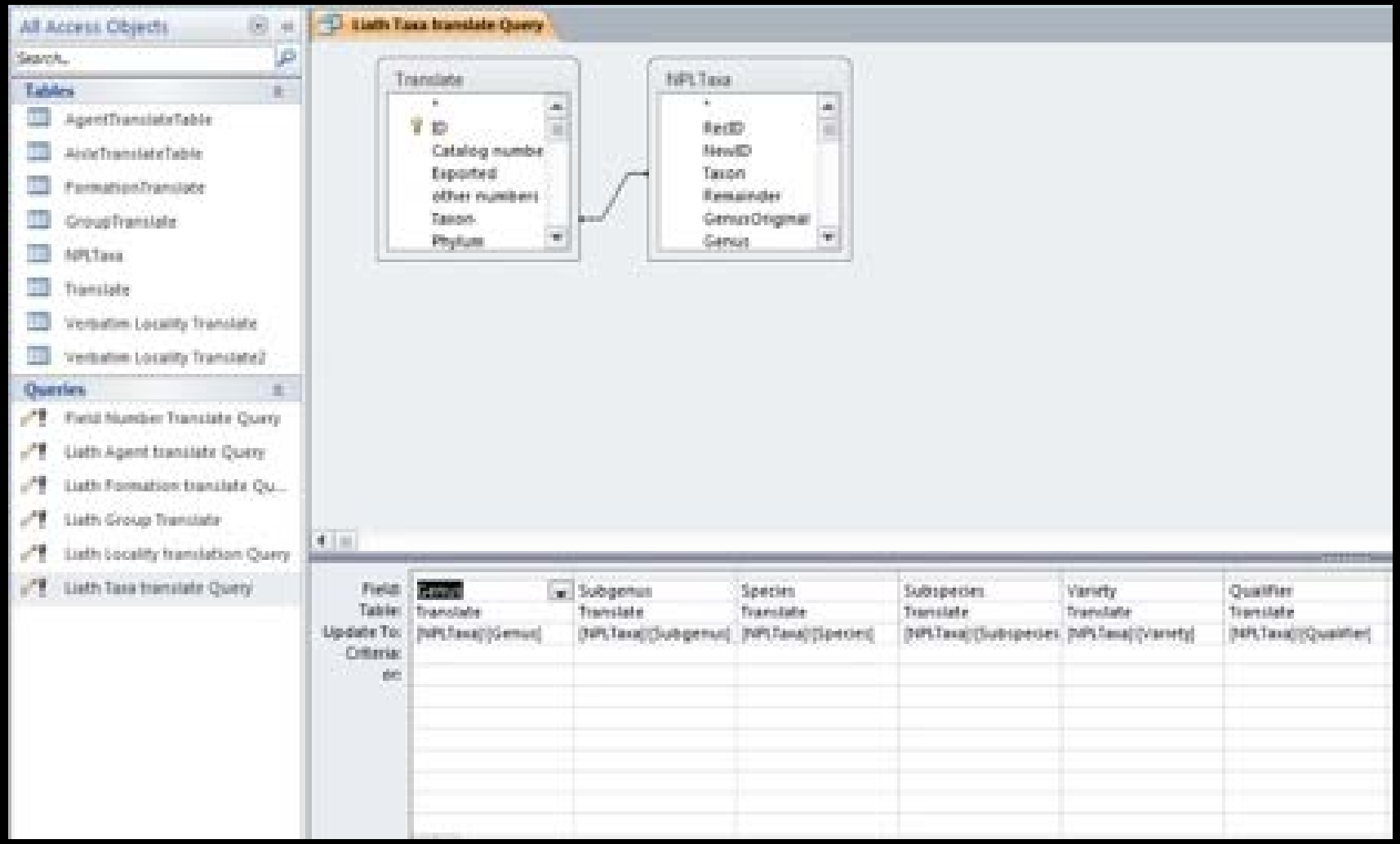


C	J	P	W	X	Y	Z	AA	
en remarks	Taxon	Verbatim locality	Number of pieces 1	Building1	Room1	Aisle1	Cabinet1	Drawer #
da (Starfish)		Toland's Farm, Denton Co., Texas	1	NPL122	Curation		246	
da (Brittle Star)		West of RoanOkla e, Denton Co., Texas	1	NPL122	Curation		246	
	Linuparus	S. of Haslet, Tarrant Co., Texas	1	NPL122	Curation		246	
	Linuparus	N. of Carrollton, Denton Co., Texas	1	NPL122	Curation		246	
	Cenomanocarcinus	N. of Carrollton, Denton Co., Texas	1	NPL122	Curation		246	
	Cenomanocarcinus	N. of Carrollton, Denton Co., Texas	1	NPL122	Curation		246	
	Enoplocylix	Toland's Farm, Denton Co., Texas	5	NPL122	Curation		246	
da (Complete crab)		S. of Haslet, Tarrant Co., Texas	1	NPL122	Curation		246	
	Homarus	S. of Haslet, Tarrant Co., Texas	1	NPL122	Curation		246	
	Cenomanocarcinus	N. of Carrollton, Denton Co., Texas	1	NPL122	Curation		246	
da		S. of Haslet, Tarrant Co., Texas	1	NPL122	Curation		246	
		lton, Denton Co., Texas	1	NPL122	Curation		246	
da		t, Tarrant Co., Texas	2	NPL122	Curation		246	
		lton, Denton Co., Texas	1	NPL122	Curation		246	
da		rm, Denton Co., Texas	1	NPL122	Curation		246	
		anOkla e, Denton Co., Texas	2	NPL122	Curation		246	
		lton, Denton Co., Texas	1	NPL122	Curation		246	
da		t, Tarrant Co., Texas	1	NPL122	Curation		246	
		lton, Denton Co., Texas	2	NPL122	Curation		246	
da		n, Denton Co., Texas	1	NPL122	Curation		246	
	Metopaster	Toland's Farm, Denton Co., Texas	1	NPL122	Curation		246	

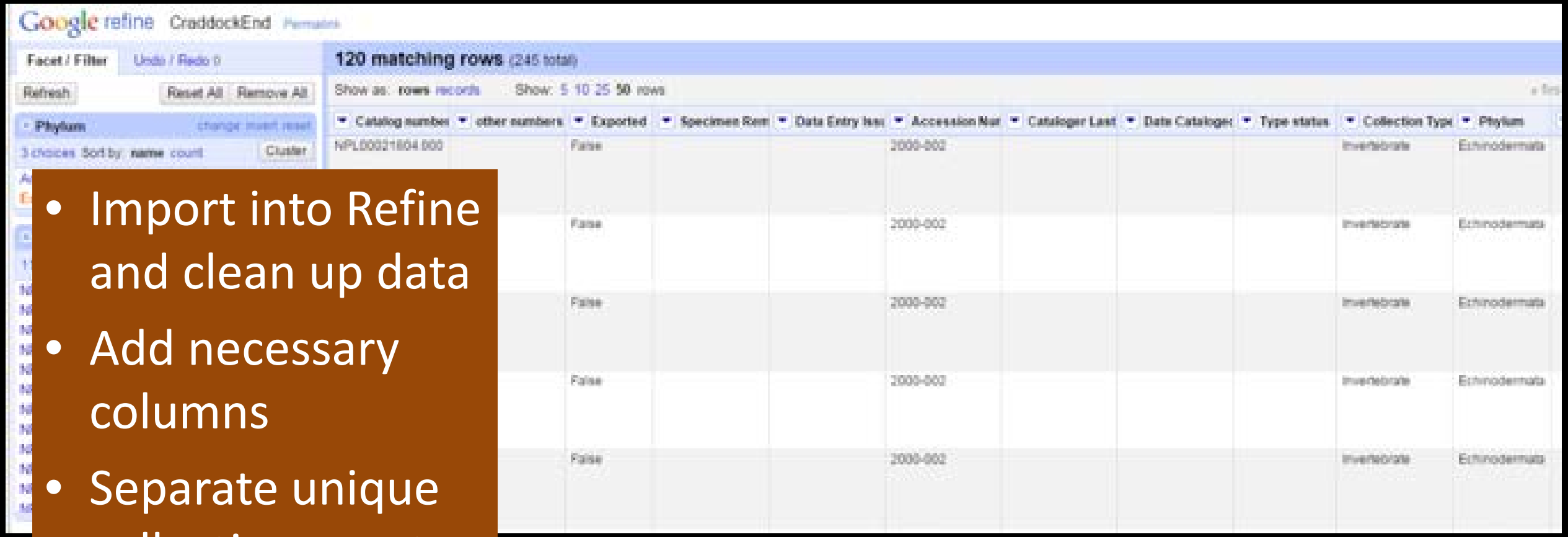
- Define critical data
- Develop templates
- Train users

