

Finding what we're looking for has become easy. When I come someplace new I can just pick up my phone and ask Siri or Google where a coffee shop is. And I get a map of all the coffee shops nearby and directions to each one.

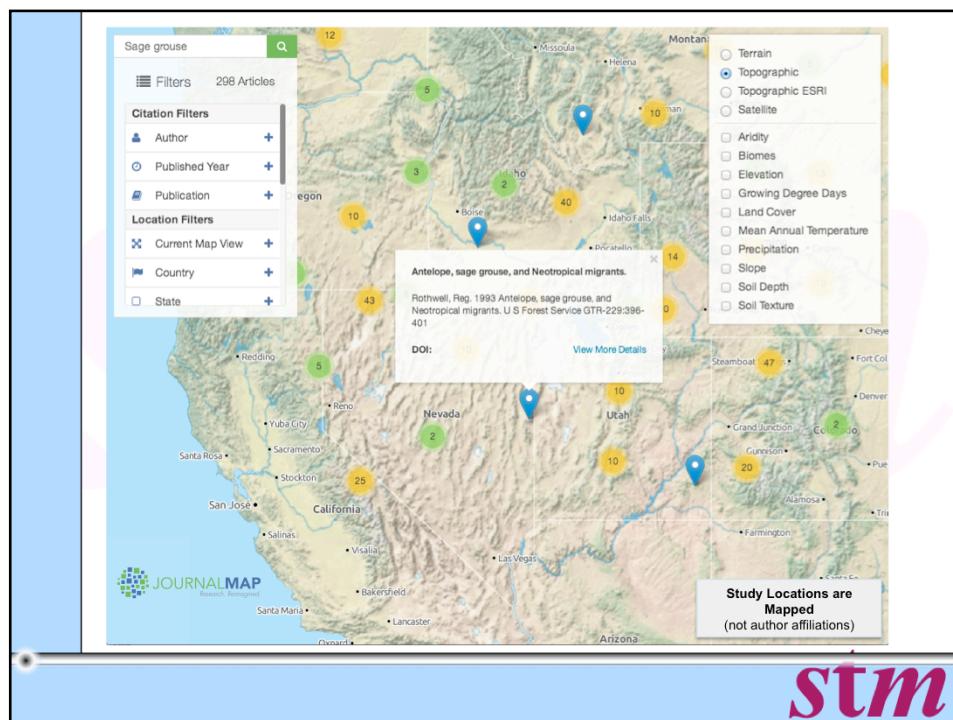
Why can't we find
scientific research by location
just as easily?

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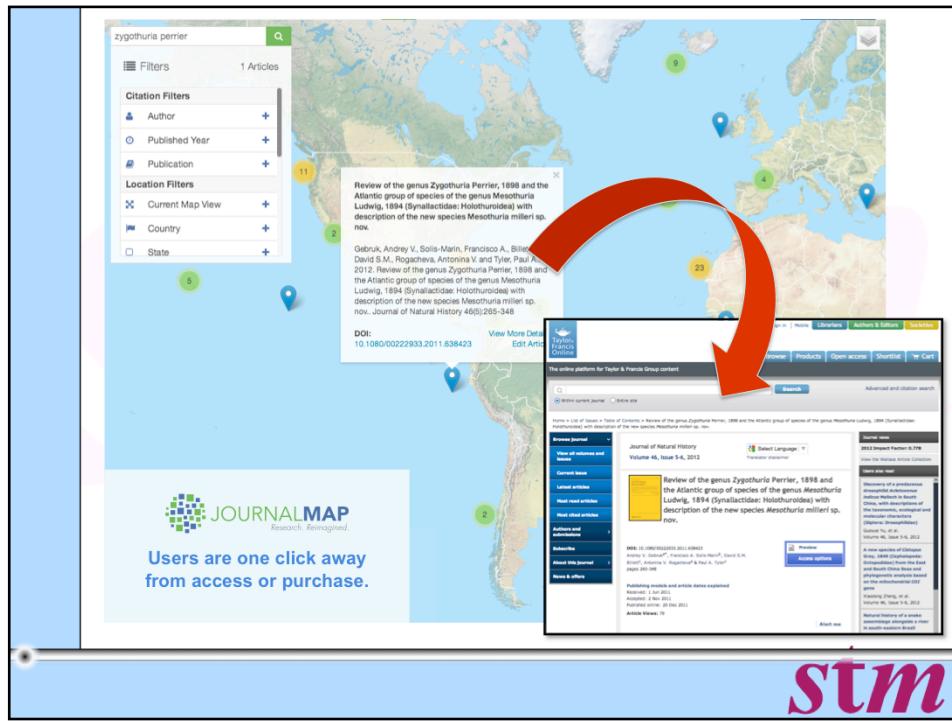
With just my phone I can find almost any coffee shop in the world on a map in a matter of seconds and be guided right to their door. Why can't we search for scientific literature by location the same way? That was the basic question that drove us to create JournalMap.



