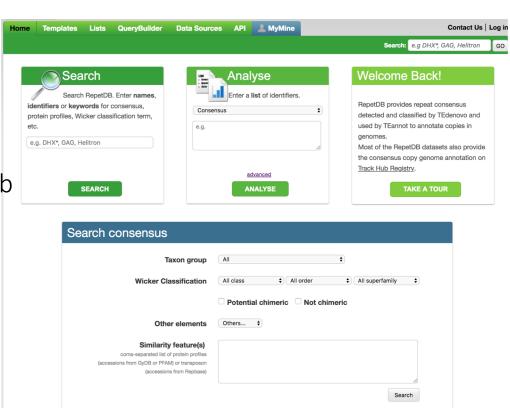


## Search copies of a consensus located in a genome region

https://urgi.versailles.inra.fr/repetdb

Amselem J, et al. RepetDB: a unified resource for transposable element references. Mobile DNA. 2019;10:6.





### Search all the TE copies located in a genome region

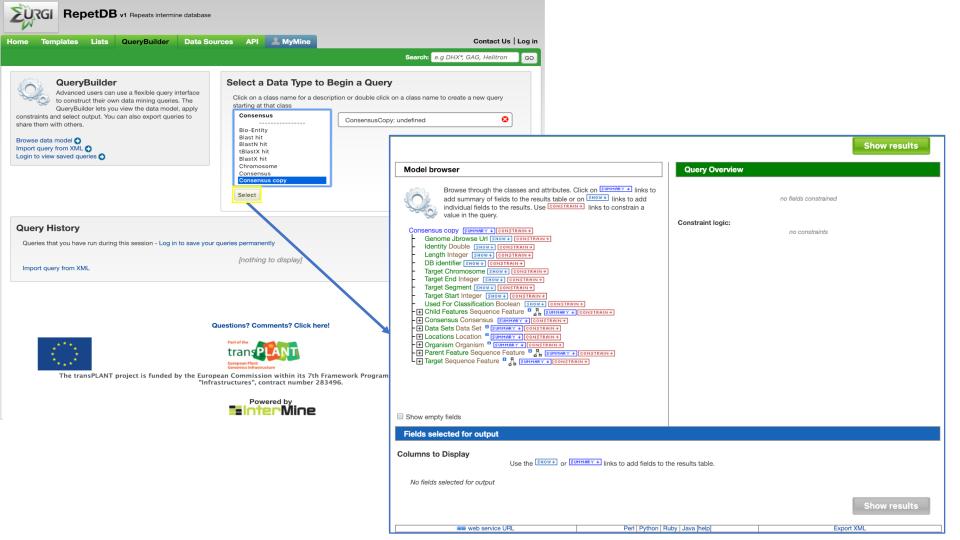
Request: Search all the TE copies located in a genome region

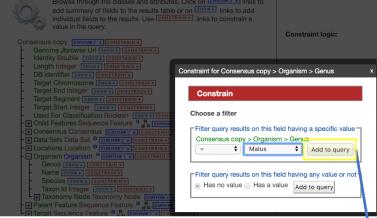
- Get All the copies corresponding to:

Genome genus = "Malus"

Region= Chr4: 13000000..15000000

- Display the copies coordinates, the consensus classification and identifier



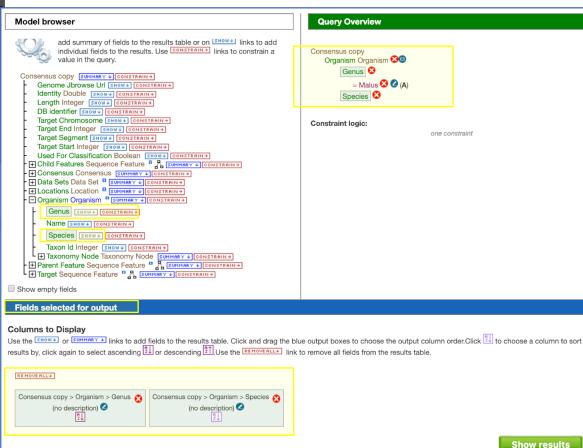


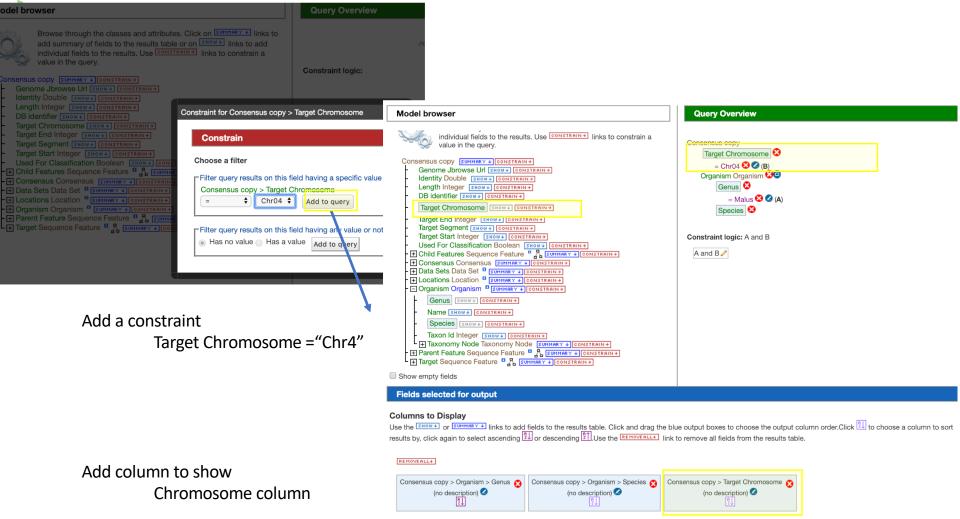
Model browser

Add a constraint

Organism genus = "Malus"