Data capture

- Translate for taxonomy and geology
- Further constrain and clean



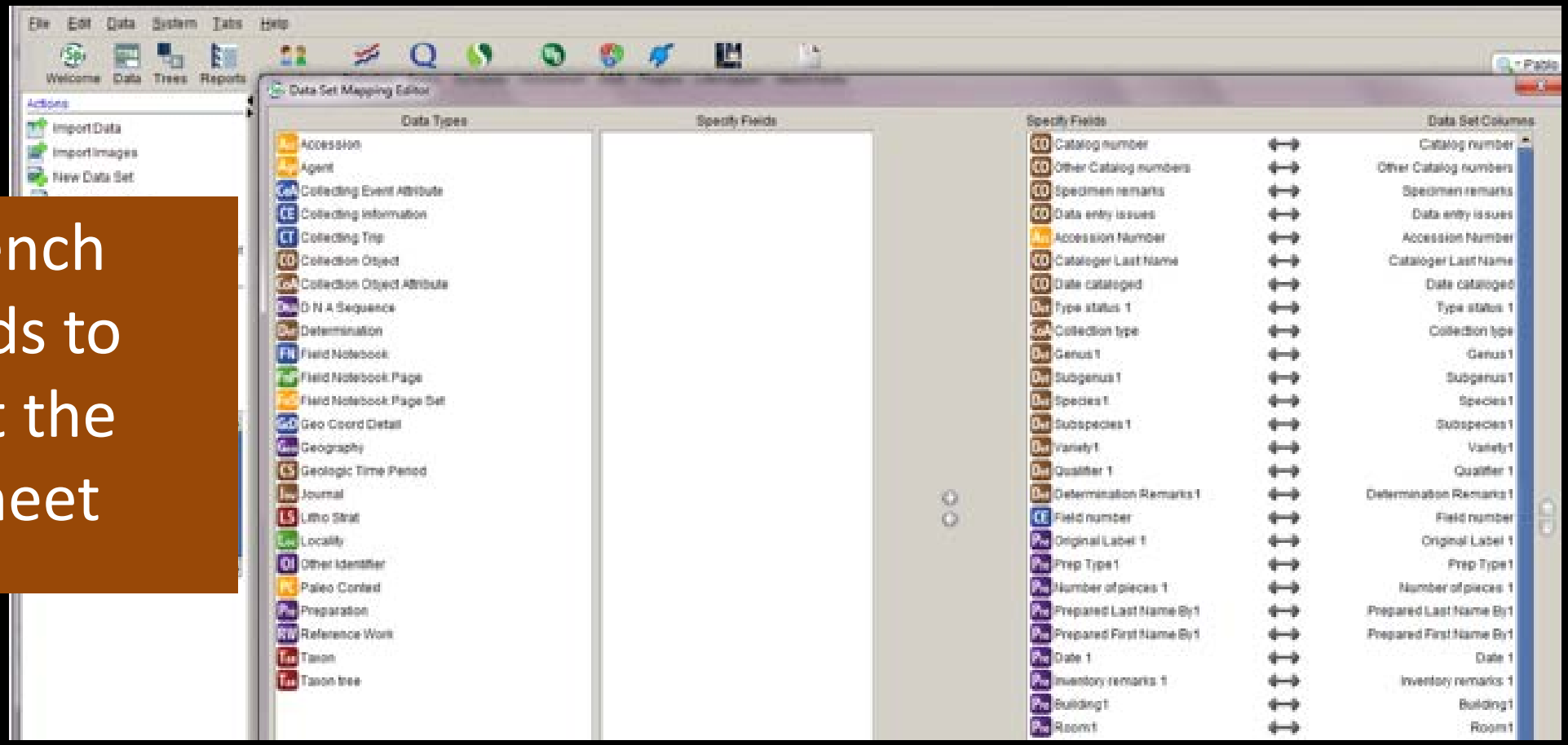
Data quality



- Import into Refine and clean up data
- Add necessary columns
- Separate unique collecting events
- add field numbers