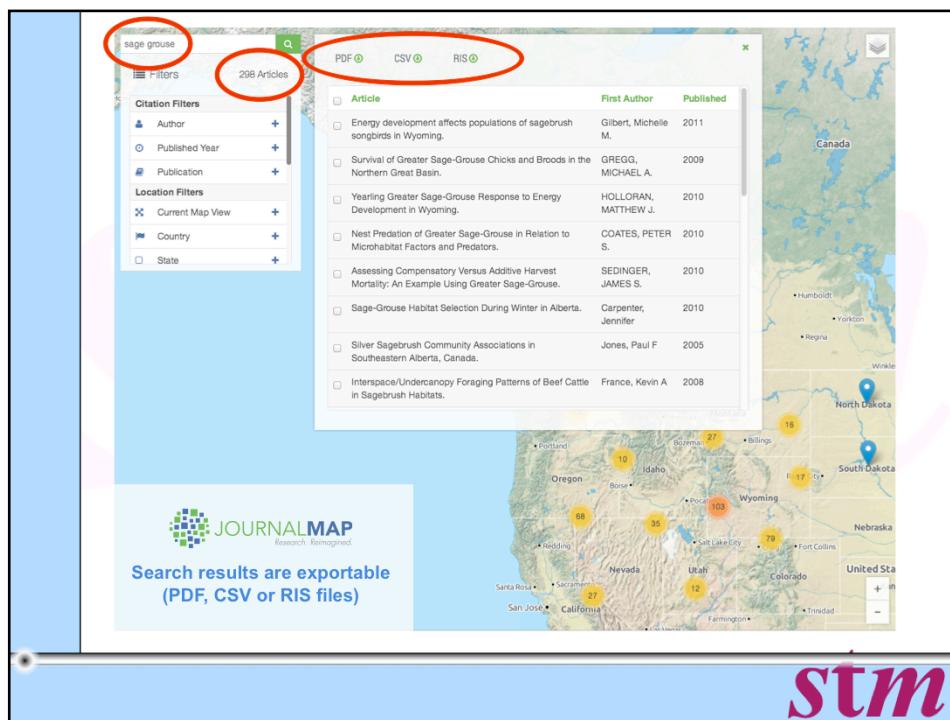
Maps are a powerful way to tell stories and have always been a crucial part of scientific publishing. They inform us about and show us relationships between things better than words alone can. JournalMap extends this idea by plotting on a map where research was done – it's like GPS for research discovery.



JournalMap is a free web-based search platform for finding scientific literature. Articles are mapped to their locations & users can use filters to narrow results. Additional map layers can be used to add clarity & context.



With JournalMap I can quickly find articles on a topic that match my needs, visualize their geographic extent, view a quick description of a particular one, read the abstract & go straight to the publisher's website (like yours) for the full content.



Here's a topical search for Sage Grouse, a species in the US that has been proposed for listing as threatened. This search returned a map of almost 300 articles. In addition to the map, we get a full list of the results & can download that list in a number of different formats.

Article Collection

My Spatial Ecology Articles

latest article added on August 2013

My research at the Jornada focuses on the applications of geographic information systems (GIS), remote sensing, multivariate and spatial statistics, and ecological informatics to sustainable land management.

