## Mushroom Observer and the Role of Observations

### Nathan Wilson <u>nwilson@eol.org</u>

Text and most images are licensed under the Creative Commons Attribution, Share-Alike 3.0 License Images marked with † are licensed under the Creative Commons Attribution, Share-Alike, Non-Commercial 3.0 License Images marked with †† are licensed under the Creative Commons Attribution, Share-Alike, Non-Commercial 2.5 License

### Who am I?

- Naturalist
- Citizen Mycologist
- Software Professional



Creator of Mushroom Observer

Armillaria mellea (Vahl) P. Kumm. California, USA © 1994 Nathan Wilson

- Director of Biodiversity Informatics for EOL
- Director of the MBL Center for Library and Informatics

# Mushroom Observer.org

MUSHROOM	Find:	Observations ‡	Search Refine Search   Adv	anced Search
OBSERVER	Show: Everything   🗹 Obser	vations   🗹 Names   🗹 L	ocations   🗹 Species Lists	Projects Submit
Introduction How To Use How To Help			Activity	y Log
Donate Feature Tracker	1 2 3 4 5 6 1483	<u>Next »</u>		
Send a Comment Index A→Z				A MARINA
List Locations		A Second Content	ADDEST	LA NEL
List Projects	The Asia			1.
Latest: Changes by Users	Constant of the second se	THE A	Mel al	a second and

<u>Changes by Users</u> <u>Images</u> <u>Comments</u> <u>Features and Fixes</u>

Observations: Create Observation Sort by Date

Species Lists: Create List Sort by Date Sort by Title Okay | Useful | Good | Great

**Observation Changed** 

Peltigera polydactylon (Neck.) Hoffm. (100114) Parque Nacional Cofre de Perote, Mpio de Perote, Veracruz, Mexico Okay | Useful | Good | Great

**Observation Changed** 

Psilocybe (Fr.) P. Kumm. (100137) Capira, Panama Province, Panama 2012-07-12: Eduardo A. Esquivel Rios

## Mushroom Observer

### http://mushroomobserver.org

- Community-based
- + Global
- + Open:
  - + Source
  - Content
  - to Change



Clavaria sulcata (Overeem) R.H. Petersen New Zealand © 2007 Inski

# Mushroom Observer.org



Okay | Useful | Good | Great



Images	232528
Observations	94498
Listed Taxa	29683
Observed Taxa	8858
Authored Name Descriptions	1447
Defined Locations	5470
Authored Location Descriptions	540
Species Lists	291
Species List Entries	49478
Proposed IDs	111464
Comments	54311
Votes	165079
Members	3295



Okay | Useful | Good | Great



Saturday, July 14, 12

# Mushroom Observer.org

- Records:
  - + Who
  - + What
  - Where
  - + When
  - + Images
  - + Notes



Auriscalpium vulgare Gray California, USA © 2004 Darvin DeShazer††

### Licensing & Data Reuse

76 pages



Copyright ©1994 Nathan Wilson (nathan)



#### File usage

The following pages on the English Wikipedia link to this file

- Agaricaceae
- Agaricales
- Agaricus
- Agaricus campestris
- List of Agaricaceae genera
- List of Agaricales families
- List of Agaricus species

#### Global file usage

The following other wikis use this file:

- Usage on ar.wikipedia.org
  - هاريقون
  - الي غاريقونية .
  - الى غاريقونيات .
  - التي غاريقون الحقول
- Usage on ast.wikipedia.org
  - Xampiñón 必
- Usage on az.wikipedia.org
  - Aqarikkimilər 🗗
- Usage on be.wikipedia.org
  - Шампіньён звычайны 🖗
- Usage on cs.wikipedia.org
  - Žampion polní 🖉

### Automated Data Sharing



Search EOL ...

GO

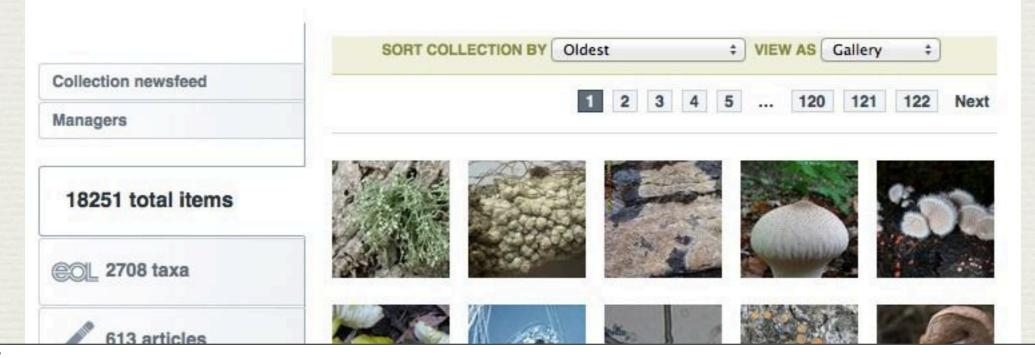


### **Mushroom Observer**

Last updated 2 days ago

😏 Tweet 🛛 🛛 🖪 Like

Mushroom Observer is a collaborative mycology-related website. The community supporting Mushroom Observer is committed to sharing and expanding people's knowledge of Fungi at all levels from beginners to world authorities. Users provide content to the site in the form of observations, species descriptions, discussions, voting and expert review. All copyrighted content on the Mushroom Observer is available under one of the Creative Commons licenses and all source code for the site is open source. Last indexed July 11, 2012



