

GDR Work Completed: Q4 2024 (10/01/24 – 12/31/24)

| Task | Description |
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| DATA | <ul style="list-style-type: none"> • 4 genome sequences added (prunus mume and 3 octoploid strawberry) • New GWAS, QTL, marker, map and phenotype data from 9 publications. |
| TOOLS/SYSTEMS | <ul style="list-style-type: none"> • BIMS: <ul style="list-style-type: none"> ○ Progress on receiving data from BreedBase and GRIN via BrAPI • Breeder Genomics Hub installed on our server for testing |
| OUTREACH | <ul style="list-style-type: none"> • Monthly community communication <ul style="list-style-type: none"> ▪ Dec: "Come see us at PAG Flyer" ▪ Nov: "Learn how how to find orthologs and corresponding functional annotations" Instructional video ▪ Oct: "https://www.rosaceae.org/sites/default/files/files/GDR_Newsletter_October_2024.pdf" • Publications <ul style="list-style-type: none"> ▪ Jung et al. 2024. Building Resource-Efficient Community Databases using Open-source Software. <i>Accepted</i> ▪ The BrAPI Consortium (2024). BrAPI v2 - A unified framework for data integration and collaboration for breeding and genetic resources. <i>Submitted</i> ▪ Bushakra et al. 2024. Development of Strawberry Crop Ontology. <i>Submitted</i> ▪ Itam et al 2024. Genetic architecture of key traits for Prunus crop improvement: an overview of 25 years of genetic and genomic research curated in the GDR. <i>In preparation</i> • Conferences <ul style="list-style-type: none"> ▪ Preparing for PAG 2025 – Database Workshop and other presentations. ▪ Database sustainability study – Dorrie with AgBioData ▪ SCRI project meetings (biweekly for crop postdocs and quarterly for all participants) ▪ Participated in monthly meetings of 5 groups relevant to GDR - (1) Tripal, (2) AgBioData Steering Committee (3) AgBioData Fair Scientific Literature WG, (4) AgBioData Pangenome WG (5) AgBioData Sustainability WG. ▪ In 2024, fourth quarter, GDR had 29,993 visits from 12,385 users, with 195,309 pages viewed. |

GDR Work Plan: Q1 2025 (01/01/25 – 3/31/25)

| Task | Description |
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| DATA | <ul style="list-style-type: none"> • Add new whole genome data, functional analysis and synteny analysis data. • Add methylation and expression data • Add genotype/phenotype/germplasm data as it becomes available. • Add SNP array, marker, map, QTL, and GWAS data as it becomes available. • Computational alignment of markers to genomes |
| TOOLS/SYSTEMS | <ul style="list-style-type: none"> • Continue updating our tools and search interfaces to comply with changes to our systems and GDR conversion to Tripal 4 • Make GIGWA available for genetic variation data |
| OUTREACH | <ul style="list-style-type: none"> • Monthly communication (quarterly newsletter and 2 short instructional videos) • BIMS short instructional videos ▪ GDR Quarterly Reports for RosEXEC ▪ Quarterly RosEXEC meeting ▪ PAG Presentations and DB workshop ▪ Group training as requested. ▪ Publications ▪ Itam et al 2024. Genetic architecture of key traits for Prunus crop improvement: an overview of 25 years of genetic and genomic research curated in the GDR. ▪ Participate in monthly meetings of 5 groups relevant to GDR - (1) Tripal, (2) AgBioData General (3) AgBioData Genotype to Phenotype WG, (4) AgBioData Pangenome WG (5) AgBioData Sustainability WG |