I am the lead PI on the Landscape Toolbox and JournalMap projects, and I work extensively with the Bureau of Land Management, Natural Resource Conservation Service, and other federal agencies on the development and implementation of land health monitoring strategies and techniques. My research at the Jornada focuses on the applications of geographic information systems (GIS), remote sensing, multivariate and spatial statistics, and ecological informatics to sustainable land management.

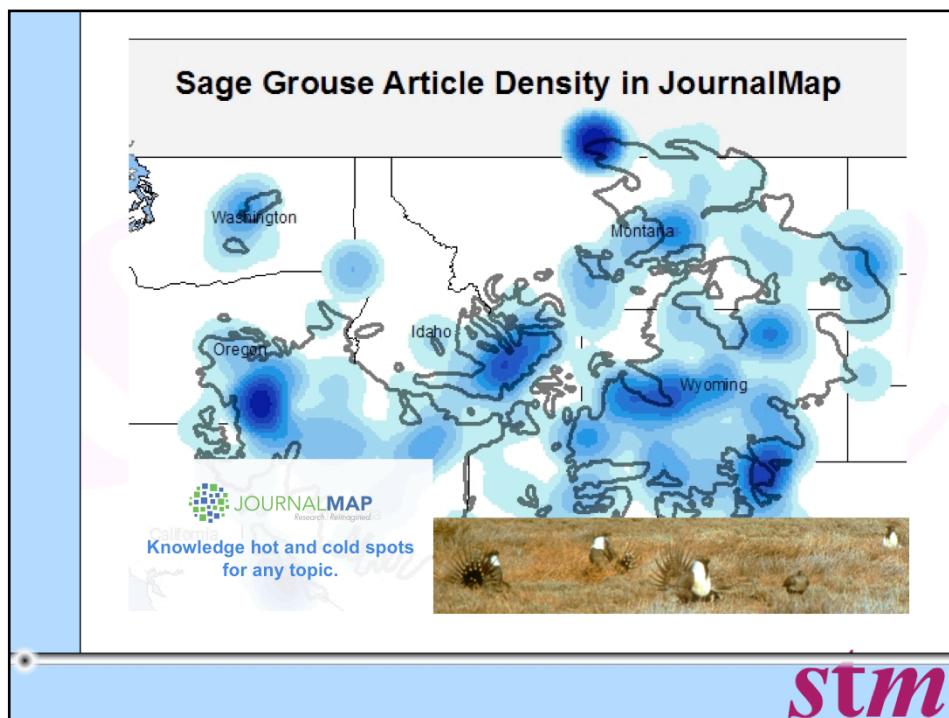
LOCATIONS ARTICLES (20)

JOURNALMAP
Research. Recognized.

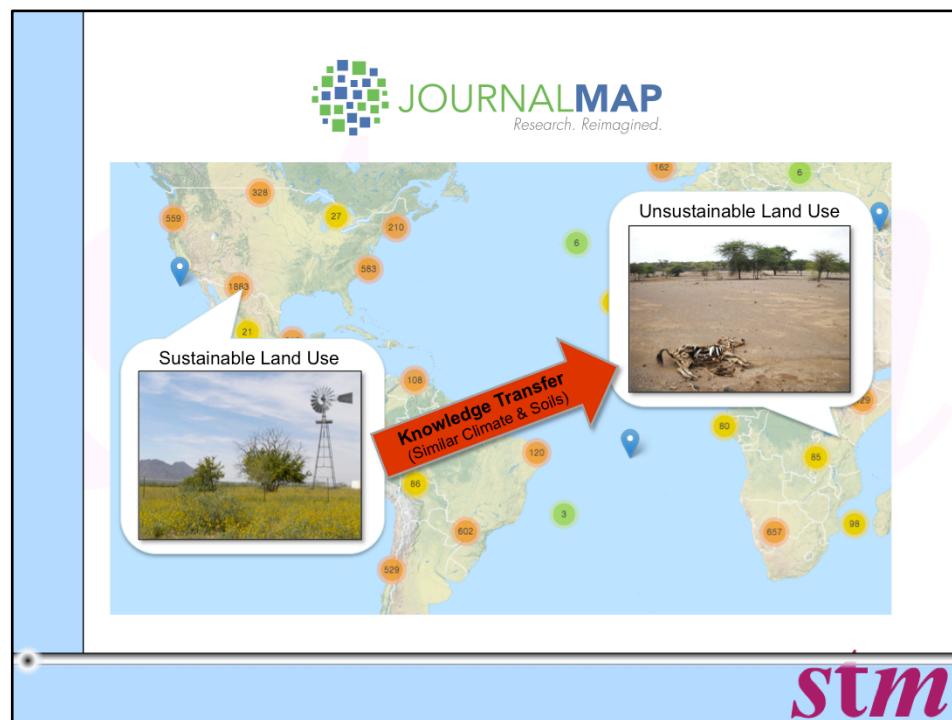
User-curated collections with unique URLs