### Occurrence Map for Agaricus campestris L.



### **Species Treatments**

#### Diagnostic Description:

**Cap:** 2-10cm wide; usually overlapping or in a row or a rosette; kidney shaped, also described as fan shaped, sometimes fused laterally; can be flat to wavy; multicolored concentric zoning on the upper surface; zones alternate between velvety and smooth; color varies quite a bit, shades of brown, orange, tan, and gray are the most common, and colors alternate light and dark; flesh is leathery, 1-3mm thick; caps are stalkless.

Pore surface: whitish-gray; normally 3-5 pores per mm; pores are angular to circular; tubes are 1-2 mm long.

Spores: spores 5-6 × 1.5-2um; cylindrical to sausage-shaped; smooth; hyaline. Spore print is white.

**Hyphal system:** trimitic; generative hyphae are thin-walled with clamps, 2.5-3 um in diameter; skeletal hyphae thick-walled, nonseptate, 4-6 um in diameter; binding hyphae are also thick-walled, nonseptate, heavily branched, 2-4 um in diameter.

Sexuality: Heterothallic

Type of rot: White



Trametes versicolor (L.) Lloyd California, USA © 2002 Nathan Wilson

### **Computable Descriptions**

Class: SV1235 EquivalentTo: Fungus and (hasOverallShape some Shelf) and (hasHymenophoreShape some Pored) and (hasHymenophoreColor some White) and ((hasSurfaceColor some Brown) or (hasSurfaceColor some DarkBrown) or (hasSurfaceColor some LightBrown) or (hasSurfaceColor some Orange) or (hasSurfaceColor some Gray)) and (hasSporePrint some Obtainable) and (hasSporePrintColor some White) and (hasTaste some Mild) SubClassOf: FungusDescriptiveVernacular



Trametes versicolor (L.) Lloyd California, USA © 2002 Nathan Wilson

### Identifications & Dialog

Proposed Names: Propose Another Name Update Votes

Proposed Name	User	Community Vote	Your Vote	00
<u>Calvatia</u> indigo	pg_harvey	<u>9%</u> (6)	Doubtful ‡	
Recognized by	sight			0000
Bovista indigo	shroomydan	<u>-51%</u> (5)	Doubtful \$	
Recognized by	sight			

Map: <u>Hide thumbnail map.</u> Images: <u>(small thumbnails)</u>



For each name listed above select your opinion of how well that name applies to this observation. Select 'Propose Another Name' if you want to suggest another option. See the <u>How to Use</u> page for more details on how the votes are tallied.

• Observer's choice



Comments: Add Comment

Created: 2011-04-01 14:23:15 EDT (-0400) By: else Summary: i love the first of April! Okay | Useful | Good | Great

## People

- "If you treat them as your most important asset, they will return the favor by becoming your most important asset"
- Enjoy the struggle, encourage humor



Homo sapiens L. & Gyroporus cyanescens (Bull.) Quél. Massachusetts, USA © 2011 Andrea Wilson

### People

- We are generally lazy
- Avoid anonymity & privacy
- Deal carefully with conflicts
- What do we mean by expertise?
- Dealing with garbage

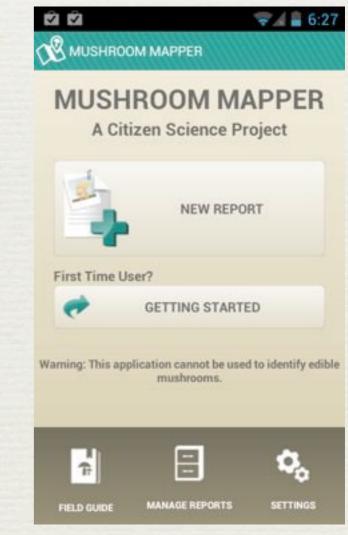


Homo sapiens L. & Gyroporus cyanescens (Bull.) Quél. Massachusetts, USA © 2011 Andrea Wilson

# Keeping It Fresh!

- Make it easy to find what's new
- Design for change
- Adding new features
  - Computable descriptions
  - Mobile app

(alpha test tomorrow, Android only)



Erik Lilleskov http://mushroommapper.org

### What is a species?

- Concept: "A group of organisms capable of interbreeding and producing fertile offspring"
- Definition: Type specimen, a name, and a circumscription that is believed to describe the species that specimen belongs to



