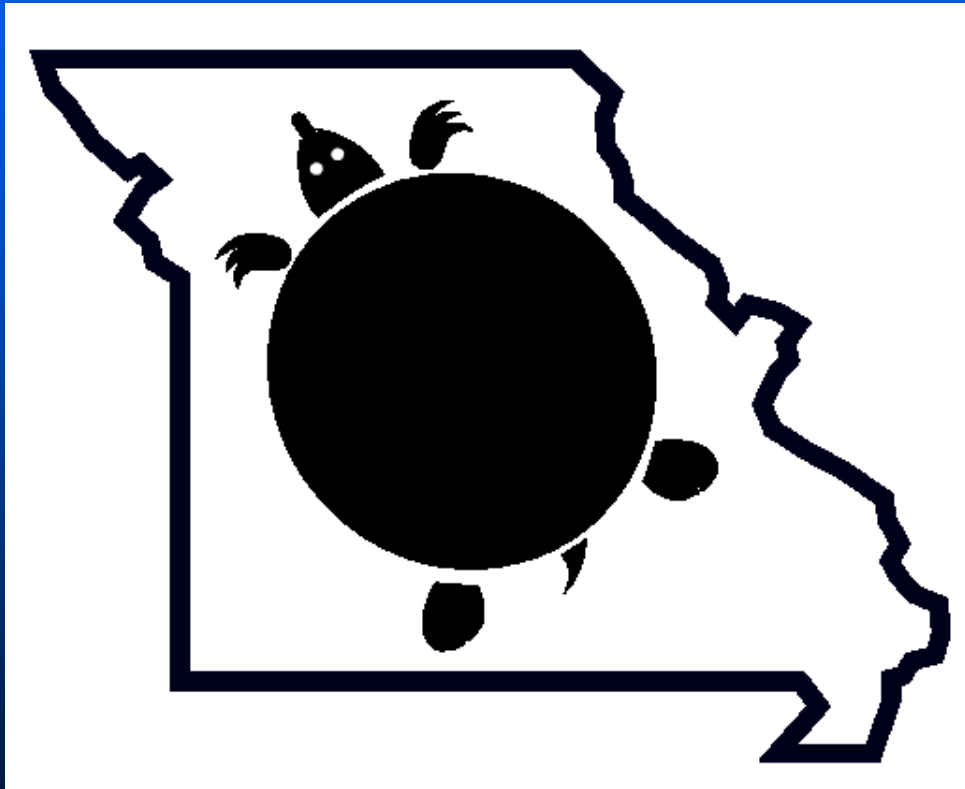


# The Missouri Herpetological Atlas Project (MOHAP)



## An Introduction

Brian Edmond

Richard Daniel

# Summary

- Goals
- Methods
- Stats
- Sample maps
- New records
- Data requests
- The future

# Goals

- Summarize historical and published collections in a common database format
- Produce an accurate and up-to-date atlas showing distribution and county records
- Identify areas around the state that need further field work
- Ongoing fieldwork to provide new data and verify questionable populations
- Provide atlas and data assistance to researchers and technical assistance for similar projects

# Methods

- Records are stored in a Microsoft Access database
- Maps are created on-demand using ESRI ArcView with customized Avenue scripts
- Atlas is published in Adobe's portable document format (PDF) that can be viewed and printed with the free Acrobat Reader software available on most operating systems

# Database details

- Database fields:
  - Source (museum or publication) and number
  - Taxonomy (order, family, genus, species)
  - Locality (state, county, locality, coordinates)
  - Collector(s)
  - Date
  - Comments
  - Code describing reliability of a record

