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WheatIS data discovery

Michael Alaux

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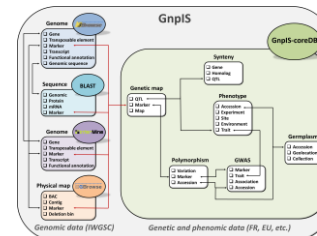
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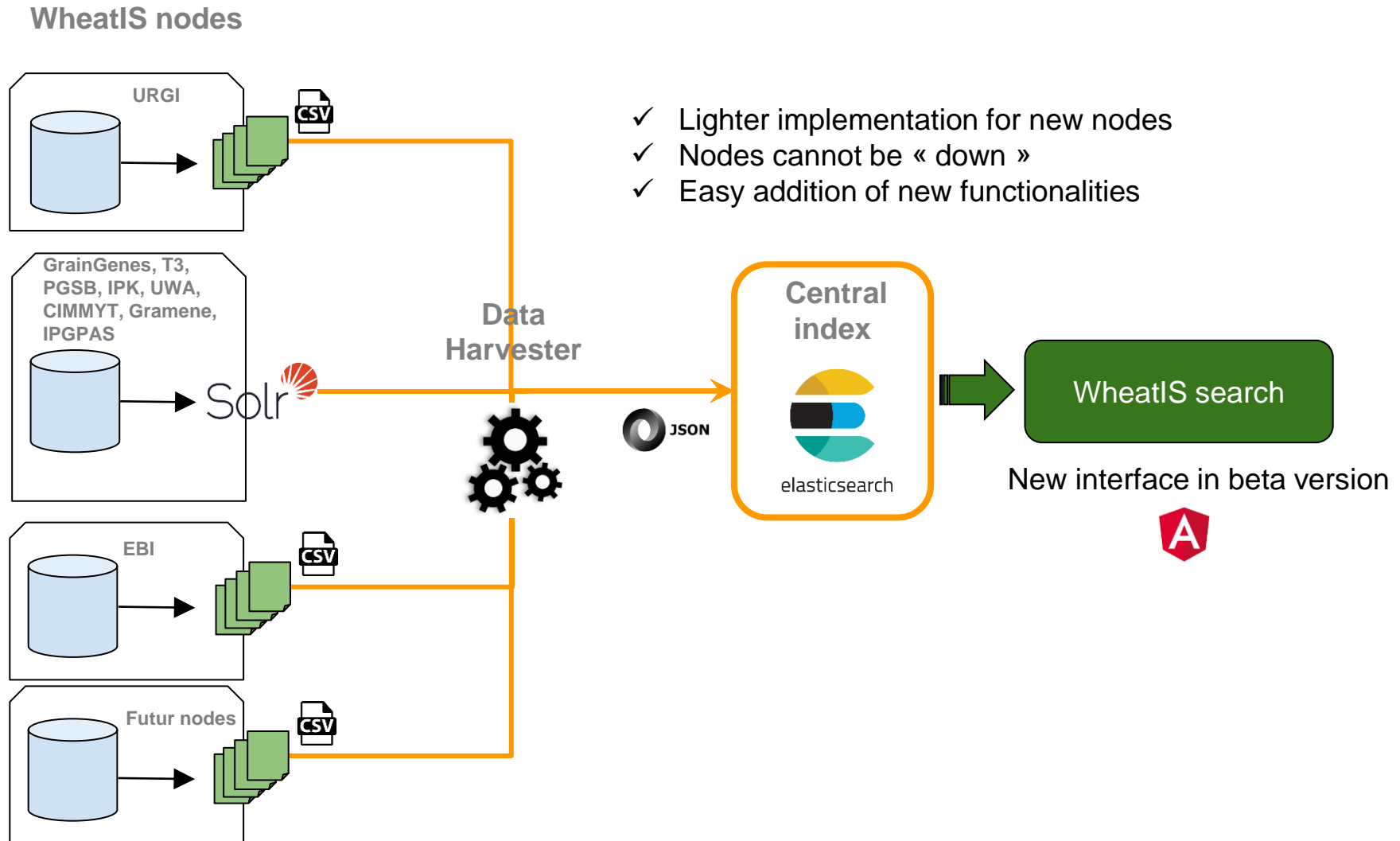
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WheatIS data discovery

