USDA VIVO

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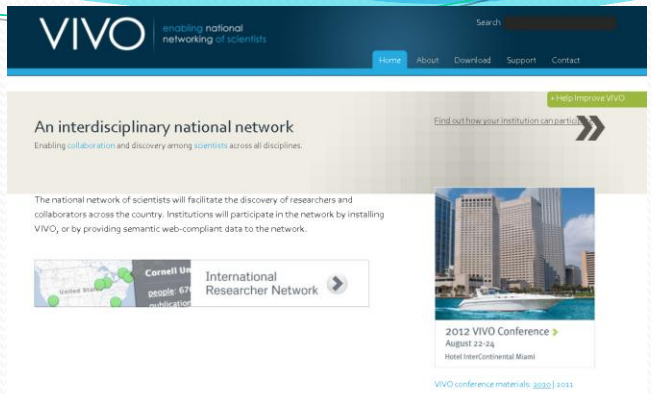
May 3, 2012

What is VIVO?



VIVO is an open source semantic web application originally developed and implemented at Cornell University

When installed and populated with researcher descriptions, interests, activities, and accomplishments, VIVO enables the discovery of research and scholarship across organizations

VIVO allows browsing and searching, supported by facets

Adapted from VIVO Project Description, 2011 (http://vivo.sourceforge.net)

Some VIVO Technical Requirements

VIVO Software: http://vivoweb.org/download

VIVO Tools: http://sourceforge.net/p/vivo/tools/home/Home

Java (SE) 1.6.x: http://java.sun.com (Not OpenJDK)

Apache Tomcat 6.x or 7.x: http://tomcat.apache.org

Apache Ant 1.7 or higher: http://ant.apache.org

MySQL 5.1 or higher: http://www.mysql.com)

Challenges to USDA Implementation

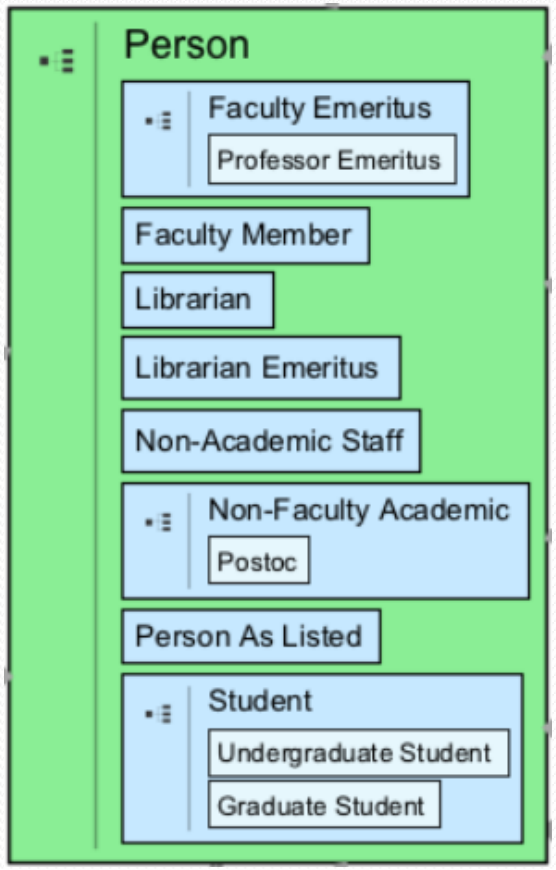
Approximately 50,000 researchers & scientists in USDA

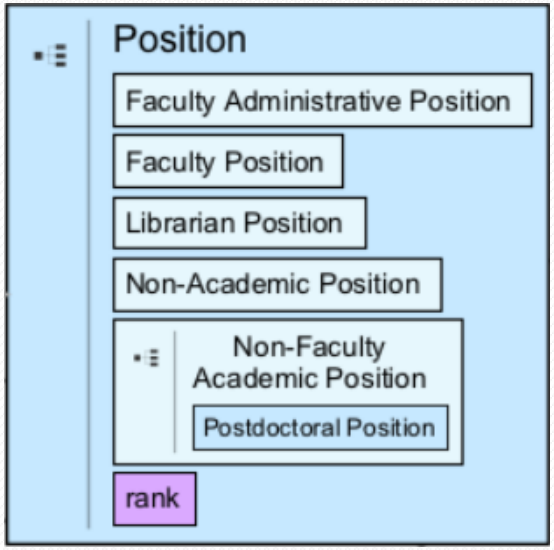
VIVO ontology is based on an academic object model

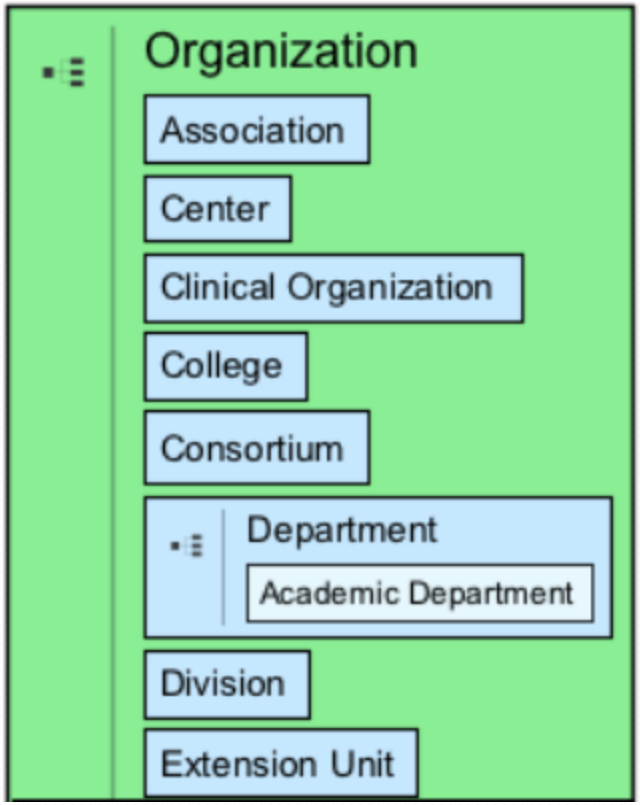
No central HR system to supply current and consistent data