Add columns to show genus species

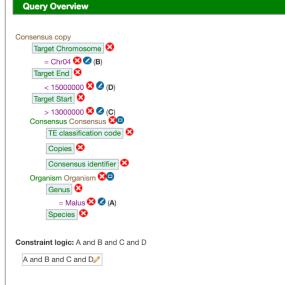






Add constraints on Chromosome target location Target start > 13000000 Target end <15000000

#### Consensus copy SUMMARY + CONSTRAIN + Genome Jbrowse Url SHOW → CONSTRAIN → Identity Double SHOW + CONSTRAIN + Length Integer SHOW+ CONSTRAIN+ DB identifier SHOW + CONSTRAIN + Target Chromosome SHOW + CONSTRAIN + Target End Integer SHOW → CONSTRAIN → Target Segment SHOW → CONSTRAIN → Target Start Integer SHOW + CONSTRAIN + Used For Classification Boolean SHOW → CONSTRAIN → + Child Features Sequence Feature B R SUMMARY + CONSTRAIN → - Consensus Consensus SUMMARY → CONSTRAIN → TE classification code SHOW + CONSTRAIN + Copies Integer SHOW + CONSTRAIN + Cumulative genome coverage Integer SHOW → CONSTRAIN → Fragments Integer SHOW + CONSTRAIN + Full-length copies Integer SHOW → CONSTRAIN → Full-length fragments Integer SHOW → CONSTRAIN → Length Integer SHOW → CONSTRAIN → Miscellaneous classification SHOW ◆ CONSTRAIN → Potential Chimeric Boolean SHOW+ CONSTRAIN+ Consensus identifier SHOW → CONSTRAIN → - + Classification Wicker Classif Term | SUMMARY + CONSTRAIN+ Show empty fields



#### Fields selected for output

#### Columns to Display

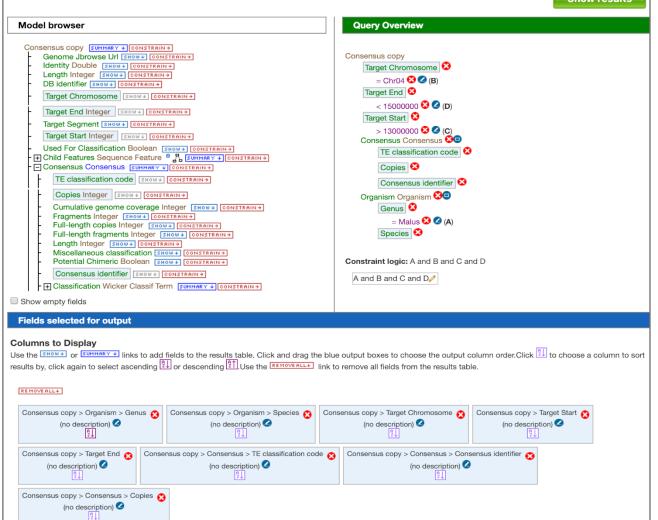
Model browser

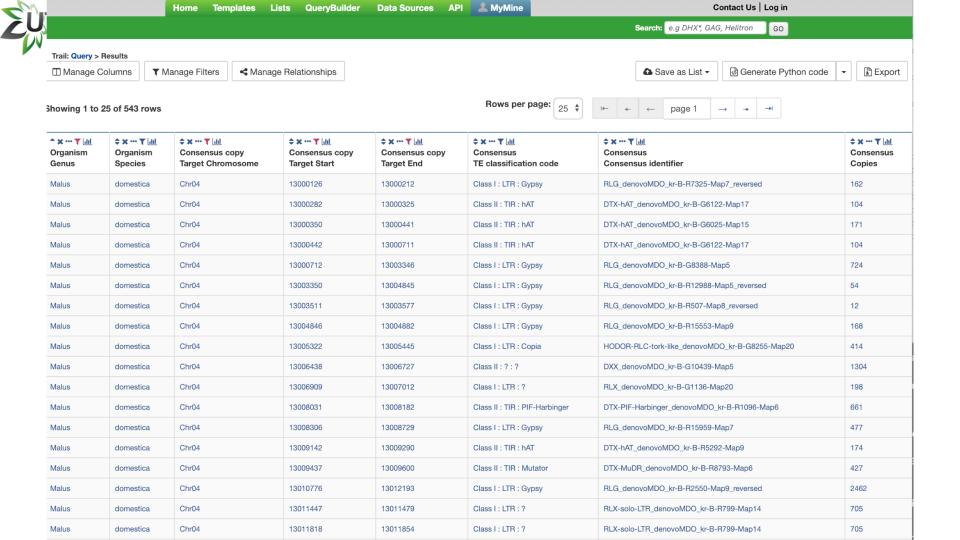
Use the SHOW+) or SWITHRRY+ links to add fields to the results table. Click and drag the blue output boxes to choose the output column order. Click to choose a column to sort results by, click again to select ascending Use the REHOVEALL+ link to remove all fields from the results table.