Morchella importuna M.Kuo, O'Donnell & T.J. Volk California, USA © 2002 Darvin DeShazertt

### What is a species?

- "Without a sequenced specimen, it's a rumor."
- With one it is still only a hypothesis



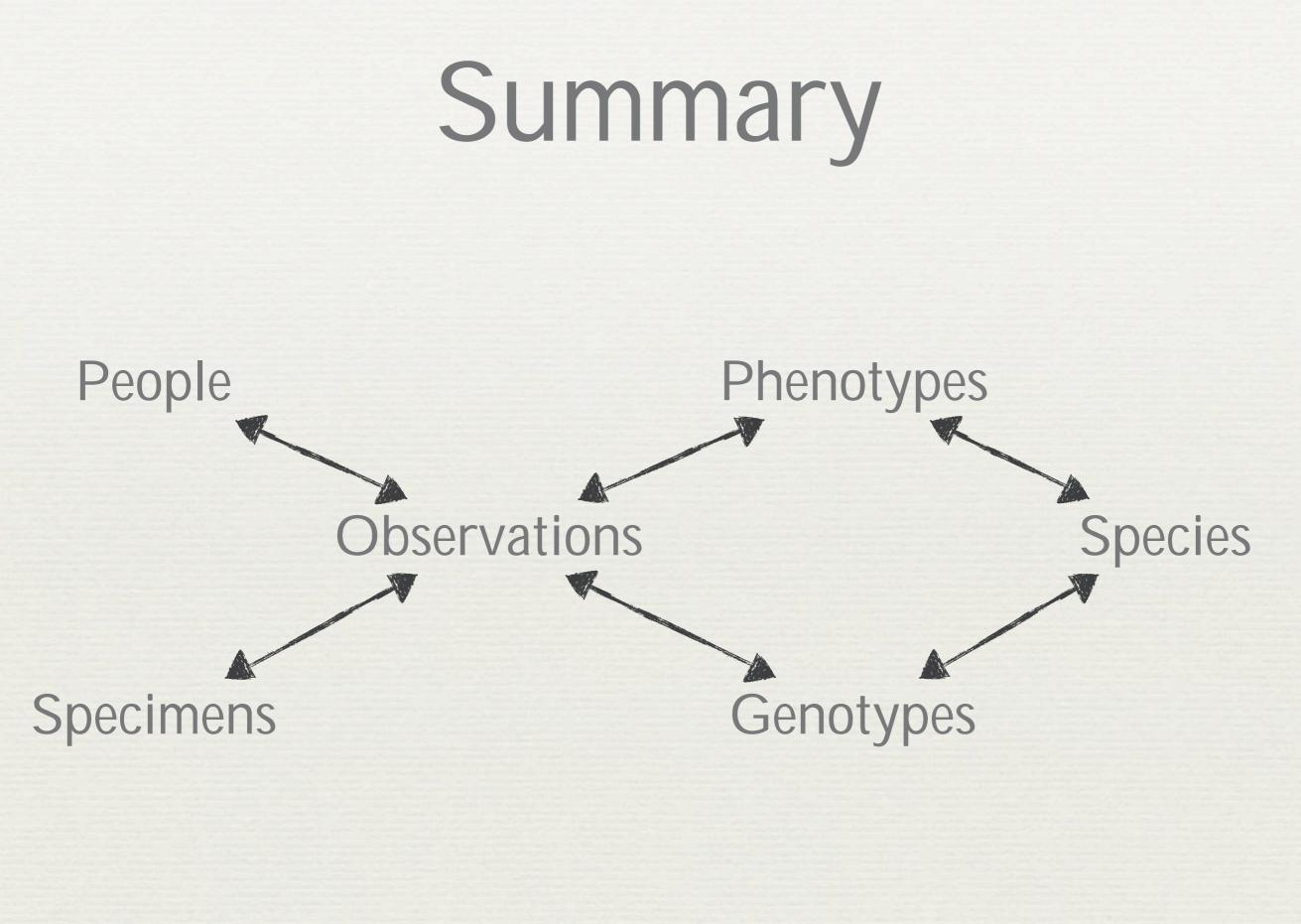
Agaricus subrufescens Peck California, USA © 2002 Nathan Wilson

### What is an observation?

- Just the Facts
- \* 'Metadata': Who, When and Where
- Images & Notes
- Observed Features
- Sequence Data



Digital Photomicrograph of Amylosporus campbellii (Berk.) Ryvarden California, USA © 2007 Darvin DeShazert



nwilson@eol.org - http://mushroomobserver.org - http://eol.org

### Acknowledgements

- Nancy Wilson
- Margaret McKinney
- David Arora
- Fungus Federation of Santa Cruz
- Mushroom Observer Community
- Jason Hollinger
- Marine Biological Laboratory & EOL
- and many more...



Cantharellus californicus Arora & Dunham California, USA © 2002 Nathan Wilson