No consistent tracking of research, except ARS

VIVO ontology classes do not correspond directly to USDA people or organization entities







VIVO Data Ingest Process

Create a local ontology

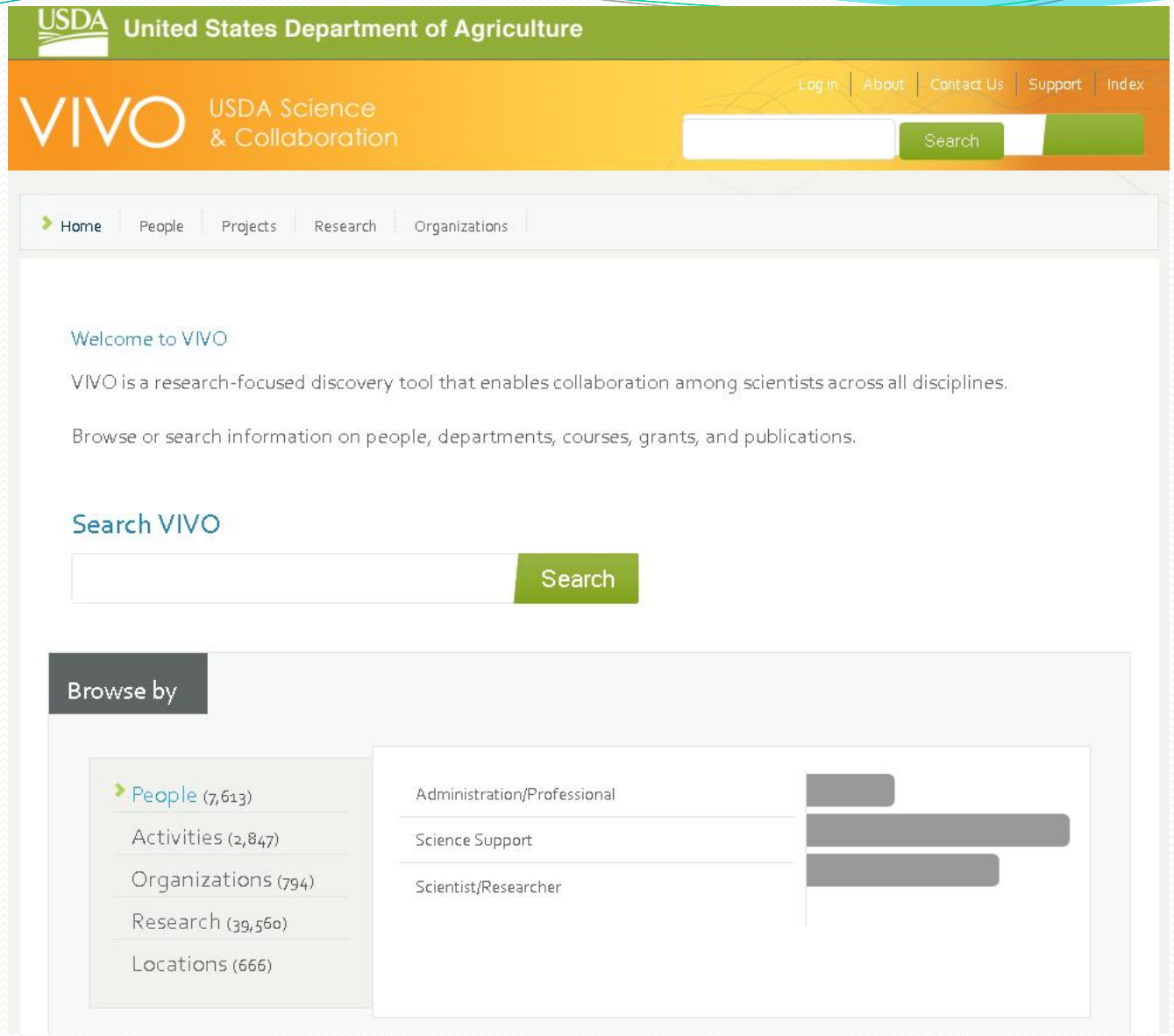
Create workspace models for ingesting and constructing data