# Add column to show Target start Target end TE classification code Consensus identifier Total number of genome copies

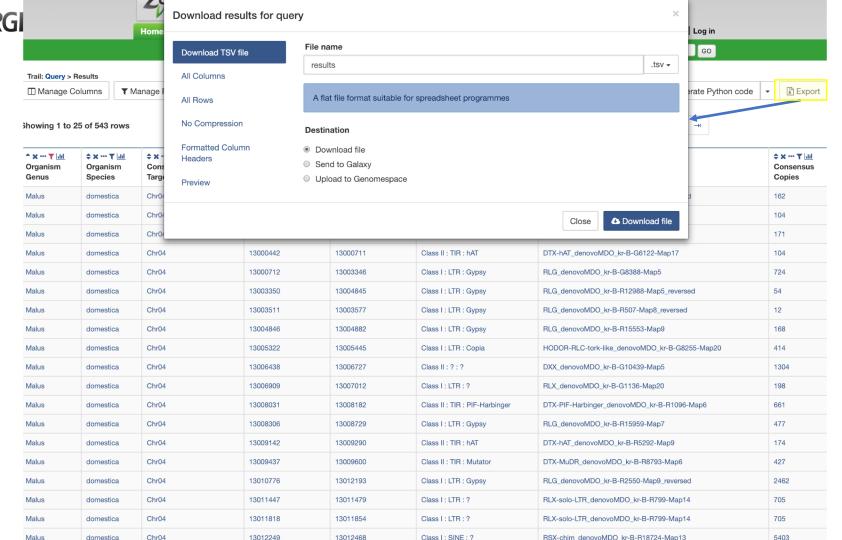
```
Consensus copy > Organism > Genus 👩
                                       Consensus copy > Organism > Species 👩
                                                                               Consensus copy > Target Chromosome 👩
                                                                                                                        Consensus copy > Target Start (5)
          (no description)
                                                  (no description)
                                                                                          (no description)
                                                                                                                               (no description)
                                                                                     Consensus copy > Consensus > Consensus identifier 👩
Consensus copy > Target End 👩
                               Consensus copy > Consensus > TE classification code 👩
      (no description)
                                                 (no description)
                                                                                                      (no description)
Consensus copy > Consensus > Copies 👩
          (no description)
```