# Stats

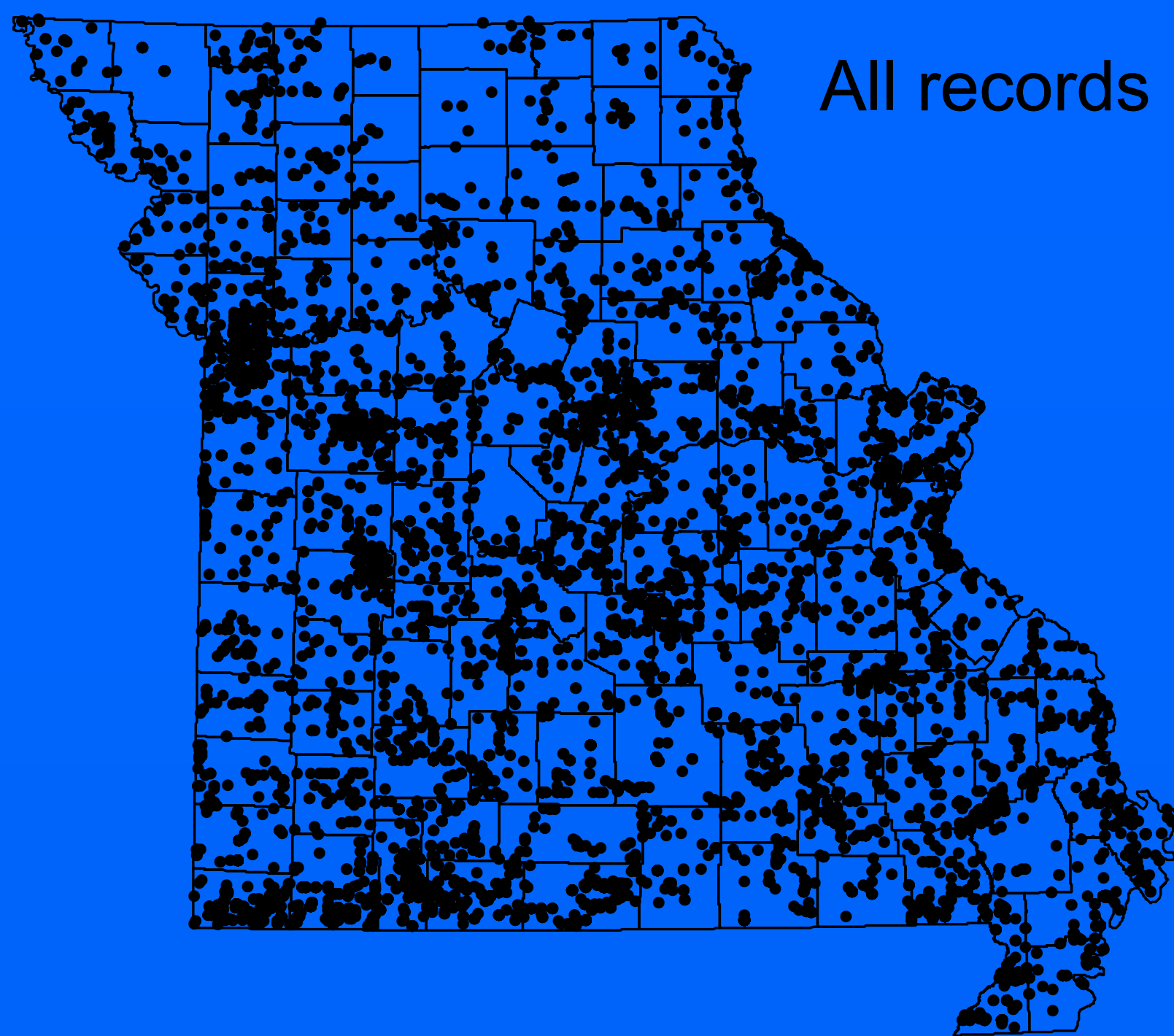
- 25,179 specimen / published records, of which 22,569 have enough data to plot
  - 31 collection sources, 32 literature references
    - » KU (5,842 records)
    - » MU (3,532 records)
    - » National Museum (1,846 records)
    - » Chicago Academy (1,466 records)
    - » CMSU (1,443 records)
  - 117 species
  - 4,485 unique localities
  - 9,888 unique species / locality combos

# Atlas samples

- Current atlas (preliminary maps only) can be found on MHA's website in the publications section:

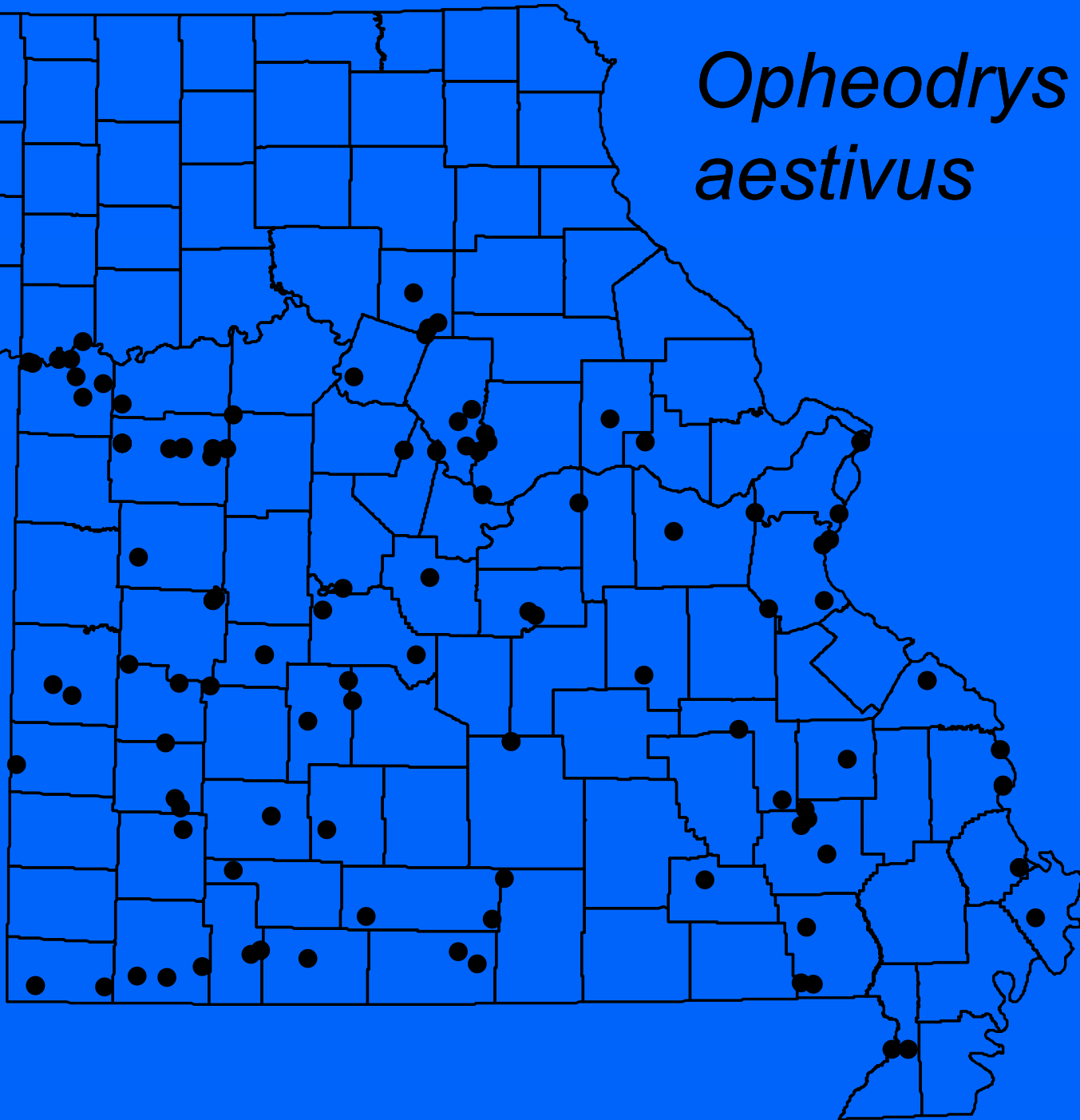
<http://atlas.moherp.org/>

All records

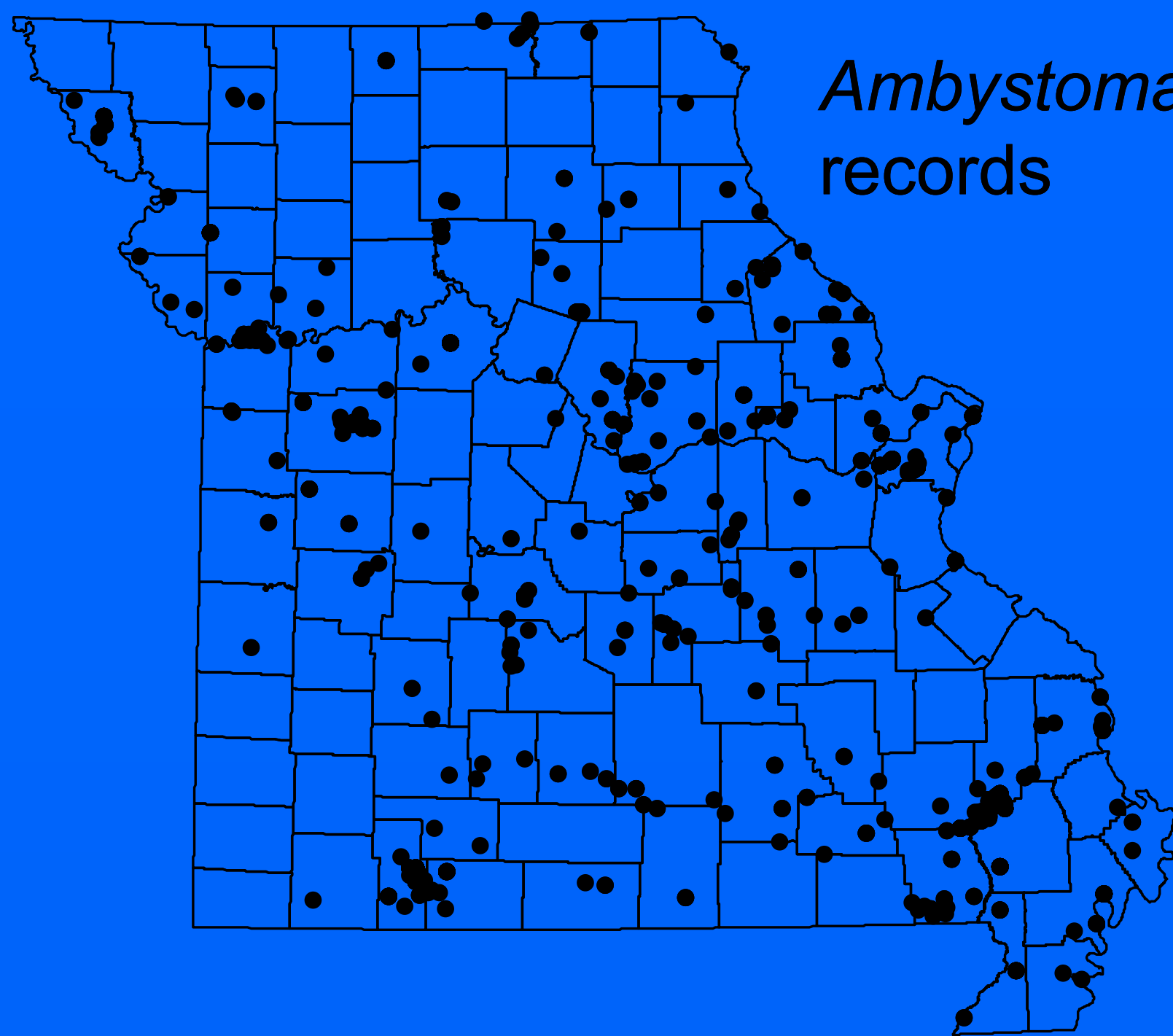