Michael Alaux



New architecture



New beta version



Wheat@URGI WheatIS Wheat Initiative

URGI

IWGSC@GnpIS [18 566 139]
GnpIS [92 214]
OpenMinTeD [3 398]
WheatIS File Repository [6]

EBI

Ensembl Plants [2 122 980]

IPK

CR-EST [199 220]
GEBIS [50 875]
MetaCrop [177]

Gramene

Gramene [229 789]

UWA

Wheat Pangenome [167 167]

T3

The Triticeae Toolbox [138 441]

South Green

AgroLD [137 060]

Rothamsted Research

KNetMiner [110 775]

GrainGenes

GrainGenes [15 827]
Wheat Gene Catalog at
Komugi [3 043]

PGSB

CrowsNest [13 324]

CIMMYT

CIMMYT Dspace [981]
CIMMYT dataverse [1]

IPGPAS

PlantPhenoDB [3]

WheatIS

Wheat Information
System



Examples: yield, fhb

Search

New data

URGI

IWGSC@GnpIS [19 241 077] } Data added
GnpIS [156 827]

OpenMinTeD [3 398] Bibliography

WheatIS File Repository [6]

EBI

Ensembl Plants [2 391 552]

IPK

CR-EST [199 220]

GEBIS [51 302]

MetaCrop [355]

Gramene

Gramene [229 851]

T3

The Triticeae Toolbox [185 781]

UWA

Wheat Pangenome [167 167]

New data

South Green

AgroLD [137 060] Linked data

Rothamsted Research

KNetMiner [110 775] Knowledge networks

GrainGenes

GrainGenes [16 755] Data added: genes, maps, germplasm

Wheat Gene Catalog at
Komugi [3 119] Gene Catalog

PGSB

CrowsNest [13 324]

CIMMYT

CIMMYT Dspace [981]

CIMMYT dataverse [38]

IPGPAS

PlantPhenoDB [3]

New filters

FHB Search

Results 1 to 20 from 219

Data type

- Bibliography [123]
- Experiment [59]
- Phenotype [18]
- Accession [9]
- Genetic map [6]
- Gene [2]
- Physical map [1]
- Qtl [1]

[SUWWSN_2016_Fayetteville](#) - The Triticeae Toolbox
Experiment Triticum aestivum
Experiment Triticeae Toolbox SUWWSN_2016_Fayetteville phenotype trial traits=DON level **FHB** disease index **FHB** incidence **FHB** severity **FHB** grain incidence **FHB** ISK index Southern Uniform Winter Wheat Scab Nursery Triticum aestivum phenotype

[SUWWSN_2016_Newport](#) - The Triticeae Toolbox
Experiment Triticum aestivum
Experiment Triticeae Toolbox SUWWSN_2016_Newport phenotype trial traits=DON level **FHB** disease index **FHB** incidence **FHB** severity **FHB** grain incidence **FHB** ISK index Southern Uniform Winter Wheat Scab Nursery Triticum aestivum phenotype

[SUWWSN_2016_Urbana](#) - The Triticeae Toolbox
Experiment Triticum aestivum
Experiment Triticeae Toolbox SUWWSN_2016_Urbana phenotype trial traits=DON level **FHB** disease index **FHB** incidence **FHB** severity heading date **FHB** grain incidence **FHB** ISK index Southern Uniform Winter Wheat Scab Nursery Triticum aestivum phenotype

[SUWWSN_2016_Columbia](#) - The Triticeae Toolbox
Experiment Triticum aestivum
Experiment Triticeae Toolbox SUWWSN_2016_Columbia phenotype trial traits=DON level **FHB** disease index **FHB** incidence **FHB** severity heading date **FHB** grain incidence **FHB** ISK index Southern Uniform Winter Wheat Scab Nursery Triticum aestivum phenotype

[FHB](#) - GnpIS
Phenotype Triticum aestivum
Phenotype GnpIS **FHB FHB** is a trait related to Resistance, which unit is 'wu', described as follows: resistance contre Fusarium graminearum. Related keyword(s): Fusarium Head Blight (**FHB**) Triticum aestivum **FHB** ... (Expand)