Malus

domestica

Chr04

13033327

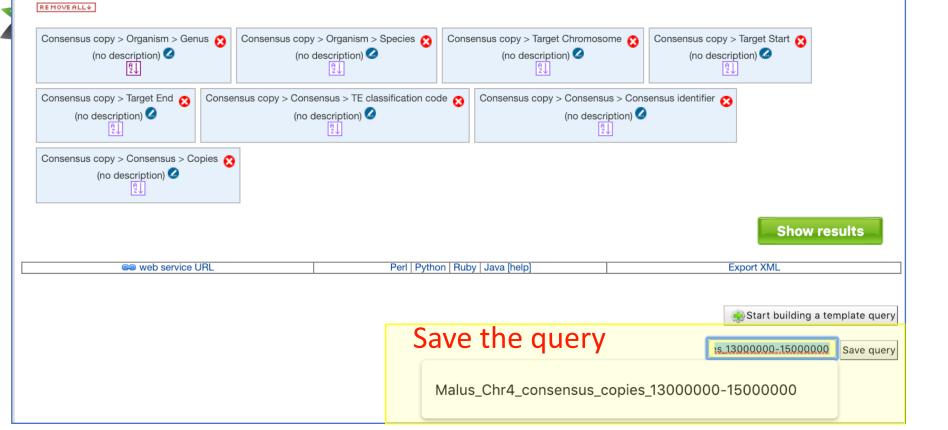
13033391

#### results.tsv

```
Consensus copy > Organism > Genus
                                        Consensus copy > Organism > Species
                                                                                  Consensus copy > Target Chromosome
                                                                                                                           Consensus copy > Target Start
                                                                                                                                                            Consensus copy >
Target End
                Consensus copy > Consensus > TE classification code
                                                                          Consensus copy > Consensus > Consensus identifier
                                                                                                                                   Consensus copy > Consensus > Copies
Malus
        domestica
                        Chr04
                                13000126
                                                 13000212
                                                                 Class I: LTR: Gypsy
                                                                                          RLG_denovoMDO_kr-B-R7325-Map7_reversed
                                                                                                                                   162
                                                                                          DTX-hAT denovoMD0 kr-B-G6122-Map17
Malus
        domestica
                        Chr04
                                13000282
                                                 13000325
                                                                 Class II : TIR : hAT
                                                                                                                                   104
                                13000350
                                                                                          DTX-hAT_denovoMD0_kr-B-G6025-Map15
Malus
        domestica
                        Chr04
                                                 13000441
                                                                 Class II : TIR : hAT
                                                                                                                                   171
                                13000442
                                                 13000711
                                                                 Class II: TIR: hAT
                                                                                          DTX-hAT denovoMD0 kr-B-G6122-Map17
                                                                                                                                   104
Malus
        domestica
                        Chr04
Malus
        domestica
                        Chr04
                                13000712
                                                 13003346
                                                                 Class I: LTR: Gypsy
                                                                                          RLG denovoMD0 kr-B-G8388-Map5
Malus
        domestica
                        Chr04
                                13003350
                                                 13004845
                                                                 Class I : LTR : Gypsy
                                                                                          RLG denovoMDO kr-B-R12988-Map5 reversed 54
Malus
        domestica
                        Chr04
                                13003511
                                                 13003577
                                                                 Class I : LTR : Gypsy
                                                                                          RLG_denovoMDO_kr-B-R507-Map8_reversed
Malus
        domestica
                        Chr04
                                13004846
                                                 13004882
                                                                 Class I : LTR : Gypsy
                                                                                          RLG denovoMDO kr-B-R15553-Map9 168
Malus
        domestica
                        Chr04
                                13005322
                                                 13005445
                                                                 Class I : LTR : Copia
                                                                                          HODOR-RLC-tork-like denovoMDO kr-B-G8255-Map20
Malus
        domestica
                        Chr04
                                13006438
                                                 13006727
                                                                 Class II: ?:?
                                                                                          DXX_denovoMD0_kr-B-G10439-Map5 1304
Malus
        domestica
                        Chr04
                                13006909
                                                 13007012
                                                                 Class I : LTR : ?
                                                                                          RLX denovoMD0 kr-B-G1136-Map20 198
                                13008031
                                                 13008182
                                                                 Class II : TIR : PIF-Harbinger DTX-PIF-Harbinger_denovoMDO_kr-B-R1096-Map6
                                                                                                                                                    661
Malus
        domestica
                        Chr04
Malus
        domestica
                        Chr04
                                13008306
                                                 13008729
                                                                 Class I : LTR : Gvpsv
                                                                                          RLG denovoMD0 kr-B-R15959-Map7 477
                                13009142
                                                 13009290
Malus
        domestica
                        Chr04
                                                                 Class II : TIR : hAT
                                                                                          DTX-hAT_denovoMD0_kr-B-R5292-Map9
                                                                                                                                   174
                                                                                                                                            427
Malus
        domestica
                        Chr04
                                13009437
                                                 13009600
                                                                 Class II : TIR : Mutator
                                                                                                  DTX-MuDR denovoMD0 kr-B-R8793-Map6
Malus
        domestica
                        Chr04
                                13010776
                                                 13012193
                                                                 Class I : LTR : Gypsy
                                                                                          RLG_denovoMDO_kr-B-R2550-Map9_reversed
                                                                                                                                   2462
Malus
        domestica
                        Chr04
                                13011447
                                                 13011479
                                                                 Class I : LTR : ?
                                                                                          RLX-solo-LTR denovoMD0 kr-B-R799-Map14
                                                                                                                                   705
Malus
        domestica
                        Chr04
                                13011818
                                                 13011854
                                                                 Class I : LTR : ?
                                                                                          RLX-solo-LTR_denovoMD0_kr-B-R799-Map14
                                                                                                                                   705
Malus
        domestica
                        Chr04
                                13012249
                                                 13012468
                                                                 Class I : SINE : ?
                                                                                          RSX-chim denovoMD0 kr-B-R18724-Map13
                                                                                                                                   5403
Malus
        domestica
                        Chr04
                                13015880
                                                 13015964
                                                                          PHG_denovoMDO_kr-B-R15757-Map5 624
                                13015976
                                                                 Class II : TIR : Mutator
                                                                                                                                            546
Malus
        domestica
                        Chr04
                                                 13016083
                                                                                                  DTX-MuDR denovoMD0 kr-B-R6665-Map5
Malus
        domestica
                        Chr04
                                13016213
                                                 13018386
                                                                 Class I : LTR : Gypsy
                                                                                          RLG denovoMDO kr-B-R2115-Map14 reversed 418
        domestica
                                13018387
                                                 13018976
                                                                                          RLG denovoMD0 kr-B-G1880-Map5
Malus
                        Chr04
                                                                 Class I : LTR : Gypsy
Malus
        domestica
                        Chr04
                                13019040
                                                 13019070
                                                                 Class I : LTR : Gvpsv
                                                                                          RLG denovoMD0 kr-B-R2156-Map20 346
                                13019071
                                                 13022351
                                                                 Class I: LTR: Gypsy
                                                                                          RLG_denovoMDO_kr-B-G8309-Map6_reversed
Malus
        domestica
                        Chr04
                                13022352
Malus
        domestica
                        Chr04
                                                 13024607
                                                                 Class I : LTR : Gvpsv
                                                                                          RLG denovoMD0 kr-B-R2156-Map20
        domestica
                                13024637
                                                 13025005
                                                                 Class I: LTR: Gypsy
                                                                                          RLG_denovoMDO_kr-B-G5089-Map5
Malus
                        Chr04
Malus
        domestica
                        Chr04
                                13025006
                                                 13026050
                                                                 Class I : LTR : ?
                                                                                          RLX denovoMD0 kr-B-R24618-Map8 42
Malus
        domestica
                        Chr04
                                13026066
                                                 13027459
                                                                 Class I: LTR: Gypsy
                                                                                          RLG_denovoMDO_kr-B-R2115-Map14_reversed 418
                                                                                                  DTX-MuDR_denovoMD0_kr-B-R6665-Map5
Malus
        domestica
                        Chr04
                                13027631
                                                 13027752
                                                                 Class II : TIR : Mutator
                                                                                                                                            546
        domestica
                        Chr04
                                13027767
                                                 13027898
                                                                 Class I : LTR : ?
                                                                                          RLX denovoMD0 kr-B-R14839-Map5 931
Malus
                                13028077
                                                 13028190
                                                                 Class II: TIR: Mutator
                                                                                                  DTX-MuDR denovoMD0 kr-B-R6665-Map5
                                                                                                                                            546
Malus
        domestica
                        Chr04
        domestica
                        Chr04
                                13028487
                                                 13028621
                                                                 Class II : TIR : Mutator
                                                                                                  DTX-MuDR denovoMD0 kr-B-R6665-Map5
                                                                                                                                            546
Malus
                                13028958
Malus
        domestica
                        Chr04
                                                 13029823
                                                                 Class II : TIR : hAT
                                                                                          DTX-hAT_denovoMD0_kr-B-G2078-Map20
                                                                                                                                   257
                                                 13031717
Malus
        domestica
                        Chr04
                                13030040
                                                                 Class I : LTR : Gypsy
                                                                                          RLG_denovoMDO_kr-B-G7816-Map7
                        Chr04
                                13030289
                                                 13030467
                                                                 Class I: LTR: Gypsy
                                                                                          RLG denovoMD0 kr-B-P166.84-Map20 reversed
                                                                                                                                            108
Malus
        domestica
                                                                                          RLG_denovoMDO_kr-B-G4335-Map6_reversed 118
Malus
        domestica
                        Chr04
                                13030811
                                                 13031109
                                                                 Class I : LTR : Gvpsv
```

