

*Caecidotea fonticulus*

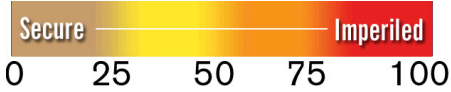
isopod

Class: Malacostraca

Order: Isopoda

Family: Asellidae

Priority Score: **23 out of 100**



Population Trend: Unknown

Caecidotea spp.



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G Rank: G? – Uncertain global ranking

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



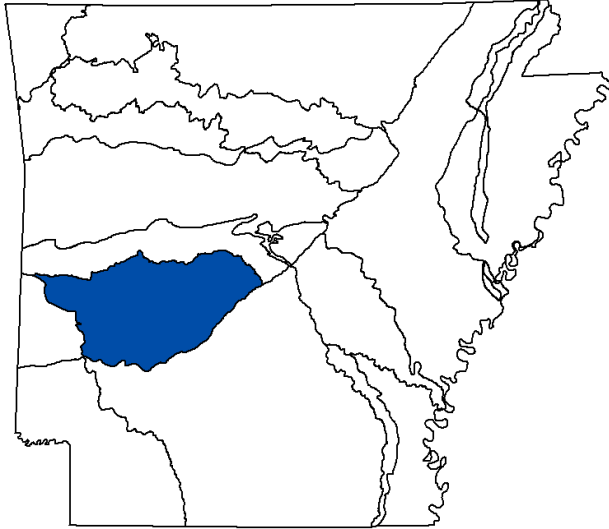
**Element Occurrence Records**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Association Team and Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where the species occurs**

**Ecobasins**

Ouachita Mountains - Ouachita River

**Habitats**

Natural Groundwater: Headwater - Small  
 Natural Seep: Headwater - Small  
 Natural Spring Run: Headwater - Small

**Weight**

Data Gap  
 Data Gap  
 Obligate

**Problems Faced**

Threat: Habitat destruction or conversion  
 Source: Forestry activities

Threat: Toxins/contaminants  
 Source: Municipal/Industrial point source

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Surveys to locate additional populations and protection of stream habitats

**Comments**

An Arkansas endemic isopod known only from Abernathy Spring in Polk County (Lewis 1983).

*Pyrgulopsis ozarkensis*

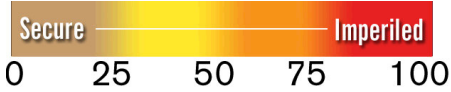
**Ozark Pyrg**

**Class:** Gastropoda

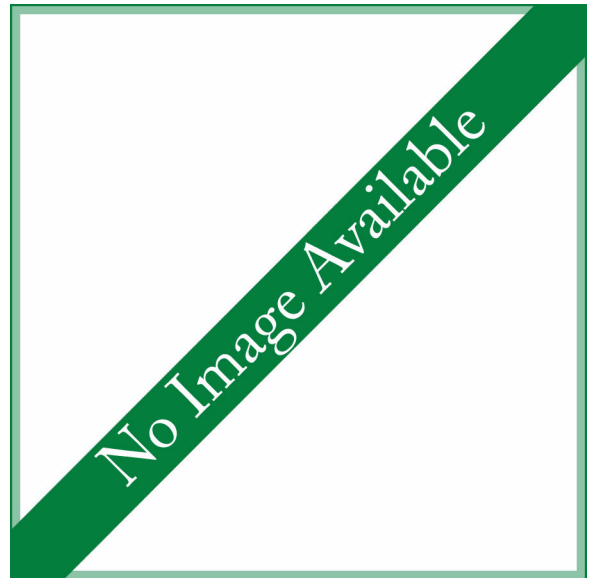
**Order:** Neotaenioglossa

**Family:** Hydrobiidae

**Priority Score: 80 out of 100**



**Population Trend:** Unknown



**G Rank:** G1 – Critically imperiled species

**S Rank:** S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



**Element Occurrence Records**

**Ecoregions where the species occurs:**

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Association Team and Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where the species occurs**

**Problems Faced**

Threat:  
Source:

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**Data Gaps/Research Needs**

Conduct distribution and abundance studies.

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**Conservation Actions**

**Importance**    **Category**

More data is needed to determine conservation actions.	Medium	Data Gap
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**Monitoring Strategies**

Surveys to locate additional populations and protection of stream habitats

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**Comments**

Freshwater snail reclassified as *Marstonia ozarkensis* (Hershler and Thompson 1987, Thompson and Hershler 2002, Turgeon and others 1998).

*Somatogyrus crassilabris*

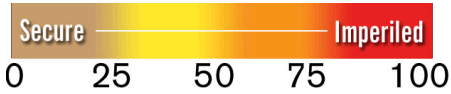
Thicklipped Pebblesnail

Class: Gastropoda

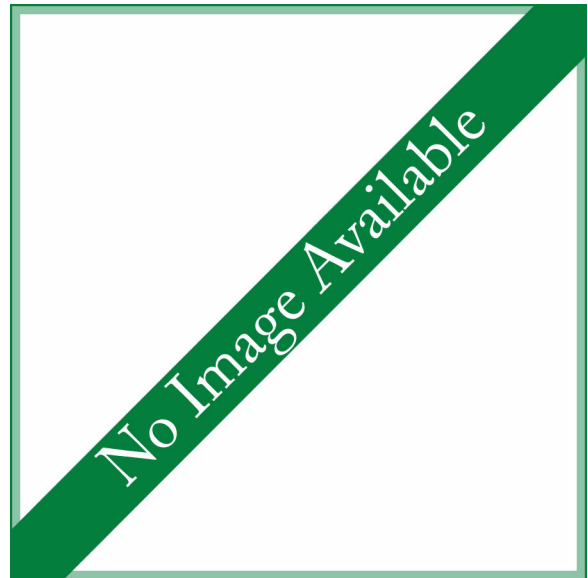
Order: Neotaenioglossa

Family: Hydrobiidae

Priority Score: **80 out of 100**



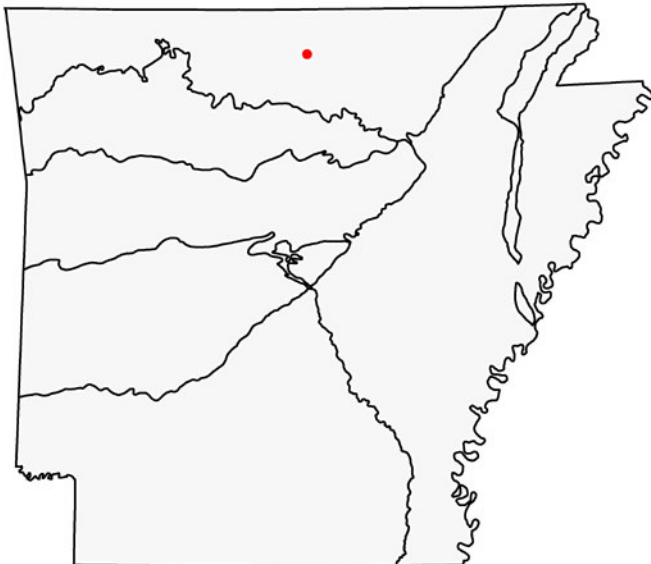
Population Trend: Unknown



G Rank: GX – Presumed extinct

S Rank: SX – Presumed extinct

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

**Element Occurrence Records**

**Taxa Association Team and Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where the species occurs**

**Problems Faced**

Threat: Hydrological alteration  
Source: Dam

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**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

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**Conservation Actions**

**Importance    Category**

More data is needed to determine conservation actions.    Medium    Data Gap

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**Monitoring Strategies**

Surveys to locate additional populations.

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**Comments**

Freshwater snail. This species is also known as the Thick-lip Pebblesnail. Presumed extinct from the North Fork of the White River, Norfolk, Arkansas (Burch and Tottenham 1980). : Known only from the North Fork of the White River in Baxter County, Arkansas (Robison and Allen, 1995).

*Somatogyrus wheeleri*

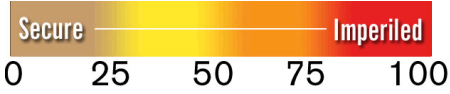
Channelled Pebblesnail

Class: Gastropoda

Order: Neotaenioglossa

Family: Hydrobiidae

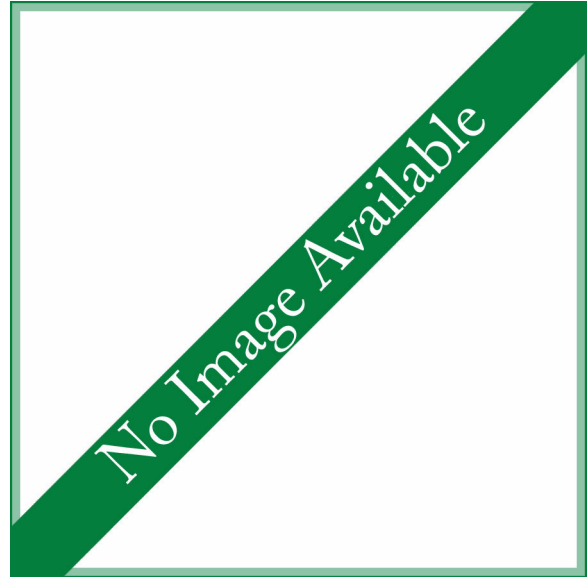
Priority Score: **80 out of 100**



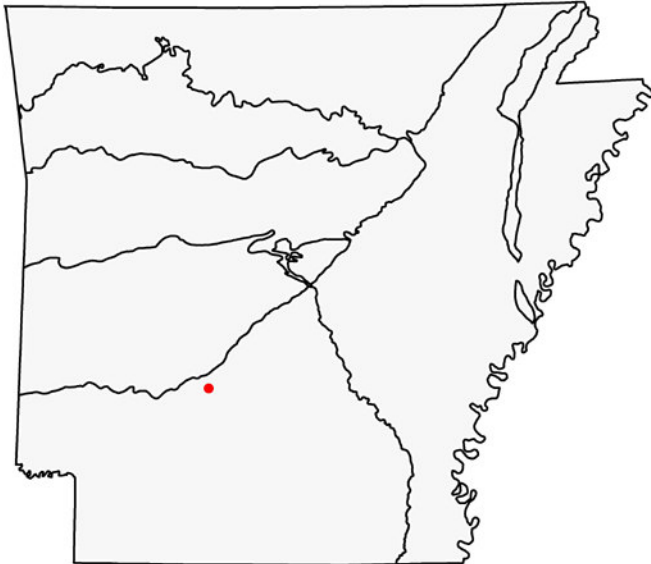
Population Trend: Unknown

G Rank: GX – Presumed extinct

S Rank: SX – Presumed extinct



**Distribution**



**Element Occurrence Records**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Association Team and Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where the species occurs**

**Problems Faced**

Threat: Hydrological alteration  
Source: Dam

---

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

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**Conservation Actions**

**Importance    Category**

More data is needed to determine conservation actions.    Medium    Data Gap

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**Monitoring Strategies**

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**Comments**

Freshwater snail. This species is extirpated in the subnation. Habitat probably destroyed by reservoirs. Known only from the Ouachita River in Clark County, AR (Robison and Allen 1995, Turgeon and others 1998).