[SUWWSN_2016_Lexington](#) - The Triticeae Toolbox
Experiment Triticum aestivum
Experiment Triticeae Toolbox SUWWSN_2016_Lexington phenotype trial traits=DON level **FHB** disease index **FHB** incidence **FHB** severity heading date plant height **FHB** grain incidence **FHB** ISK index Southern Uniform Winter Wheat Scab Nursery Triticum aestivu ... (Expand)

[SUWWSN_2016_Blacksburg](#) - The Triticeae Toolbox
Experiment Triticum aestivum
Experiment Triticeae Toolbox SUWWSN_2016_Blacksburg phenotype trial traits=DON level **FHB** disease index **FHB** incidence **FHB** severity heading date plant height grain yield test weight **FHB** grain incidence **FHB** ISK index

Database

- OpenMinTeD [121]
- The Triticeae Toolbox [84]
- GrainGenes [7]
- CIMMYT Dspace [2]
- GnpIS [2]
- Wheat Gene Catalog at Komugi [2]
- PlantPhenoDB [1]

Node

- URGI [123]
- T3 [84]
- GrainGenes [9]
- CIMMYT [2]
- IPGPAS [1]

Species

- Triticum [121]
- Triticum aestivum [95]
- Wheat [2]
- Triticum turgidum ssp. dicoccoides [1]
- Triticum turgidum ssp. durum [1]



New filters

Results 1 to 20 from 2 704

Data type (18)

- Experiment** [1 138]
- Gene annotation [701]
- Bibliography [636]
- Gene [53]
- Gwas [51]
- Phenotype [36]
- Interpro family [28]
- Qtl [17]

Other results are available.
Refine your search.

- CR-EST [5]
- CIMMYT dataverse [1]
- GEBIS [1]
- PlantPhenoDB [1]
- WheatIS File Repository [1]

Node

- URGI [1 671]
- T3 [597]
- Rothamsted Research [158]
- CIMMYT [129]
- Gramene [85]
- GrainGenes [46]
- South Green [11]
- IPK [6]
- IGPAS [1]

[10883/1551](#) - CIMMYT Dspace
Bibliography **Wheat yield**
CIMMYT Dspace Wheat **Yield** Publication 10883/1551 10883/1551 Herbicidal effect on the growth and **yield** of wheat 2009-01-01 Herbicidal effect on the growth and **yield** of wheat Article ... (Expand)

[QYld.crc-2A](#) - Wheat Gene Catalog at Komugi
Gene **Triticum aestivum**
Gene Wheat Gene Catalog at Komugi QYld.crc-2A [GrainGenes Summary] **Yield** and **Yield** Components; Grain **yield** Triticum aestivum


[QYld.crc-4A](#) - Wheat Gene Catalog at Komugi
Gene **Triticum aestivum**
Gene Wheat Gene Catalog at Komugi QYld.crc-4A [GrainGenes Summary] **Yield** and **Yield** Components; Grain **yield** Triticum aestivum

[QYld.ndsu-5B](#) - Wheat Gene Catalog at Komugi
Gene **Triticum aestivum**
Gene Wheat Gene Catalog at Komugi QYld.ndsu-5B [GrainGenes Summary] **Yield** and **Yield** Components; Grain **yield** Triticum aestivum

[QYld.inra-7D](#) - Wheat Gene Catalog at Komugi
Gene **Triticum aestivum**
Gene Wheat Gene Catalog at Komugi QYld.inra-7D [GrainGenes Summary] **Yield** and **Yield** Components; Grain **yield** Triticum aestivum

[QGyld.unl-3A.1](#) - Wheat Gene Catalog at Komugi
Gene **Triticum aestivum**
Gene Wheat Gene Catalog at Komugi QGyld.unl-3A.1 [GrainGenes Summary] **Yield** and **Yield** Components; Grain **yield** Triticum aestivum

[QGyld.unl-3A.2](#) - Wheat Gene Catalog at Komugi
Gene **Triticum aestivum**



hael Alaux

Usage metrics

2016

Summary			
Reported period	Year 2016		
First visit	01 Jul 2016 - 03:57		
Last visit	31 Dec 2016 - 00:42		
	Unique visitors	Number of visits	Pages
Viewed traffic *	<= 460 Exact value not available in 'Year' view	689 (1.49 visits/visitor)	3,609 (5.23 Pages/Visit)
Not viewed traffic *			110

* Not viewed traffic includes traffic generated by robots, worms, or replies with special HTTP status codes.

