Wheat genomic data in GnpIS the URGI Information System

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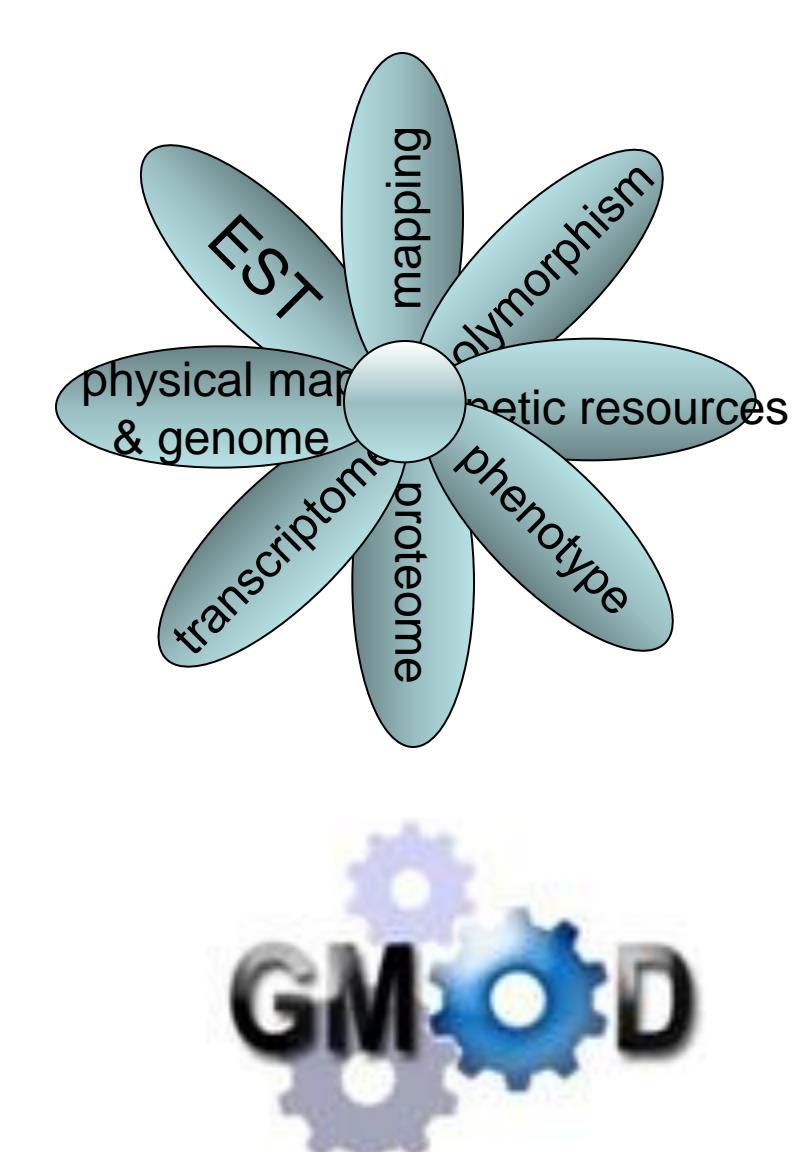michael.alaux@versailles.inra.fr

Abstract:

URGI is an INRA bioinformatics unit dedicated to plants and pest genomics. We develop and maintain a genomic and genetic information system called GnpIS, for plants of agronomical interest and their bioaggressors.

GnpIS is composed of multiples modules which contain wheat data:
- GnpGenome with the physical mapping of the 3B chromosome and some genomic annotation data using GMOD GBrowse viewer
- GnpMap with genetic mapping data: ITMI, ARE, RER, Neighbour, ReCs, SODs, WuMa, RLAc, SupBW, DEL, Ditelo, NulliTetra maps
- GnpSNP with polymorphism data
- GnpSeq with EST data
- SIReGal with genetic resources data

We present the links between all these kinds of wheat data inside GnpIS.