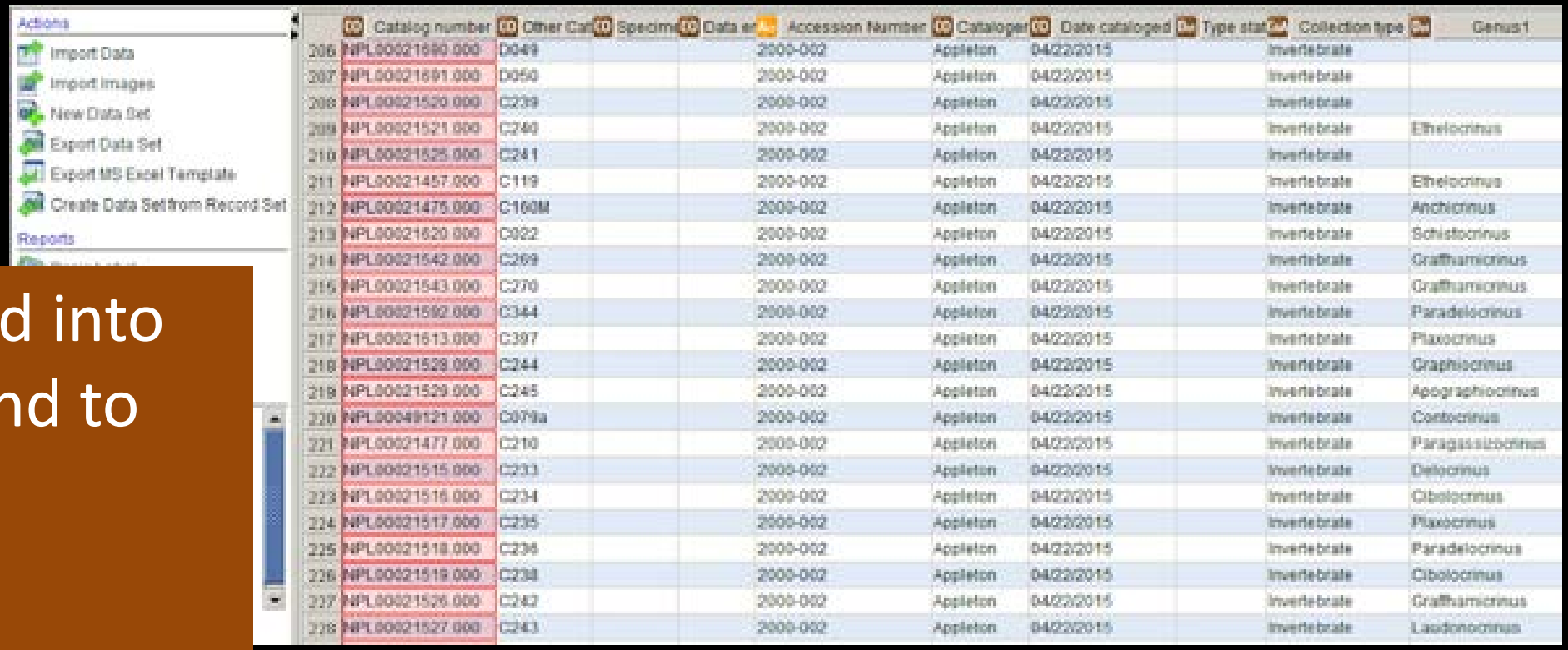
Data capture

- check workbench mapping needs to before import the final spreadsheet



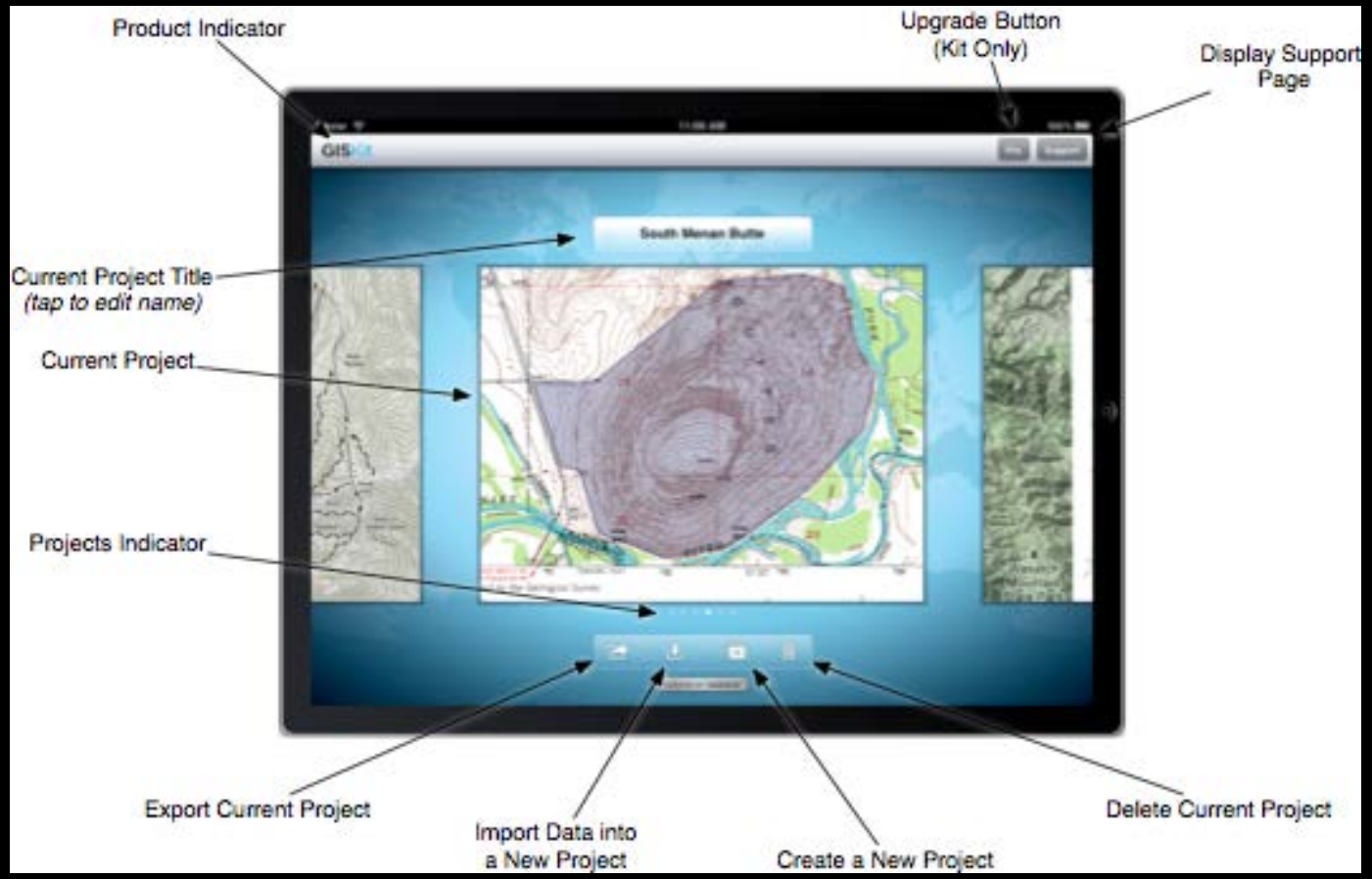
Data capture

- Data imported into workbench and to Specify



	Catalog number	Other Cat	Specime	Data er	Accession Number	Cataloger	Date cataloged	Type stat	Collection type	Genus1
206	NPL00021690.000	D049			2000-002	Appleton	04/22/2015		Invertebrate	
207	NPL00021691.000	D050			2000-002	Appleton	04/22/2015		Invertebrate	
208	NPL00021520.000	C239			2000-002	Appleton	04/22/2015		Invertebrate	
209	NPL00021521.000	C240			2000-002	Appleton	04/22/2015		Invertebrate	Ethelocrinus
210	NPL00021525.000	C241			2000-002	Appleton	04/22/2015		Invertebrate	
211	NPL00021457.000	C119			2000-002	Appleton	04/22/2015		Invertebrate	Ethelocrinus
212	NPL00021475.000	C160M			2000-002	Appleton	04/22/2015		Invertebrate	Anchicrinus
213	NPL00021620.000	C022			2000-002	Appleton	04/22/2015		Invertebrate	Schistocrinus
214	NPL00021542.000	C269			2000-002	Appleton	04/22/2015		Invertebrate	Graffhamicrinus
215	NPL00021543.000	C270			2000-002	Appleton	04/22/2015		Invertebrate	Graffhamicrinus
216	NPL00021592.000	C344			2000-002	Appleton	04/22/2015		Invertebrate	Paradelocrinus
217	NPL00021613.000	C397			2000-002	Appleton	04/22/2015		Invertebrate	Plaxocrinus
218	NPL00021528.000	C244			2000-002	Appleton	04/22/2015		Invertebrate	Graphiocrinus
219	NPL00021529.000	C245			2000-002	Appleton	04/22/2015		Invertebrate	Apographiocrinus
220	NPL00049121.000	C079a			2000-002	Appleton	04/22/2015		Invertebrate	Contocrinus
221	NPL00021477.000	C210			2000-002	Appleton	04/22/2015		Invertebrate	Paragassizocrinus
222	NPL00021515.000	C233			2000-002	Appleton	04/22/2015		Invertebrate	Delocrinus
223	NPL00021516.000	C234			2000-002	Appleton	04/22/2015		Invertebrate	Cibolocrinus
224	NPL00021517.000	C235			2000-002	Appleton	04/22/2015		Invertebrate	Plaxocrinus
225	NPL00021518.000	C236			2000-002	Appleton	04/22/2015		Invertebrate	Paradelocrinus
226	NPL00021519.000	C238			2000-002	Appleton	04/22/2015		Invertebrate	Cibolocrinus
227	NPL00021526.000	C242			2000-002	Appleton	04/22/2015		Invertebrate	Graffhamicrinus
228	NPL00021527.000	C243			2000-002	Appleton	04/22/2015		Invertebrate	Laudonocrinus