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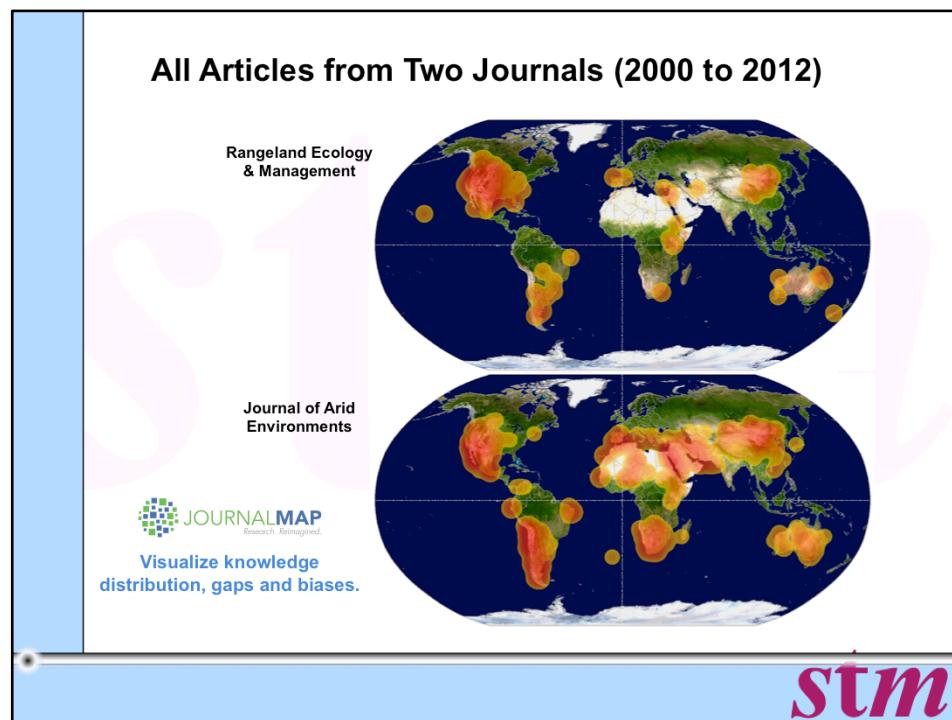
With JournalMap we can also create collections of articles or georeferenced bibliographies with static URLs like this example for some of my papers. But JournalMap is more than just map-based searches. There is real analytic power in article mapping.