We describe more precisely the 3B physical map viewer with contigs, markers, BACs, deletion bins data and the link to the new wheat 3B BAC annotation viewer.
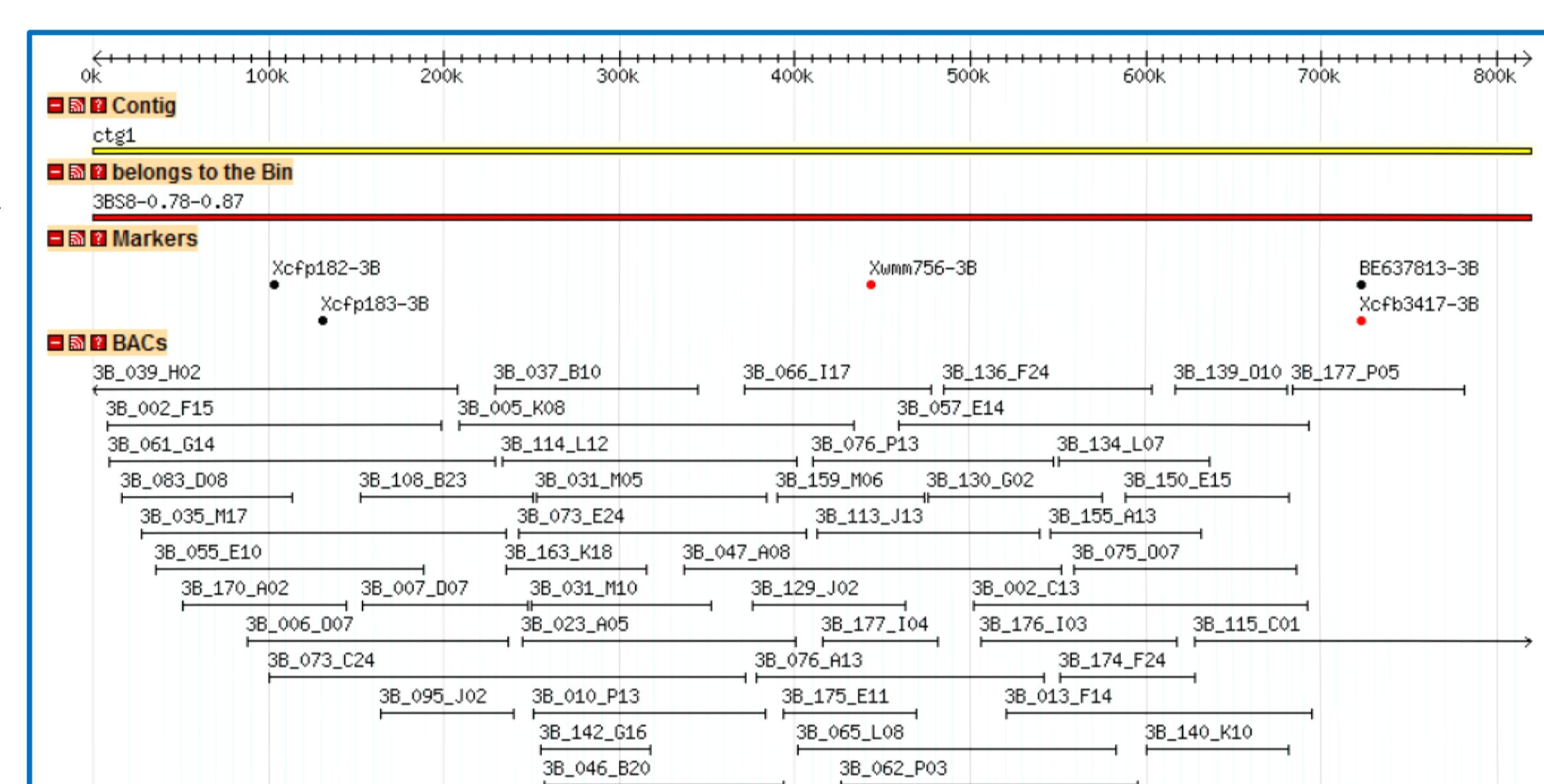
GnpGenome

