

GENOME DATABASE FOR VACCINIUM

Genomics, genetics, and breeding resources for blueberry, cranberry, bilberry, and lingonberry research

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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 www.vaccinium.org to see everything that is available. Each issue of the newsletter will focus on a different type of data and what features are available.

New Ortholog/Paralog Search

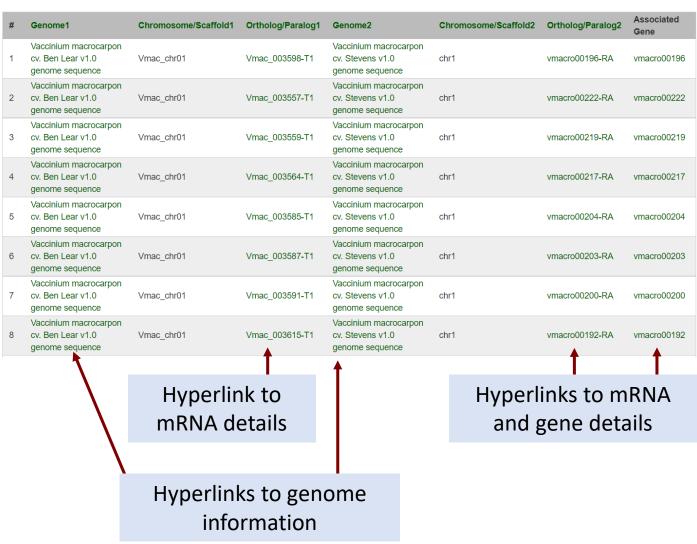
While ortholog and paralog data are stored in our database as part of the MCScanX synteny analysis are viewable in the Synteny Viewer tool, there was not a way to search that data directly. To remedy this, we have designed the new Ortholog/Paralog Search feature. See the diagram below for details on how to use it.

Remember that clicking on mRNA names opens the details page for that mRNA where you can see all the functional annotation details. Can't find your genome on the list in the new search? Only genomes that are within the Synteny Viewer are currently available. The missing genomes will be added soon. Please <u>contact us</u> with feedback.

Ortholog/Paralog Search		Select the first
Retrieve orthologs/paralogs that are detected using MCScanX (Wang et al. 2012) using default settings between different assemblies/annotations of the same species represents potentially the same genes. I used in the analysis and genes were used only when mRNAs are not available. The result table provide		genome and refine with a
Genome Chromosome/Scaffold	Vaccinium macrocarpon cv. Ben Lear v1.0 genome sequence Vmac_chr01 Vmac_chr01	chromosome or gene/mRNA name
Gene/Transcript Name	contains Choose File No	file chosen
Compare to Chromosome/Scaffold	Vaccinium darrowii clone NJ8810/NJ8807 v1.2 genome sequence Vaccinium darrowii clone NJ8810/NJ8807 v2.4 genome sequence Vaccinium macrocarpon cv. Ben Lear v1.0 genome sequence Vaccinium macrocarpon cv. Stevens v1.0 genome sequence	Refine more by selecting the second genome
Search Reset	Any	and chromosome

See the Page 2 for the results!

Ortholog/Paralog Search Results Link to download results as file Genome 2 Genome 1 information information 419 records were returned Download Table **Associated** Ortholog/Paralog2 Genome1 Chromosome/Scaffold1 Ortholog/Paralog1 Genome2 Chromosome/Scaffold2 Vaccinium macrocarpon Vaccinium macrocarpon



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