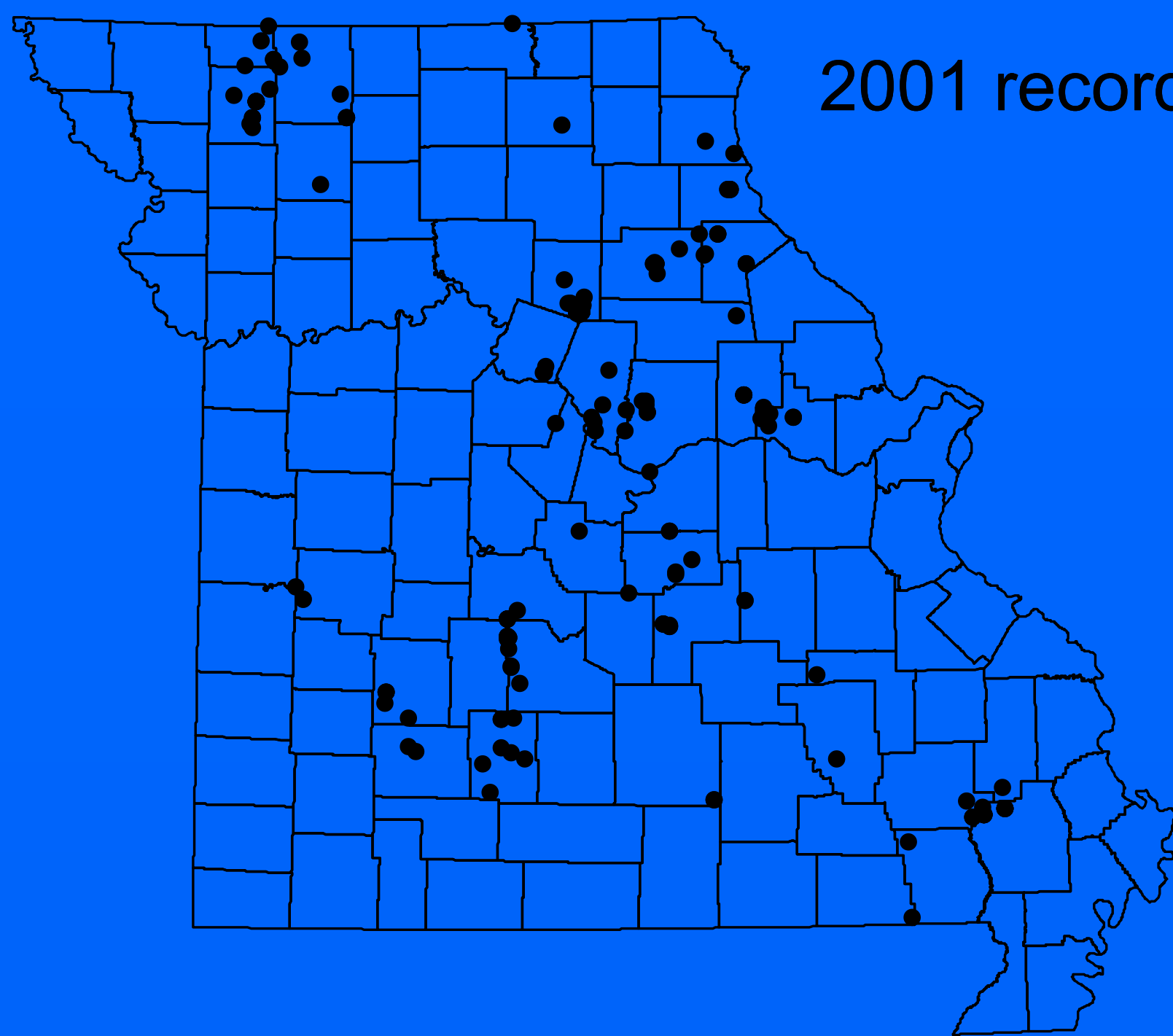
*Opheodrys*  
*aestivus*