http://urgi.versailles.inra.fr/data/gnpGenome/run.php

Wheat 3B FPC physical map

http://urgi.versailles.inra.fr/cgi-bin/gbrowse/wheat_FPC_pub/

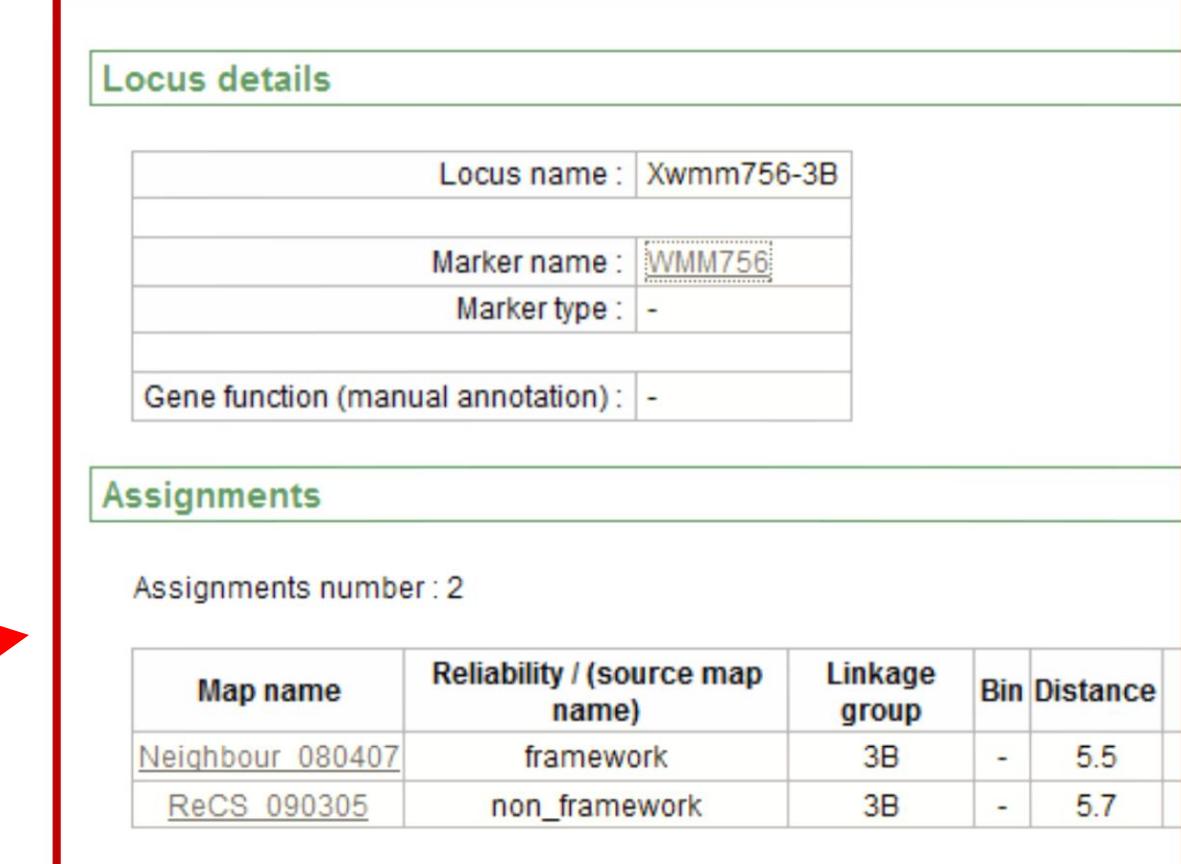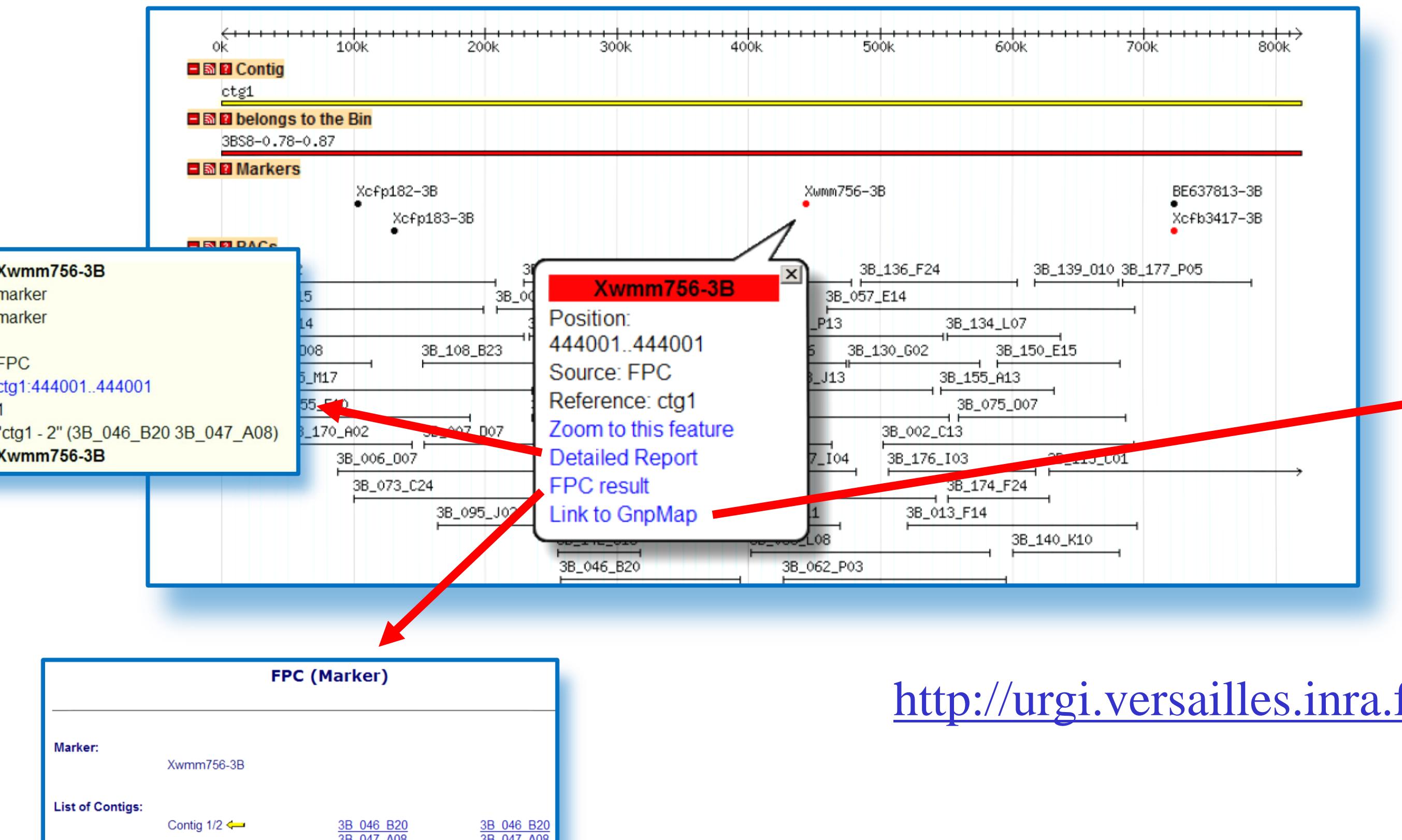Contig
Deletion bin
Markers
BACs