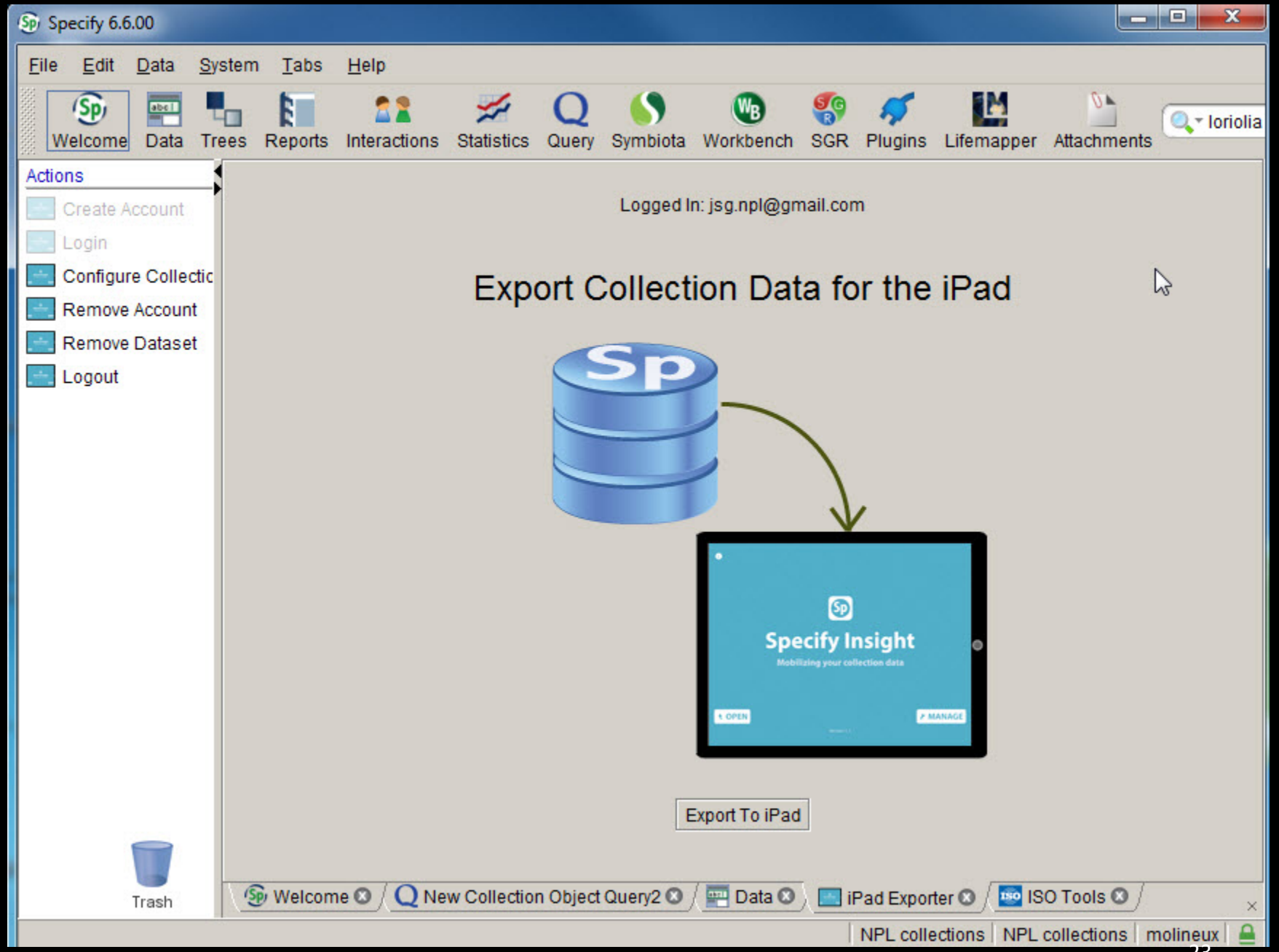
Data capture - Field



- Richer data
- More potential data reuse from existing data resources

Data access

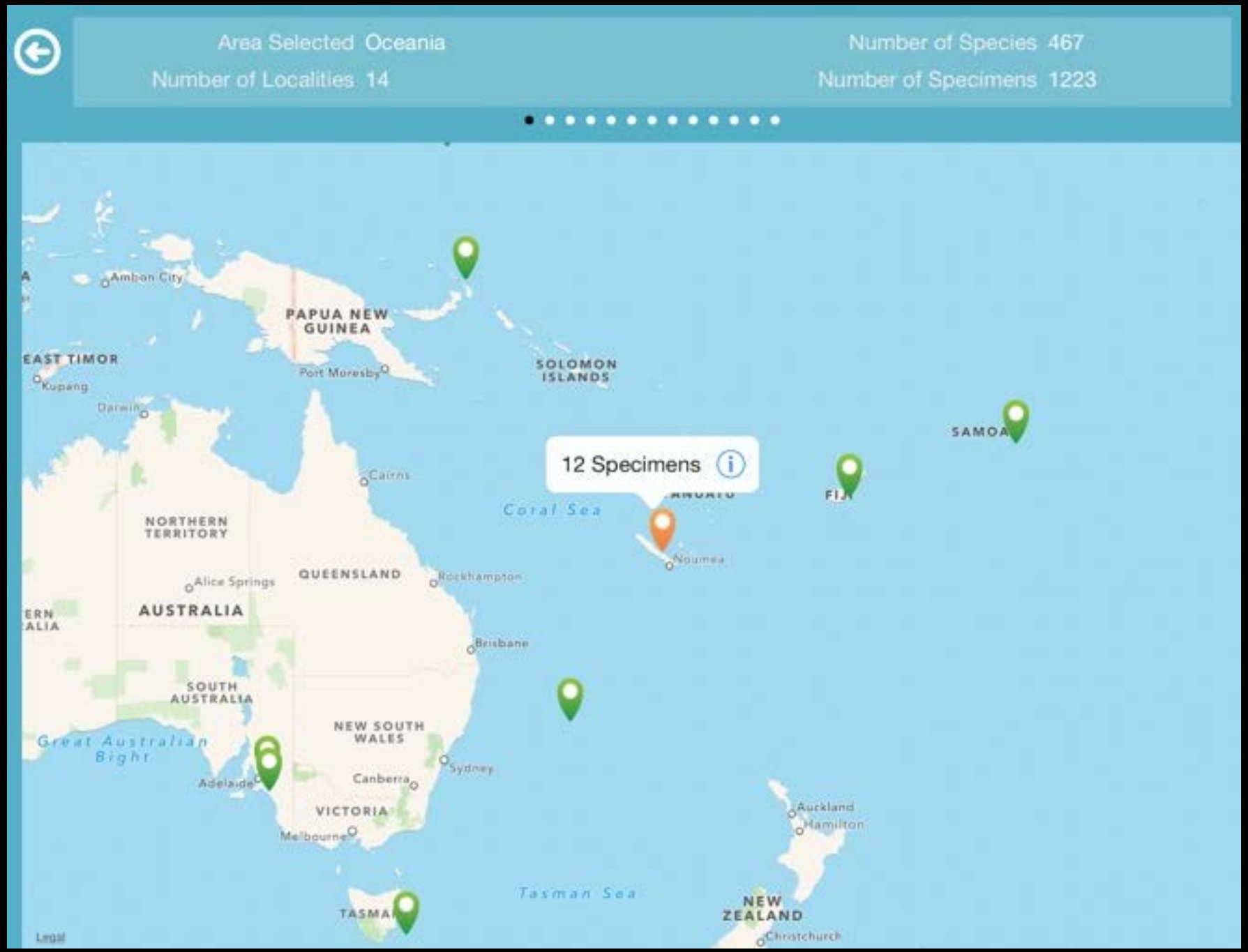
- Field access
- Limitations

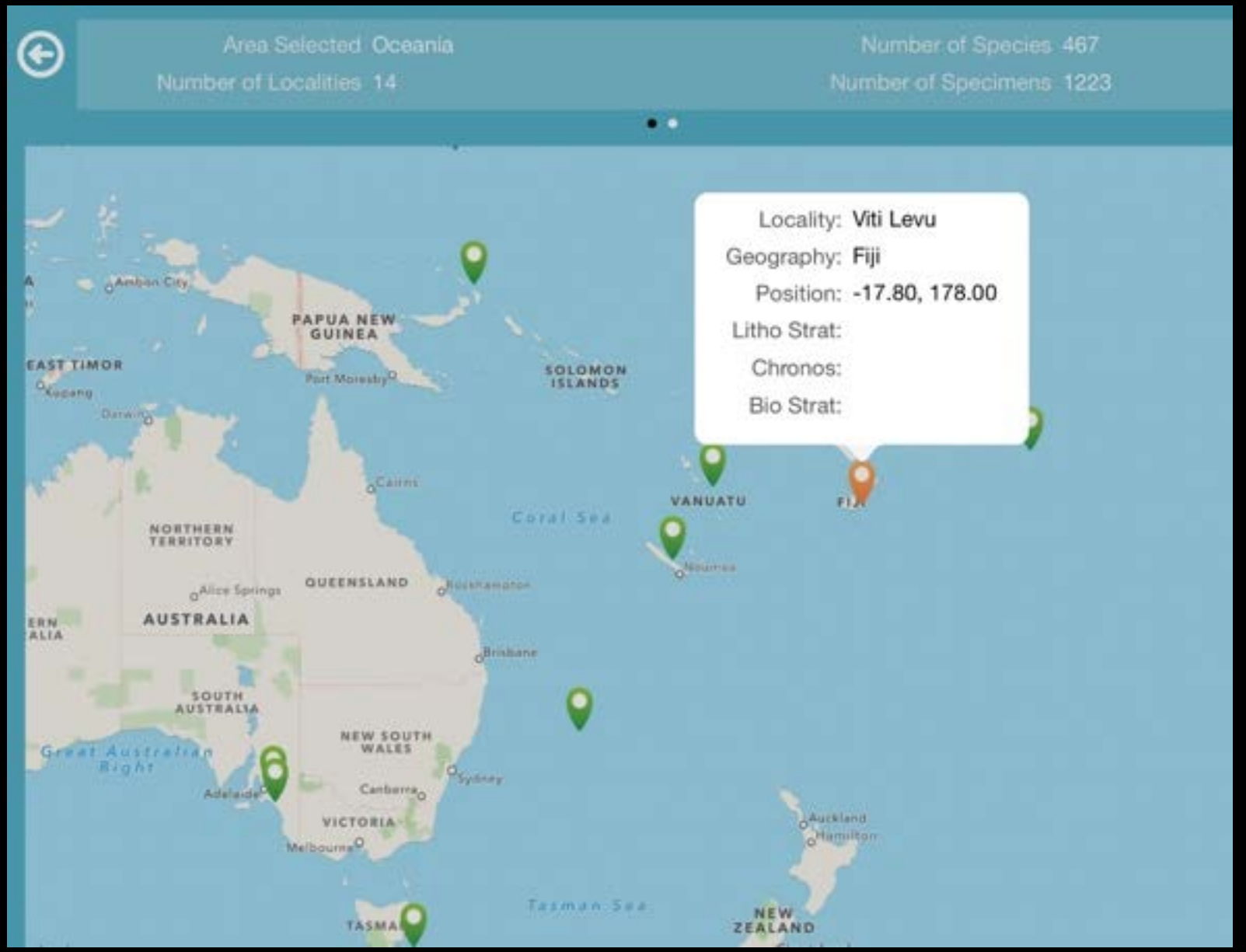


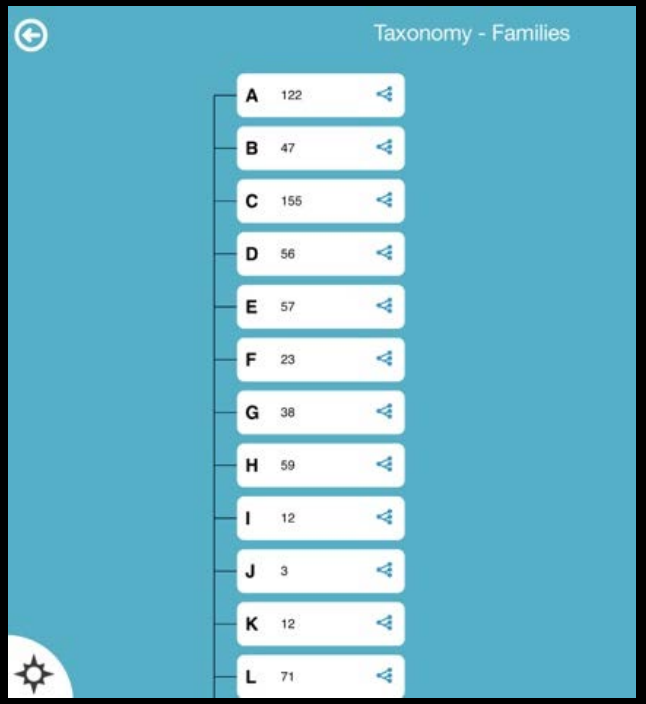
Data access - cloud

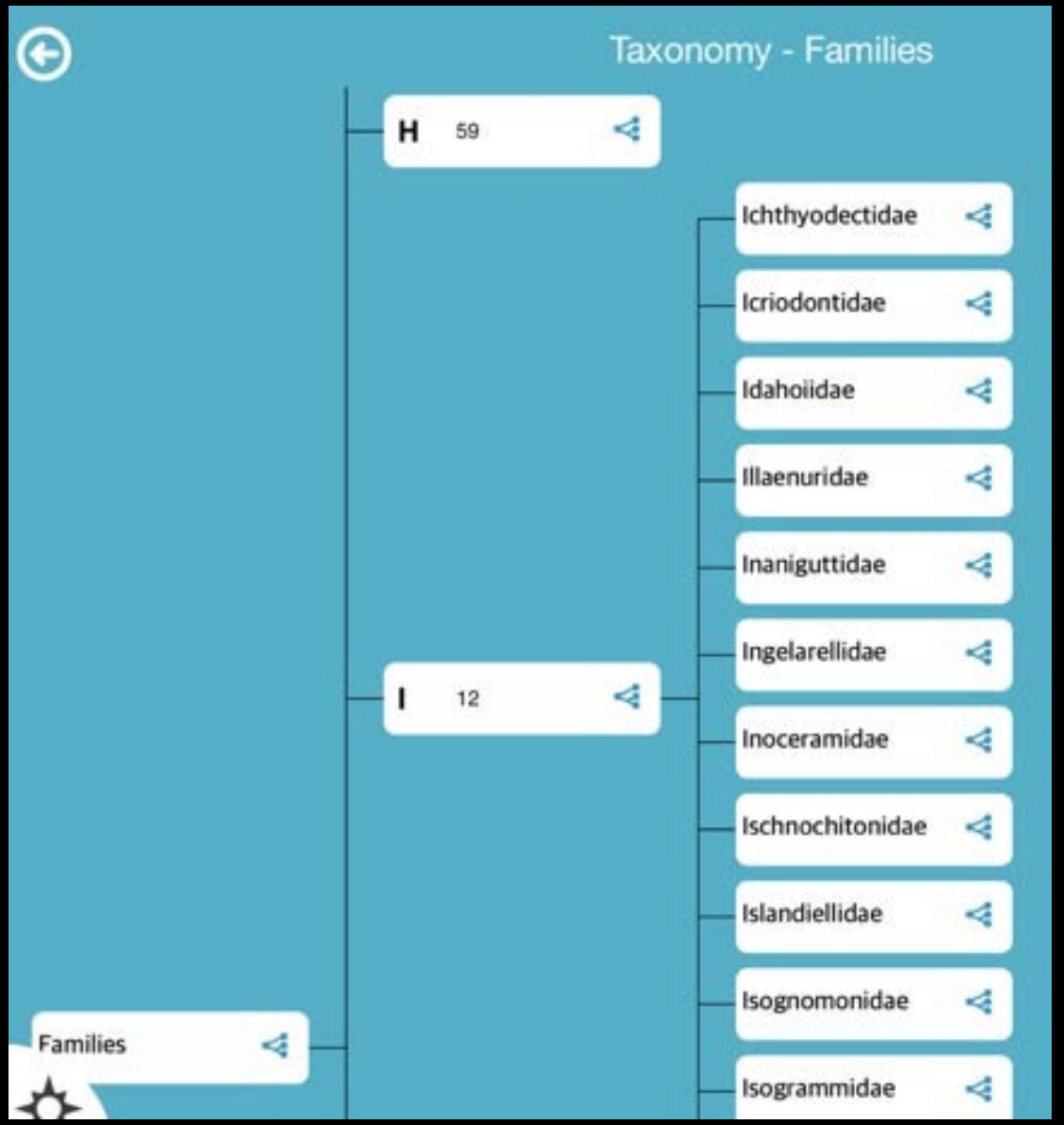