Pull external data file into RDF

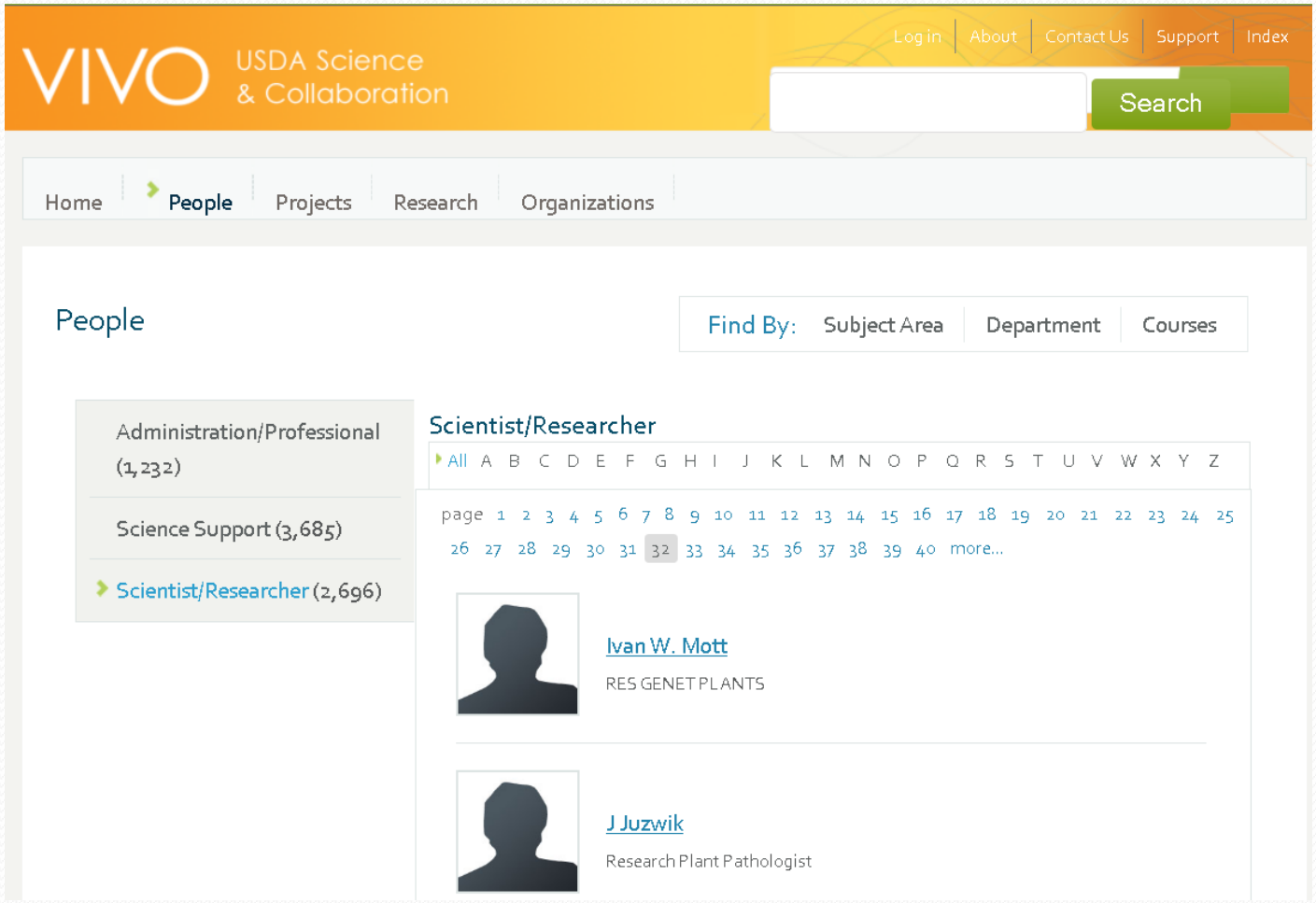
Map tabular data into the ontology format

