

Issue 6 | January 2023

What is GDV?

GDV is a centralized database for genomics, genetics, and breeding data and analysis tools for *Vaccinium* sp. Genome sequences are available to view and search and there is also information about genetic maps, molecular markers, and QTL. If you are a breeder who needs to manage a private breeding program data, access to the Breeding Information Management System (BIMS) can be requested through GDV. Visit us at <u>www.vaccinium.org</u> to see everything that is available. Each issue of the newsletter will focus on a different type of data and what features are available.

Reset

38 Map. Note: actual rows in downloaded file depend on the selected fields.

Data Type

Map

Updates to Genetic Data Resources

There have been a few improvements to the search interfaces for genetic data and MapViewer over the last few months.

Improved <u>Map Search</u> – Previously the map search was more of a filtering interface with only genus and species as the option, but now that we are using a MegaSearch interface users have numerous options on how to configure the search. Organism is still an option and the following have been added: map name, mapping population name, maternal parent name, paternal parent name, QTL labels, QTL traits, publication citation, and number of map LG and loci.

Map Search Interface

Query							Downloadable Fields								
Organism	Any Vaccinium corymbosum Vaccinium macrocarpon Vaccinium sp.					Refresh Count	 All Fields View CSV TSV Map Name Description Unit Type 								
Map Name	Any		~				✓ Organism								
Mapping	population						Population								
Population	contains	~					Maternal Paren	t							
Maternal F	Parent contains	~					Paternal Parent	1							
Paternal P	contains	~					 Number of LG Number of Loci Number of QTL 								
QTL			•				Publication								
— Publicatio		andable on fields					Selec ⁻ viewed/c	t what i downloa							

Improved MapViewer Features

We have made it easier to download corresponding marker information and compare maps. From the 'Tools' menu, select '<u>MapViewer</u>'. And then click on the 'View Correspondence Matrix and browse correspondences between genetic maps'. Two sets of pull-down menus appear, and you can select maps that have correspondences.

Once you click submit, a Correspondence Matrix appears with numbers that correspond to the number of corresponding markers between linkage groups. Clicking on the number opens the maps of the linkage groups so you can view them and download information on the corresponding markers and view a dot plot graph.

MapViewer Quick Start																	
MapViewer is a graphical tool for viewing and comparing genetic maps. It includes dynamically scrollable maps, correspondence matrices, dot plots, links to details about map features, and exporting functionality. It was developed by the MainLab at Washington State University and is available for download for use in other Tripal databases.																	
Select a map and start using MapViewer																	
View the Correspondence Matrix and browse correspondences between genetic maps																	
When the Submit button is clicked, a new correspondence matrix page will appear to allow browsing correspondence between two genetic maps or between all genetic maps in a species and one genetic map.																	
Species	Vaccinium macrocarp 🗸	Мар	Cranberry- <bb>BB/CQ-F1</bb>		~												
Compare T	Compare To																
Species	Vaccinium macrocarp Map Cranberry- <bb>BB/US893-F1</bb>				~	Su	ıbmit										
View the 0	View the Correspondence Matrix and browse correspondences between whole genomes an Cranberry- <bb>BB/US893-F1</bb>																
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SINP SOR	QIL.				l												

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