*Stygobromus elatus*

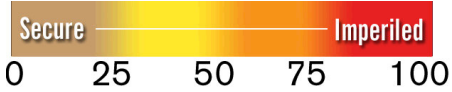
**Elevated Spring Amphipod**

**Class:** Malacostraca

**Order:** Amphipoda

**Family:** Crangonyctidae

**Priority Score:** **50 out of 100**



**Population Trend:** Unknown



**G Rank:** G1G2 – Critically imperiled (uncertain rank)

**S Rank:** SU – Presumed extirpated in Arkansas.

**Distribution**



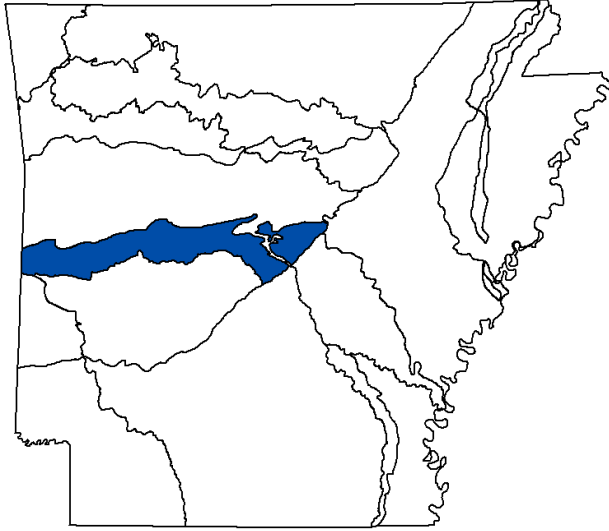
**Ecoregions where the species occurs:**



**Element Occurrence Records**

**Taxa Association Team and Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where the species occurs**

**Ecobasins**

Arkansas Valley - Arkansas River

**Habitats**

	<b>Weight</b>
Natural Groundwater:	Data Gap
Natural Seep: Headwater - Small	Obligate
Natural Spring Run: Headwater - Small	Data Gap

**Problems Faced**

Threat: Habitat destruction or conversion  
 Source: Recreation

**Data Gaps/Research Needs**

Determine life history information.  
 Survey for baseline information on distribution and population status.

**Conservation Actions**

	<b>Importance</b>	<b>Category</b>
More data is needed to determine conservation actions.	Medium	Data Gap

**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

**Comments**

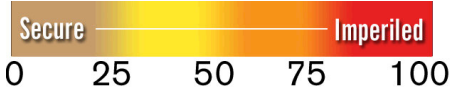
An Arkansas endemic amphipod, this species has only been collected from a seep on Magazine Mountain in Logan County (Holsinger 1967).

*Stygobromus montanus*

**Mountain Cave Amphipod**

**Class:** Malacostraca  
**Order:** Amphipoda  
**Family:** Crangonyctidae

**Priority Score: 65 out of 100**



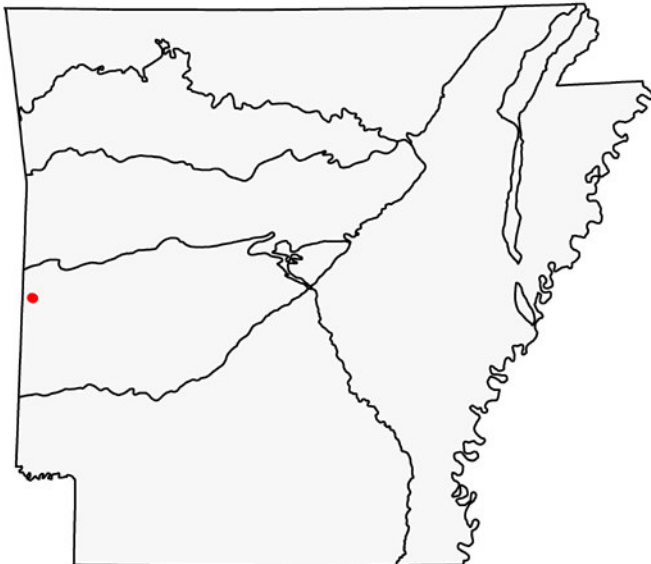
**Population Trend:** Unknown



**G Rank:** G1G2 – Critically imperiled (uncertain rank)

**S Rank:** S1 – Critically imperiled in Arkansas

**Distribution**



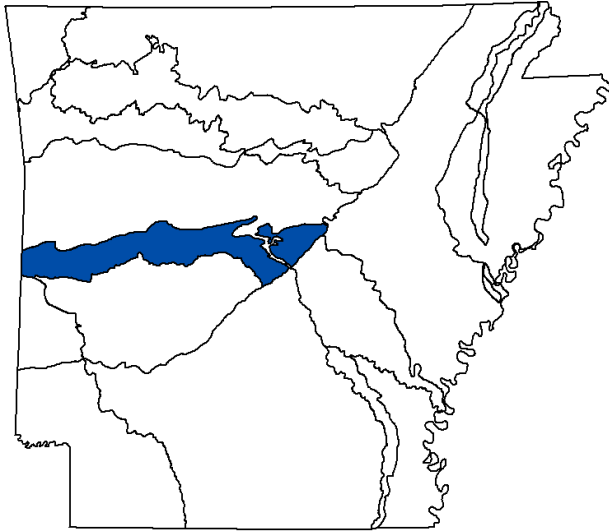
**Ecoregions where the species occurs:**

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where the species occurs**

**Ecobasins**

Ouachita Mountains - Arkansas River

**Habitats**

Natural Groundwater:

Natural Seep: Headwater - Small

**Weight**

Data Gap

Optimal

**Problems Faced**

Threat: Habitat disturbance

Source: Forestry activities

Threat: Toxins/contaminants

Source: Municipal/Industrial point source

**Data Gaps/Research Needs**

Determine life history information.

Survey for baseline information on distribution and population status.

**Conservation Actions**

Protection of seeps and seep recharge zones

**Importance**

Medium

**Category**

Habitat Protection

**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

**Comments**

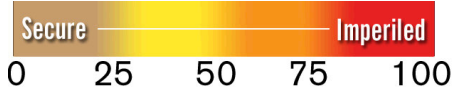
This Arkansas endemic amphipod has only been collected from a unidentified spring on Rich Mountain (Holsinger 1967).

# *Allocrangonyx hubrichti*

## Hubricht's Long-tailed Amphipod

**Class:** Malacostraca  
**Order:** Amphipoda  
**Family:** Crangonyctidae

**Priority Score:** **42 out of 100**



**Population Trend:** Unknown



**G Rank:** G2G3 – Imperiled (uncertain rank)

**S Rank:** S1 – Critically imperiled in Arkansas

### Distribution



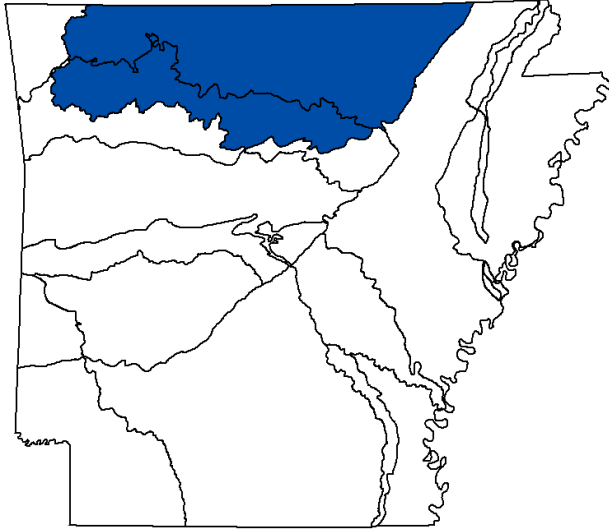
### Element Occurrence Records

### Ecoregions where the species occurs:

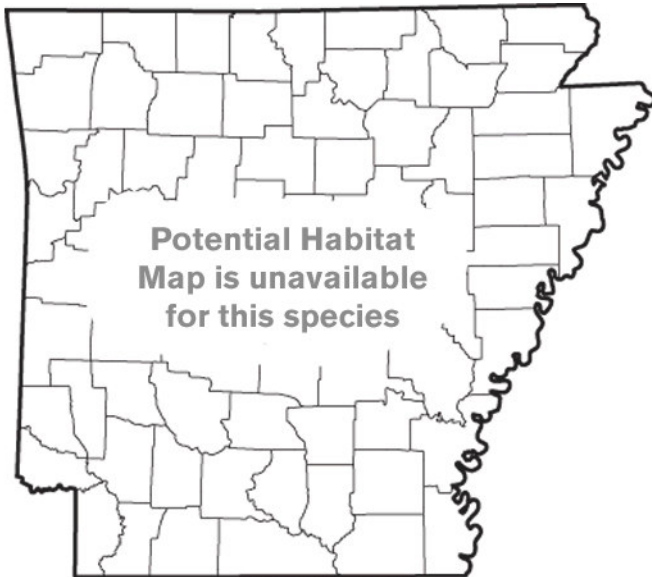


### Taxa Team and reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Arkansas Valley - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Suitable

Natural Groundwater: Optimal

Natural Seep: Headwater - Small Suitable

Natural Spring Run: Headwater - Small Marginal

## Problems Faced

Threat: Sedimentation  
Source: Urban development

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Threat: Toxins/contaminants  
Source: Urban development

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## Data Gaps/Research Needs

Obtain baseline information on distribution and population status, and confirm validity of occurrence record in Arkansas Valley.