Construct the ingested entities using the map of properties

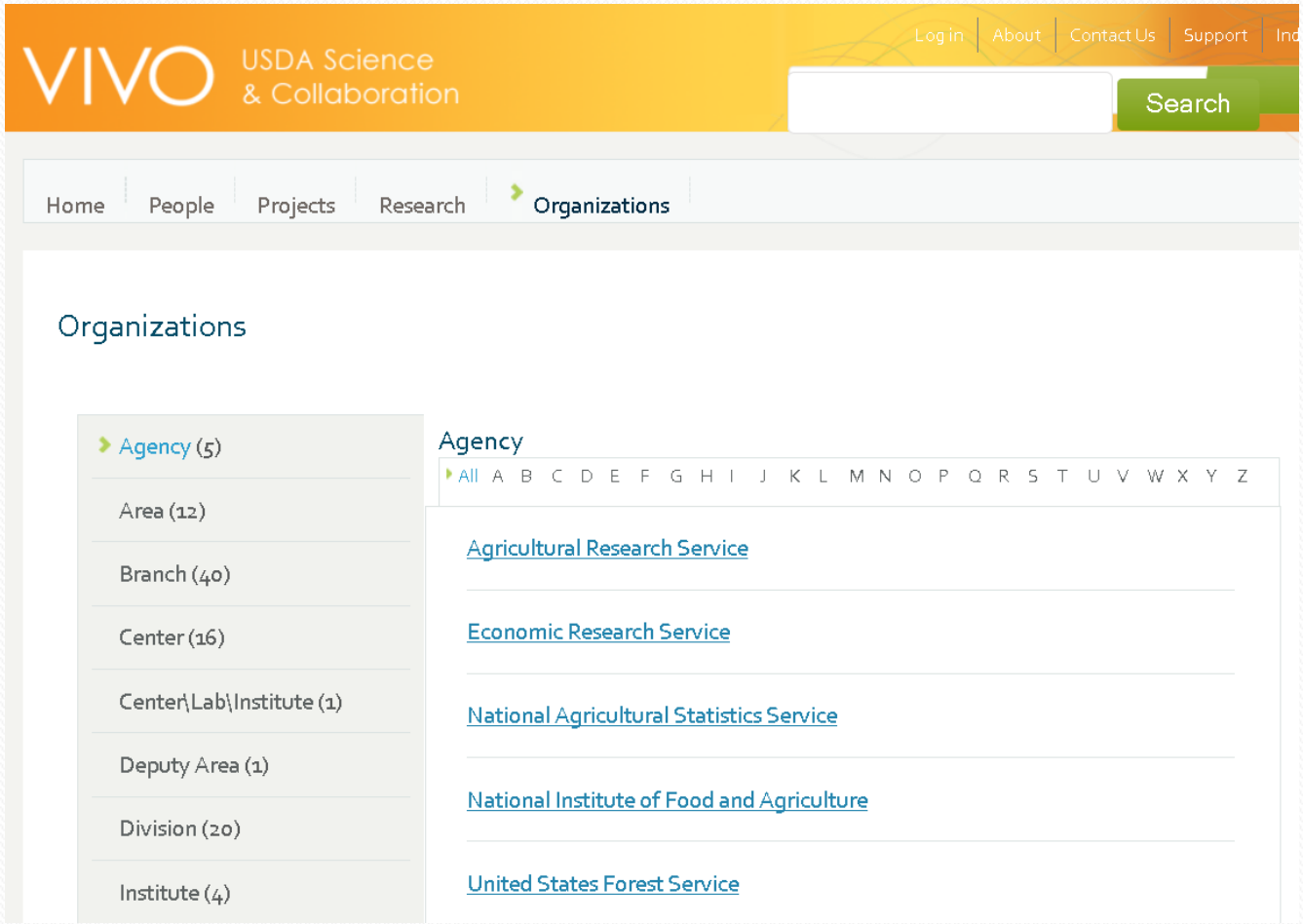
Load data to the current web model


USDA United States Department of Agriculture
VIVO USDA Science & Collaboration
Log in | About | Contact Us | Support | Index
Search
Home | People | Projects | Research | Organizations
Welcome to VIVO
VIVO is a research-focused discovery tool that enables collaboration among scientists across all disciplines.
Browse or search information on people, departments, courses, grants, and publications.
Search VIVO
Search
Browse by
People (7,613)
Activities (2,847)
Organizations (794)
Research (39,560)
Locations (666)
Administration/Professional
Science Support
Scientist/Researcher

