

GENOME DATABASE FOR ROSACEAE



Resources for Rosaceae Research Discovery and Crop Improvement

2025

Welcome to the first 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!

We had an in-person meeting at PAG, but we had a formal online RosEXEC meeting on January 31st since most of RosEXEC members did not come to PAG. The summary of the first RosEXEC meeting of 2025 is available on page 3! Make sure to check it out to learn new things happening in Rosaceae Community!

How to contribute to GDR sustainability!

Following the recommendation of RosEXEC, we prepared a page with options for you to help sustain the resources provided by GDR. In short, we provided three options to contribute and what services you would get in return. Please view page 4 or visit [the GDR sustainability page](#) for more detail!

New Genome Data/Functional Analysis

- *New whole genome data are available for Prunus and Fragaria species!:*
 - [Fragaria chiloensis KIB CAS v2.0](#)
 - [Fragaria virginiana KIB CAS v2.0](#)
 - [Fragaria x ananassa EA78 KIB CAS e v1.0](#)
 - [Prunus mume Nanko v1.0](#)
 - [Prunus zhengheensis Whole v1.0 Genome](#)
- GDR Functional Analysis (InterProScan, Protein Homologies, and Synteny Analysis) added for the following genome:
 - [Malus angustifolia Genome v1.0](#)

GDR Outreach

- [Workshop and Presentations at PAG 2025](#)

New tutorials available

- A short tutorial, "[How to find orthologs and corresponding functional annotations](#)" (2:15 min) See [the manual page](#) or our [YouTube channel](#).
- For BIMS/Field Book, recordings of webinars and short training videos are available. Below are currently available [short training videos](#) accessible through [BIMS manual page](#).
 - How to create a BIMS account
 - How to create a breeding program in BIMS
 - How to add team members to your BIMS program
- See page 2 for more information on BIMS.

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

We have added new GWAS, QTL, map, marker, genotype, and phenotype data from **13 publications**: 7 from *Fragaria*, 3 from *Malus*, 1 from *Pyrus*, 1 from *Rosa*, and 1 from *Prunus*. Search data in [QTL/GWAS Search](#), [Marker Search](#), [MapViewer](#), [Search Trait Evaluation](#), [SSR Genotype Search](#) and [JBrowse](#).

You can view the curated list of papers in these two news items.

- [New GWAS, QTL, marker, and map data are available \(2/25\)](#)

New year, new breeding management system?

Are you managing a breeding program and tired of all the files that have accumulated? Do you struggle with reading scribbled phenotyping data as you type it into the computer? Well, we have solutions for you!

Now is the perfect time to transition to the [Breeding Information Management System \(BIMS\)](#) for managing all the program information and using the [Field Book Android App](#) for data collection. Don't know where to start, we can help with that!

In addition to a detailed user manual, we are also making a [series of short videos](#) to walk you through all the steps to use BIMS. You can check out [BIMS on GDR](#) and explore the publicly available data to see the basics of how it works.

Have questions or need help? Don't hesitate to [contact us](#)! We will assist you to resolve any issues and can also do training for your entire group. Field Book also has a [user manual](#) and support.

The image displays the BIMS web interface with a search filter for 'Fruit Set' and 'Fruit Weight'. Below it is a video playlist titled 'How to use BIMS' by MainLab Bioinformatics, featuring three videos: 'How to create a BIMS account', 'How to create a breeding program in BIMS', and 'How to add team members to your BIMS program'. To the right is the Field Book Android app interface showing a menu with options like Fields, Traits, Collect, Export, Settings, and About.