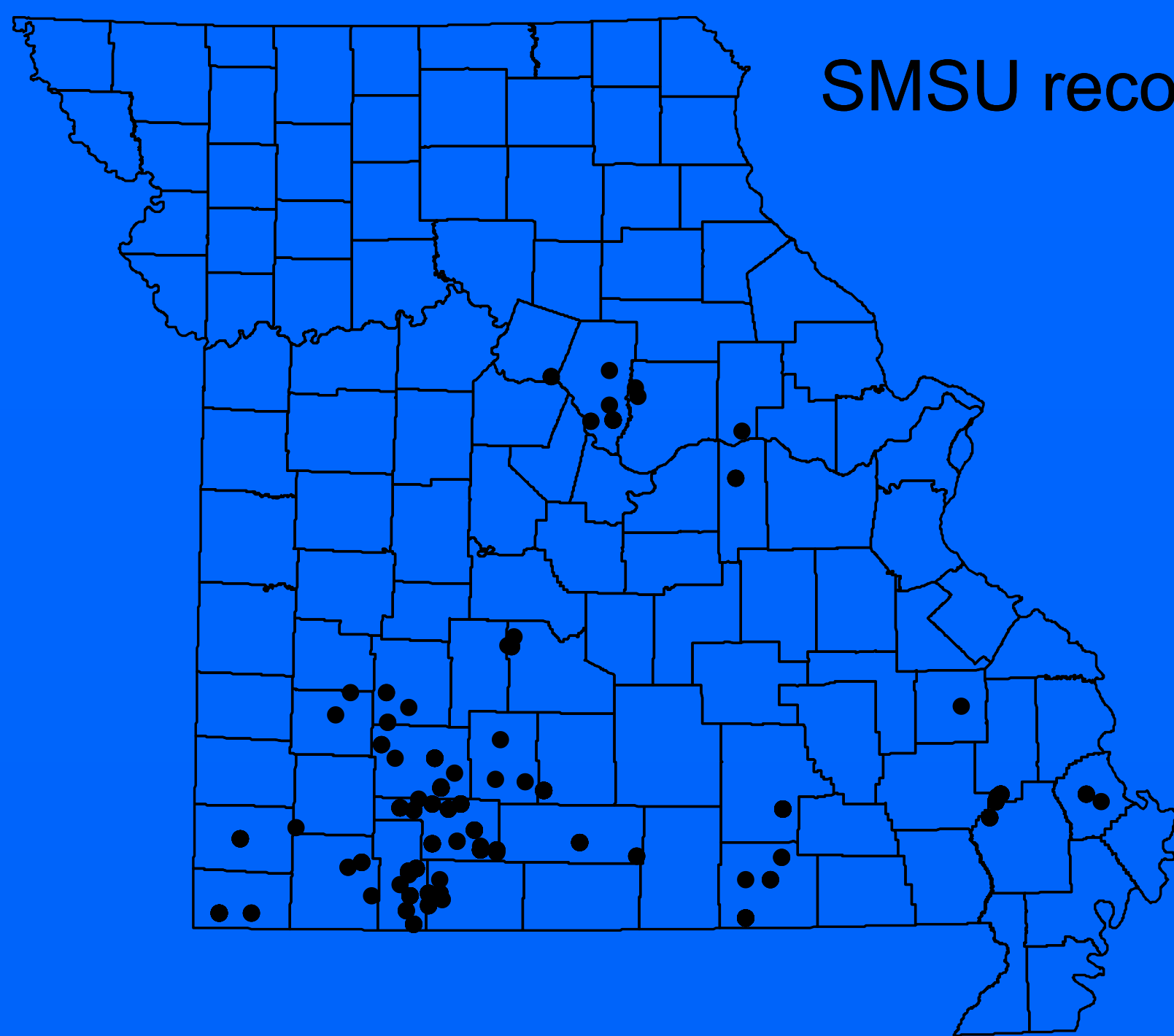
*Ambystoma*  
records



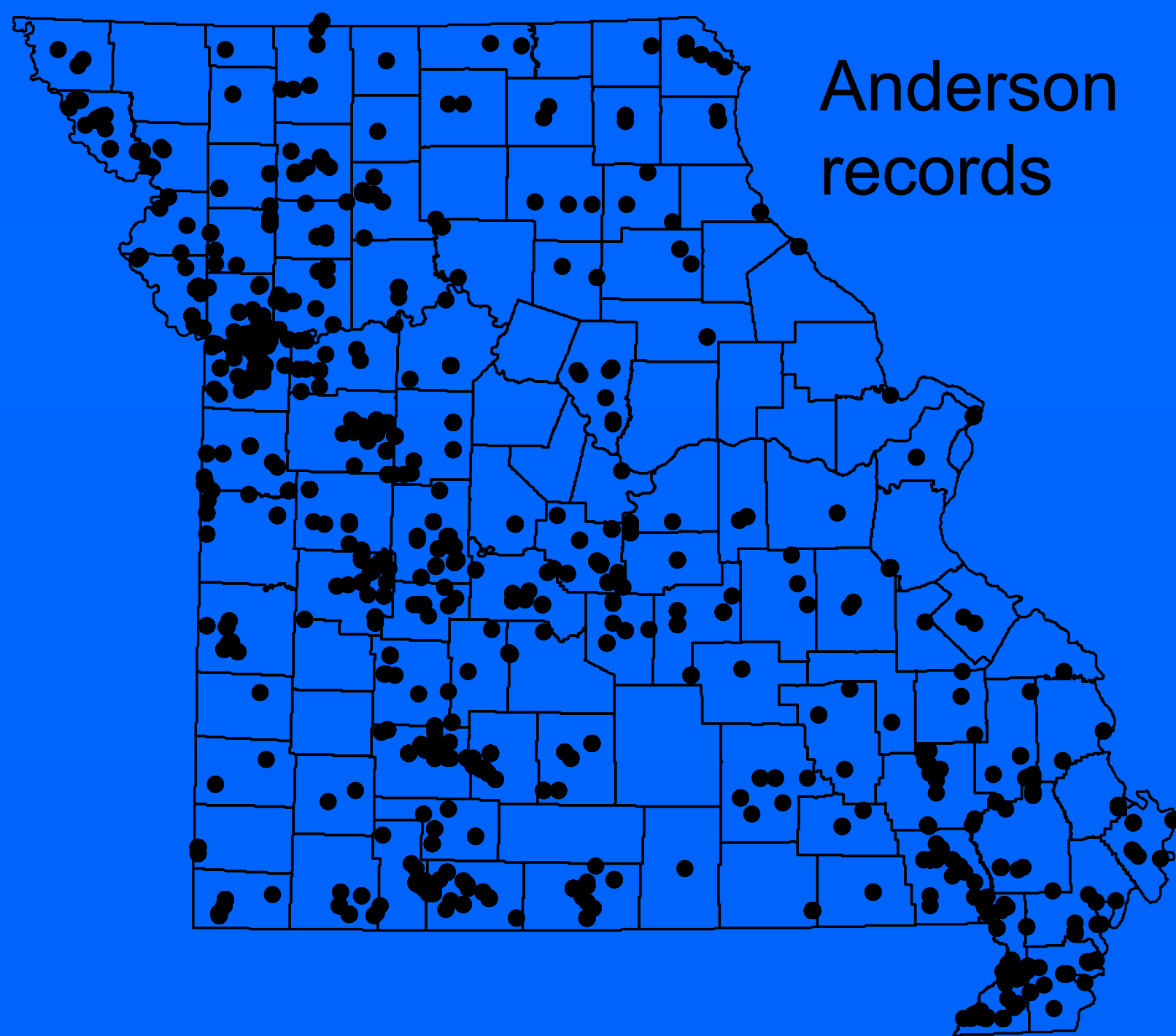