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## Conservation Actions

	Importance	Category
Maintain groundwater quality.	Medium	Habitat Protection
Protect cave habitat and recharge zone from development or disturbance.	Medium	Habitat Protection

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## Monitoring Strategies

Additional information is needed before a monitoring strategy can be developed.

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## Comments

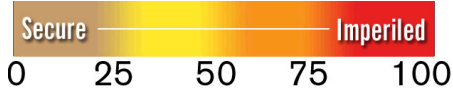
Crustacean. This species' distribution may not be restricted to caves. In Missouri, it has been documented from benthic stream habitats (personal communication, Mike E. Slay).

*Amnicola cora*

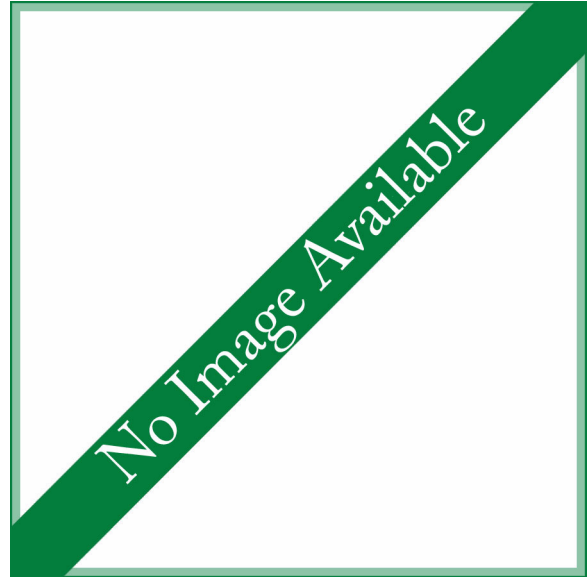
Foushee Cavesnail

Class: Gastropoda  
Order: Neotaenioglossa  
Family: Hydrobiidae

Priority Score: **65 out of 100**



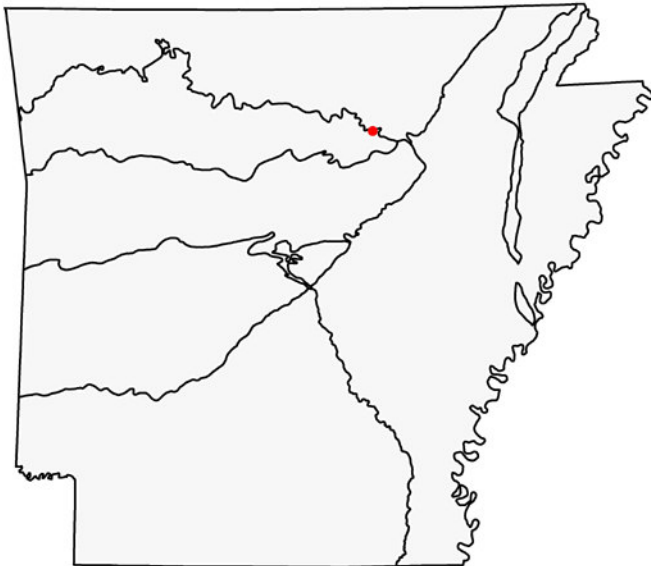
Population Trend: Unknown



G Rank: G1G2 – Critically imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



**Element Occurrence Records**

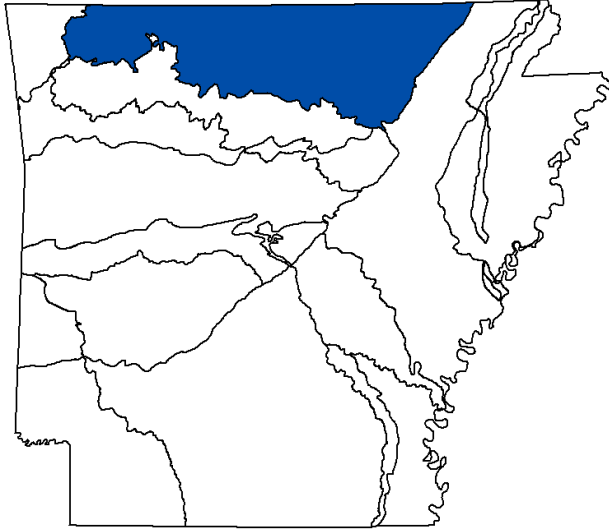
Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

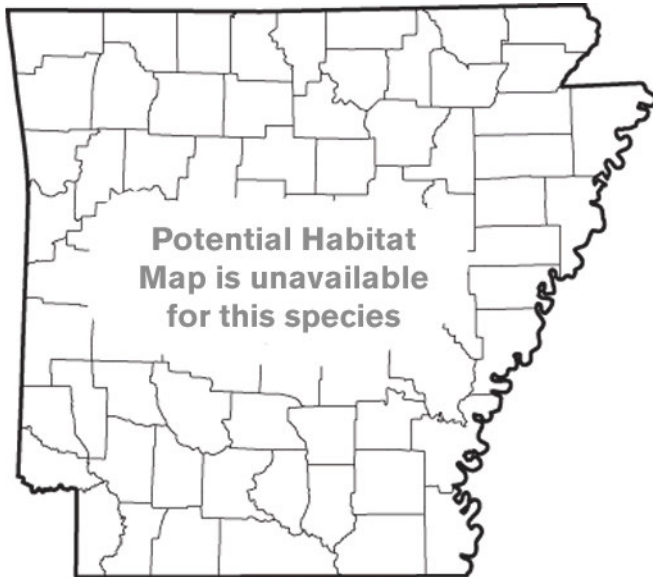
**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner





**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Obligate

**Problems Faced**

Threat: Habitat disturbance  
Source: Recreation

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Threat: Sedimentation  
Source: Urban development

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Threat: Toxins/contaminants  
Source: Municipal/Industrial point source

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**Data Gaps/Research Needs**

Determine life history information.

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Obtain baseline information on distribution and population status.

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**Conservation Actions**

**Importance    Category**

More data is needed to determine conservation actions.	Medium	Data Gap
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**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

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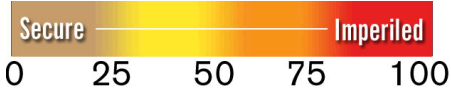
**Comments**

A cave-obligate snail only known from Foushee Cave in Independence County (Hubricht 1979).

*Batrurus pseudomucronatus*  
amphipod

Class: Malacostraca  
Order: Amphipoda  
Family: Crangonyctidae

Priority Score: **42 out of 100**

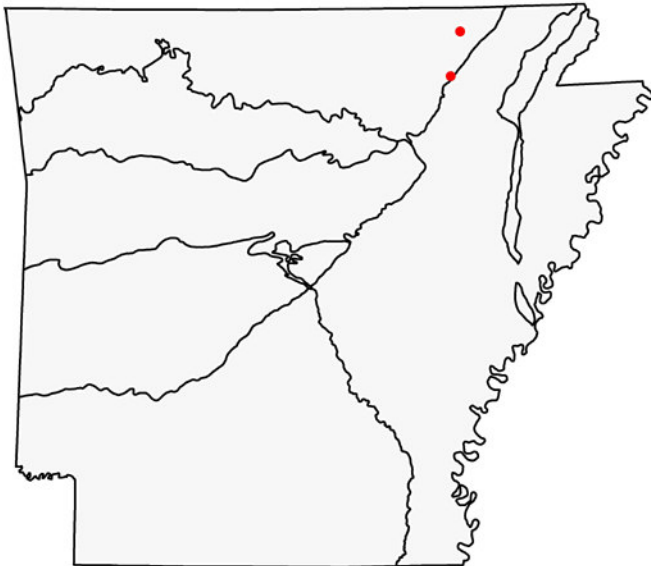


Population Trend: Unknown



G Rank: G2G3 – Imperiled (uncertain rank)  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



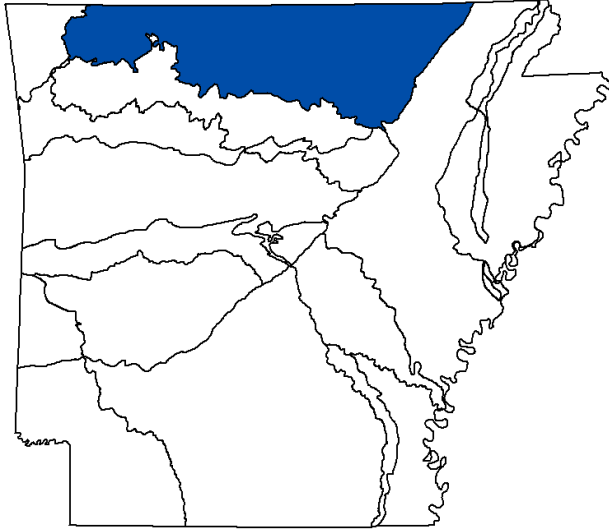
**Element Occurrence Records**

Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Obligate

Natural Groundwater: Obligate

## Problems Faced

Threat: Sedimentation  
Source: Urban development

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Threat: Toxins/contaminants  
Source: Urban development

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## Data Gaps/Research Needs

Determine life history information.

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Evaluate taxonomic relationships.

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Survey for additional populations

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## Conservation Actions

	Importance	Category
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Maintain groundwater quality.	Medium	Habitat Protection
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Protect cave habitat and recharge zone from development or disturbance.	Medium	Habitat Protection
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## Monitoring Strategies

Additional information is needed before a monitoring strategy can be developed.

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## Comments

Crustacean. This species is one of the largest groundwater amphipods in North America (personal communication, Mike E. Slay).

*Caecidotea ancyla*

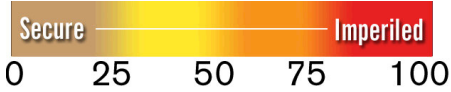
isopod

Class: Malacostraca

Order: Isopoda

Family: Asellidae

Priority Score: **31 out of 100**



Population Trend: Unknown

Caecidotea spp.