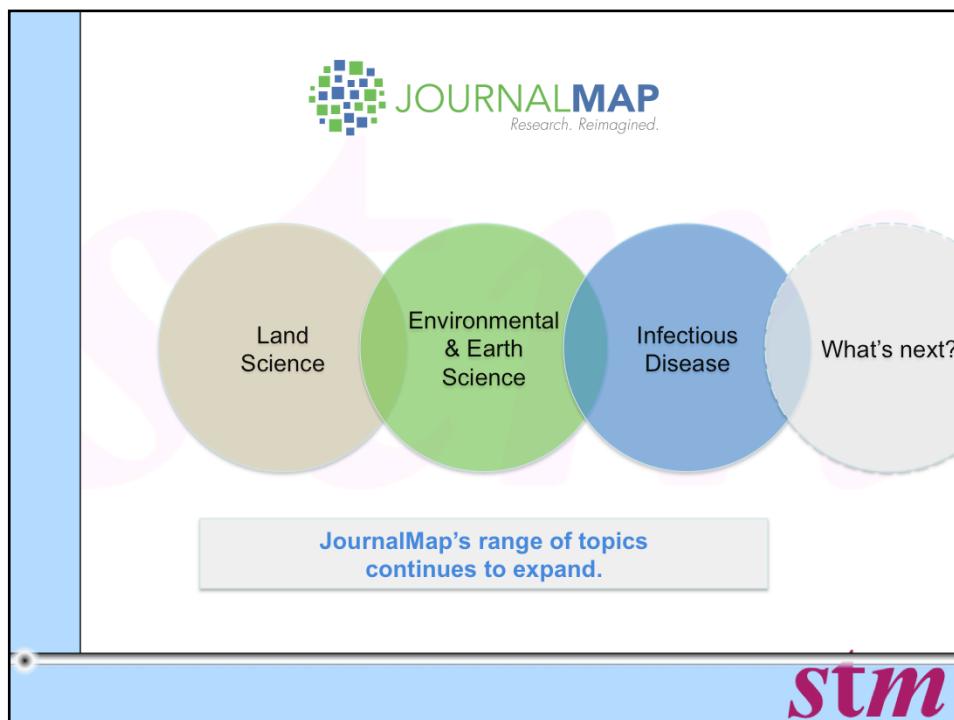
Take our sage grouse example from earlier. A comprehensive literature map lets us analyze knowledge hot spots & cold spots relative to where Sage Grouse live. This could help direct research & inform conservation efforts for the species.



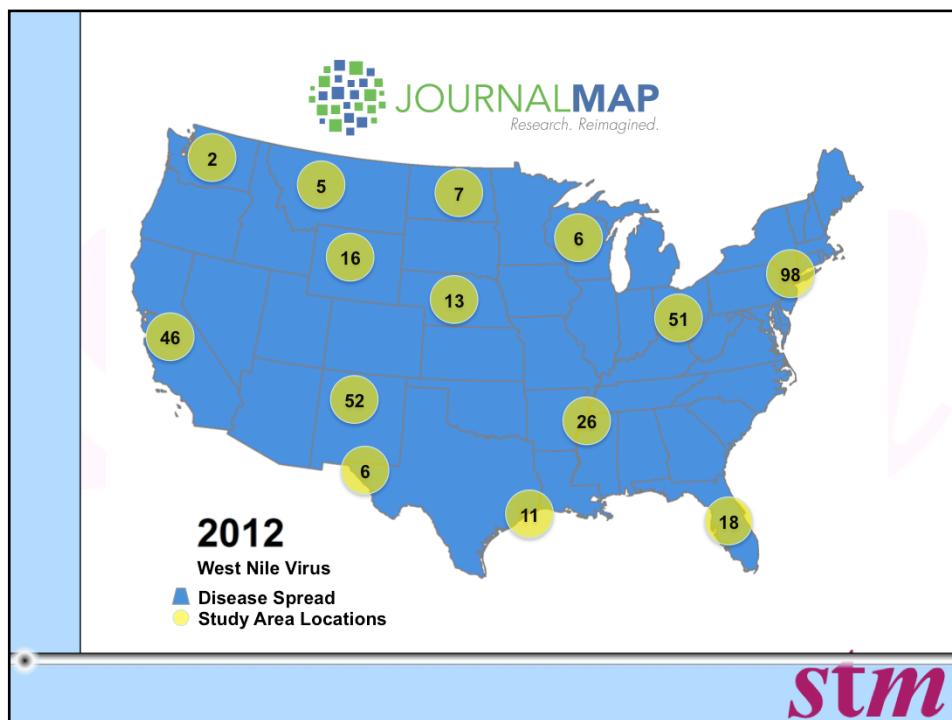
For knowledge to be transferable, it must have come from someplace with a similar context. With JournalMap we can define environmental similarity based on things like soils and climate in order to find knowledge from research rich areas and apply it to research poor ones for things like sustainable agriculture.