RLC\_denovoMD0\_kr-B-G8285-Map10\_reversed 43

Class I : LTR : Copia





<query name="Malus\_Chr4\_consensus\_copies\_13000000-15000000" model="genomic" view="ConsensusCopy.organism.genus ConsensusCopy.organism.species
ConsensusCopy.targetChromosome ConsensusCopy.targetStart ConsensusCopy.targetEnd ConsensusCopy.consensus.classificationCode
ConsensusCopy.consensus.primaryIdentifier ConsensusCopy.consensus.copies" longDescription="" sortOrder="ConsensusCopy.organism.genus asc" constraintLogic="A
and B and C and D">



Trail: Query > Results

^ × ··· ▼ [dil

Organism

Genus

Malus

Showing 1 to 25 of 543 rows

#### Generated Python Code for Query Home

Python -

Show

Syntax

comments

Highlight

from intermine.webservice import Service service = Service("http://urgi.versailles.inra.fr//repetdb/service") query = service.new\_query("ConsensusCopy") query.add\_view( "organism.genus", "organism.species", "targetChromosome", "targetStart", "targetEnd", "consensus.classificationCode", "consensus.primaryIdentifier", "consensus.copies" query.add\_constraint("organism.genus", "=", "Malus", code = "A") query.add\_constraint("targetChromosome", "=", "Chr04", code = "B") query.add\_constraint("targetStart", ">", "13000000", code = "C") query.add\_constraint("targetEnd", "<", "15000000", code = "D")</pre> for row in query.rows(): print row["organism.genus"], row["organism.species"], row["targetChromosome"], \ row["targetStart"], row["targetEnd"], row["consensus.classificationCode"], \ row["consensus.primaryIdentifier"], row["consensus.copies"]

Class I: LTR: Gypsy

Class II: TIR: hAT

Class II: TIR: Mutator

Class I: LTR: Gvpsv

Class I: LTR:?

Class I: LTR:?

erate Python code Export  $\rightarrow$ I **♦ × ··· ▼** laid Consensus Copies 162 104 171 104 724 RLG\_denovoMDO\_kr-B-R12988-Map5\_reversed 54 12 168 414 1304

◆ x ··· ▼ lill Organism Species	
domestica	Chr04

Chr04

Chr04

Chr04

Chr04

Chr04 Chr04

Chr04

Chr04

Chr04

domestica

domestica

domestica

domestica

domestica

domestica

domestica

domestica

domestica

**▼** Manage

13006909

13008031

13008306

13009142

13009437

13010776

13011447

13011818

Class I : LTR : Gypsy 13004845 13003577 13004882 13005445 13006727 Class II: ?:? Class I: LTR:? 13007012 13008182

13008729

13009290

13009600

13012193

13011479

13011854

Class I: LTR: Gypsy Class I: LTR: Gypsy Class I: LTR: Copia Class II: TIR: PIF-Harbinger