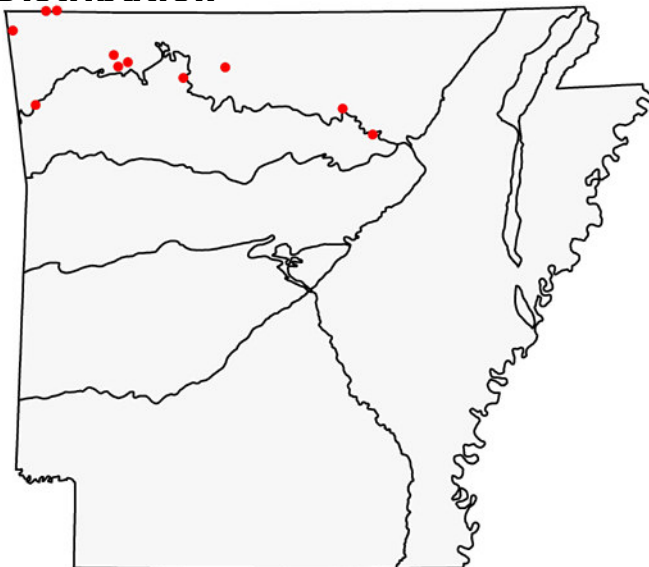


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G Rank: G3G4 – Vulnerable (uncertain rank)

S Rank: S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



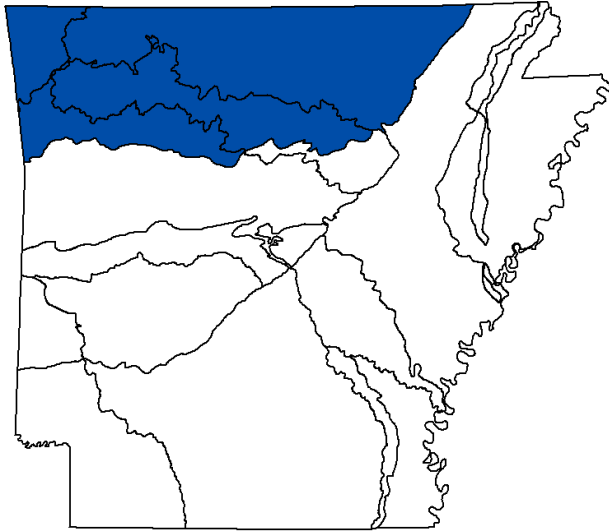
**Element Occurrence Records**

Ecoregions where the species occurs:

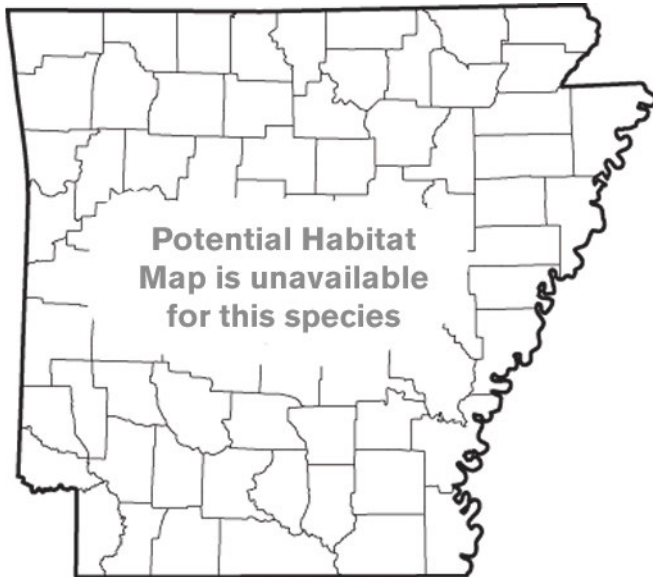
- Ozark Highlands
- Boston Mountains
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- Arkansas Valley
- South Central Plains

**Taxa Team and reviewers**

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**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - Arkansas River

Boston Mountains - White River

Ozark Highlands - Arkansas River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat

Obligate

## Aquatic Habitats

Natural Cave Stream: Headwater - Small	Optimal
Natural Groundwater:	Optimal
Natural Seep: Headwater - Small	Suitable
Natural Spring Run: Headwater - Small	Marginal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

Threat: Nutrient loading  
Source: Urban development

Threat: Sedimentation  
Source: Urban development

## Data Gaps/Research Needs

Determine life history information.

Survey for baseline information on distribution and population status.

## Conservation Actions

	Importance	Category
More data is needed to determine conservation actions.	Medium	Data Gap

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

## Comments

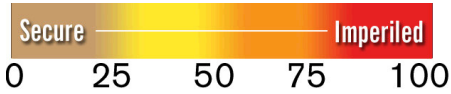
Crustacean. This species is an cave-adapted aquatic isopod.



*Caecidotea dimorpha*  
isopod

Class: Malacostraca  
Order: Isopoda  
Family: Asellidae

Priority Score: **42 out of 100**



Population Trend: Unknown

Caecidotea spp.

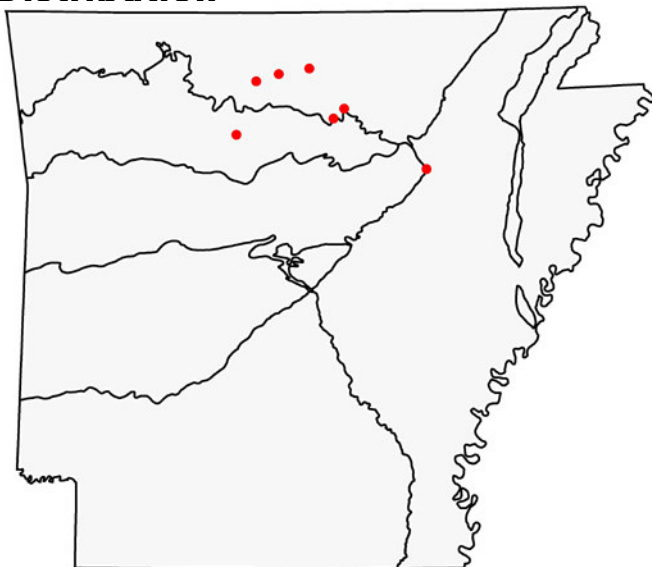


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G Rank: G2G3 – Imperiled (uncertain rank)

S Rank: S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



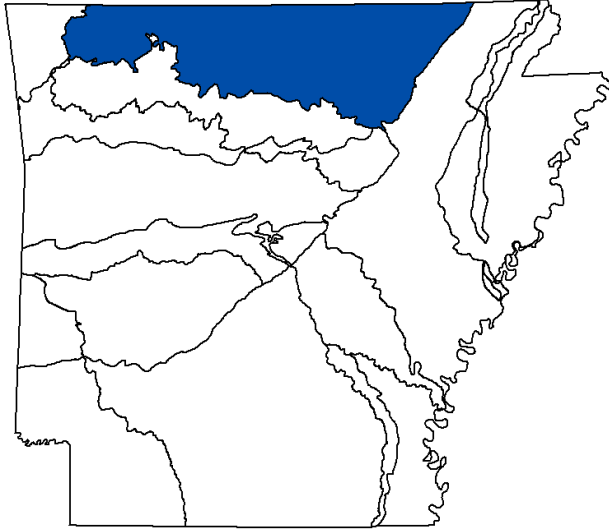
**Element Occurrence Records**

Ecoregions where the species occurs:

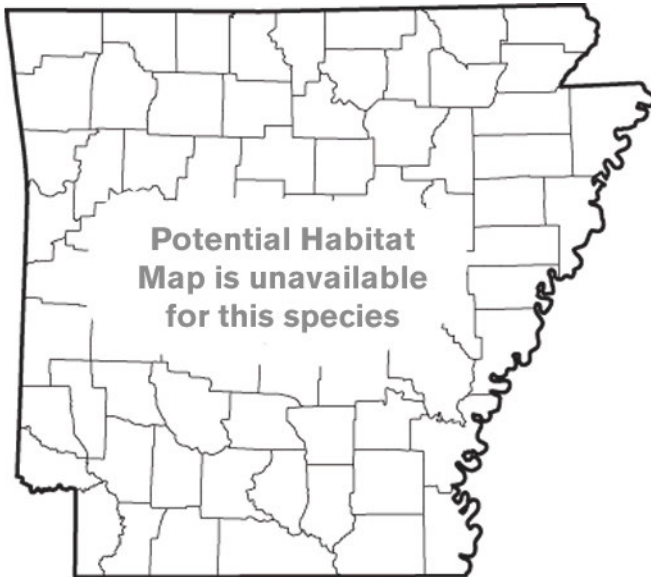
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- South Central Plains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Arkansas Valley - White River

Boston Mountains - White River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat

Obligate

## Aquatic Habitats

Natural Cave Stream: Headwater - Small	Optimal
Natural Groundwater: Headwater - Small	Optimal
Natural Seep: Headwater - Small	Suitable
Natural Spring Run: Headwater - Small	Marginal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

Threat: Nutrient loading  
Source: Urban development

Threat: Sedimentation  
Source: Urban development

## Data Gaps/Research Needs

Determine life history information.

Survey for baseline information on distribution and population status.

## Conservation Actions

	Importance	Category
More data is needed to determine conservation actions.	Medium	Data Gap

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

## Comments

Crustacean. This species is an cave-adapted aquatic isopod.

*Caecidotea macropropoda*

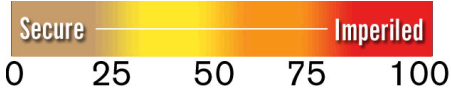
bat cave isopod

Class: Malacostraca

Order: Isopoda

Family: Asellidae

Priority Score: **57 out of 100**



Population Trend: Unknown

Caecidotea spp.



