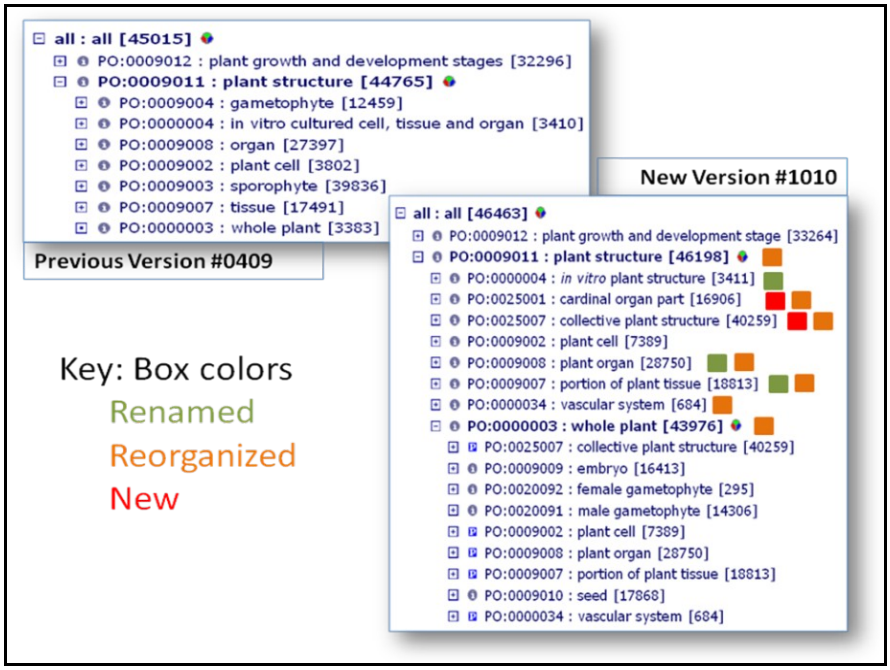
The Plant Ontology is Expanding to Cover All Plants!

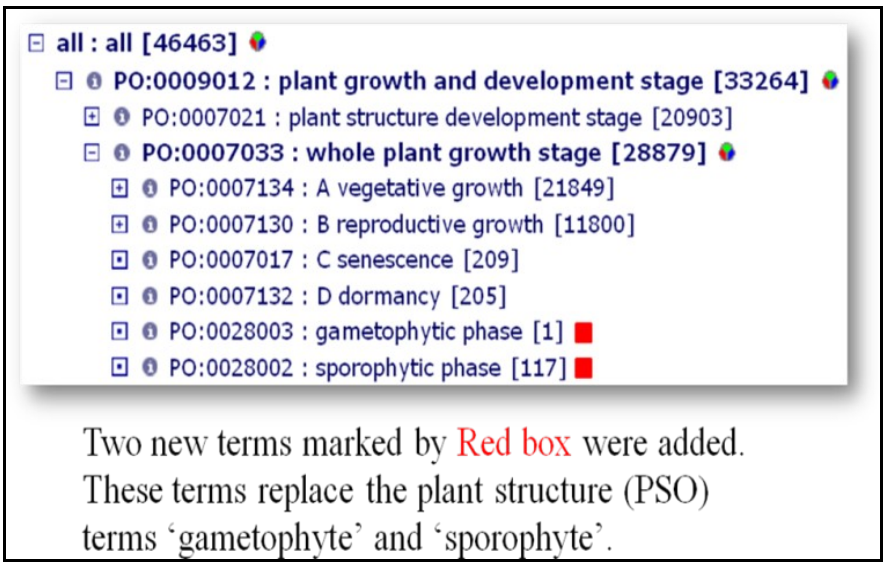
October 11th, 2010

The latest release of the Plant Ontology is now available on our Ontology Browser at http://www.plantontology.org.

The main goal of this revision was to create an ontological framework that will encompass all plants, unlike previous versions that covered only flowering plants. The revisions include 83 new terms, revised definitions and modified child-parent relationships.

The upper-level parent terms of the Plant Structure Ontology (PSO) (version #0409) have been extensively re-organized, with '*in vitro* cultured cell, tissue and organ', 'organ' and 'tissue' all being renamed. Two new upper-level parent terms have been added to the PSO, 'collective plant structure' and 'cardinal organ part' (version #1010). A major change that users will notice is the deletion of two top-level plant structure terms: 'sporophyte' and 'gametophyte', which are now narrow synonyms of whole plant. As an alternative, two new terms 'sporophytic phase' and 'gametophytic phase' were added to the Plant Growth and Development Stage Ontology (PGDSO). These terms describe the alternating phases of the life cycle of all plants, as well the associated plant structures. These terms will be used to describe structures that occur only during a specific growth phase.





The second and third level child terms in the PSO ontology also received extensive revision.

For example, we redefined the term 'tuber' (PO:0004543) and added many new children to it and its parts. This provided a test case for how to build relationships among the parts of a complex structure while at the same time providing terms that are needed to annotate potato genes.

Throughout the revision process, the curators worked to incorporate advances in ontology design and construction. These included the use of logical text and relational definitions and references to external ontologies where appropriate.

An effort was made to insure that widely studied plant structures such as flower, stem and gamete had working definitions and the correct parentage. Although this release contains only a few new terms that are specific to taxa outside angiosperms, we expect that the new structure will enable incorporation of terms originating from all plant species, including non-angiosperms in future releases.

For more information about the release and details on the changes made to the ontology, please visit http://wiki.plantontology.org:8080/index.php/Summary_of_changes_to_the_Plant_Ontology.

Your feedback on the release is welcome.

Please use the Feedback Link: (http://www.plantontology.org/db/feedback/send_feedback? or contact us at po-discuss@plantontology.org.

Thank you in advance for your interest and feedback.

Sincerely, the Plant Ontology Consortium

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