Browse: People Facet – Scientist/Researcher

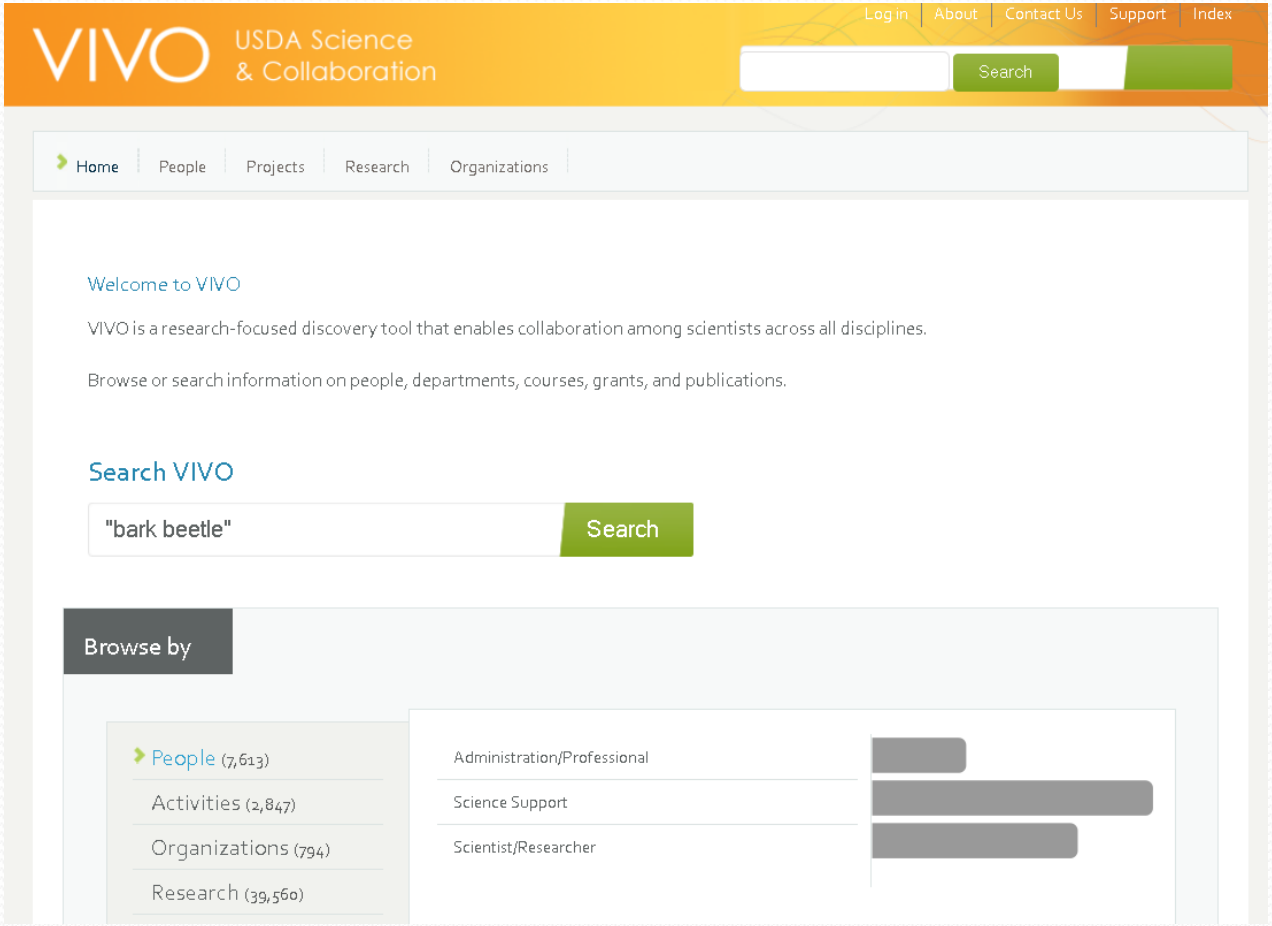


Browse: Organizations Facet – Agency



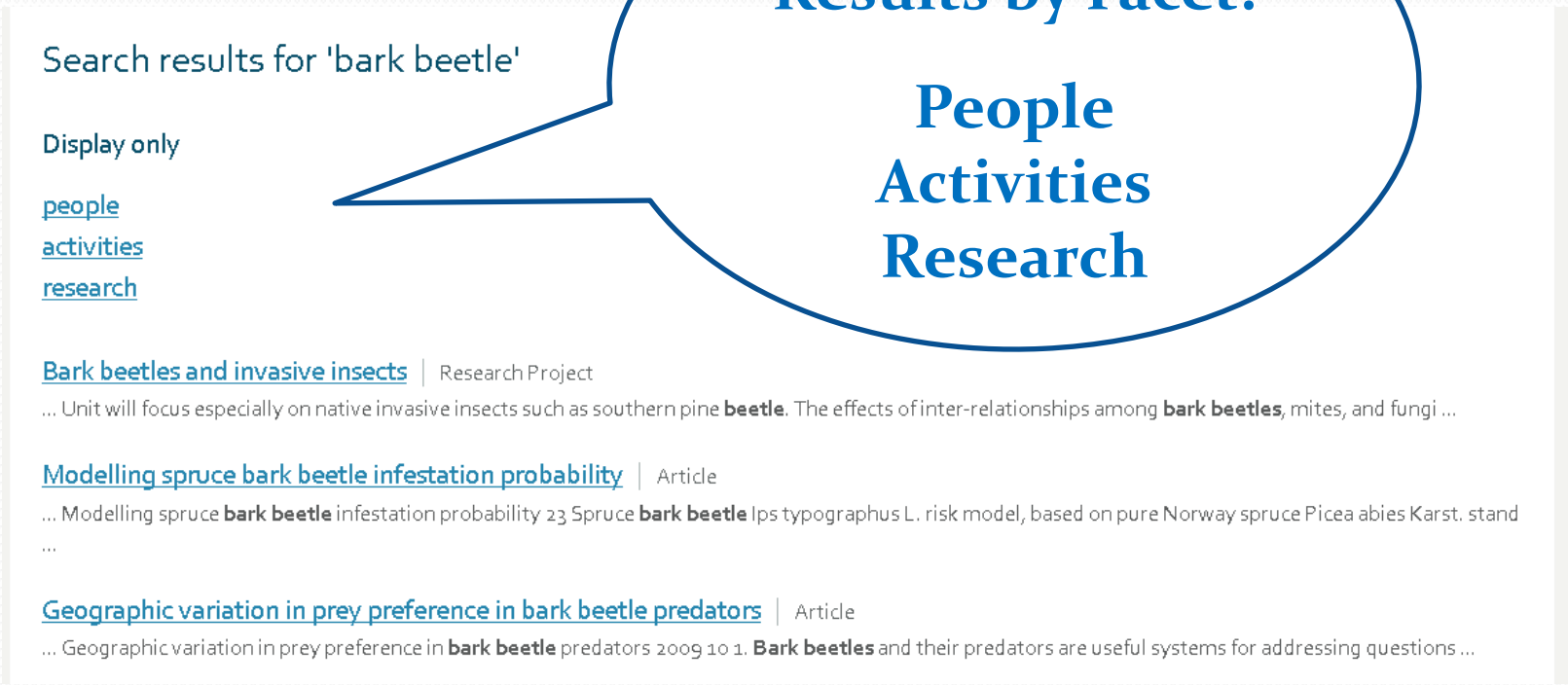
Search: Across all Entities

Example: "bark beetle"



Possible to Filter Results by Facet:

People
Activities
Research



USDA Research Projects relevant to "bark beetle"

Search results for 'bark beetle' limited to type 'activities'

Limit activities to

Research Project

Bark beetles and invasive insects | Research Project

... Unit will focus especially on native invasive insects such as southern pine **beetle**. The effects of inter-relationships among **bark beetles**, mites, and fungi ...

Roles and impacts of insects in forest and wildland ecosystems | Research Project

... To provide a focus to the research program, RWU scientists will study two primary insect groups: (1) **bark beetles**; and (2) wood-degrading insects ...

Roles and impacts of insects in forest and wildland ecosystems | Research Project

... To provide a focus to the research program, RWU scientists will study two primary insect groups: (1) **bark beetles**; and (2) wood-degrading insects ...

Disturbance processes and interactions | Research Project

... -ground processes.i' Develop models to help predict how current and future temperatures will affect **bark beetle** outbreak dynamics. Also determine how these new outbreaks affect ...

USDA Scientists/Researchers relevant to "bark beetle"

Search results for 'bark beetle' limited to type 'Scientist/Researcher'

Brian L. Strom | Research Entomologist

... flow and chemistry on pine resistance to **bark beetles**; evaluate the role of behavior-modifying chemicals in host selection by **bark beetles**; examine the role ...

B. J. Bentz | Research Entomologist

... My current research includes predicting phylogeographic patterns and temperature adaptations of **bark beetles** and associated communities for increased ...

J. Negron | Research Entomologist

... My current research studies include developing field-based developmental models for various **bark beetles** to develop predictive models and use ...

S. J. Seybold | Research Entomologist

... Entomology 1 sseybold@fs.fed.us Seybold is a research entomologist who specializes in the study of **bark** and wood-boring **beetles**. He and his colleagues ...

C.J. Fettig | Research Entomologist, Team Leader

...) development of chemical, silvicultural and semiochemical-based monitoring and management tactics for Dendroctonus and Ips **bark beetles**, and (3) determination of the role ...

"bark beetle" Research Articles published by USDA authors

Search results for '"bark beetle"' limited to type 'Article'

[Modelling spruce bark beetle infestation probability](#) | Article

... Modelling spruce **bark beetle** infestation probability 23 Spruce **bark beetle** Ips typographus L. risk model, based on pure Norway spruce Picea abies Karst. stand ...

[Geographic variation in prey preference in bark beetle predators](#) | Article

... Geographic variation in prey preference in **bark beetle** predators 2009 10 1. **Bark beetles** and their predators are useful systems for addressing questions ...

[New tarsonemids associated with bark beetles (Acarina: Tarsonemidae)](#) | Article

... New tarsonemids associated with **bark beetles** (Acarina: Tarsonemidae) 67(4) 641 The generic characters for Ununguitarsonemus beer and nucifora are emended and U ...

