

GENOME DATABASE FOR ROSACEAE



Resources for Rosaceae Research Discovery and Crop Improvement

2025

Welcome to the second issue of the GDR newsletter in 2025. This newsletter is issued to inform users about **new or updated data and tools in GDR** and provide a summary from the **quarterly Rosaceae Executive Committee (RosEXEC) meetings**.

Summary of RosEXEC meeting!

See Page 3 summary of the last RosEXEC 2025 meeting

New Genome Data/Functional Analysis

New whole genome data are available for *Potentilla*, *Rubus*, and *Fragaria* species!:

- [Argentina \(*Potentilla*\) *anserina* Genome v1.0](#)
- [Argentina \(*Potentilla*\) *lineata* Genome v1.0](#)
- [Rubus L. subgenus *Rubus* Watson Genome](#)
- [Fragaria x ananassa FL17.68-110 Genome v1.0](#)
- [Fragaria iinumae KIB CAS Genome v2.0](#)
- [Fragaria x ananassa Florida Brilliance Genome V1.0](#)

GDR Functional Analysis (including InterProScan, Protein Homology, and Synteny Analysis) has been incorporated for the following genomes:

- [Prunus zhengheensis Genome v1.0](#)
- [Cerasus speciosa IZO01 Genome v1.0](#)

Upcoming Outreach Activities!

RGC12 in Costa Brava-Barcelona, Spain

- GDR workshop on Tuesday, May 6, 2-3:50 PM

NAPB 2025 in Hawaii, USA

- Breeding Tools -BIMS workshop, May 18, 9-3

How to contribute to GDR sustainability!

Discover how to support [GDR's sustainability](#):

Option1: Incorporate funding for GDR in your research proposals.

Option 2: Partner with GDR on large-scale projects or new resource development.

Option 3: Donate or gift funds

JBrowse2 available!

- Representative *Fragaria* genomes and strawberry pangenome data are available in JBrowse2! More genomes from each crop will be added.
- See page 2 for details.

New GWAS, QTL, map, marker, and phenotype data

We've added new GWAS, QTL, map, marker, genotype, and phenotype data from eight publications, including seven from *Fragaria*, three from *Malus*, and one each from *Pyrus*, *Rosa*, and *Prunus*. Search this data through the [QTL/GWAS Search](#), [Marker Search](#), [MapView](#), [Search Trait Evaluation](#), [SSR Genotype Search](#) and [JBrowse](#).

You can view the curated list of papers in this news item.

- [New GWAS, QTL, marker, and map data are available \(4/25\)](#)

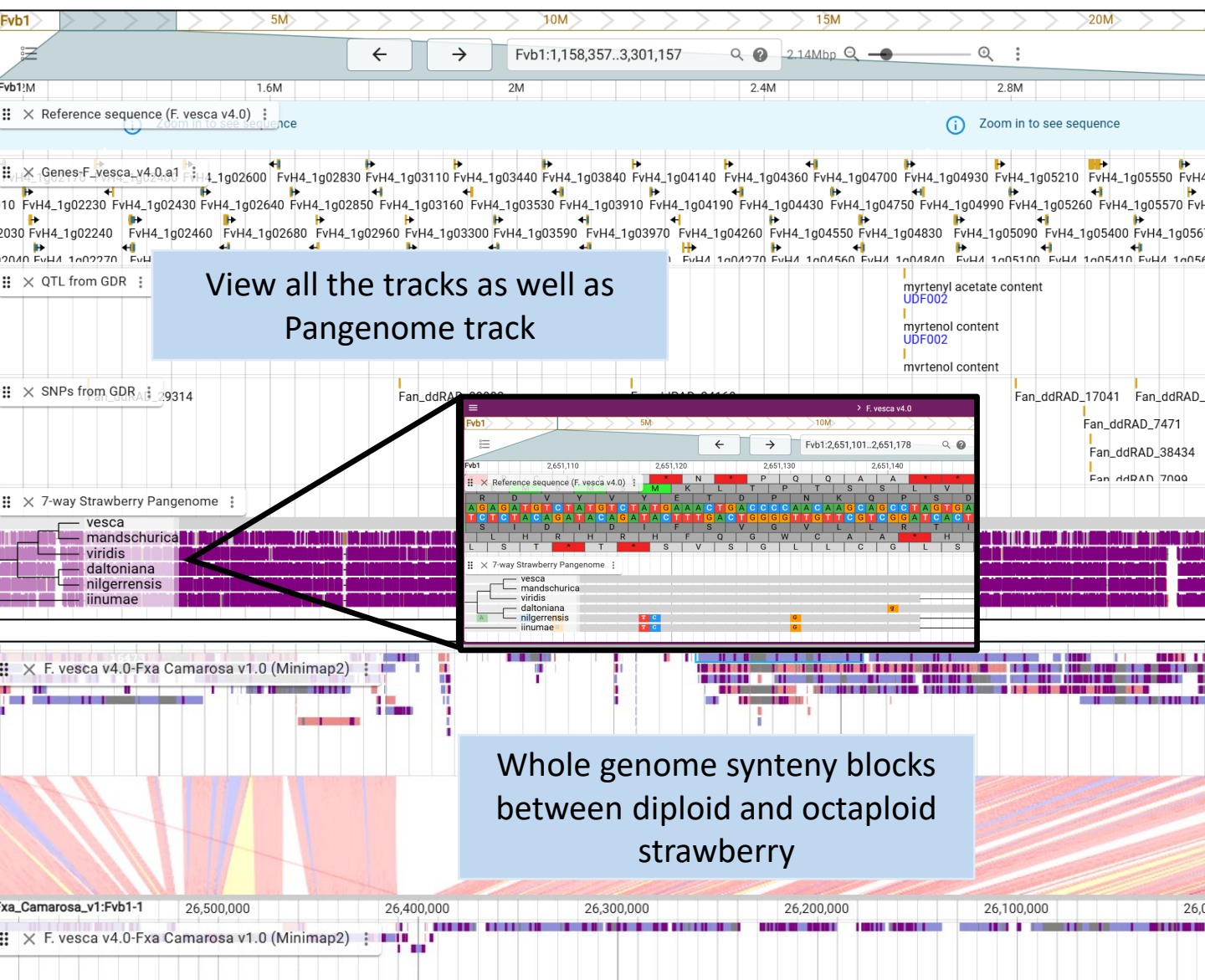
New BIMS Functionalities!