University of Texas at Austin
NPL collections
Curator Ann Molineux
Collection Manager Liath Appleton
Created On Feb 19, 2015
GEOGRAPHY
TAXONOMY
STATISTICS
SUMMARY

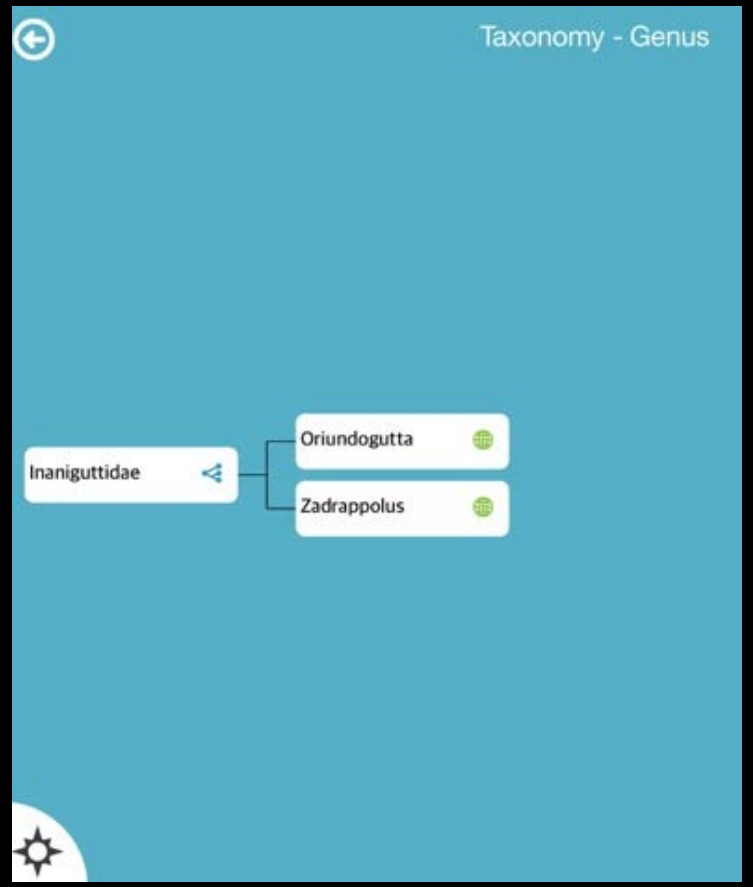

Continents
North America
331,949
Europe
12,156
Asia
4,742
Africa
5,025
South America
398
Oceania
3,506
Antarctica
103
NPL collections