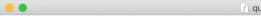
RLG denovoMDO kr-B-R507-Map8 reversed RLG denovoMDO kr-B-R15553-Map9 HODOR-RLC-tork-like denovoMDO kr-B-G8255-Map20 DXX\_denovoMDO\_kr-B-G10439-Map5 198 RLX denovoMDO kr-B-G1136-Map20 661 DTX-PIF-Harbinger\_denovoMDO\_kr-B-R1096-Map6 RLG denovoMDO kr-B-R15959-Map7 477 DTX-hAT denovoMDO kr-B-R5292-Map9 174 DTX-MuDR denovoMDO kr-B-R8793-Map6 427 RLG denovoMDO kr-B-R2550-Map9 reversed 2462 RLX-solo-LTR\_denovoMDO\_kr-B-R799-Map14 705 RLX-solo-LTR denovoMDO kr-B-R799-Map14 705

Save

Close

×

Log in GO



```
7 query.py
器 〈 〉 puery.py 〉 No Selection
  1 #!/usr/bin/env python
     # This is an automatically generated script to run your query
   4 # to use it you will require the intermine python client.
   5 # To install the client, run the following command from a terminal:
            sudo easy_install intermine
   8
     # For further documentation you can visit:
           http://intermine.readthedocs.org/en/latest/web-services/
  11
     # The following two lines will be needed in every python script:
     from intermine.webservice import Service
     service = Service("http://urgi.versailles.inra.fr//repetdb/service")
  15
     # Get a new query on the class (table) you will be querying:
     query = service.new query("ConsensusCopy")
     # The view specifies the output columns
     query.add view(
         "organism.genus", "organism.species", "targetChromosome", "targetStart",
  21
         "targetEnd", "consensus.classificationCode", "consensus.primaryIdentifier",
         "consensus.copies"
  24 )
  25
      # Uncomment and edit the line below (the default) to select a custom sort order:
     # query.add_sort_order("ConsensusCopy.organism.genus", "ASC")
  28
     # You can edit the constraint values below
     query.add_constraint("organism.genus", "=", "Malus", code = "A")
     query.add constraint("targetChromosome", "=", "Chr04", code = "B")
     query.add constraint("targetStart", ">", "13000000", code = "C")
     query.add constraint("targetEnd", "<", "15000000", code = "D")</pre>
  34
     # Uncomment and edit the code below to specify your own custom logic:
      # query.set_logic("A and B and C and D")
  37
      for row in query.rows():
         print row["organism.genus"], row["organism.species"], row["targetChromosome"], \
  39
             row["targetStart"], row["targetEnd"], row["consensus.classificationCode"], \
  40
             row["consensus.primaryIdentifier"], row["consensus.copies"]
  41
  42
  43
```



### Request: reuse the previous query and change the query name and coordinates

- Get All the copies corresponding to:

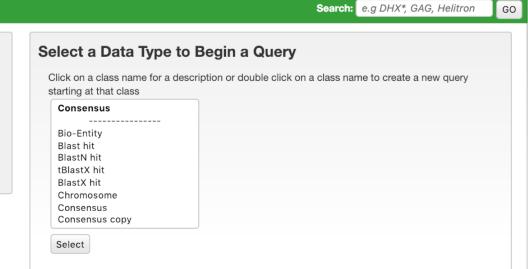
Genome genus = "Malus"

Region= Chr4: 10000000..13000000

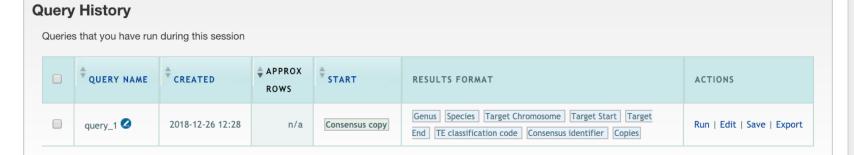
- Display the copies coordinates, the consensus classification and identifier



View saved queries



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Enter a query in XML format or upload a query from a file and press 'Submit' to load the query into your account.

Type/Paste in the query XML:

<query name="Malus\_Chr4\_consensus\_copies\_10000000-13000000"</pre>

model="genomic" view="ConsensusCopy.organism.genus
ConsensusCopy.organism.species ConsensusCopy.targetChromosome
ConsensusCopy.targetStart ConsensusCopy.targetEnd
ConsensusCopy.consensus.classificationCode

ConsensusCopy.consensus.classificationCode
ConsensusCopy.consensus.primaryIdentifier ConsensusCopy.consensus.copies"
longDescription="" sortOrder="ConsensusCopy.organism.genus asc"

constraintLogic="A and B and C and D">

value="13|000000"/>
</query>

OR upload the template from a .txt file...:

Choisir un fichier Aucun fichier choisi

- NOTE:

   Queries with names identical to existing queries will get an automatic extension to make it unique, e.g. dmel-proteins-1, dmel-proteins-2
  - Names may not contain special characters. Special characters in names will be replaced with their word-equivalent, e.g. "a&b" will be imported as "a\_AMPERSAND\_b"

## Copy-Paste the previous request in XML format

And submit



#### Model browser



Browse through the classes and attributes. Click on SUNHARY I links to add summary of fields to the results table or on SNOW! links to add individual fields to the results. Use ONSTRAIN links to constrain a value in the query.