Wheat 3B deletion bins

http://urgi.versailles.inra.fr/projects/Triticum/deletionBin.php

1) Markers in red have additionnal details in GnpMap

2) Contig or BAC in green are annotated

GnpMap

http://urgi.versailles.inra.fr/GnpMap/mapping/welcome.do
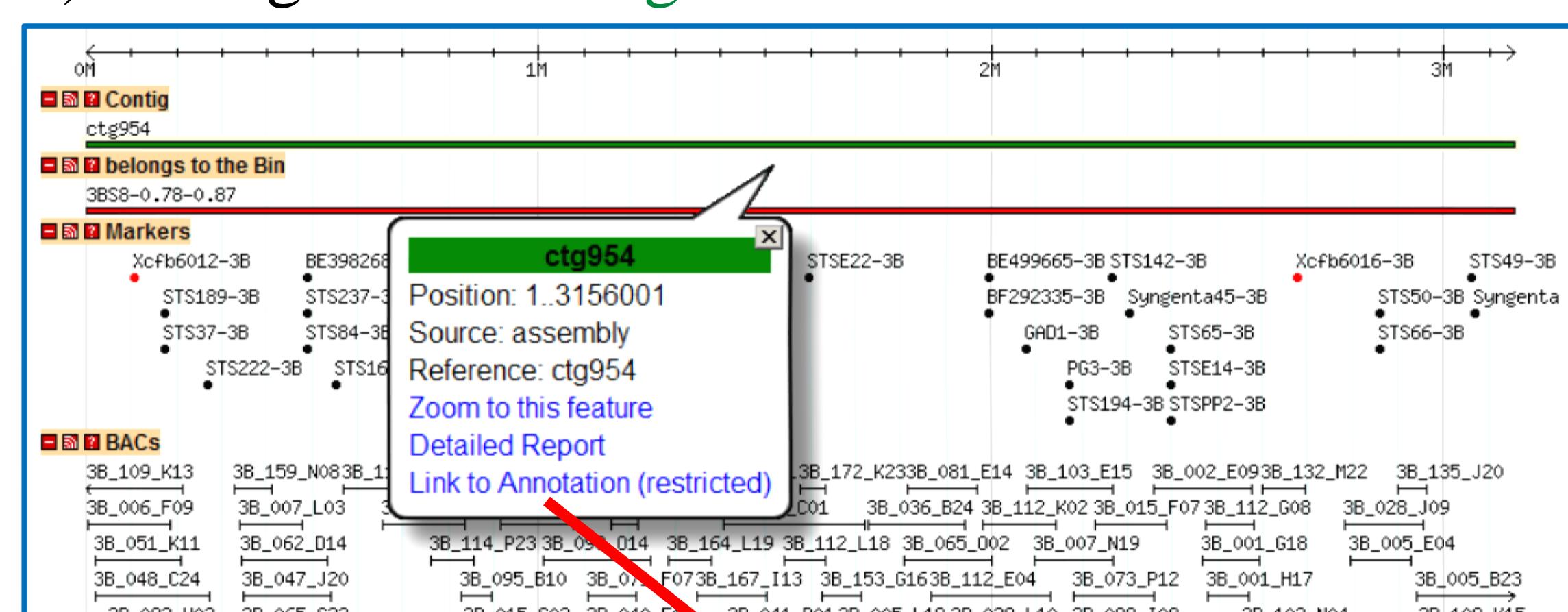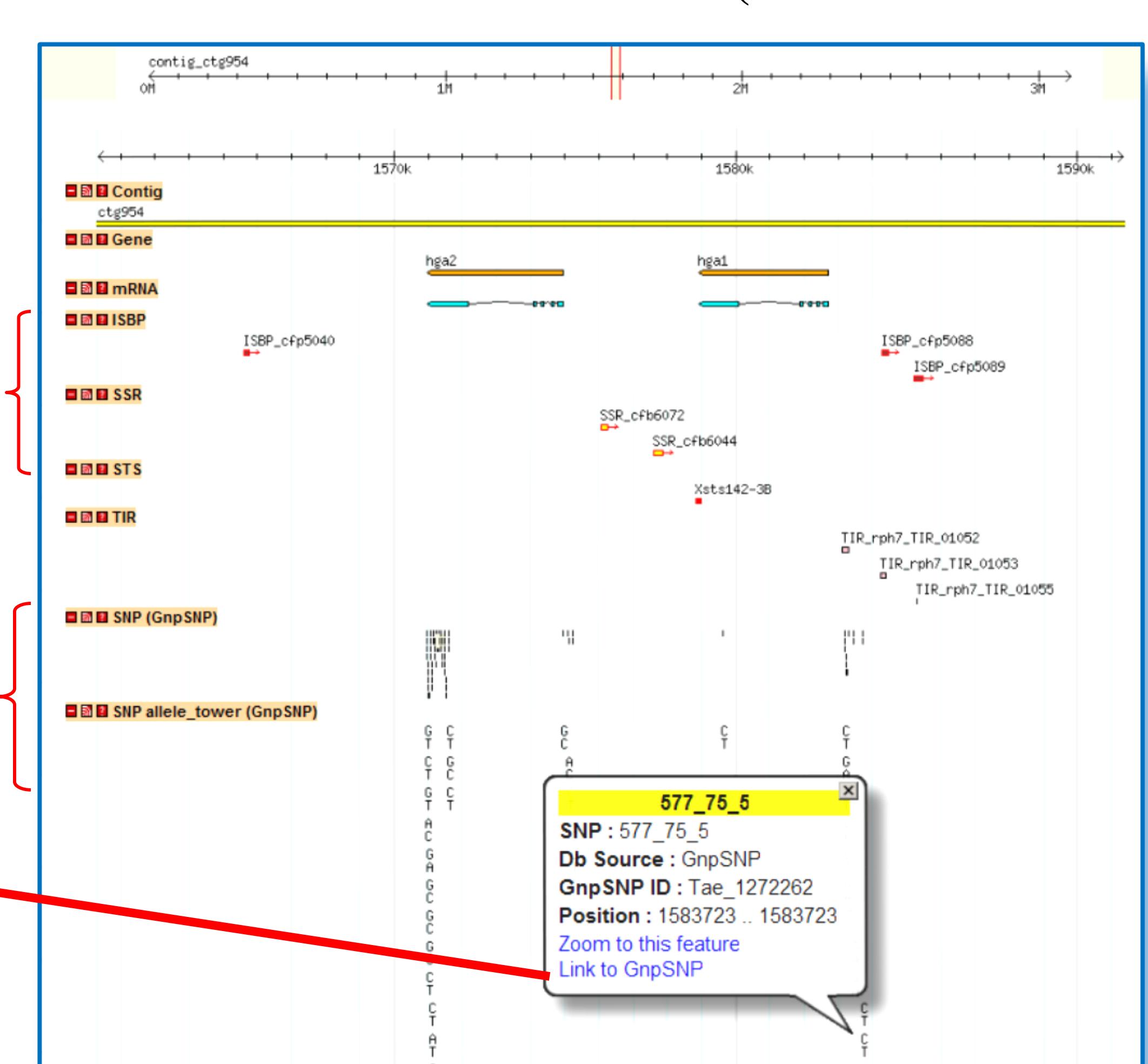
- ✓ 16 wheat genetic maps :
  ARE, AXO, CtCs, ITMI, RER, Neighbour, RLAc, ReCS, SODs, SumStoa,SupBW,TXO,TaVirtualPop, WuMa...
- ✓ 3 wheat cytogenetic maps:
  DEL, Ditelo, NulliTetra.
- ✓ more than 10 000 wheat markers
- ✓ more than 500 wheat QTLs

SIReGal

http://urgi.versailles.inra.fr/siregal/siregal/welcome.do

Wheat 3B BAC annotation (restricted access)

Contig
Gene / mRNA
Markers
Repeats
SNP

GnpSNP

http://urgi.versailles.inra.fr/GnpSNP/snp/welcome.do