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Hello RosEXEC community. The first 2024 quarterly meeting of RosEXEC (Rosaceae Genomics Genetics and Breeding Executive Committee) took place virtually on January 31st, 2025. We also held a brief in-person meeting on January 12th, 2025 at the Plant and Animal Genome (PAG) Conference in San Diego. Here's is our report to the community:

New officers: Thank you, Jonathon, for doing a committed and excellent job as RosEXEC chair over the past year! Starting this January Per McCord is now serving as the chair for 2025. Chris Gottschalk is the new vice chair following a year serving as the secretary. In the coming weeks, RosEXEC members will be surveyed for volunteers to serve as the new secretary for 2025. Next RosEXEC meetings are planned to be scheduled for April 16, July 16, October 15, 2025. The intent is to have an in-person meeting in PAG in January 2026.

GDR Updates: Four new genomes were added to GDR during the last quarter: one *Purnus mume* and three octoploid *Fragaria*. In addition, new GWAS, QTL, Marker, map, and phenotype data have been collected from nine publications. Progress has also been made on receiving data from Breedbase and GRIN via BrAPI. [Breeder Genomics Hub](#) has been installed on the server for testing.

GDR Sustainability: RosEXEC has prepared a letter to encourage new projects by the Rosaceae community to contribute some support to GDR to promote its sustainability. The committee has also begun work on the development of a model of how this could be achieved besides the standard approach of listed GDR PIs as co-PIs on grants. For example, GDR can certify the FAIR-ability of the plan of the project for data production, stewarding, and sharing to make sure that the project is FAIR compliant in the eyes of agencies and journals. These efforts could be framed as a service to contribute to GDR's sustainability. The GDR team is preparing some examples of these and other services that can be posted to the website for researchers to add to their grant proposals.

RosEXEC Taskforces Updates: Progress has been made by the genomics taskforce to develop ideas around gene expression visualization tools and the latest work on classification of gene families. Crop ontologies has also made progress. Currently working on developing ontology terms for *Rubus*.

RGC12: Rosaceae Genomics Conference (RGC) is happening May 6-9th, 2025 in Costa Brava, SP. RosEXEC is working to organize a RosIGI meeting at RGC12, details to come. RosEXEC board has submitted opportunity statements to RGC12 conveners to organize sessions to discuss community-wide challenges (e.g. pangenomics, genotyping platforms). The conveners are willing to facilitate these discussions and are looking for physical space to accommodate.

NSF Grant for Early Career Researcher attendance at RGC12: [Call for applications](#) has been made. There is tentatively enough funding to support four early career scientists to have their expenses paid to attend RGC12 along with a one week visiting scientist program at two participating institutions.

Officer Contact Information: Per McCord (Chair): pmmcord@wsu.edu; Chris Gottschalk (Vice-chair): christopher.gottschalk@usda.gov

Support for GDR Sustainability

To help sustain the valuable resources provided by GDR, please consider the following ways to contribute: If you have any questions regarding this, please use the contact us form (support GDR category) or email GDR PI's Sook Jung or Dorrie Main.

Option1: Include Funding in Your Research Proposals

Allocate funds for a contract with WSU (only 8% overhead). This will help support GDR's ongoing efforts. Help we can provide includes:

- a) Ensuring your data is **FAIR** (Findable, Accessible, Interoperable, Reusable) during proposal planning.
- b) Providing a data management statement or plan for your proposal.
- c) Ensuring your data remains **FAIR** during data generation and submission for publication.
- d) Prioritizing making your data available in GDR at the time of publication.
- e) Feature your published data in the *News* section and the GDR quarterly newsletter.
- f) Providing annual GDR usage statistics for your published data to be included in your annual report.

Option 2: Collaborate with GDR on Large Projects or New Resources

If your research involves significant work for GDR — such as large community projects, new data types, or tools — consider including GDR PIs, Sook Jung or Dorrie Main, as co-principal investigators in your proposal. Please contact us to discuss. In addition to Option 1 (a-f), we will:

- a) Develop new resources to integrate and visualize your data as needed.

Option 3: Donations

If you are a scientist or breeder with access to non-grant funds, please consider donating to GDR. As a gift, this includes 5% overhead. We offer various levels of support for your research and breeding program.

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