#### Consensus copy SUMMARY + CONSTRAIN +

- Genome Jbrowse Url SHOW + CONSTRAIN + Identity Double SHOW + CONSTRAIN +
- Length Integer SHOW+ CONSTRAIN+
   DB identifier SHOW+ CONSTRAIN+
- Target Chromosome SHOW → CONSTRAIN →
- Target End Integer SHOW+ CONSTRAIN+
- Target Start Integer Show+ CONSTRAIN+
- Used For Classification Boolean SHOW+ CONSTRAIN+

  Child Features Sequence Feature 

  R
  SUMMARY + CONSTRAIN+
- + Locations Location Summary + CONSTRAIN+
   + Organism Organism Summary + CONSTRAIN+
- ⊕ Parent Feature Sequence Feature R SUMMARY → CONSTRAIN→
- F⊞ Parent Feature Sequence Feature 

  A SUMMARY → CONSTRAIN→

  Target Sequence Feature 

  A SUMMARY → CONSTRAIN→

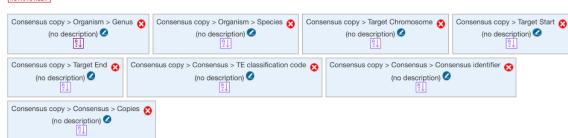
#### ☐ Show empty fields

Fields selected for output

#### **Columns to Display**

Use the SHOW+ or SUMMARY+ links to add fields to the results table. Click and drag the blue output boxes to choose the output column order. Click to choose a column to sort results by, click again to select ascending to descending to descending to descending the link to remove all fields from the results table.

#### REMOVEBLLA



#### **Query Overview**

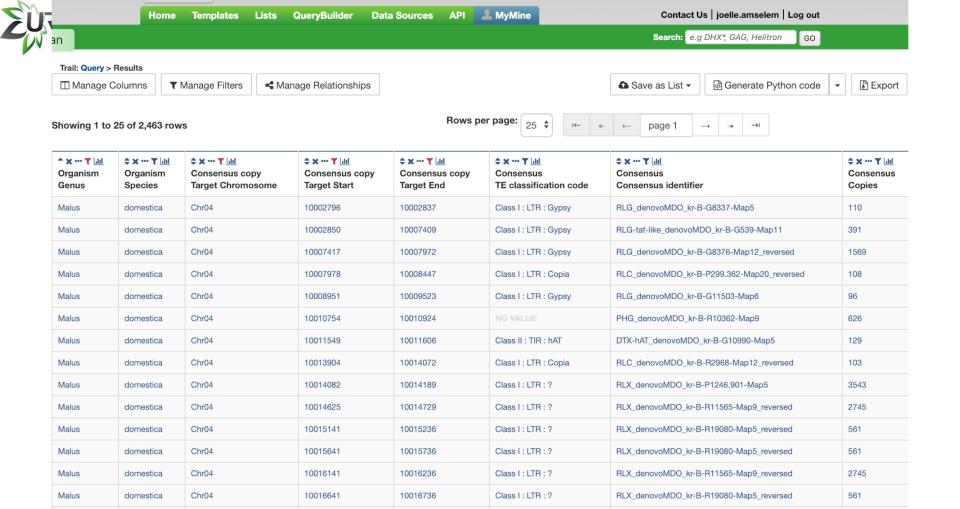
Consensus Consen

Consensus identifier

Organism Organism So Genus So = Malus So (A) Species So

Constraint logic: A and B and C and D

A and B and C and D



Class I: LTR:?

Class L. LTD . 2

RLX denovoMDO kr-B-R19080-Map5 reversed

DLV denoughDO by D D11505 Man 0 reveneed

561

0745

Malus

domestica

Chr04

10017155

10017656

10017250

10017751



#### Request: reuse the previous query

- Get All the copies corresponding to:
  - Genome genus = "Malus"
  - Region= Chr4: 10000000..13000000
- Display the genome copies coordinates, the consensus classification and identifier

#### and new columns to display

- copy identifier
- consensus fragment coordinates (One copy may be constituted by 2 or more fragments joined)

view saved queries

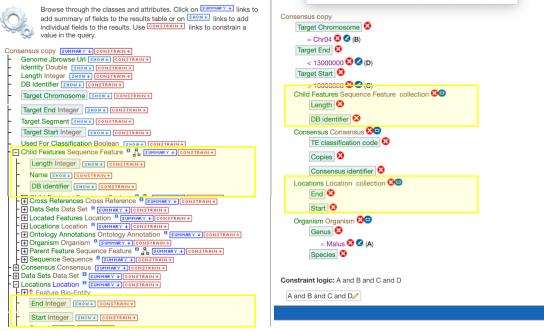
3000000" Hide

QUERY NAME	CREATED		START	RESULTS FORMAT	ACTION	NS	
query_11 🕜	2018-04-27 13:24	n/a	Consensus copy	Species   Target Chromosome   Target Start   Target End   TE classification code   Consensus identifier   DB identifier   Length   End   Start	Run   E	dit   E	xport
Malus_Chr4_consensus_copies_13000000- 15000000	2018-12-26 12:50	10	Consensus copy	Genus         Species         Target Chromosome         Target Start         Target End         TE classification code         Consensus           identifier         Copies	Run   E	dit   E	xport
Malus_Chr4_consensus_copies_10000000- 13000000	2018-12-26 13:24	11	Consensus copy	Genus   Species   Target Chromosome   Target Start   Target End   TE classification code   Consensus identifier   Copies	Run E	dit   E	xport