[Complex interactions among host pines and fungi vectored by an invasive bark beetle](#) | Article

... Complex interactions among host pines and fungi vectored by an invasive **bark beetle** online June 7 2010 8 Recent studies have investigated the relationships ...

[Cryptic postzygotic isolation in an eruptive species of bark beetle (Dendroctonus ponderosae)](#) | Article

... Cryptic postzygotic isolation in an eruptive species of **bark beetle** (Dendroctonus ponderosae) 961 Studies of postzygotic isolation often involve well ...

Search results for '"bark beetle"' limited to type 'Article'

Modelling spruce bark beetle infestation probability | Article

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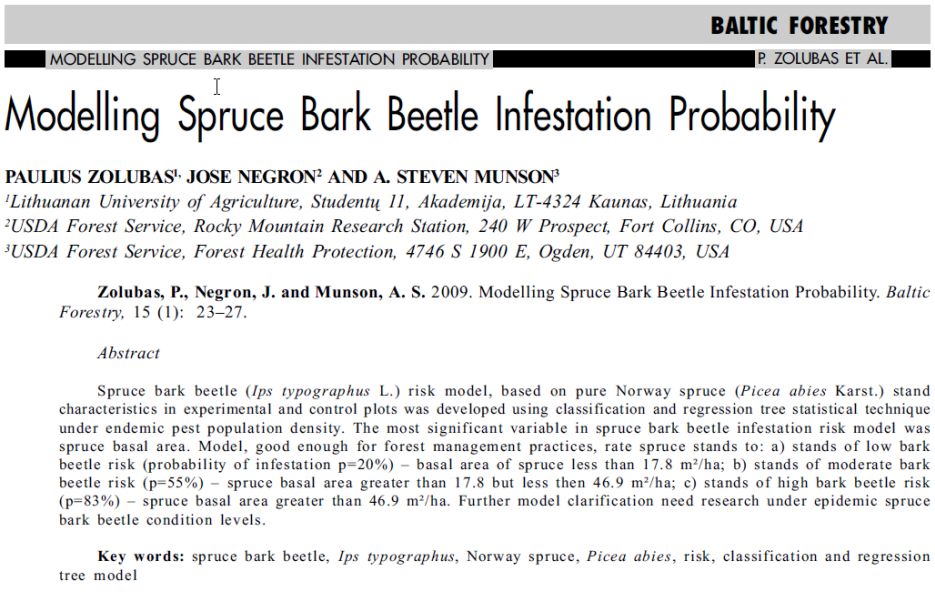


BALTIC FORESTRY

MODELLING SPRUCE BARK BEETLE INFESTATION PROBABILITY P. ZOLUBAS ET AL.

Modelling Spruce Bark Beetle Infestation Probability

PAULIUS ZOLUBAS[1], JOSE NEGRON[2] AND A. STEVEN MUNSON[3]

[1]*Lithuanan University of Agriculture, Studentų 11, Akademija, LT-4324 Kaunas, Lithuania*

[2]*USDA Forest Service, Rocky Mountain Research Station, 240 W Prospect, Fort Collins, CO, USA*

[3]*USDA Forest Service, Forest Health Protection, 4746 S 1900 E, Ogden, UT 84403, USA*

Zolubas, P., Negron, J. and Munson, A. S. 2009. Modelling Spruce Bark Beetle Infestation Probability. *Baltic Forestry,* 15 (1): 23–27.

Abstract

Spruce bark beetle (*Ips typographus* L.) risk model, based on pure Norway spruce (*Picea abies* Karst.) stand characteristics in experimental and control plots was developed using classification and regression tree statistical technique under endemic pest population density. The most significant variable in spruce bark beetle infestation risk model was spruce basal area. Model, good enough for forest management practices, rate spruce stands to: a) stands of low bark beetle risk (probability of infestation p=20%) – basal area of spruce less than 17.8 m²/ha; b) stands of moderate bark beetle risk (p=55%) – spruce basal area greater than 17.8 but less then 46.9 m²/ha; c) stands of high bark beetle risk (p=83%) – spruce basal area greater than 46.9 m²/ha. Further model clarification need research under epidemic spruce bark beetle condition levels.

Key words: spruce bark beetle, *Ips typographus*, Norway spruce, *Picea abies*, risk, classification and regression tree model

From this point, it becomes possible to access the full text publication

What Lies Ahead?

Visualizations of relationships between VIVO class entities

VIVO USDA Science & Collaboration

Search

Home | People | Projects | Research | Organizations

brianstrom@fs.fed.us

Brian L. Strom Research Entomologist

Positions

- Entomology, Insects, Diseases, and Invasive Plants

My current interests include the broad areas of plant-insect interactions, insect behavior and the application of basic biological and ecological factors in developing management schemes for forest biota.Currently I have projects that: examine the effect of oleoresin flow and chemistry on pine resistance to bark beetles; evaluate the role of behavior-modifying chemicals in host selection by bark beetles; examine the role of visual cues in host selection by bark beetles; relate visual resp (… more)

Publications in VIVO

16 in the last 10 full

Co-Author Network

Map Of Science

Co-Investigator Network

VIVO at Cornell:
Faculty Member relevant to "bark beetle"

Cornell University

Search Cornell

Index | Log in

VIVO Research & Expertise Across Cornell

Search

Home | People | Organizations | Research | Events

Contact information

Tingey, Ward Max Cornell Faculty Member

Positions

Professor, Entomology (ENTOM), College of Agriculture and Life Sciences (CALS)

My interests are focused on understanding the interactions between insect pests, their host plants and the stresses within agricultural ecosystems that affect pest and host plant fitness.

