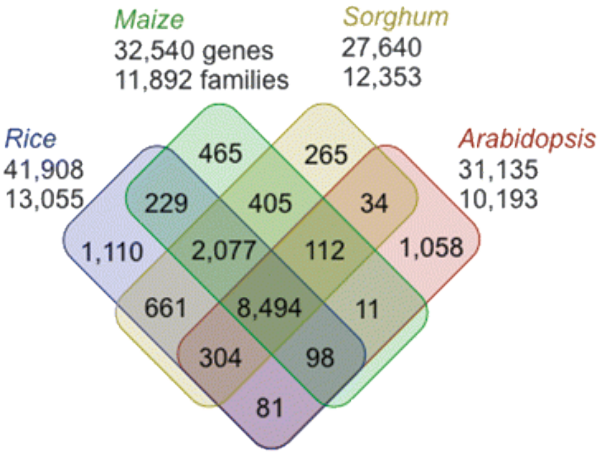


Venn diagram showing unique and shared gene families between and among the three sequenced grasses (maize, rice, and sorghum) and the dicot, Arabidopsis. (Schnable, Ware, et al., Science, 20 November 2009, 326: 1112-1115)

Germplasm

Gramene's new germplasm database is targeted at plant breeders. It attempts to summarize all of Gramene's information in the context of known stocks. In its initial release, it focuses on rice, only, but it will be expanded in the future.

BioMart and BLAST

Proteins

Gramene's protein database provides collective information on 265K Swissprot-Trembl protein entries from family Poaceae and are annotated by the Gene Ontology (GO) terms for molecular function, biological process, and cellular components.

Genes

The genes database includes descriptions of genes and alleles associated with morphological, developmental and agronomically important phenotypes, variants of physiological characters, biochemical functions and isozymes.

Markers, Sequences and Maps

Gramene holds 44M plant sequences and genetic markers from GenBank and various projects and important mapping studies in crop research. We add or update our database every release and work closely with plant researchers to publish new data in many useful formats.

Web Services

- DAS from Ensembl &, Gramene markers db
- Public MySQL server
- QTL via SSWAP
- Diversity via TASSEL and GDPC

Funding

Current work is being supported by the NSF Plant Genome Research Resource grant award #0703908..

GRAMENE

An Internet resource for comparative plant genomics that offers genome browsers for 13 species as well as curated databases of genes, proteins, QTL, genetic diversity data, biological pathways, ontologies, and genetic markers and sequences in addition to BLAST, BioMart and FTP interfaces to a wealth of plant data.

Web:

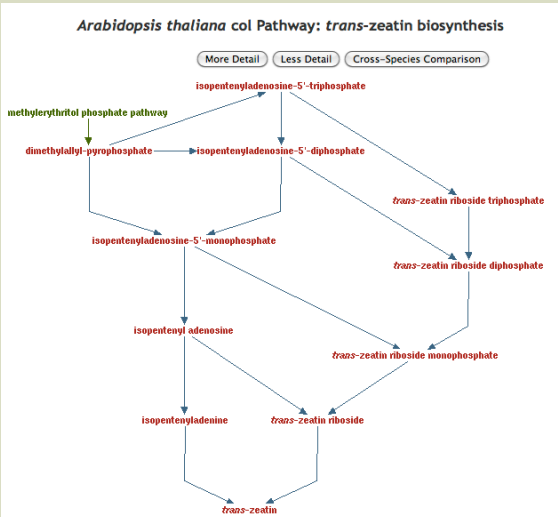
http://www.gramene.org/

Email:

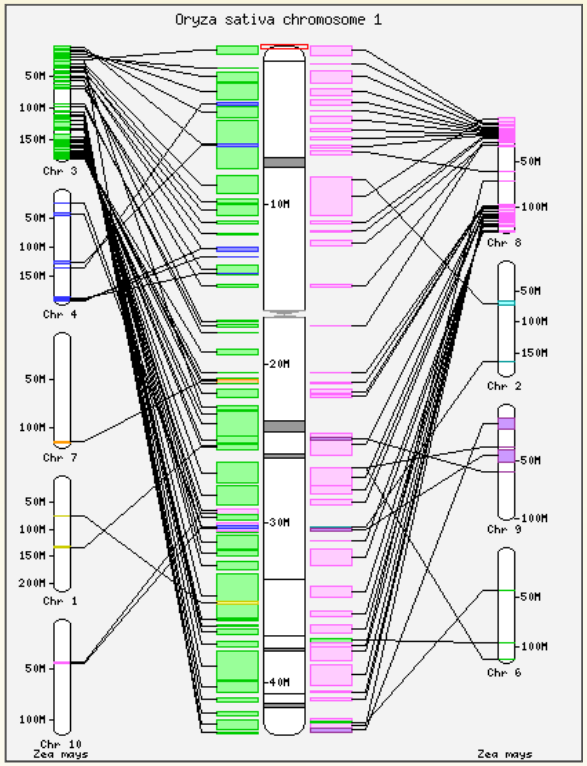
gramene@gramene.org

RSS:

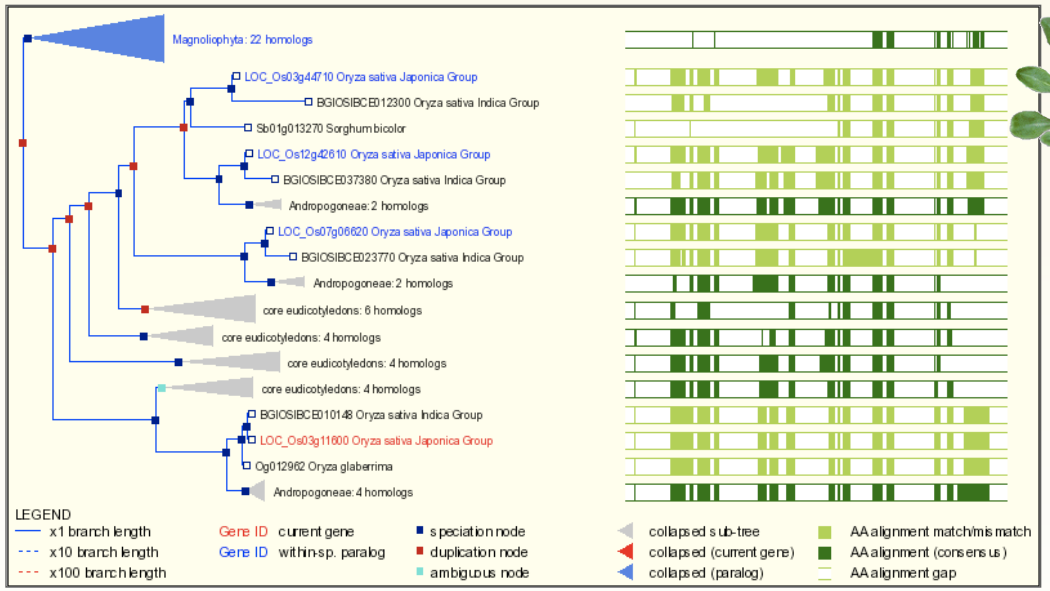
http://news.gramene.org/



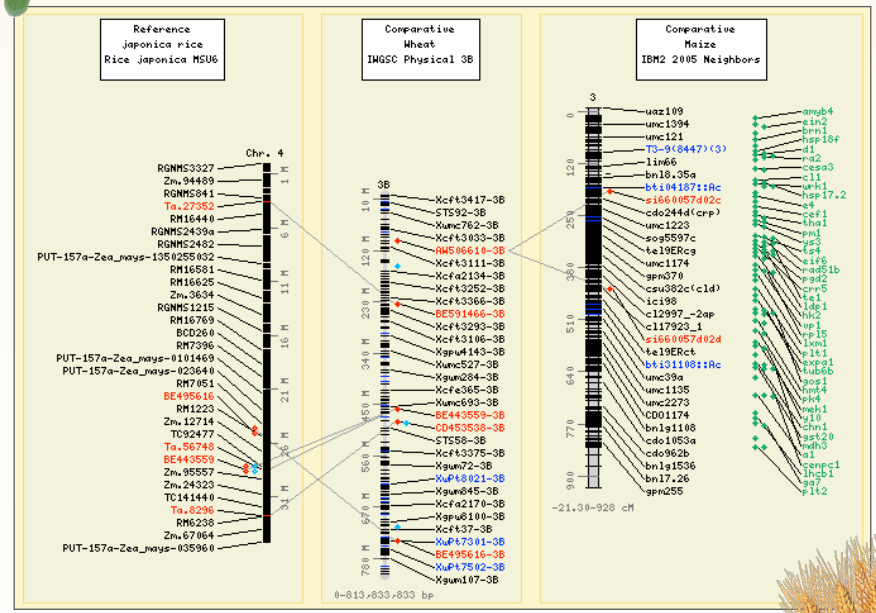
Gramene has biological pathways for 11 species.



Regions with conserved synteny in the genomes of rice and maize (only rice chr. 1 is shown).



Gene tree focused on the LOC_Os03g11600 (dl1) locus in rice (Oryza sativa Japonica Group). This indicates extensive orthology within the Viridiplantae lineage, and also several paralogs within rice.



At Gramene you can compare over 200 maps from 29 plant species.