

**CMD**

cotton marker database

Newsletter July 2008

Welcome to the July 2008 issue of the CMD newsletter. This issue will cover the progress made by the CMD Development Team in the second quarter of 2008. Please feel free to provide feedback and news directly by email to Anna Blenda blenda@clermson.edu. A PDF version of the newsletter will be available on the CMD Downloads page.

CMD Work Summary (April 1 – June 30, 2008)

CMD name has been changed from Cotton Microsatellite Database to Cotton Marker Database.

I. New Data.

1. The CMap Viewer on CMD has been updated by adding several (5) new and old cotton genetic maps, with the total number of **10** maps available for comparative view:
 - 1) F2: G. hirsutum "Handan208" x G. barbadense "Pima90" 2005
 - 2) 1) F2: G. hirsutum "Handan208" x G. barbadense "Pima90" 2007
 - 3) BC1: [(G. hirsutum "TM-1" x G. barbadense "Hai7124") x "TM-1"] 2006
 - 4) BC2: (("Guazuncho2" (G. hirsutum) x "VH8-4602" (G. barbadense)) x "Guazuncho2") (data provided by J-M. Lacape and M. Ruiz)
 - 5) RIL: "TM-1" (G. hirsutum (AD1)) x "3-79" (G. barbadense (AD2)) 2006
2. RFPL-SSR project **PGML** (Andy Paterson's lab) was added to the CMD SSR projects. 312 mapped RFLP sequences containing SSRs can be searched computationally for SSRs using SSR Server and setting different parameters for SSR mining. PGML marker and sequence data have been also added to the Downloads page.
3. To initiate the addition of SNP markers to CMD, cotton ESTs from the NCBI dbEST database (May 27, 2008) were computationally searched for single nucleotide polymorphisms (eSNPs). To reduce redundancy and create longer transcripts, these ESTs were assembled into the unigene assemblies using the CAP3 program. The CAP3 assembly software was used with a stringency of -p 75.

AutoSNP software package was used to determine the type and frequency of single nucleotide polymorphisms in the unigene assemblies. The unigene assemblies were done for 5 *Gossypium* spp., as well as a combined unigene set. Total number of cotton ESTs searched for SNPs is **369,945**.

4. The publications page has been updated in the second quarter with **7** new relevant publications from the start of 2008, totaling 15 publications from the start of 2008, available for View and Search in CMD.
5. An About SNP webpage has been created for educational purposes. This page gives general information related to the development and application of SNP markers in genomics and breeding. The About SNP page currently contains 9 publications.
6. New section “Recent CMD Presentations” was added to the Downloads page. In this section the link “View all” directs CMD users to a separate page with the record of all meetings/conferences where CMD had been presented either as a workshop presentation or poster. This record also serves as a history of the CMD development and progress from 2004 till present.

II. Updated tools and searches.

1. The CMap Viewer was upgraded to the most current version 1.0. The newest version allows integration of the genetic and physical map data.
2. CMD Media WIKI has been installed on the developmental site. It will allow a more efficient collaboration for the CMD users.

III. CMD web usage report.

1. Data for the second quarter CMD web usage report is obtained by using Google Analytics (CMD development team visits filtered out):
 - 1,502 visits to the CMD site, (47% new visits, with average 16 visits/day; 8.5 pages per visit).
 - 12,848 page views total.
 - 772 absolutely unique visitors (average time spent by visitor on the CMD site is 6min 43 sec).
 - Visitors from 58 countries and 38 states in USA.
 - Top content pages: Home, Search by SSR, Search by Marker.

IV. On-going work.

1. Preparations are on-going to upload and display the first cotton SNP project data provided by Allen Van Deynze (UC Davis), on the CMD.

Conferences

[2008 ICGI Research Conference](#) was recently held in Anyang, China, July 8-11, 2008. CMD was presented by Don Jones (Cotton Inc.) in the Bioinformatics section.

[Plant and Animal Genome XVII Conference](#) to be held in San Diego, CA, January 10-14, 2009

- [International Cotton Genome Initiative ICGI Workshop](#) to be held at PAG on January 11, 2008, 3:50-6:00 pm

Subscriptions

Visit our mailing list to be added/removed to the available [CMD mailing list](#). Once you have registered you may use the mailing list to send out relevant information the community and it will be stored in searchable web archives. If you have any difficulties please [contact us](#).

CMD Newsletter

The next CMD Newsletter issue is tentatively scheduled for October 1, 2008.