Co-Author Network

Map Of Science

Co-Investigator Network

Research Areas

adult and extension education | agricultural biotechnology | biochemistry | biodiversity | biological control | crop management or crop science | ecology | entomology | evolution | fruit and vegetable production | horticultural sciences | insects | integrated crop management | integrated pest management | new life sciences | organic agriculture | pest management | pesticide management | plant breeding and genetics | plant sciences | transgenic plants | vegetables

Co-Author Networks based on areas of interest

Profile

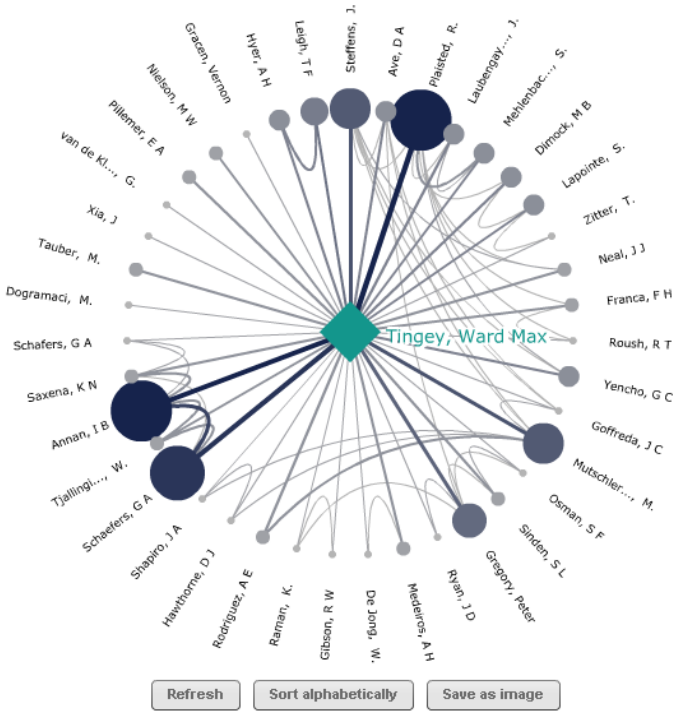
Tingey, Ward Max

VIVO profile

93 Publication(s)
39 Co-author(s)
1972 First Publication
2010 Last Publication

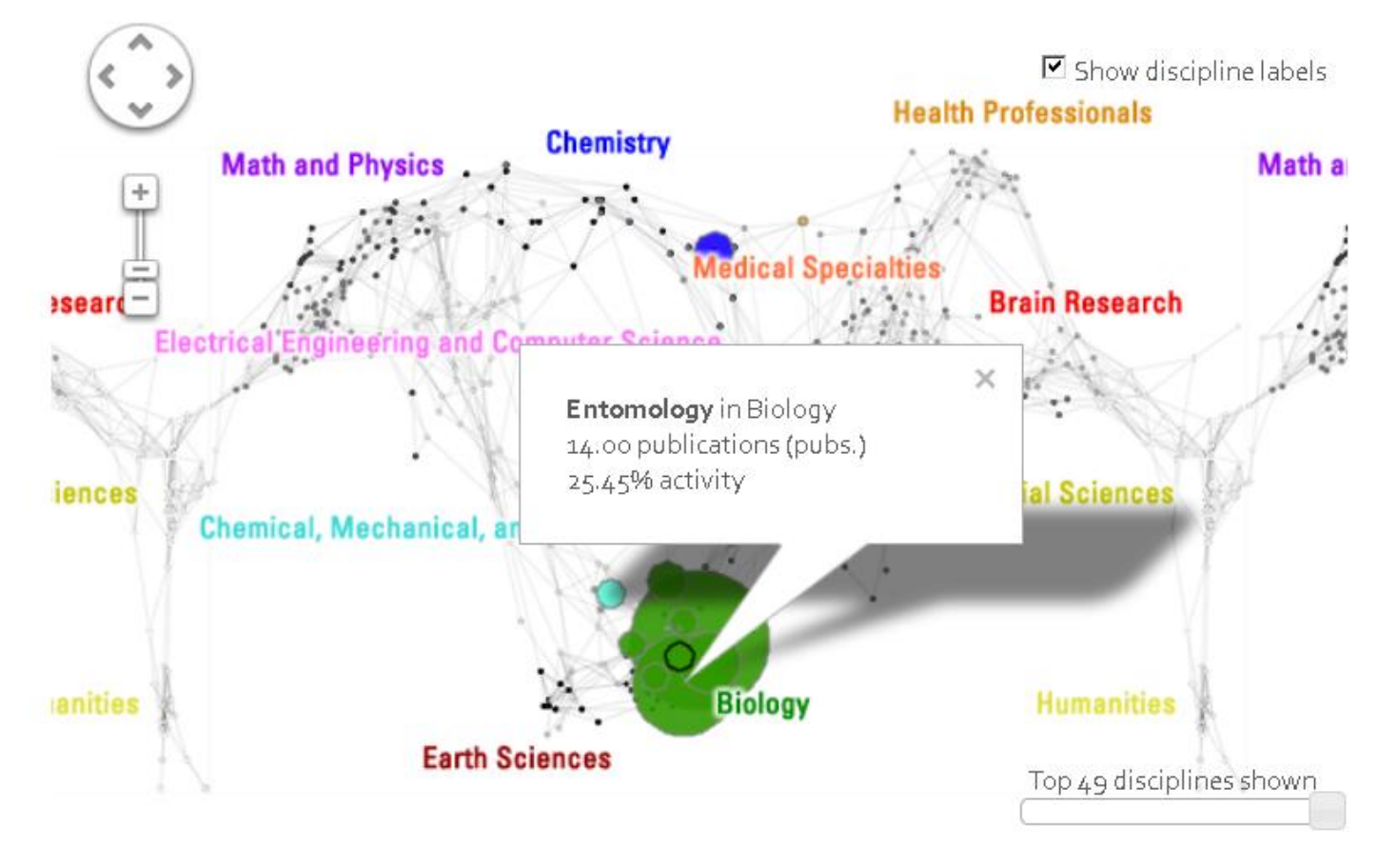
Note: This information is based solely on publications that have been loaded into the VIVO system. This may only be a small sample of the person's total work.

