



Welcome to the first issue of the GDR newsletter in 2015. This newsletter is issued to inform users about new or updated data and features in GDR and community related news. Please feel free to provide feedback and news via http://www.rosaceae.org/contact. The online version can be found at http://www.rosaceae.org/GDR newsletter.

What's new at GDR?

- 1. Funding and governance
- 2. New genome assemblies and annotations
- 3. New gene database
- 4. New map, marker and QTL data
- 5. New Malus species data and photos of Malus germplasm
- 6. New search interfaces for haplotype data
- 7. Updates in data submission page
- 8. New page for downloading GDR presentation
- 9. New page for data contributors
- 10. Work in progress
- 11. Employment opportunities
- 12. Subscription
- 13. Community News

1. Funding and Governance

- GDR will be continuously supported by new grants from the USDA NIFA Specialty Crop Research Program (2009-2019), USDA NIFA National Research Support Project 10 (2014-2019), and the Washington Tree Fruit Research Commission (2008-2016), as well as by Clemson University, University of Florida and Washington State University.
- RosEXEC will be the official steering committee for GDR. Quarterly reports are submitted to the committee ahead of the quarterly RosEXECs meetings.

2. New genome assemblies and annotations

- Prunus persica Genome V2.0.a1 (IPGC 2015): View assembly in GBrowse/JBrowse, search
 genes from gene/sequence search page, access assembly with annotations and the GDR
 functional annotations from the genome page, or access through NCBI BLAST or Batch
 BLAST tools.
- <u>Fragaria vesca Genome V1.1.a2</u> (<u>Darwish et al., 2015</u>): View assembly in GBrowse/ JBrowse and access assembly with annotations from the genome page.
- <u>Fragaria vesca Genome V2.0.a1</u> (<u>Tennessen et al., 2014</u>): View assembly in GBrowse /JBrowse and access assembly with annotations from the genome page.

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• Malus x domestica V3.0.a1 View assembly in GBrowse and access assembly with annotations from the genome page.

3. New gene database and standardized gene nomenclature

Genes in GDR are now composed of two types:

- Genes with gene symbol, assigned by individual investigators, usually with known or predicted function or phenotype, can be searched in gene search page or sequence search page. These genes with gene symbols in GDR are obtained by parsing NCBI nr database and submission from individual investigators. The gene sequences are aligned to the reference genomes when possible, and also directly linked to the corresponding predicted genes when assigned by individual investigators.
- Genes predicted from the whole genome assembly can be searched in sequence search page.
- To facilitate standardization of gene names, gene naming guidelines, put together by Rosaceae Gene Name Standardization Subcommittee of RosIGI, is available in GDR. The current list of Gene Class symbols and the template to submit the gene/gene class data are also available from GDR.

4. New map, marker and QTL data

New QTL, markers, genetic map and genotype data have been added to GDR. It includes data from 24 publications: 14 in Malus, 4 publications in Rosa, 3 in Rubus, 2 in Prunus, 1 in Malacomeles denticulate. A list of these publications can be found at GDR News items 9/1/14and 3/15/15.

5. New Malus species data and photos of Malus germplasm

Detailed information on the Malus species and photos of Malus germplasm are available from GDR through Species Summary Page.

6. New search interfaces for haplotype data

New haplotype search interface allows users to search for varieties that have a specific haplotype or search haplotype data by variety names. Users can also view the SNPs that define each haplotype using haplotype block search page.

7. Updates in data submission page

Templates and guidelines for gene/gene class data and whole genome data are available in the data submission page, in addition to templates for genetic map data, QTL map data, diversity data and breeding data.

8. New page for downloading GDR presentation

GDR and related presentations can be downloaded in <u>presentations page</u>.

9. New page for data contributors

New page that lists data contributors are available. Thank you for sending us the data and please let us know if your data contribution is not listed.

10. Work in Progress

- Addition of more map, marker and QTL data: We are continuously adding more map, marker and QTL data from publications to keep up-to-date database.
- Developing a new annotation for Fragaria vesca Genome V2.0.a2: A consensus gene set of V2.0.a1 and genes from V1.1.a2 will be developed using our GenSAS program.
- Peach breeder Ksenjia Gasic (GDR CoPI) is evaluating the use of the FieldBook App (from Jesse Polands lab) for electronic recording of tree fruit breeding data.
- A breeding tools needs assessment workshop (afternoon of July 30th, 2015) is being organized by the GDR team in conjunction with the National Association of Plant Breeders annual meeting (Pullman, WA, July 27-30).
- We are modifying the breeders toolbox to provide better interfaces and also converting to Tripal to share with other databases.
- Working on converting the breeders toolbox to Tripal and adding more functionality
- We are developing further terms for Trait Ontology to describe Rosaceae traits.

11. Employment opportunities

We are currently looking to recruit more programmers for GDR and related work. A very competitive compensation package is available for the right candidates. If you know of any candidates for this job, please have them contact Dorrie Main.

12. Subscription

Visit our mailing lists be added/removed to the available GDR mailing lists. Once you have registered you may use the mailing lists to send out relevant information the community and it will be stored in searchable web archives. More information is available on each page on how to use them. If you have any difficulties please contact us.

13. Community News

Funding: "RosBREED: Combining disease resistance with horticultural quality in new rosaceous cultivars project" has been funded from USDA NIFA Specialty Crop Research Program (2009-2019). For more information contact Amy lezzoni of Michigan State University or Cameron Peace of Washington State University.

Conferences

- XIV Eucarpia Symposium on Fruit Breeding and Genetics will be held in Bologna, Italy on June 14-18, 2015
- ASHS 2015 Annual Conference will be held in New Orleans, Louisiana, USA on August 4—
- The 8th International Rosaceae Genomics Conference is scheduled to be held in Angers, France in June, 2016. More details will be posted in the GDR conferences page as they become available.