2017

Summary			
Reported period	Year 2017		
First visit	01 Jan 2017 - 15:36		
Last visit	31 Dec 2017 - 08:09		
	Unique visitors	Number of visits	Pages
Viewed traffic *	<= 1,556 Exact value not available in 'Year' view	2,236 (1.43 visits/visitor)	17,568 (7.85 Pages/Visit)
Not viewed traffic *			996































* Not viewed traffic includes traffic generated by robots, worms, or replies with special HTTP status codes.

2018

Summary			
Reported period	Year 2018		
First visit	07 Jan 2018 - 07:20		
Last visit	27 Nov 2018 - 07:33		
	Unique visitors	Number of visits	Pages
Viewed traffic *	<= 1,931 Exact value not available in 'Year' view	3,307 (1.71 visits/visitor)	27,371 (8.27 Pages/Visit)
Not viewed traffic *			604

* Not viewed traffic includes traffic generated by robots, worms, or replies with special HTTP status codes.

Countries for 2018

Countries (Top 30) - Full list					
Countries			Unique visitors	Number of visits	Pages
	China	cn	938 (48.6%)	1,606 (48.6%)	14,461
	United States	us	262 (13.6%)	449 (13.6%)	3,466
	France	fr	153 (7.9%)	261 (7.9%)	2,143
	Great Britain	gb	98 (5.1%)	168 (5.1%)	1,335
	South Africa	za	64 (3.3%)	110 (3.3%)	1,101
	India	in	96 (5.0%)	164 (5.0%)	957
	Germany	de	58 (3.0%)	100 (3.0%)	712
	Australia	au	53 (2.7%)	90 (2.7%)	645
	Japan	jp	38 (2.0%)	65 (2.0%)	425
	Canada	ca	27 (1.4%)	46 (1.4%)	290
	Argentina	ar	17 (0.9%)	29 (0.9%)	245
	Italy	it	13 (0.7%)	22 (0.7%)	180
	Mexico	mx	14 (0.7%)	24 (0.7%)	148
	Russian Federation	ru	10 (0.5%)	18 (0.5%)	133
	Spain	es	9 (0.5%)	16 (0.5%)	126
	Poland	pl	8 (0.4%)	15 (0.5%)	115
	Ethiopia	et	6 (0.3%)	10 (0.3%)	81
	Pakistan	pk	6 (0.3%)	10 (0.3%)	71
	Hong Kong	hk	5 (0.3%)	8 (0.2%)	65
	Belgium	be	5 (0.3%)	9 (0.3%)	65
	Saudi Arabia	sa	4 (0.2%)	7 (0.2%)	56
	Netherlands	nl	4 (0.2%)	6 (0.2%)	49
	Kuwait	kw	3 (0.2%)	4 (0.1%)	46
	Iran	ir	4 (0.2%)	7 (0.2%)	44
	Czech Republic	cz	4 (0.2%)	6 (0.2%)	41
	Chile	cl	3 (0.2%)	5 (0.2%)	39
	Moldova	md	2 (0.1%)	4 (0.1%)	32
	Denmark	dk	3 (0.2%)	4 (0.1%)	31
	Austria	at	3 (0.2%)	5 (0.2%)	28
	Norway	no	2 (0.1%)	4 (0.1%)	24

Promotion

- Computer Demo at PAG 2020 ?
- WheatIS logo ?
- Publication ?

I mentionned the tool in Alaux et al. *Genome Biology* 2018 (with acknowledgements to the WheatIS expert working group).

Acknowledgements



Questions

Alaux et al., *Genome Biology* 2018

<https://doi.org/10.1186/s13059-018-1491-4>



Linking the International Wheat Genome Sequencin...

The Wheat@URGI portal has been developed to provide the international community of researchers and breeders with access to the bread wheat reference genome se...

genomebiology.biomedcentral.com

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