

Attending: Steve Baskauf, Matthew Nielsen (late), Randy Singer, Martin Stein, Neil Cobb
Regrets: none

Meeting notes:

- I. Note about TDWG meeting. The issue of opaque identifiers was discussed and no conclusion was reached (there were pros and cons). So I think we do what we want. This won't be an issue until near the end of the process anyway.
- II. Go over candidate requirements
<https://github.com/tdwg/ac/blob/master/views/candidate-requirements.md>
(pasted below, we can add notes in red). Note on requirements: not a wish list, must be things that will actually be likely to be implemented. Unimplementable requirements will eventually be eliminated.
 - A. Is label in or out of scope? **We concluded that it was out of scope as it would not be an appropriate value for the ac:subjectPart controlled vocabulary. Suggestions included making it an ac:subtype value. It could be discussed**
 - B. SKOS concept scheme (broader, narrower) vs. SKOS collection (just a grouping)
<https://www.w3.org/TR/skos-primer/#secscheme>
<https://www.w3.org/TR/skos-primer/#seccollections>
Note on use of external ontologies: we won't "adopt" ontology terms directly into the vocabulary, but reference them in the concept definitions to nail down what the concepts mean. **We don't need to specifically limit ourselves to formal ontologies. Rather, we should be looking for any source that defines the concepts in a clear way and is citable. This could include classic texts.**
 - C. Necessity for a "viewing angle term" vs. discrete concepts (dorsal, ventral, etc.)? **We concluded that although this might be desirable for use with measurements, it is probably too much for us to take on in this iteration. If done in the future, it would probably be an AC term that is separate from ac:subjectOrientation.**
- III. Specify organism groups to include. Include if people will actually use. Do others later when there is demand. List:

insects (no existing best practices)
mammals
birds
fishes
reptiles/amphibians
woody angiosperms
herbaceous angiosperms
gymnosperms

Molluscs
Arachnids

- IV. Identify possible organism part ontologies or existing best practices guides to reference.
Assign to:
 - A. Steve will work on plant group resources
 - B. Neil will provide one or two insect resources.
 - C. Martin can look into other arthropod (i.e. not insect) related ontologies and resources.
 - D. Matt will see what he can find for vertebrates, but no promises (not his area of expertise).
- V. Identify possible orientation ontologies to reference. Assign to:
 - A. Neil will provide insect orientation descriptions
- VI. Steve will develop a template spreadsheet that will be used to generate the SKOS.
- VII. Next meeting date: 24 March 2020 15:00 UTC

Notes on Candidate requirements copied from

<https://github.com/tdwg/ac/blob/master/views/candidate-requirements.md> Commit:
<https://github.com/tdwg/ac/commit/baa1b138ca1da37c800639734c19fdc2bb9c2eed>

Candidate Requirements

See <https://www.w3.org/TR/rdf-dawg-uc/> and <https://www.w3.org/TR/skos-ucr/> for example from W3C.

Subject part

1 Categorization

1.1 Subject Part is hierarchical to nest appropriate terms under specimen vs. not-specimen (e.g. label). There might be a better term in AC for this, in which case, please disregard this use case here! (4-ISLABEL-1) *Is this out of scope for the vocabulary? Maybe there just needs to be an AC term for this? We talked about this earlier and perhaps it should be under ac:subtype. Out of direct scope, perhaps include in best practice guide.*

1.2 Subject part values are grouped appropriately for broad categories of organisms (e.g. trees, quadrupeds, etc.). (1-CATEGORIZE-1) Use [SKOS Collections](#) to create groups of concepts appropriate for categories of organisms.

1.3 Links to trait ontologies would help standardize the labels, but the ontologies are not always accurate. There should be a way to take this into account. (6-ANATOMY-1) *Do we want to be using trait ontologies or organism part ontologies for this? We need to curate a list of candidate ontologies. See [this list](#) for a start.*

2 Factors influencing parts that are included

2.1 Associate appropriate subject parts with different insect life [Neil: developmental might be more inclusive and go beyond holometabolous insects] stages. (3-MEASURE-2) *This is a broader issue beyond insects, although it's probably the most apparent for that group because morphology changes so much between stages in insects. Perhaps can be handled using SKOS collections as with broad organism categories. [Randy: Also an issue for larval versus adult fishes where morphology dramatically changes through ontogeny (e.g. flounders)]*

2.2 Semantics must distinguish between varying developmental stages [Neil: why not sexes?]. (7-CLARITY-3) *Is this actually different from the previous one?*

2.3 Associate appropriate subject parts with different orders of insects. (3-MEASURE-3) *Similar to 2.2 .*

3 Miscellaneous

I'm thinking that 3.1 to 3.3 are ones that we should come back to after some more basic work roughing out the concept scheme.

3.1 Allows specification of multiple parts in an image and/or inference of subparts from a larger whole (2-FILTER-1)

3.2 Semantics must distinguish between single and aggregate parts (e.g. one vs. several leaves). (7-CLARITY-2)

3.3 Allows specification of whether entire part is visible in image (2-FILTER-2)

3.4 The view should contain the section "angle:" cross, longitudinal, oblique, tangential, radial/medial. (6-ANATOMY-2) *Does this fall within the scope of what we are doing? I've*

*not been thinking about dissections/microscopic views. I think the answer depends on whether any of our constituency actually plans to use this. If not, then it's out of scope (at least for now). **We need to distinguish between morphology and anatomy. Return to when there is demand.***

3.5 Semantics must distinguish between similar parts (flower bud vs. leaf bud).
(7-CLARITY-1) *I think that this will go away with the use of SKOS since the concepts will be defined independently from the labels. So there shouldn't be any label-based confusion about meaning (vs. simple text tags)*

4 Subject orientation

4.1 Allows for description of orientations of live subjects which were not controlled by the photographer [Randy: We could use some general terms to describe the "usability" of the live organism photo...for example if the subject is actually viable and not blurry that is a term or if the subject is lateral/dorsal etc and designate with something like "L" for live]:

- Intermediate angles of photograph
- Different body parts at different, (ideally) (2-FILTER-3) *If we actually want to handle numeric angles (vs. discrete orientations like "ventral") then we might need a term that isn't based on SKOS concepts. Or maybe SKOS isn't appropriate for subject orientation (i.e. we aren't really talking about a controlled vocabulary)? **Would this be usable for measurements? Has potential but is beyond what we can handle now. [Randy: I think describing specific angles might be too deep of a rabbit hole for us to go down]***

5 Relationship between part and viewing angle

These items seem to be contingent on working out 3.1 to 3.3.

5.1 Determine what orientations are appropriate for subject parts other than whole organism. (3-MEASURE-4)

5.2 Subject orientations are grouped appropriately for subject parts.
(1-CATEGORIZE-2)

5.3 For some organism groups, viewing angles must be related to particular morphological features so that selection of that angle would make the feature visible. (8-ORIENT-1)

5.4 Standardized image labels should indicate both the part of the plant photographed and, the view/orientation of the part (side view of the flower, top view etc.) (5-KEYS-1)

6 Best practice guides

I think we tackle these at the end.

6.1 Guidance for taking standardized images in the field. (5-KEYS-2)

6.2 Best practice guide for controlling specimen position to obtain standardized image orientation. (3-MEASURE-1)

6.3 Best practice guides for certain groups should suggest viewing angles and subject parts that illustrate the features most important for taxonomic identification. (8-ORIENT-2)