Log in to enter additional details about your publications on your profile page.



Sorted into communities: Co-authors are placed near one another if they frequently collaborate with each other and each other's co-authors in the graph.

Dynamic Map of Science Visualizations: By Researcher (Ward Max Tingey)



	A	B	C
1	Sub-Discipline	Publication Count	% Activity
2	Clinical Cancer Research	0	0
3	Biotechnology Trends	0	0
4	Circulation	0	0
5	Protein Science	0	0
6	Thermal Analysis	0	0.1
7	Molecular Medicine	0.1	0.2
8	Pest Management Science	26	47.3
9	Sociobiology	1	1.8
10	Oncology	0	0
11	Horticulture	0	0
12	Clinical Rehabilitation	0	0
13	EthnoPharmcology	0	0
14	Organic Chemistry	0	0
15	Plant Physiology	0	0
16	Allergy & Clinical Immunology	0	0
17	Pharmacology Science	0	0
18	Mass Spectrometry	0	0
19	Environmental Polution	0	0
20	Carbohydrate Research	0	0
21	Medical Screening & Epidemiology	0	0
22	Nutrition	0	0
23	Enzyme Microbiological Techniques	0	0
24	Electro Analytical Chemistry	0	0
25	Cytogentics & Genome Mapping	0	0
26	Food Chemistry	0	0
27	Weed Management	1	1.9
28	AntiMicrobial Agents	0	0
29	Pharmaceutical Design	0	0
30	Crop Science	2	3.7

Exports of Raw Data:

By Researcher

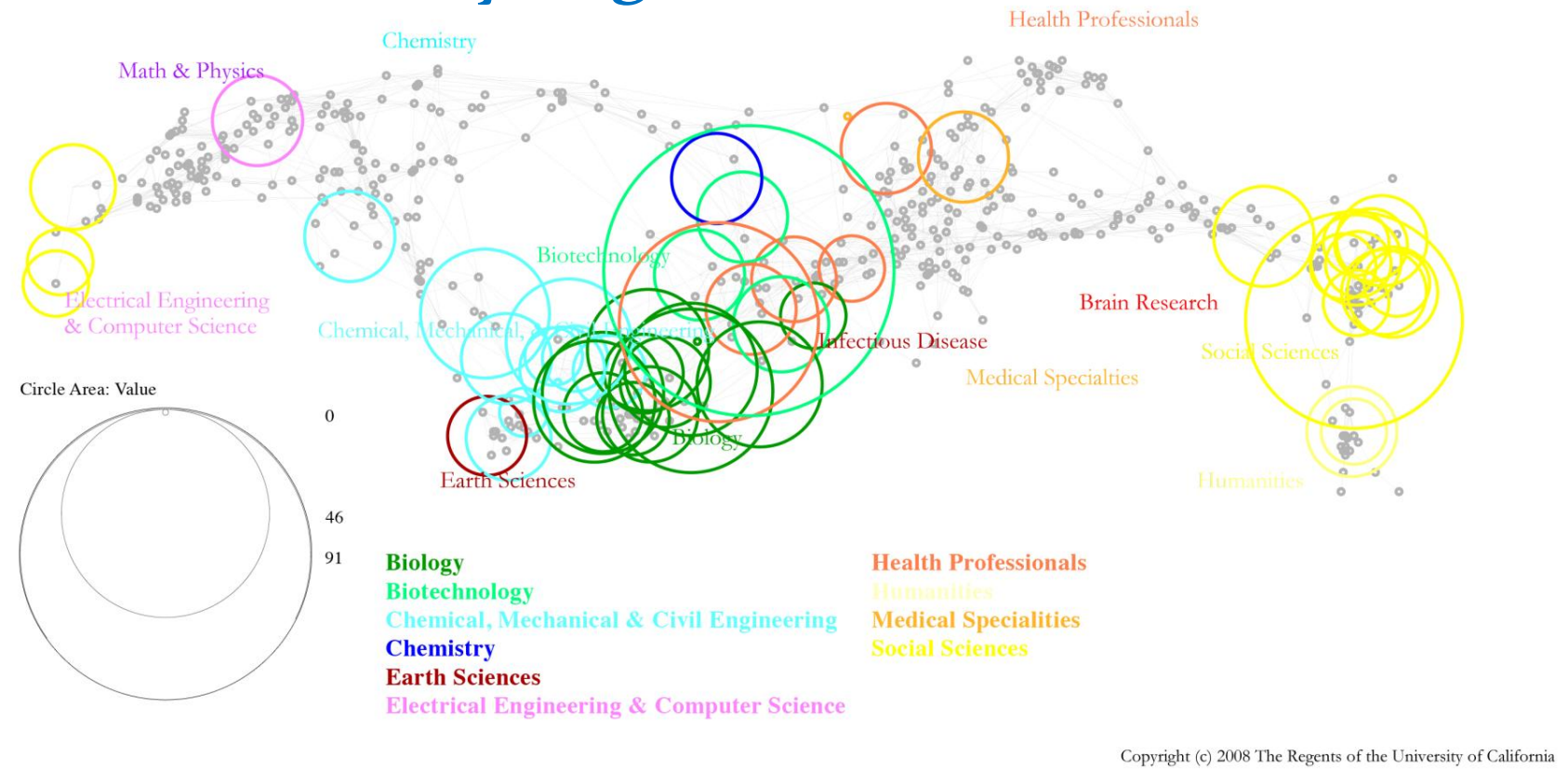
(Ward Max Tingey)

26 publications in Pest Management Science;

1 in Weed Management;

2 in Crop Science

Dynamic Map of Science Visualizations: By Organization – USDA



USDA Fields of Science Visualization made with VIVO

http://vivoweb.org/files/FieldsScienceMap_USDA.tif

Questions?

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