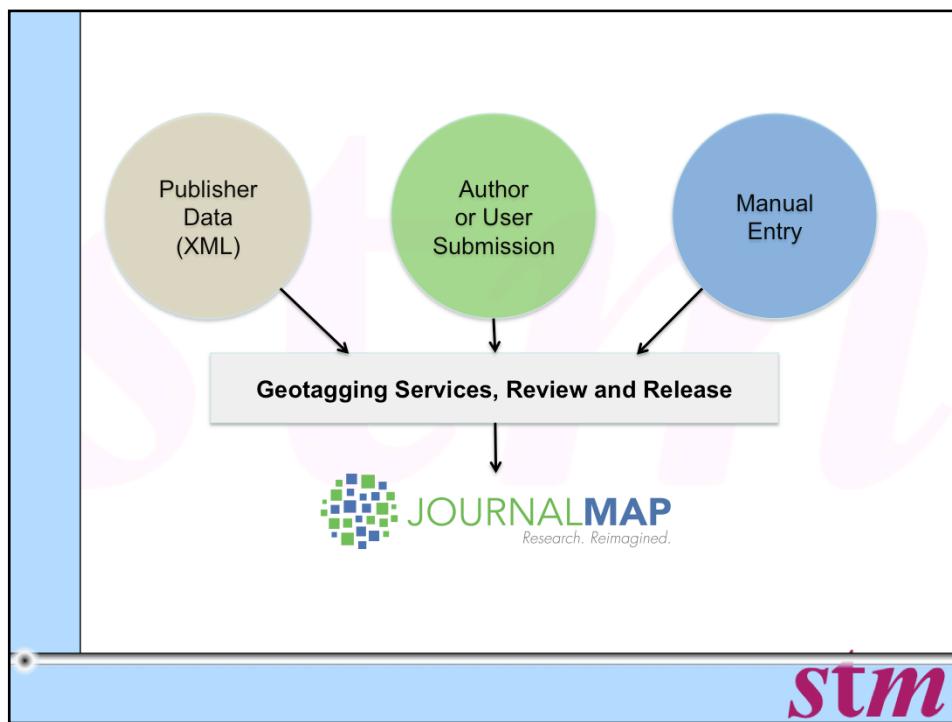
And what about comparing the distribution of studies from entire journals to look for knowledge gaps or potential biases like in this example of two journals with very similar scopes but different geographic distributions?



Initially with JournalMap, we focused on the land sciences of ecology and sustainable agriculture. Since then we have made natural extensions to other fields. Ultimately, though, the JournalMap concept is extensible to any field where geography is important.



For example, think of infectious disease. We can look at how knowledge spreads over time relative to other events like in the case of the spread of West Nile Virus in the US. We can see how knowledge of the disease tracks the disease itself over time.



We get articles into JournalMap in several different ways including the ability to reading industry standard XML formats from publishers. Data refinement and approval are done directly on the website before any records go live on JournalMap.



How are articles geotagged?

- Automated coordinate geo-parsing engine (60+ methods and growing)
- Semi-automated place name geo-parsing engine
- Manual geotagging

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Locations come from the actual study area description. Latitude/longitude values are then assigned using algorithms that detect and parse coordinates in text, or by semi-automated geoparsing of place names, or in some cases manual geotagging by our interns.



Our Vision

- **ALL published research is easily searchable with map tools**
- Geotag existing/archived publications
- Consistent location reporting
- Location fields included in document metadata

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Our ultimate goal with JournalMap is not modest. This is an idea that we're very excited about, and we have to work with those in the publishing industry to realize that vision. With the support of researchers, learned societies, and publishers we can make it happen.



Immediate Opportunities

- Adopt location reporting standards
- Geotagging services for publishers (location validation and error-checking)
- Expand JournalMap features
- Tools for publishers' websites

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Right now we are developing standards and best practices for location reporting. We're also working with Taylor & Francis on geotagging journal archives and developing a suite of geotagging tools and services for publishers. And we're open to any additional inquiries or collaborations as we expand our efforts.



JournalMap provides powerful new tools to researchers for augmenting scientific knowledge discovery. We're here today to talk to those in the publishing industry about how we can leverage location information that is hidden inside scientific papers to unlock new possibilities for knowledge discovery and application.

Time's Up!

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There's a lot more to tell you about JournalMap, but I'm out of time. so please visit our website at [journalmap.org](#). We'll also be around if you have questions. Thanks!