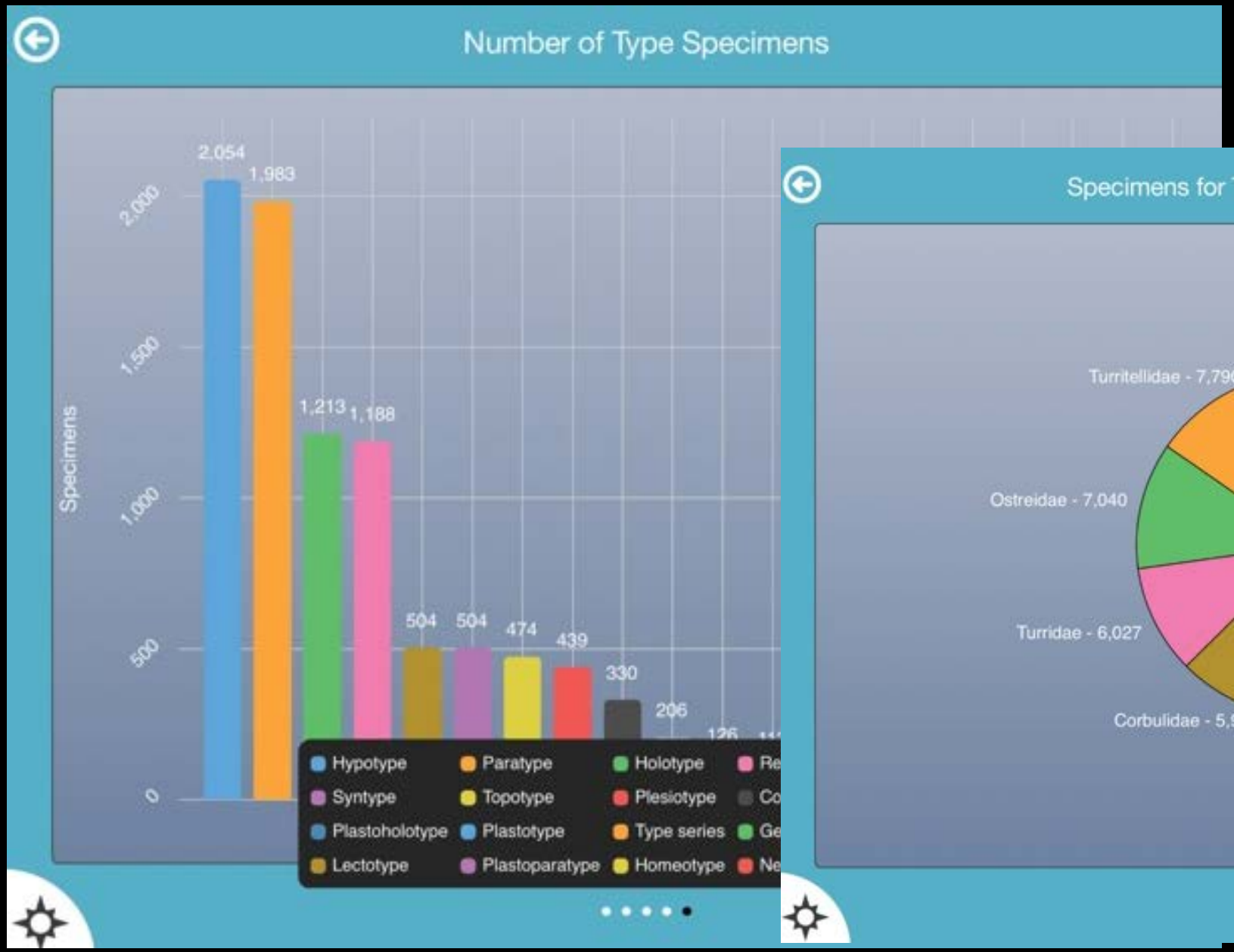

Area Selected Oceania
Number of Species 467
Number of Localities 14
Number of Specimens 1223
Ambon City
PAPUA NEW GUINEA
EAST TIMOR
Kupang
Port Moresby
SOLOMON ISLANDS
Darwin
SAMOA
12 Specimens
Cairns
FIJI
Coral Sea
NORTHERN TERRITORY
Noumea
Alice Springs
QUEENSLAND
Rockhampton
AUSTRALIA
Brisbane
SOUTH AUSTRALIA
NEW SOUTH WALES
Great Australian Bight
Sydney
Adelaide
Canberra
VICTORIA
Auckland
Hamilton
Melbourne
Tasman Sea
NEW ZEALAND
Christchurch
Legal

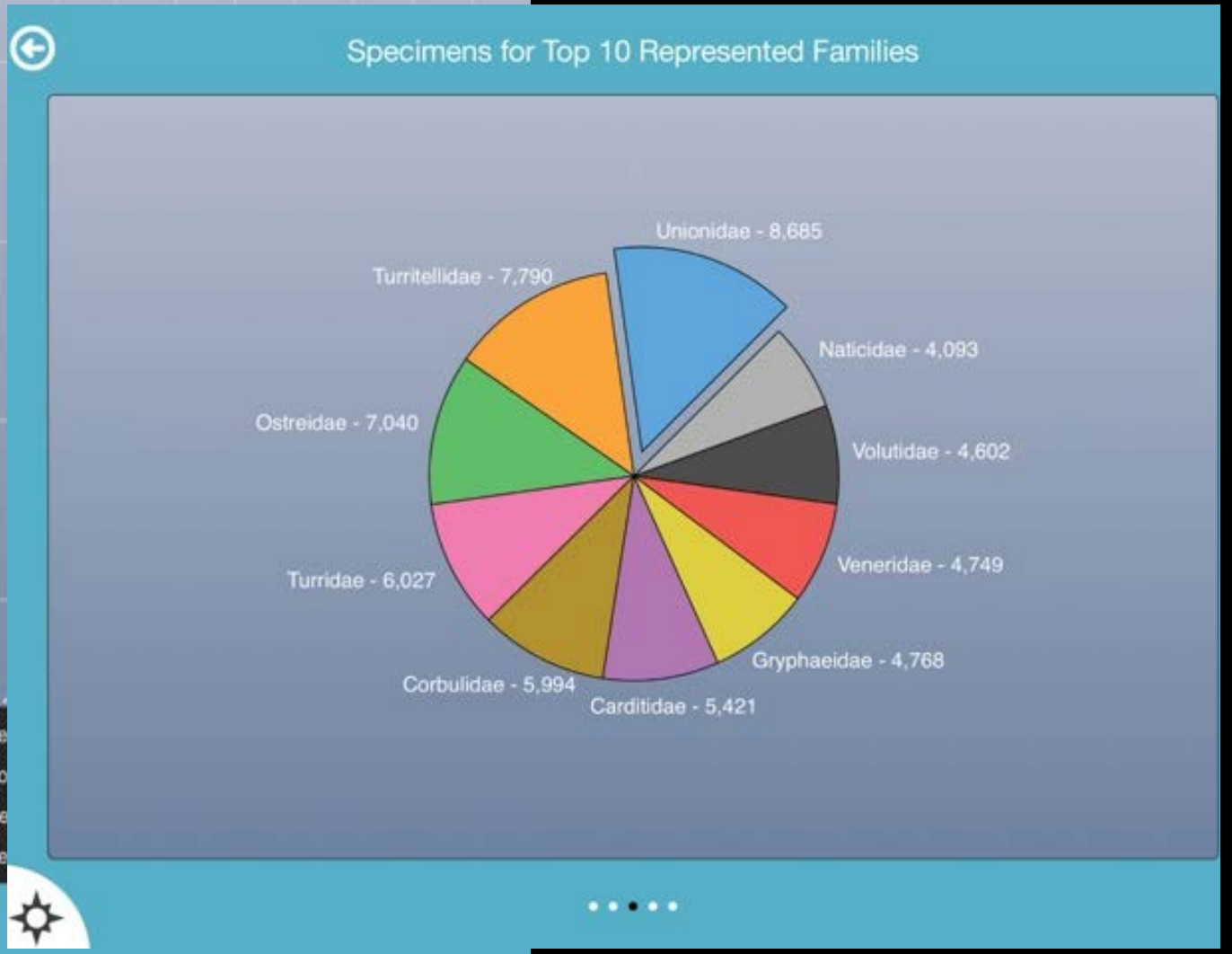

Area Selected Oceania
Number of Localities 14
Number of Species 467
Number of Specimens 1223
Locality: Viti Levu
Geography: Fiji
Position: -17.80, 178.00
Litho Strat:
Chronos:
Bio Strat:
PAPUA NEW GUINEA
SOLOMON ISLANDS
EAST TIMOR
Ambon City
Port Moresby
Kupang
Darwin
Cairns
VANUATU
FIJI
Coral Sea
NORTHERN TERRITORY
QUEENSLAND
Alice Springs
Rockhampton
AUSTRALIA
Brisbane
SOUTH AUSTRALIA
NEW SOUTH WALES
Great Australian Bight
Adelaide
Canberra
Sydney
VICTORIA
Melbourne
Auckland
Hamilton
Tasman Sea
NEW ZEALAND