2001 records



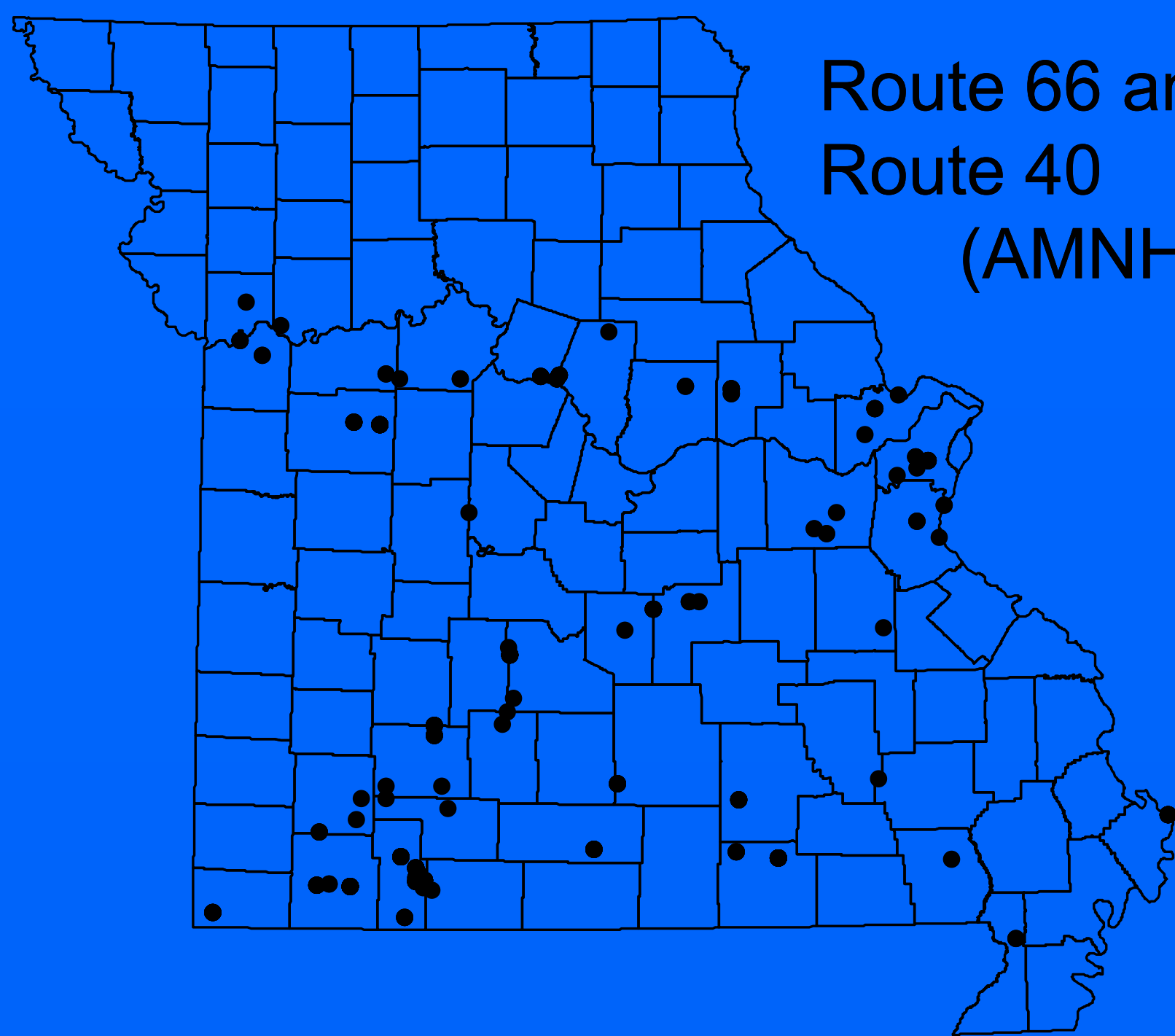
# SMSU records



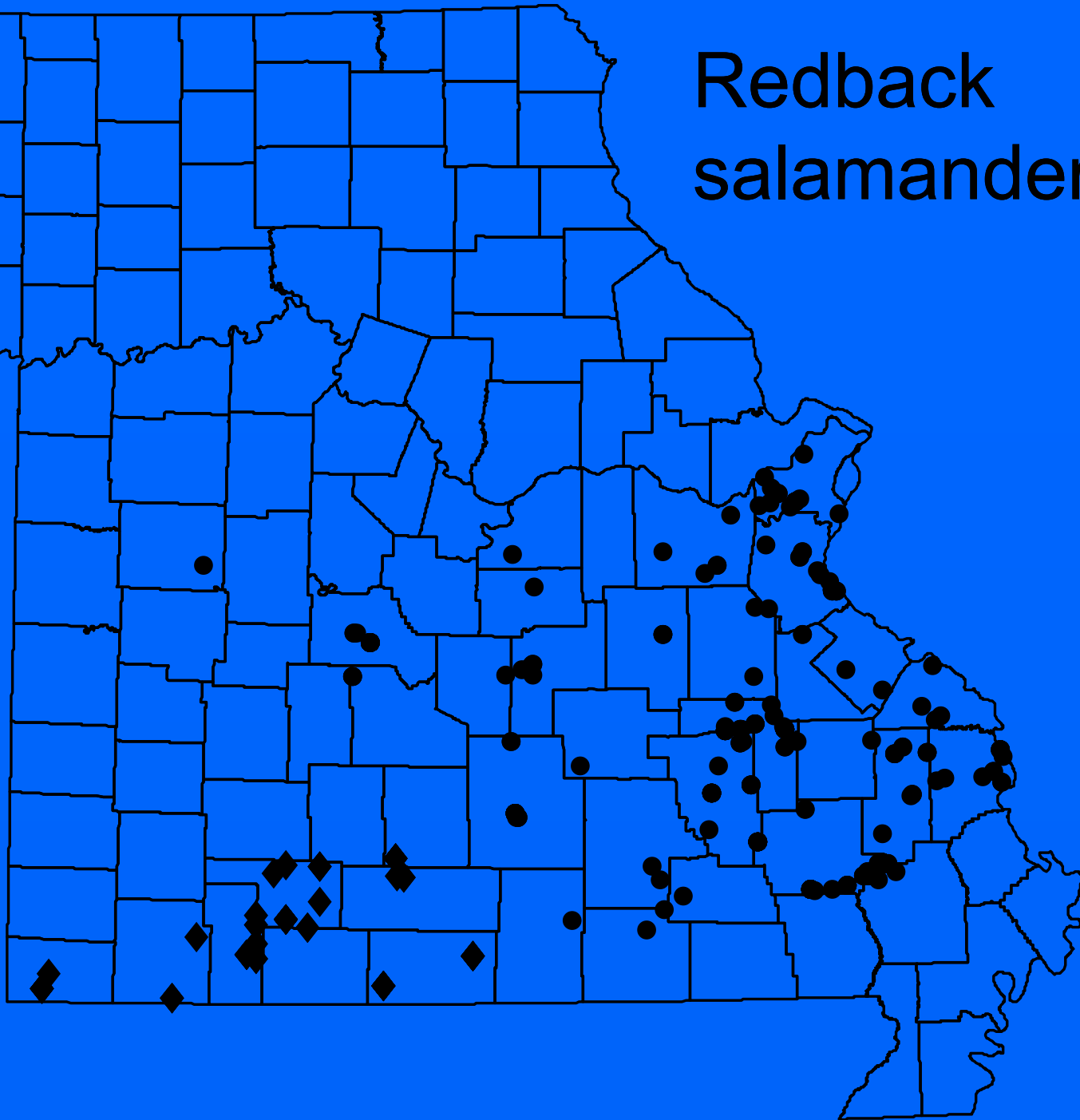