Delete Export

Import query from XML





#### Columns to Display

Use the SHOWL or SUMMARY | links to add fields to the results table. Click and drag the blue output boxes to choose the output column order. Click to choose a column to sort results by, click again to select ascending to descending Use the REHOVERLL link to remove all fields from the results table.

#### REMOVE ALL# Consensus copy > Target Chromosome 👩 Consensus copy > Organism > Genus 👩 Consensus copy > Organism > Species 👩 Consensus copy > Target Start 👩 (no description) (no description) (no description) (no description) Consensus copy > Consensus > TE classification code 👩 Consensus copy > Consensus > Consensus identifier 👩 Consensus copy > Target End 👩 (no description) (no description) (no description) Consensus copy > Consensus > Copies 👩 Consensus copy > Child Features > DB identifier 👩 Consensus copy > Child Features > Length 👩 (no description) (no description) (no description) Consensus copy > Locations > Start 👩 Consensus copy > Locations > End 👩 (no description) (no description)





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Trail:	Query	>	Results

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▼ Manage Filters

Rows per page: 25 ♣

Save as List ▼

Generate Python code 
▼

Export

#### Showing 1 to 25 of 6,090 rows

Ax Y    dtl   Organism Genus		Consensus copy Target Chromosome	Consensus copy Target Start			\$ ★ *** ▼ ldd Consensus Consensus identifier		≎ x ··· ▼ litel Child Features DB identifier	Child Features Length		
Malus	domestica	Chr04	10002796	10002837	Class I : LTR : Gypsy	RLG_denovoMDO_kr-B-G8337-Map5	110	mp52473-1_RLG_denovoMDO_kr-B-G8337- Map5_Chr04	43	6776	6819
Malus	domestica	Chr04	10002796	10002837	Class I : LTR : Gypsy	RLG_denovoMDO_kr-B-G8337-Map5	110	mp52473-1_RLG_denovoMDO_kr-B-G8337- Map5_Chr04	43	10002796	10002837
Malus	domestica	Chr04	10002850	10007409	Class I : LTR : Gypsy	RLG-tat-like_denovoMDO_kr-B-G539- Map11	391	mp52464-1_RLG-tat-like_denovoMDO_kr-B-G539- Map11_Chr04	726	3818	8344
Malus	domestica	Chr04	10002850	10007409	Class I : LTR : Gypsy	RLG-tat-like_denovoMDO_kr-B-G539- Map11	391	mp52464-1_RLG-tat-like_denovoMDO_kr-B-G539- Map11_Chr04	726	10002850	10007409
Malus	domestica	Chr04	10002850	10007409	Class I : LTR : Gypsy	RLG-tat-like_denovoMDO_kr-B-G539- Map11	391	mp52464-2_RLG-tat-like_denovoMDO_kr-B-G539- Map11_Chr04	3673	3818	8344
Malus	domestica	Chr04	10002850	10007409	Class I : LTR : Gypsy	RLG-tat-like_denovoMDO_kr-B-G539- Map11	391	mp52464-2_RLG-tat-like_denovoMDO_kr-B-G539- Map11_Chr04	3673	10002850	10007409
Malus	domestica	Chr04	10007417	10007972	Class I : LTR : Gypsy	RLG_denovoMDO_kr-B-G8376- Map12_reversed	1569	mp52525-1_RLG_denovoMDO_kr-B-G8376- Map12_reversed_Chr04	283	7622	8284
Malus	domestica	Chr04	10007417	10007972	Class I : LTR : Gypsy	RLG_denovoMDO_kr-B-G8376- Map12_reversed	1569	mp52525-1_RLG_denovoMDO_kr-B-G8376- Map12_reversed_Chr04	283	10007417	10007972
Malus	domestica	Chr04	10007417	10007972	Class I: LTR: Gypsy	RLG_denovoMDO_kr-B-G8376- Map12_reversed	1569	mp52525-2_RLG_denovoMDO_kr-B-G8376- Map12_reversed_Chr04	305	7622	8284
Malus	domestica	Chr04	10007417	10007972	Class I: LTR: Gypsy	RLG_denovoMDO_kr-B-G8376- Map12_reversed	1569	mp52525-2_RLG_denovoMDO_kr-B-G8376- Map12_reversed_Chr04	305	10007417	10007972
Malus	domestica	Chr04	10007978	10008447	Class I: LTR: Copia	RLC_denovoMDO_kr-B-P299.362- Map20_reversed	108	mp52531-1_RLC_denovoMDO_kr-B-P299.362- Map20_reversed_Chr04	498	7	505