Taxonomy - Families
A 122
B 47
C 155
D 56
E 57
F 23
G 38
H 59
I 12
J 3
K 12
L 71

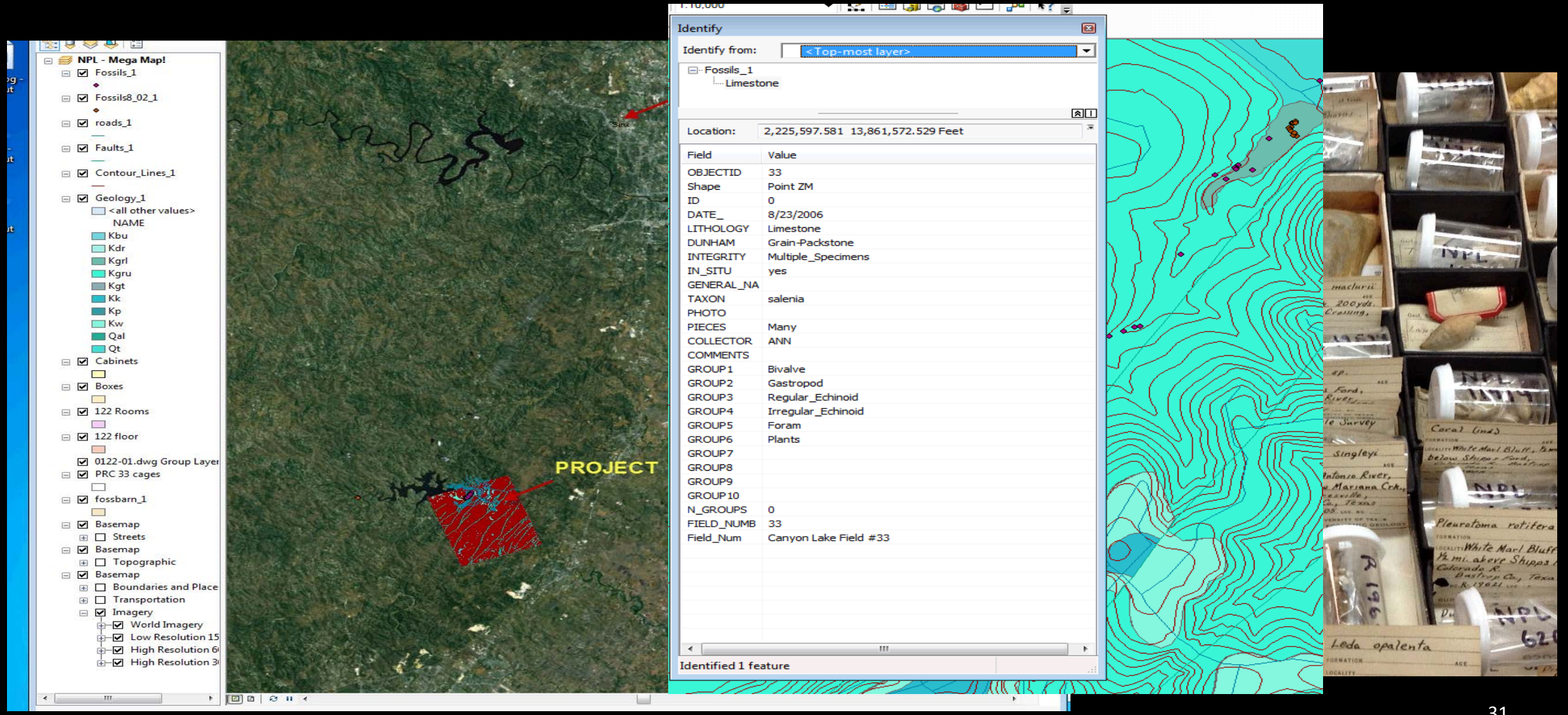

Taxonomy - Families
H 59
I 12
Families
Ichthyodectidae
Icriodontidae
Idahoiidae
Illaenuridae
Inaniguttidae
Ingelarellidae
Inoceramidae
Ischnochitonidae
Islandiellidae
Isognomonidae
Isogrammidae


Taxonomy - Genus
Inaniguttidae
Oriundogutta
Zadrappolus


Number of Type Specimens
Specimens
2,000
1,500
1,000
500
0
2,054
1,983
1,213
1,188
504
504
474
439
330
206
Hypotype
Paratype
Holotype
Syntype
Topotype
Plesiotype
Plastoholotype
Plastotype
Type series
Lectotype
Plastoparatype
Homeotype

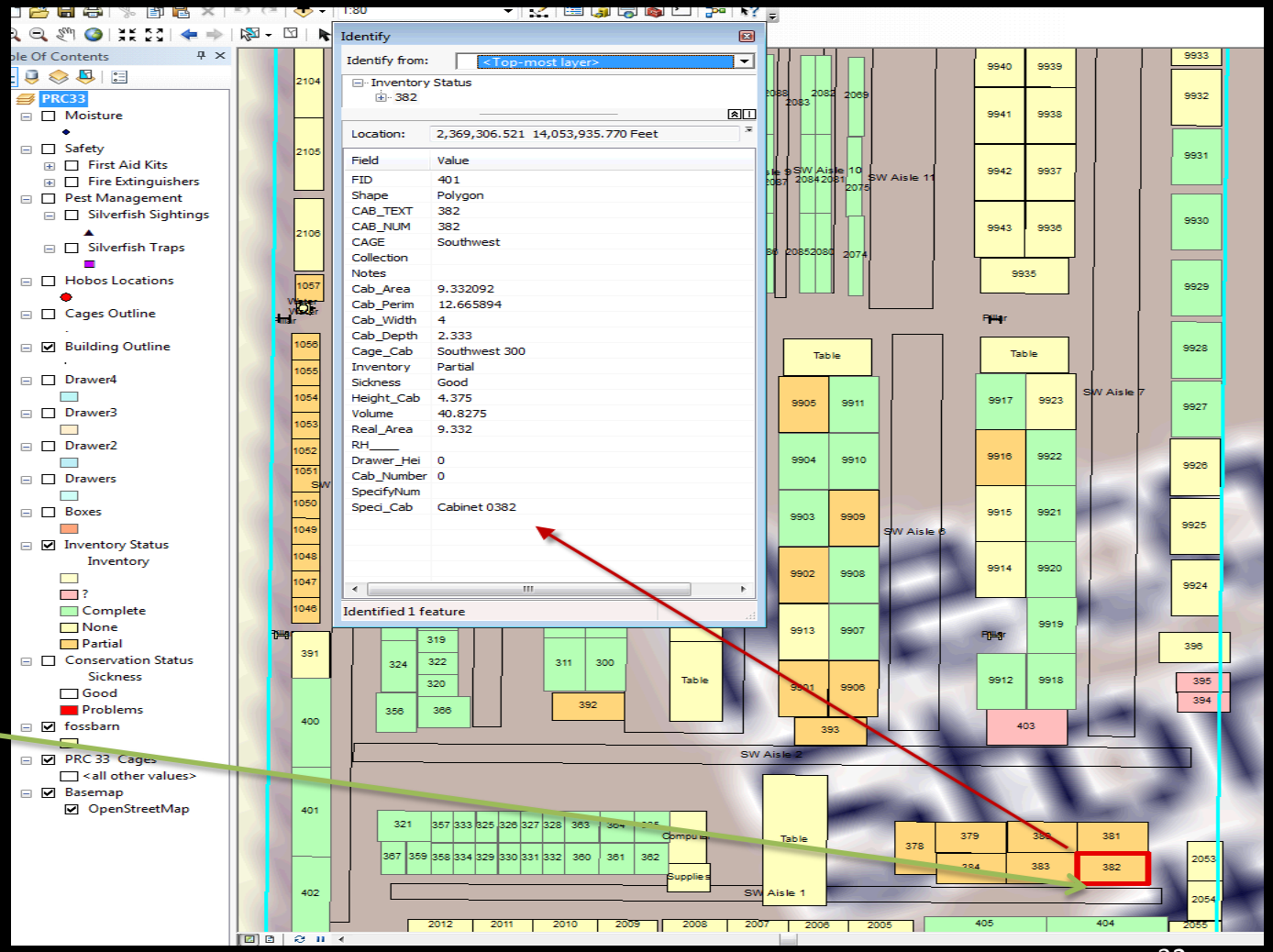

Specimens for Top 10 Represented Families
Unionidae - 8,685
Naticidae - 4,093
Volutidae - 4,602
Veneridae - 4,749
Gryphaeidae - 4,768
Carditidae - 5,421
Corbulidae - 5,994
Turridae - 6,027
Ostreidae - 7,040
Turritellidae - 7,790

New field project



New data back to archive

- New specimens into archive
- Data for project area expands



Data access - use

- Research
- Education
- General public

Building | Room | Aisle | Cabinet/Shelf unit | Drawer/Box | View

Building PRC33
- E Cage
- NW Cage
  - Aisle 00 (0, 7)
  - Aisle 01 Left (
  - Aisle 01 Righ
  - Aisle 02 Left (
  - Aisle 02 Righ
  - Aisle 03 Left (
  - Aisle 03 Righ
  - Aisle 04 Left (
  - Aisle 04 Righ
  - Aisle 05 Left (
  - Aisle 05 Righ
  - Aisle 06 Left (

Drawer 0004 (51)
Drawer 0005 (34)
Drawer 0006 (29)

Edit Node

Name: Drawer 0001

Parent: Building PRC33, NW Cage, Aisle (

Caution, Labels may not apply at all storage levels. TAGR number is a drawer number

Label text:

TAGR #: D0906

Remarks: Dumble Survey

Definition Item: Shelf

Children

Full name:

Attachments

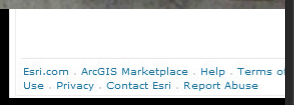
Storage Attachments Grid

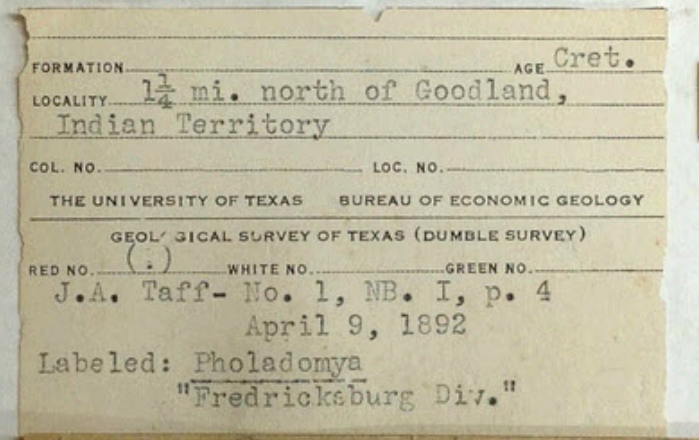
NW29 dwr 1 label view

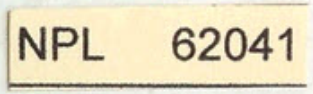
NW29 dwr 1 overhead view

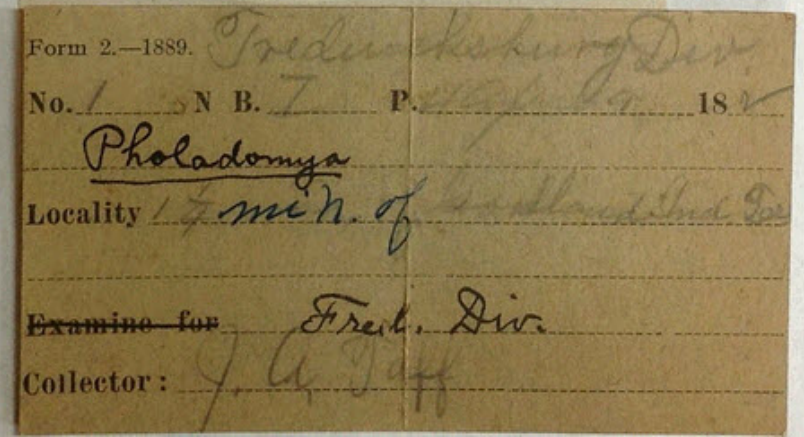
Online browsing

http://bit.ly/npl2014







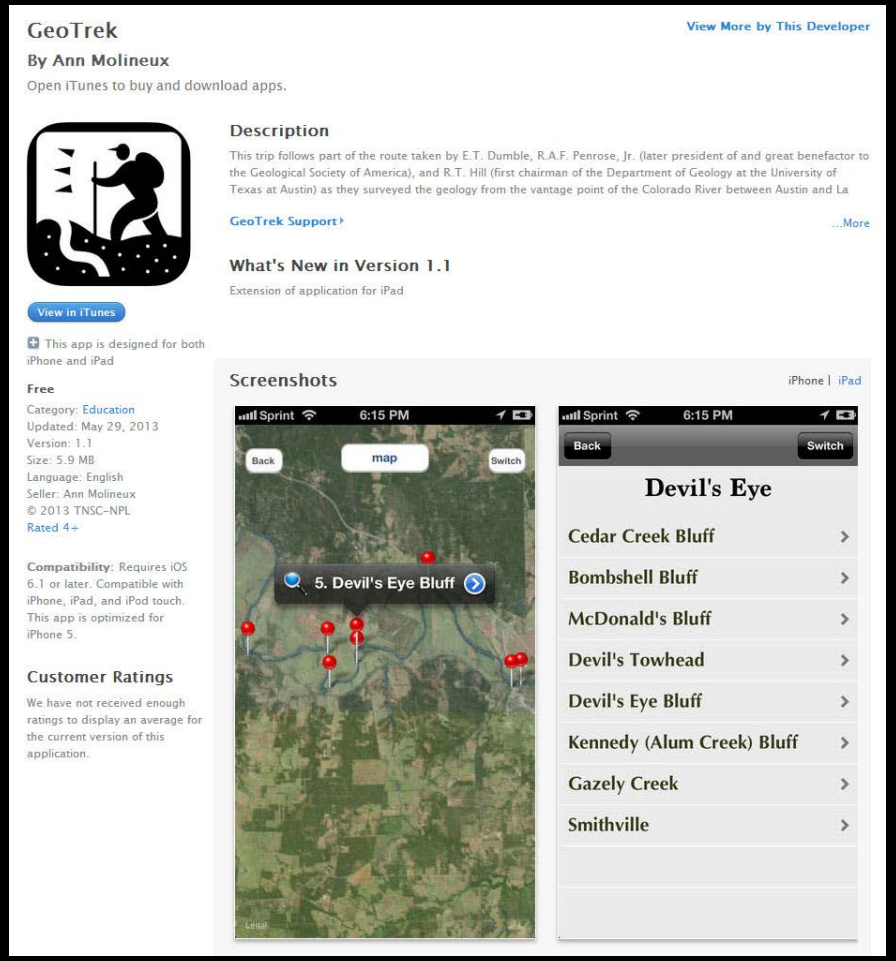


Data access -awareness

- Apps
- Facebook
- Twitter
- Tumblr

Data Access


fossilroulette
1 cm
Name: *Adkinsella edwardsensis* Location: Texas, USA, Edwards Formation Age: 104-108 million years ago, Cretaceous Period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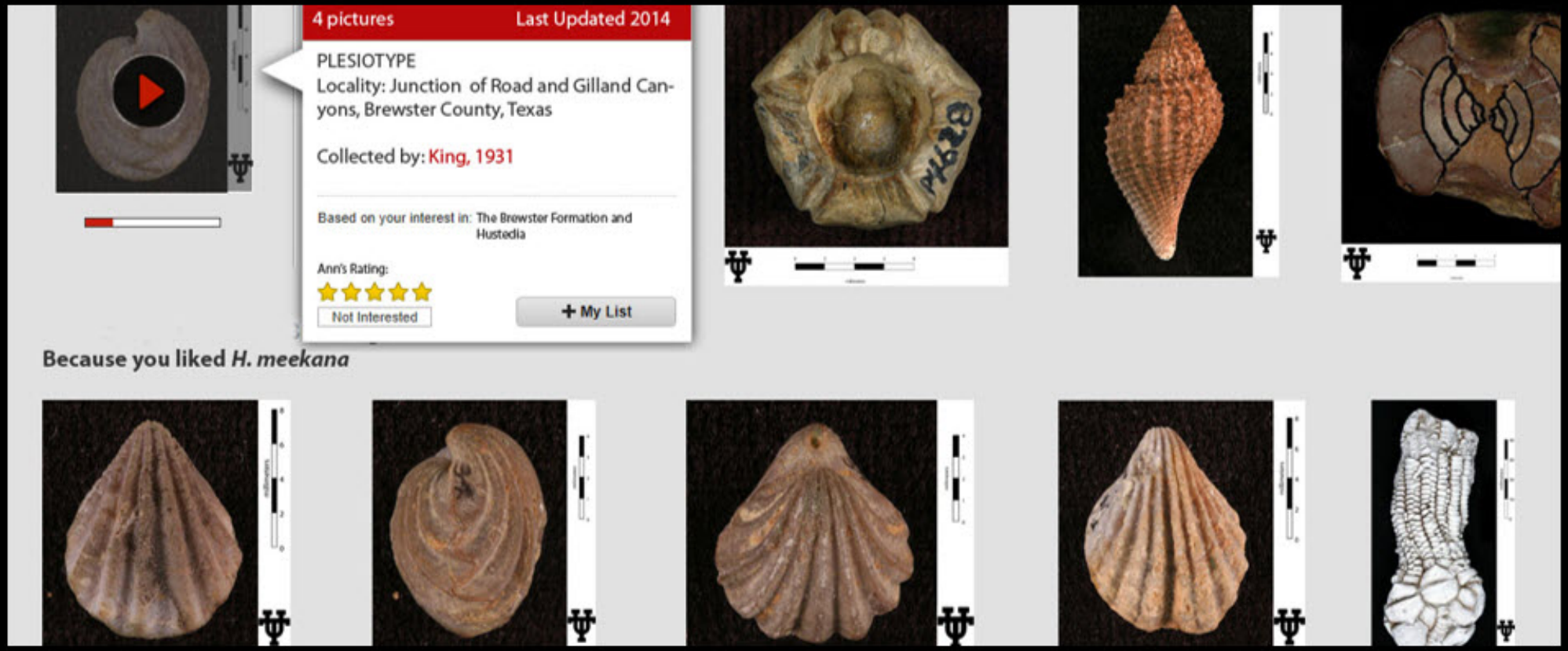

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  - DBI-1057396: *Open Access: Conservation, Digitization and interoperability of the Historic Non-vertebrate Collections of the Texas Natural Science Center.*
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