Anderson  
records



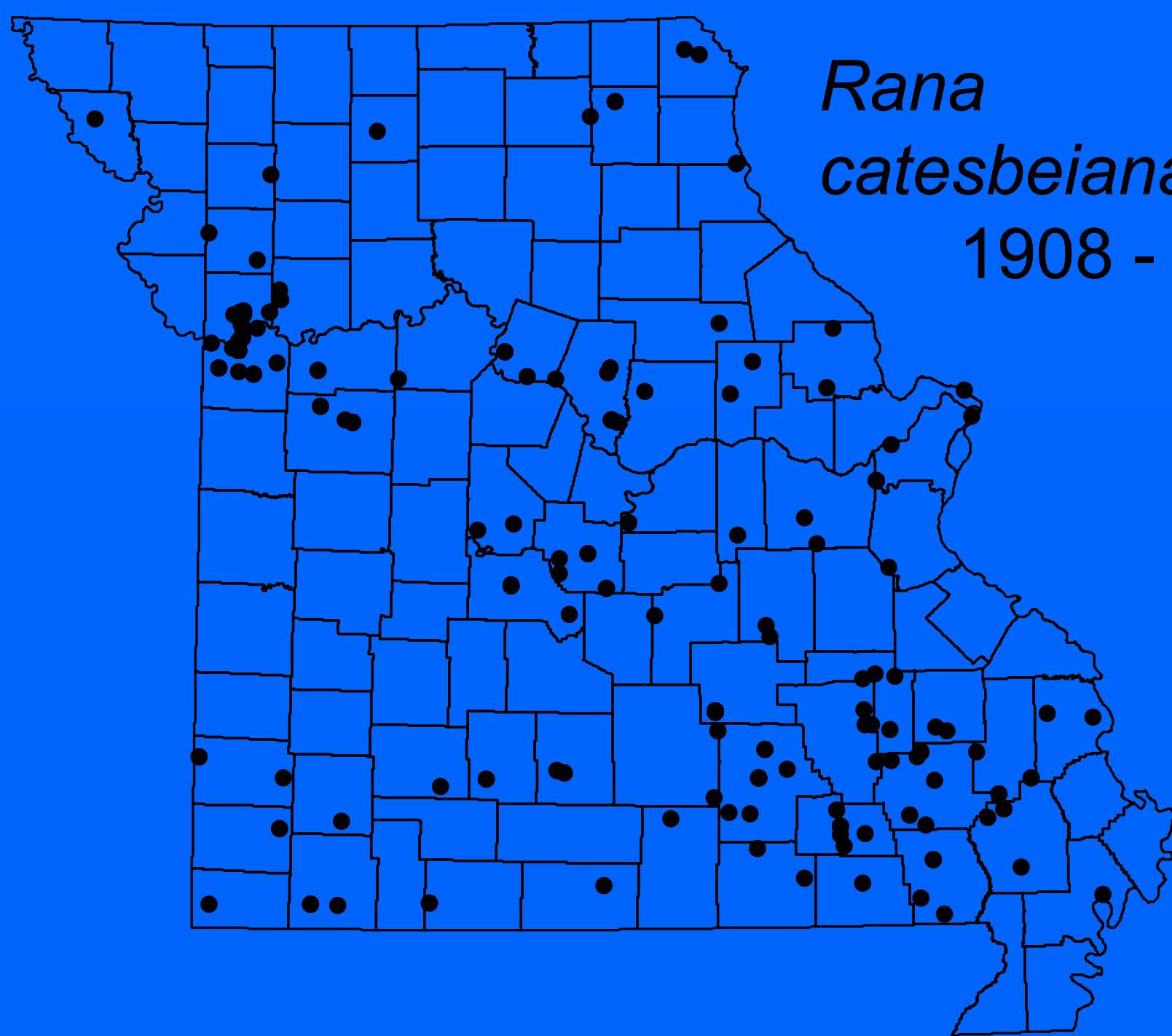
# Route 66 and Route 40 (AMNH)