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G Rank: G1G3 – Critically imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



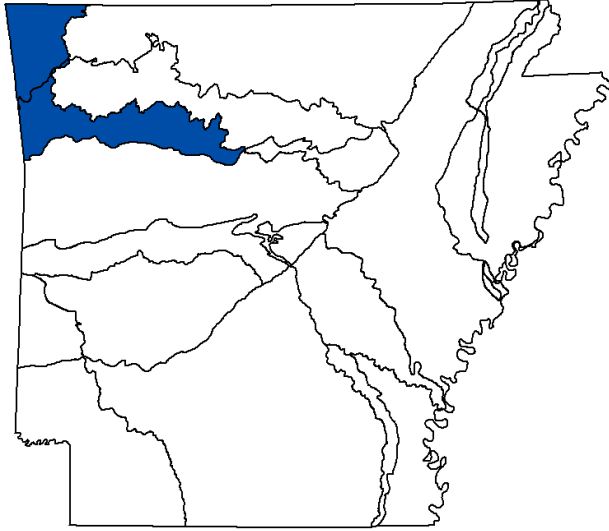
**Element Occurrence Records**

Ecoregions where the species occurs:

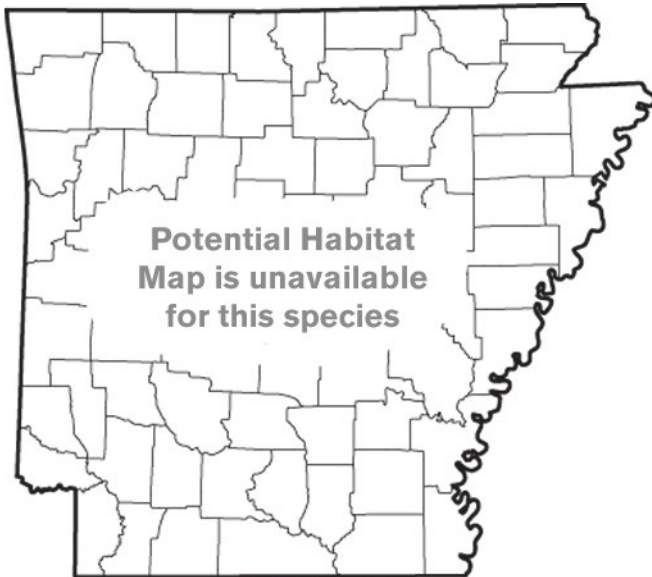
- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - Arkansas River

Ozark Highlands - Arkansas River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Optimal

Natural Groundwater: Optimal

Natural Seep: Headwater - Small Suitable

Natural Spring Run: Headwater - Small Marginal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

---

Threat: Nutrient loading  
Source: Urban development

---

Threat: Sedimentation  
Source: Urban development

---

## Data Gaps/Research Needs

Determine life history information.

---

Survey for baseline information on distribution and population status.

---

## Conservation Actions

Importance	Category
------------	----------

More data is needed to determine conservation actions.	Medium	Data Gap
--	--------	----------

---

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

---

## Comments

Crustacean.

*Caecidotea oculata*

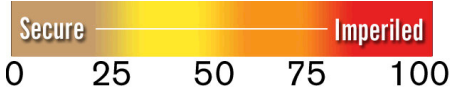
isopod

Class: Malacostraca

Order: Isopoda

Family: Asellidae

Priority Score: **42 out of 100**



Population Trend: Unknown

Caecidotea spp.

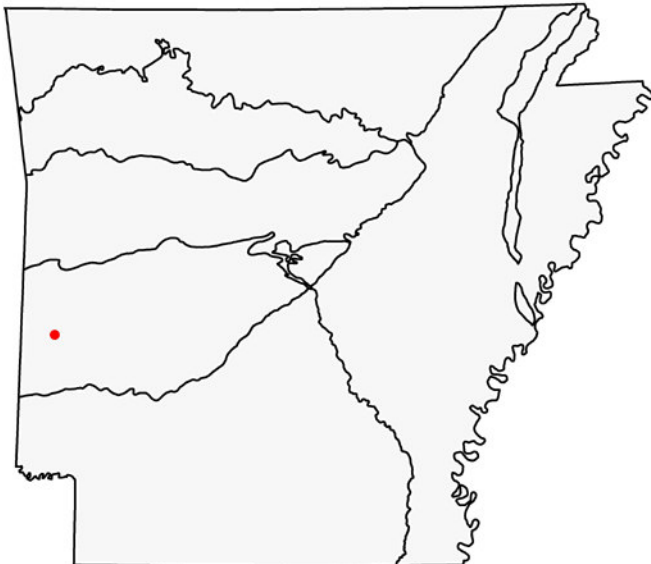


©Dante B. Fenolio

G Rank: G2G3 – Imperiled (uncertain rank)

S Rank: S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



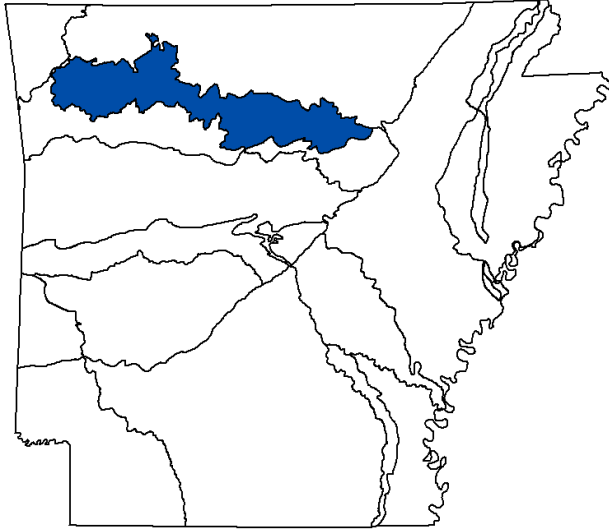
**Element Occurrence Records**

Ecoregions where the species occurs:

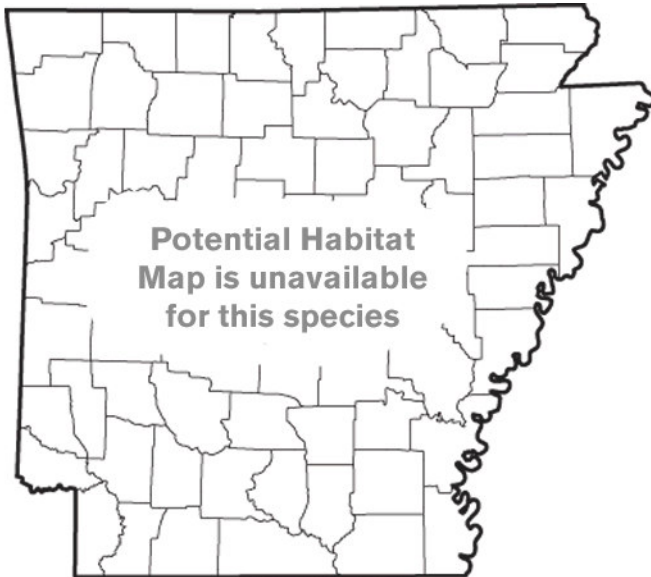
- Ozark Highlands
- Mississippi Valley Loess Plains
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- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Data Gap

Natural Groundwater: Data Gap

Natural Seep: Headwater - Small Data Gap

Natural Spring Run: Headwater - Small Obligate



## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

---

Threat: Nutrient loading  
Source: Urban development

---

Threat: Sedimentation  
Source: Urban development

---

## Data Gaps/Research Needs

Determine life history information.

---

Survey for baseline information on distribution and population status.

---

## Conservation Actions

Importance	Category
------------	----------

More data is needed to determine conservation actions.	Medium	Data Gap
--	--------	----------

---

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

---

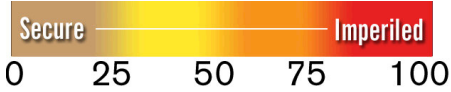
## Comments

Crustacean.

*Caecidotea salamensis*  
isopod

Class: Malacostraca  
Order: Isopoda  
Family: Asellidae

Priority Score: **8 out of 100**



Population Trend: Unknown

Caecidotea spp.



©Dante B. Fenolio

G Rank: G? – Uncertain global ranking

S Rank: S? – Uncertain ranking in Arkansas

**Distribution**



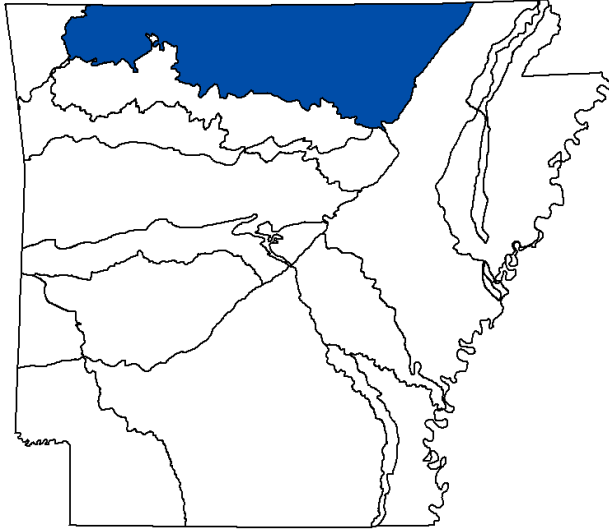
**Element Occurrence Records**

Ecoregions where the species occurs:

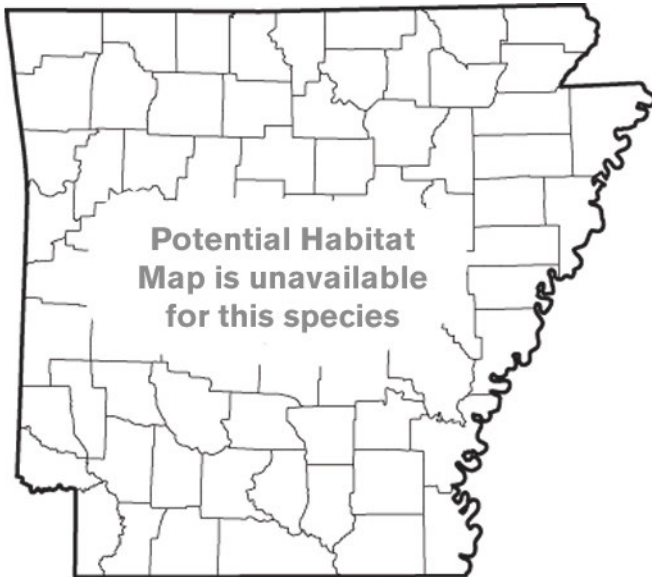
- Ozark Highlands
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- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Optimal

Natural Groundwater: Optimal

Natural Seep: Headwater - Small Suitable

Natural Spring Run: Headwater - Small Marginal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

---

Threat: Nutrient loading  
Source: Urban development

---

Threat: Sedimentation  
Source: Urban development

---

## Data Gaps/Research Needs

Determine life history information.

---

Survey for baseline information on distribution and population status.

