

**CMD***cotton microsatellite database*

Newsletter Year 2006

Welcome to the Year 2006 issue of the CMD newsletter. This issue will cover the progress made by the CMD Development Team in 2006. Starting 2007 the CMD newsletter will be issued quarterly to inform cotton researchers about new or updated data and features in CMD, and community related news. Please feel free to provide feedback and news directly by email to Anna Blenda blenda@clemson.edu or Dorrie Main dorrie@wsu.edu. A PDF version of the newsletter will be available on the CMD Downloads page.

CMD Work Summary (Year 2006)

I. Presentations and Publications

1. CMD was presented by Anna Blenda at the PAG 2006 meeting in San Diego, CA
2. A CMD Advisory Board meeting was held in January 2006 at the PAG meeting in San Diego, CA.
3. CMD was published in *BMC Genomics*:
[Blenda A, Scheffler J, Scheffler B, Palmer M, Lacape JM, Yu JZ, Jesudurai C, Jung S Muthukumar S, Yellambalase P, Ficklin S, Staton M, Eshelman R, Ulloa M, Saha S, Burr B, Liu S, Zhang T, Fang D, Pepper A, Kumpatla S, Jacobs J, Tomkins J, Cantrell I R, Main D. 2006. CMD: A Cotton Microsatellite Database Resource for Gossypium Genomics. BMC Genomics 7: 132.](#)
4. A CMD Advisory Board phone conference was held on August 21 2006.
5. CMD was presented by Roy Cantrell at ICGI Research conference held on September 18-20 2006, Brasilia, Brazil.

II. New Data.

1. Additional data was provided by Mauricio Ulloa for the MUSB project (1316 SSRs) and by John Yu for the TMB project (750 SSRs total). The data was organized, curated, and displayed through the individual project websites and the overall download page.

2. Data was obtained for a new project STV (192 EST-SSRs). 150 STVs were screened against the CMD standardized panel and data presented by Jodi Scheffler. The data was organized, curated, and displayed through the individual project websites and overall downloads page.
3. Data was provided by Xianlong Zhang for the new project HAU (119 EST-SSRs). The data was organized, curated, and displayed through individual project websites and overall download page.
4. During 2006, the total number of cotton SSRs currently displayed through CMD increased from 3,610 to 5,795.
5. New information for the mapped cotton SSRs was provided by David Fang for the cross BC1:[(G. hirsutum TM-1 x G. barbadense Hai7124) x G. hirsutum] and displayed in the CMD CMap Viewer and as Mapped data in the Downloads section.
6. In 2006 the publications and Community pages were updated with 16 new relevant publications.

III. Updated tools and searches.

1. The databases of cotton SSR-containing sequences used for FASTA and BLAST search servers were updated to reflect the current cotton SSR-containing sequences (5794). The number of SSR-containing sequences in CMD database is 5,794, since we were not able to find the sequence for CM161 (was never submitted to the GenBank). Users can search all the SSR sequences or individual projects. Primer sequences will be available to search soon.
2. The SSR Server was integrated with the Primer3 software and the excel spreadsheet output modified to include primer pairs for each microsatellite. The raw Primer3 output is also included providing researchers with access to alternative primer pairs.
3. A homology search was performed for all 5,794 cotton SSR-containing sequences (except CM161) against the GenBank non-redundant protein database, Swiss-Prot database and Arabidopsis protein database. Updated December 2006 the results for all 3 searches are available in Homology Data on the Downloads page.
4. The View and Search functions were updated for SSR, Marker and Homology data to reflect the currently available SSRs. View Homology and search Homology pages contain results from the search against the NCBI non-redundant protein database.

IV. On-going work.

1. A primer redundancy analysis is being performed for all primer pairs displayed on CMD and will be available following discussions at the PAG advisory board meeting.
2. Preparations are on-going for visual display of original chromatograms with the CMD standardized panel screened data.

3. Initial research was performed to investigate the possibility of including cotton SNPs into the CMD. More detailed discussions will be held during CMD Advisory Board meeting at PAG on January 13, 2007, 4:00-6:00 pm, Esquire Room.
4. Preparations are on-going for presentation of CMD at the PAG meeting January 12-18, 2007, San Diego, CA. CMD will be presented at the ICGI poster session.

Community News

Dr. David Stelly officially (TAMU) joined the CMD Advisory Board.

Funding

1. In 2007 Cotton Incorporated will continue to fund CMD.

Conferences

1. [2007 Beltwide Cotton Conferences](#) to be held in New Orleans, LA, January 9-12, 2007.
2. [Plant and Animal Genome XV Conference](#) to be held in San Diego, CA, January 13-17, 2007.
 - a. The CMD Advisory Board meeting to be held at PAG on January 13, 2007, 4:00-6:00 pm, in the Esquire room
 - b. Bayer [BioScience](#) invites cotton genome researchers to the presentation and discussion of the Cotton Genome Sequence White Paper at PAG on January 13, 2007, starting 6:30 pm.
 - c. The International Cotton Genome Initiative ICGI Workshop to be held at PAG on January 14, 2007, 3:35-5:45 pm, in the Pacific Salon 3 room

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 April 1, 2007