Redback  
salamanders

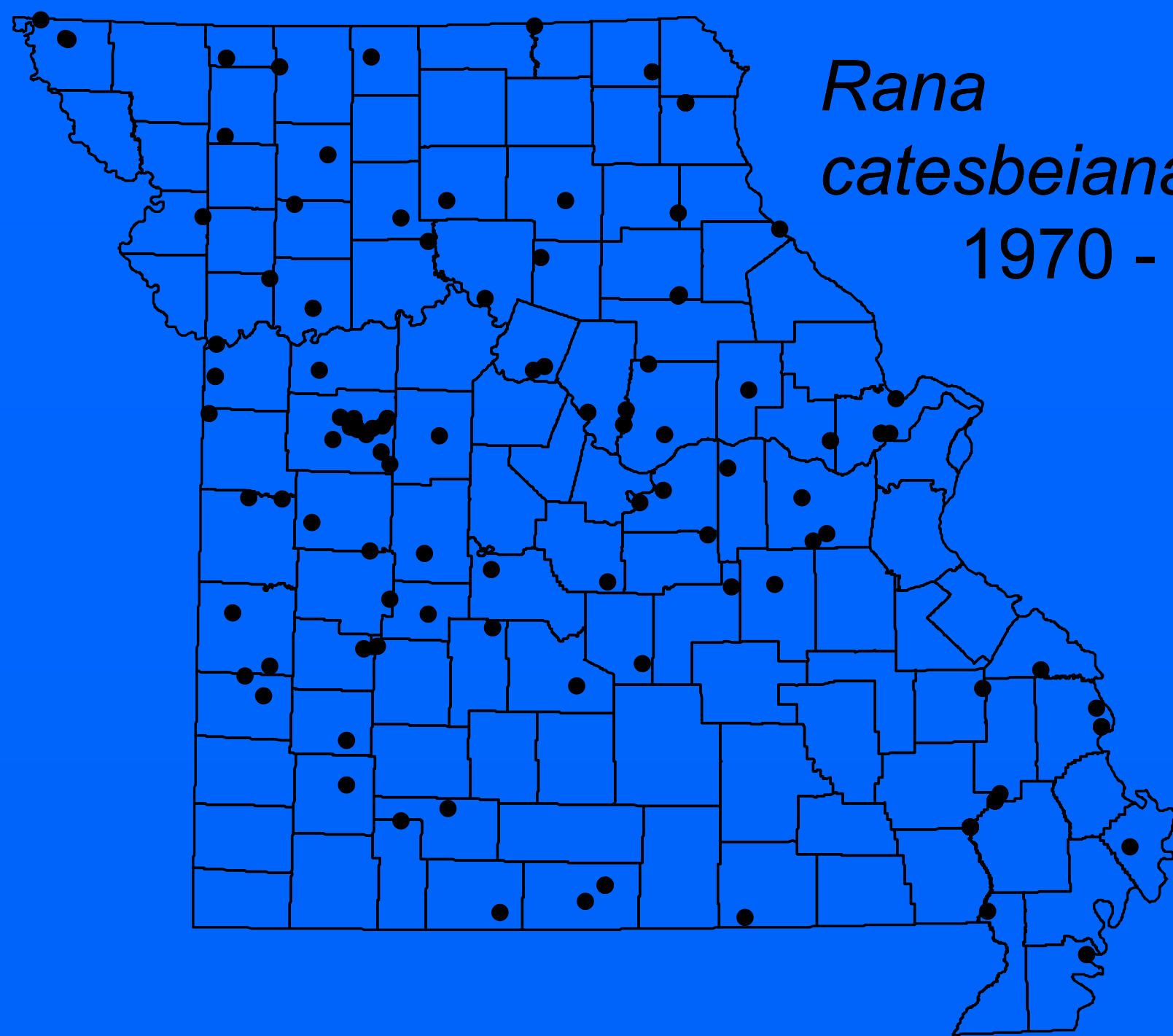


*Rana*  
*catesbeiana*  
1908 - 1969





*Rana*  
*catesbeiana*  
1970 - 2001



# New specimens

- Richard Daniel ([danielr@missouri.edu](mailto:danielr@missouri.edu))
- Brian Edmond ([BrianEdmond@MissouriState.edu](mailto:BrianEdmond@MissouriState.edu))
- Acceptable specimen records:
  - Any specimen in a public institution with a catalogue number
  - Slide or electronic photograph with diagnostic characteristics clearly visible

# Data and map requests

- Submit a letter (on institution letterhead) describing your interests or project to:
- Richard Daniel, LeFevre Hall, University of Missouri, Columbia MO 65211
- Maps available in PDF format
- Data available in spreadsheet format
- Delivered electronically

# The future

- Migration to non-commercial non-proprietary software for all aspects of the project
- Finish gathering collection and published data for the atlas to form a complete baseline
- Keep atlas updated at least once annually with ongoing fieldwork and additional collections
- Publish a companion to the current field guide discussing distribution and collections in detail
- Web interface for database queries and on-line mapping

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# Questions?

- Richard Daniel:  
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- Brian Edmond:  
[BrianEdmond@MissouriState.edu](mailto:BrianEdmond@MissouriState.edu)
- Atlas: <http://atlas.moherp.org/>
- MHA: <http://www.moherp.org>