---

## Conservation Actions

Importance	Category
------------	----------

More data is needed to determine conservation actions.	Medium	Data Gap
--	--------	----------

---

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

---

## Comments

Crustacean.

# *Caecidotea simulator*

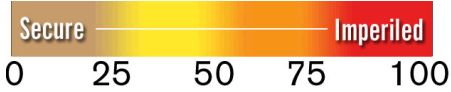
cave obligate isopod

Class: Malacostraca

Order: Isopoda

Family: Asellidae

Priority Score: **42 out of 100**



Population Trend: Unknown

Caecidotea spp.

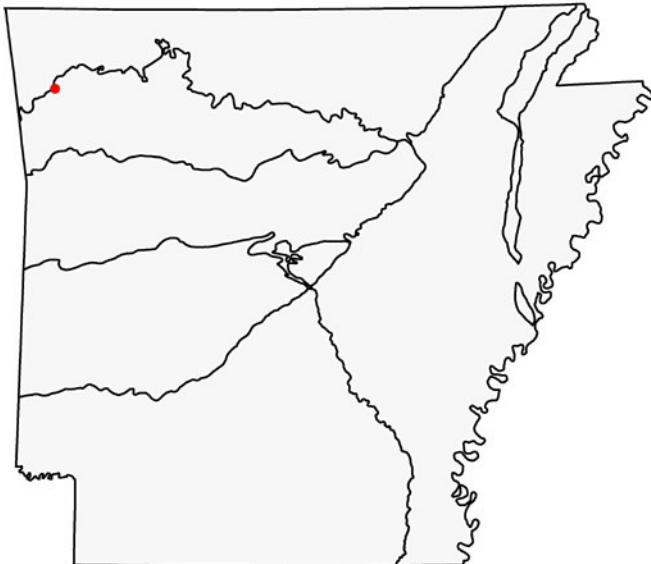


©Dante B. Fenolio

G Rank: G2G3 – Imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

## Distribution



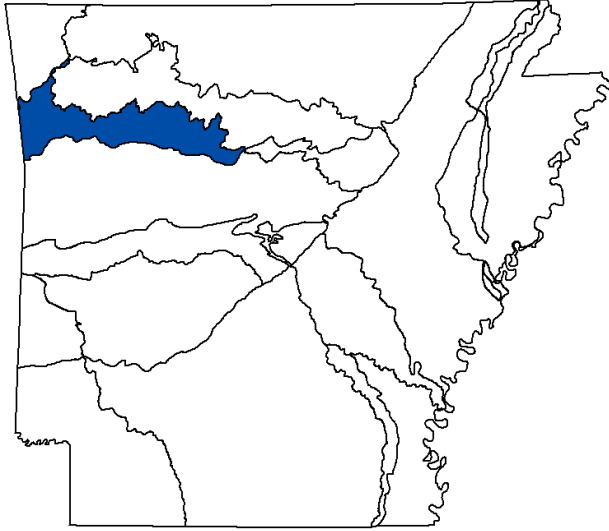
## Element Occurrence Records

## Ecoregions where the species occurs:

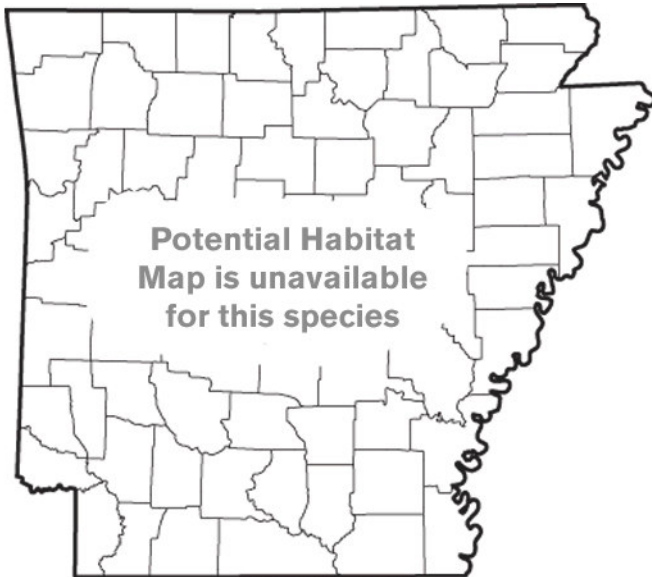
- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

## Taxa Team and reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - Arkansas River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Data Gap

Natural Groundwater: Obligate

Natural Seep: Headwater - Small Data Gap

Natural Spring Run: Headwater - Small Data Gap

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

---

Threat: Sedimentation  
Source: Urban development

---

Threat: Toxins/contaminants  
Source: Urban development

---

## Data Gaps/Research Needs

Determine life history information.

---

Survey for baseline information on distribution and population status.

---

## Conservation Actions

	Importance	Category
Maintain groundwater quality.	Medium	Habitat Protection
Protect cave habitat and recharge zone from development or disturbance.	Medium	Habitat Protection

---

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

---

## Comments

Crustacean. This species is one of the rarest aquatic cave-adapted isopods in Arkansas.

*Caecidotea steevesi*

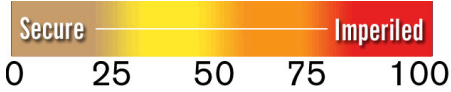
isopod

Class: Malacostraca

Order: Isopoda

Family: Asellidae

Priority Score: **31 out of 100**



Population Trend: Unknown

Caecidotea spp.

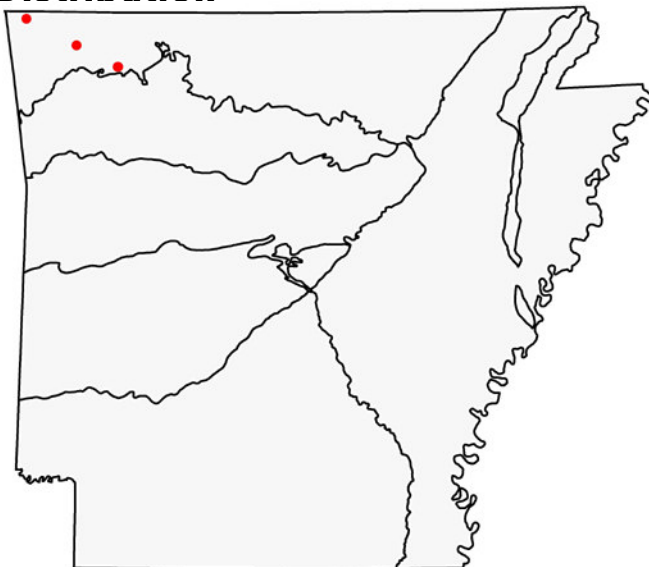


©Dante B. Fenolio

G Rank: G3G4 – Vulnerable (uncertain rank)

S Rank: S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



**Element Occurrence Records**

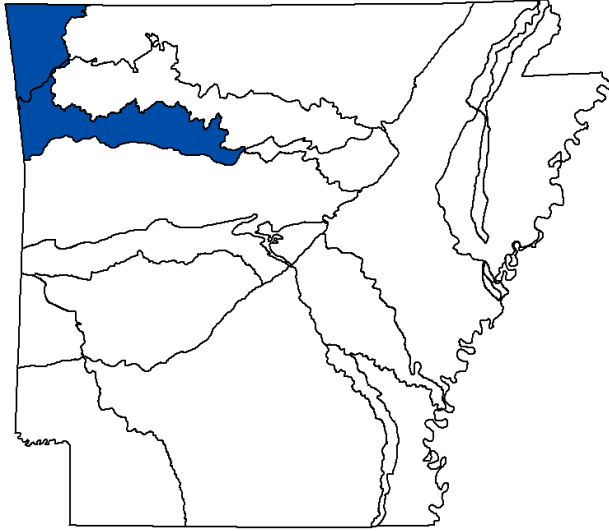
Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

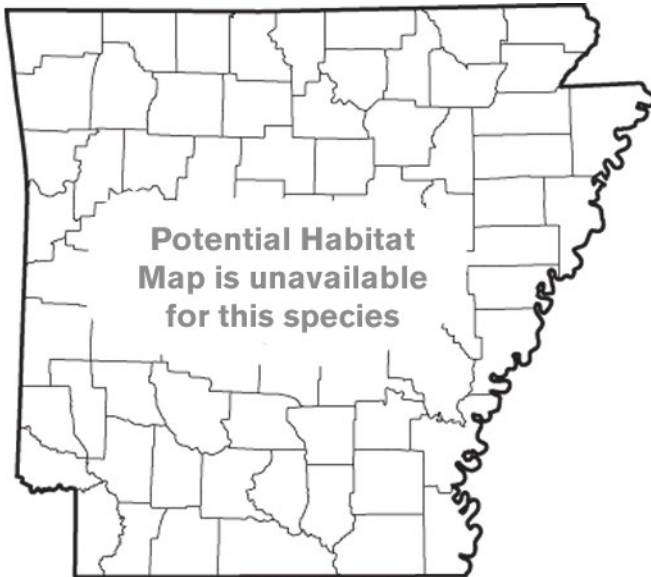
**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner





**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Ozark Highlands - Arkansas River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Optimal

Natural Groundwater: Optimal

Natural Seep: Headwater - Small Suitable

Natural Spring Run: Headwater - Small Marginal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

---

Threat: Nutrient loading  
Source: Urban development

---

Threat: Sedimentation  
Source: Urban development

---

## Data Gaps/Research Needs

Determine life history information.

---

Survey for baseline information on distribution and population status.

---

## Conservation Actions

Importance	Category
------------	----------

More data is needed to determine conservation actions.	Medium	Data Gap
--	--------	----------

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## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

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## Comments

Crustacean. This species is an cave-adapted aquatic isopod.