- The column 'block' added to accommodate flexible Field Design (also viewable in Field Book)
- Average trait values per accession from filtered datasets available

New BIMS tutorials available

- Explore recordings of webinars and concise training videos for BIMS/Field Book. Five additional [short training videos](#) are now available on the [BIMS manual page](#).

If you enjoyed exploring genome annotations with JBrowse, you'll love JBrowse2! This upgraded tool lets you visualize multiple genomes in a single session and display linear synteny tracks for two or more genomes. It also includes strawberry pangenome data (Qin et al., 2021) as a track. We're developing training materials to help you get started, and you can access JBrowse2 via the Tools menu under JBrowse. Start with a blank session using the link at the top of the page or select a genome name (in bold). JBrowse2 features two types of synteny analyses: Synteny – Genome Sequence Based: Results from Minimap2, comparing genome sequences at the nucleotide level and Synteny – Ortholog Based: Results from MCScan, analyzing gene positions and mRNA sequences."



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RosEXEC: Rosaceae Genomics, Genetics, and Breeding Executive Committee

www.rosaceae.org/community/us_rosexec

Greetings from RosEXEC (Rosaceae Genomics, Genetics, and Breeding Executive Committee), and happy spring! Our 2nd annual meeting was held on April 16th. Here's a summary of the key updates:

GDR Updates:

Since January, GDR has integrated four new genomes, including three *Fragaria* and one *Prunus*, into its resources. Additionally, data from 13 publications have been carefully curated and added to the database. The FruitBreedOmics genotype data is now accessible via GIGWA, a widely recognized, user-friendly web-based platform for managing and exploring large-scale genotyping data with intuitive filtering and visualization features. Updates to the Breeding Information Management System (BIMS) include new tools and training videos, with a survey indicating its adoption by 105 breeding programs. Discussions are ongoing regarding the responsible management of high-value datasets containing proprietary information. For instance, there is concern that genomic selection datasets from public breeding programs could be accessed and utilized by commercial entities without reciprocal contributions to the public programs. To address this, potential measures under consideration include restricting access to certain datasets for U.S.-based GDR users only or transitioning to an account-based system with Tripal 4 to enhance data privacy. Efforts are actively progressing to migrate GDR to the Tripal 4 platform.

GDR Sustainability:

Sustainability continues to be a critical focus for GDR, particularly given the uncertainty surrounding new grant funding opportunities in the future. Long-term support through appropriations remains an ongoing discussion and priority if feasible. RosExec members and the Rosaceae community are strongly encouraged to allocate budget support for GDR in their proposals. For more details on how to contribute, please visit <https://www.rosaceae.org/SupportGDRSustainability>.

RosEXEC Taskforces Updates:

The taskforces have reported no significant updates. However, the taskforce led by Jonathan Fresnedo Ramirez, focused on organizing Opportunity Statements and Presentations at the RGC, faces uncertainty, as RGC organizers have not yet confirmed available time slots for RosExec members to present. Additionally, the withdrawal of travel approval for USDA ARS conference attendees has further constrained the availability of presenters for the Opportunity Statements. Meanwhile, GDR will host a workshop on the first day of the RGC.

Upcoming Meetings:

- 12th Rosaceae Genomics Conference, May 6-9, 2025, Costa Brava, Spain. Several RosExec members attending.
- National Association of Plant Breeders Annual Meeting, May 19-23, 2025, in Kona, HI. The GDR team will hold a Breeding Information Management System (BIMS) pre-workshop conference on May 18, 9AM-3PM.
- ISHS CAMA (Controlled and Modified Atmosphere Research) Conference, May 19-22, 2025, Wenatchee, WA
- The ISHS Cherry Symposium, June 1-5, 2025, in Richland, WA.

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