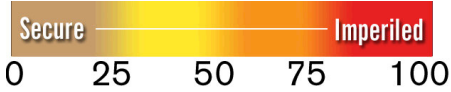
*Caecidotea stiladactyla*  
isopod

Class: Malacostraca

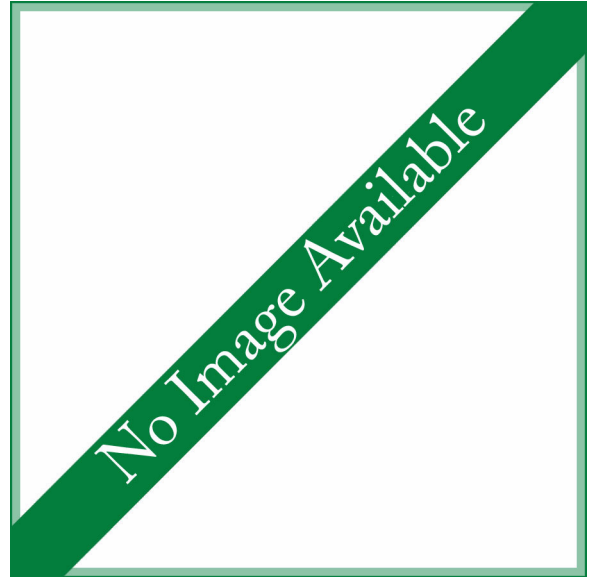
Order: Isopoda

Family: Asellidae

Priority Score: **31 out of 100**



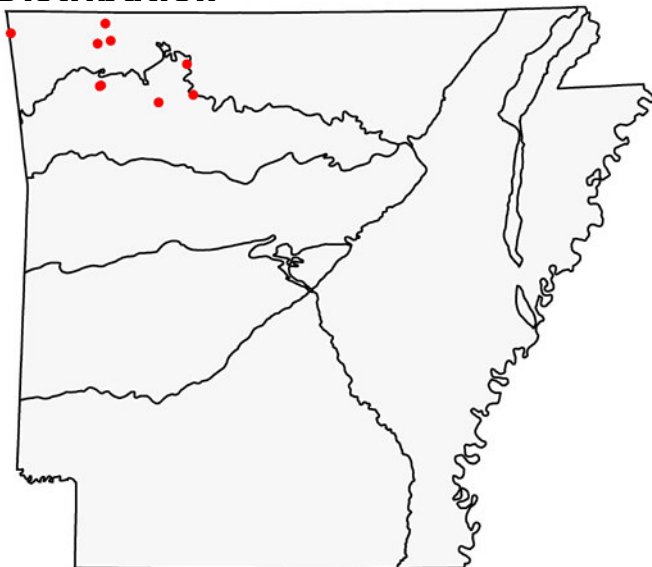
Population Trend: Unknown



G Rank: G3G4 – Vulnerable (uncertain rank)

S Rank: S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



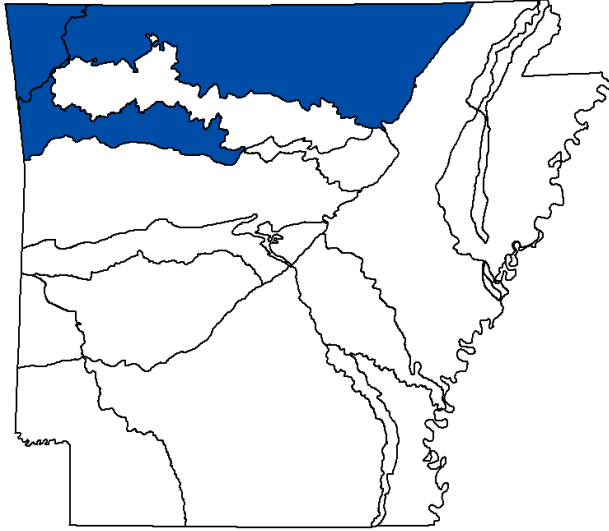
**Element Occurrence Records**

**Ecoregions where the species occurs:**

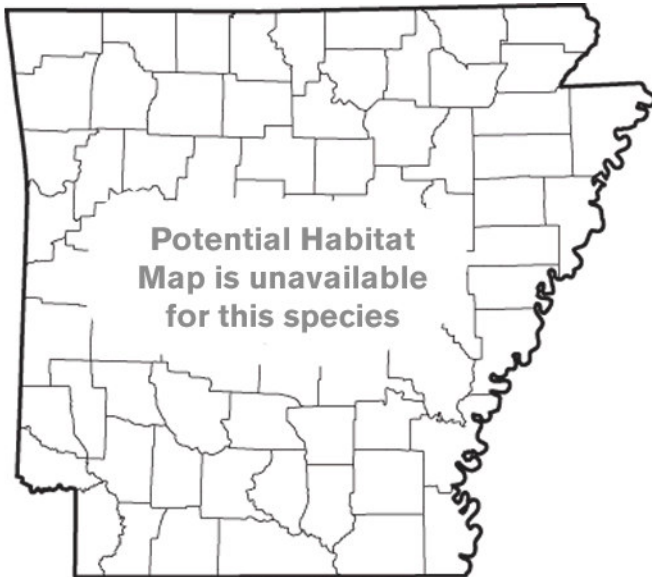
- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - White River

Ozark Highlands - Arkansas River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat

Obligate

## Aquatic Habitats

Natural Cave Stream: Headwater - Small	Optimal
Natural Groundwater: Headwater - Small	Optimal
Natural Seep: Headwater - Small	Suitable
Natural Spring Run: Headwater - Small	Marginal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

Threat: Nutrient loading  
Source: Urban development

Threat: Sedimentation  
Source: Urban development

## Data Gaps/Research Needs

Determine life history information.

Survey for baseline information on distribution and population status.

## Conservation Actions

	Importance	Category
More data is needed to determine conservation actions.	Medium	Data Gap

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

## Comments

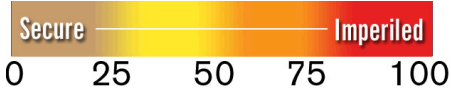
Crustacean. This species is an cave-adapted aquatic isopod.

*Dendrocoelopsis americana*

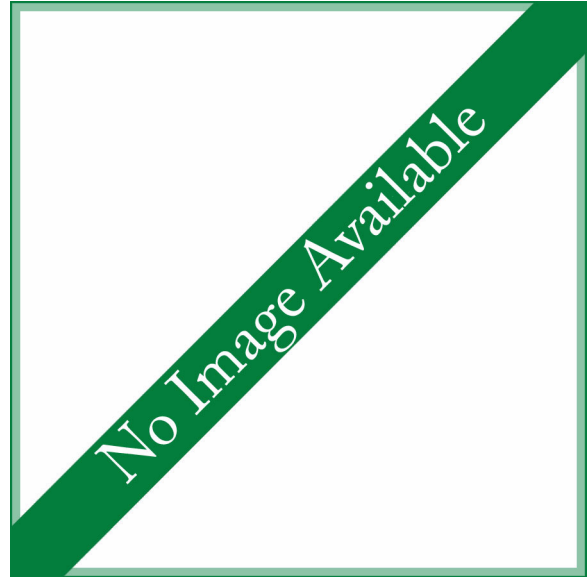
cave obligate planarian

Class: Turbellaria  
 Order: Tricladida  
 Family: Dendrocoelidae

Priority Score: **42 out of 100**



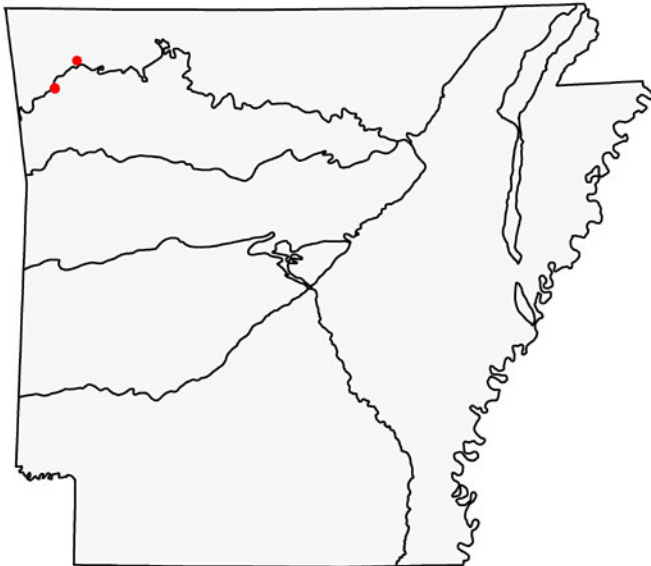
Population Trend: Unknown



G Rank: G2G3 – Imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



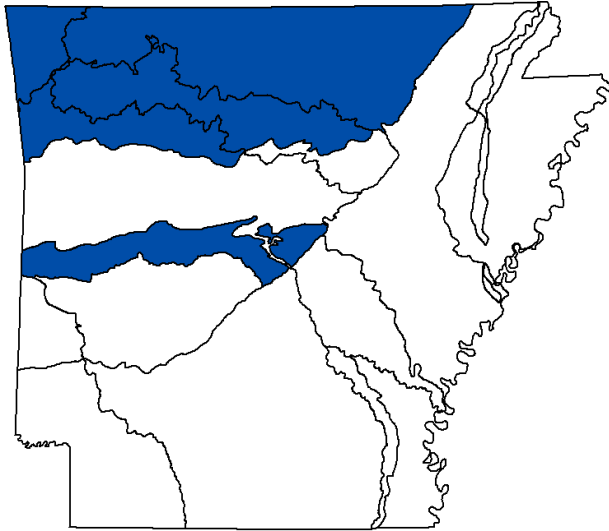
**Element Occurrence Records**

Ecoregions where the species occurs:

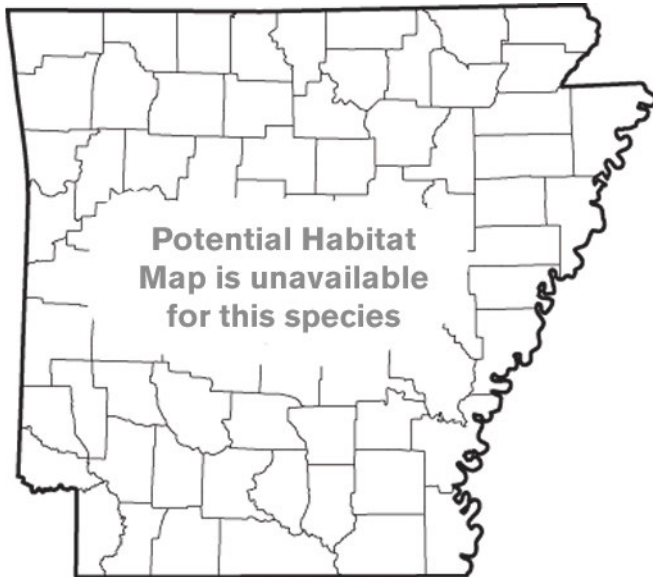
- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - Arkansas River

Boston Mountains - White River

Ozark Highlands - Arkansas River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Optimal

## Aquatic Habitats

Natural Cave Stream: Headwater - Small	Optimal
Natural Groundwater:	Optimal
Natural Seep: Headwater - Small	Optimal
Natural Spring Run: Headwater - Small	Optimal

## Problems Faced

Threat: Habitat disturbance  
Source: Urban development

Threat: Sedimentation  
Source: Urban development

Threat: Toxins/contaminants  
Source: Urban development

## Data Gaps/Research Needs

Determine life history information.

Survey for baseline information on distribution and population status.

## Conservation Actions

Conservation Actions	Importance	Category
Maintain groundwater quality.	Medium	Habitat Restoration/Improvement
Protect cave habitat and recharge zone from development or disturbance.	Medium	Habitat Protection

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

## Comments

Flatworm.



*Lirceus bicuspidatus*

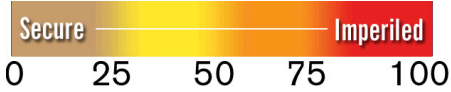
isopod

Class: Malacostraca

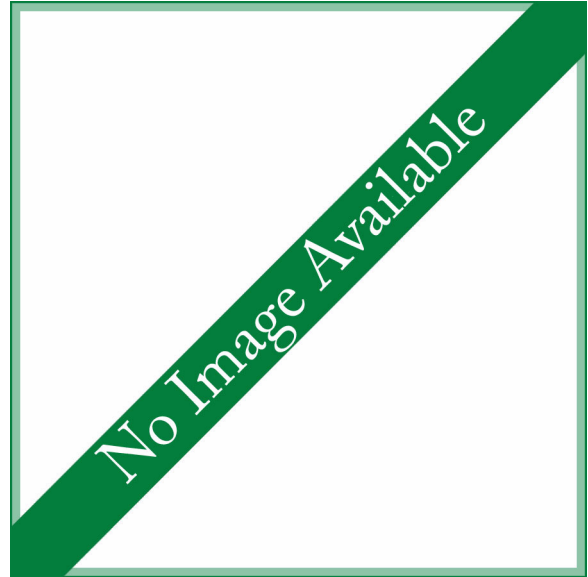
Order: Isopoda

Family: Asellidae

Priority Score: **27 out of 100**



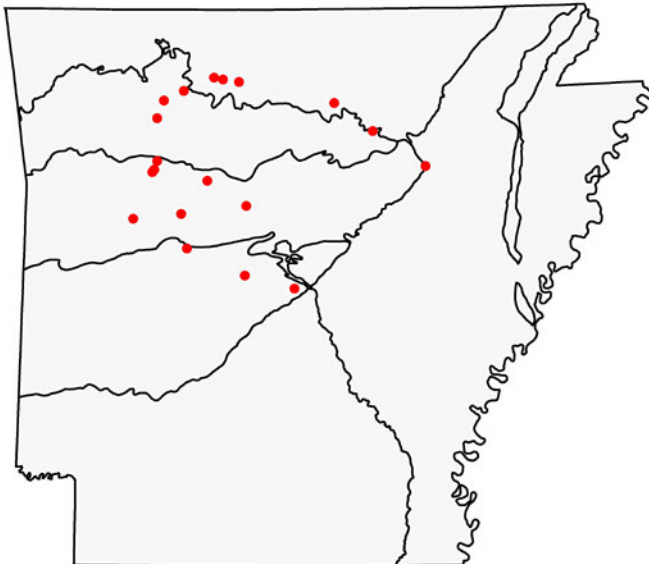
Population Trend: Unknown



G Rank: G3Q – Vulnerable (questionable taxonomy)

S Rank: S3 – Vulnerable in Arkansas

**Distribution**



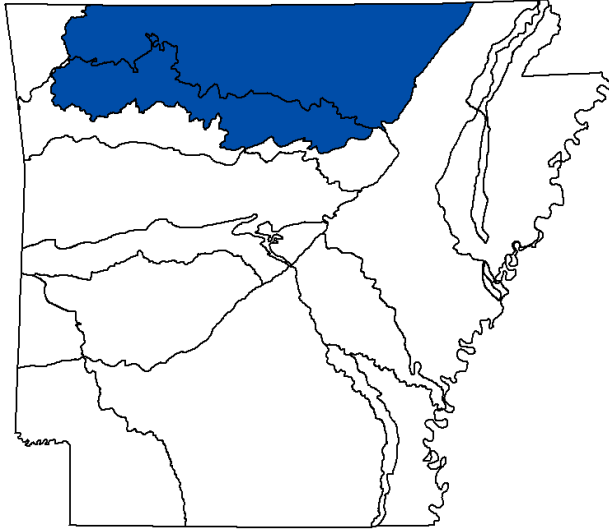
**Element Occurrence Records**

Ecoregions where the species occurs:

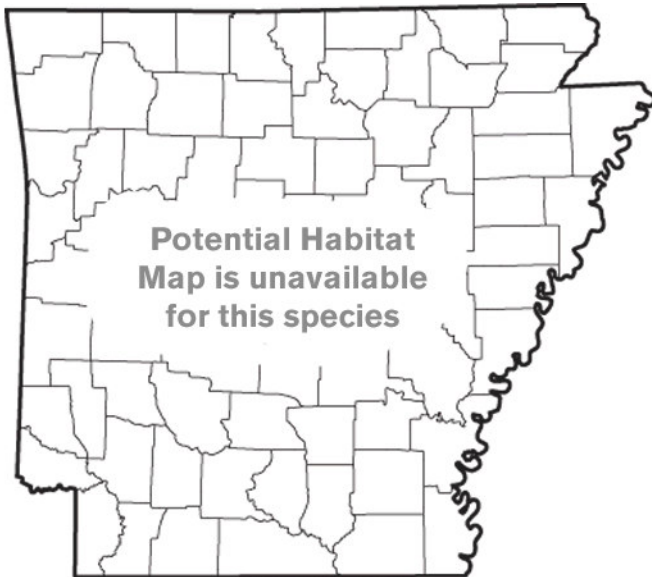
- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Arkansas Valley - Arkansas River

Arkansas Valley - White River

Boston Mountains - White River

Ouachita Mountains - Arkansas River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat

Optimal

## Aquatic Habitats

Natural Cave Stream: Headwater - Small	Suitable
Natural Seep: Headwater - Small	Suitable
Natural Spring Run: Headwater - Small	Optimal

## Problems Faced

Threat: Sedimentation  
 Source: Resource extraction

Threat: Toxins/contaminants  
 Source: Municipal/Industrial point source

## Data Gaps/Research Needs

Determine life history information.

Determine validity of location data for records in Arkansas Valley and Ouachita Mountains.

Surveys to locate additional populations.

## Conservation Actions

**Importance    Category**

More data is needed to determine conservation actions.	Medium	Data Gap
--	--------	----------

## Monitoring Strategies

Additional information is needed before a monitoring strategy can be developed.

## Comments

This isopod inhabits a variety of biotopes including small seep/springs and streams, and cave streams. Nothing more is known about the biology of this species, except that it is widely known from the mountainous region of Arkansas. (ANHI 2003, Robison and Allen, 1995)

*Lirceus bidentatus*

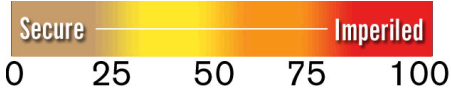
isopod

Class: Malacostraca

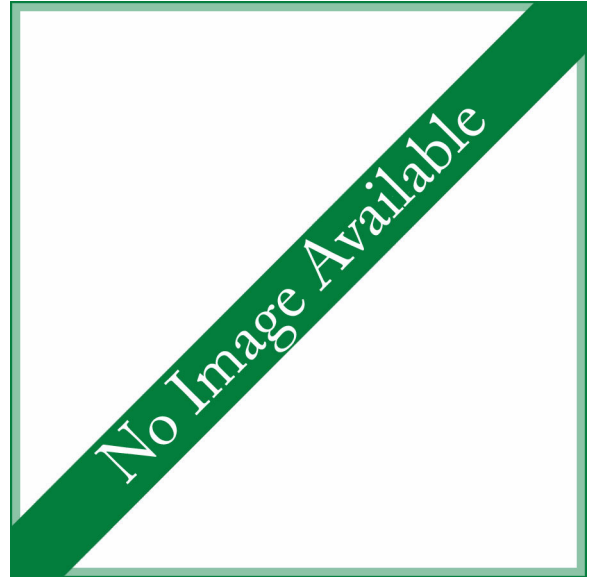
Order: Isopoda

Family: Asellidae

Priority Score: **80 out of 100**



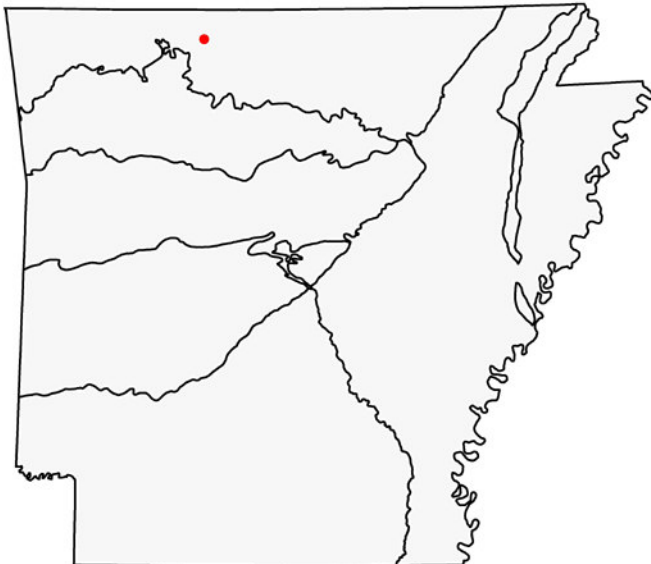
Population Trend: Unknown



**G Rank:** G1? – Critically imperiled (inexact numeric rank)

**S Rank:** S1? – Critically imperiled in Arkansas (inexact numeric rank)

**Distribution**



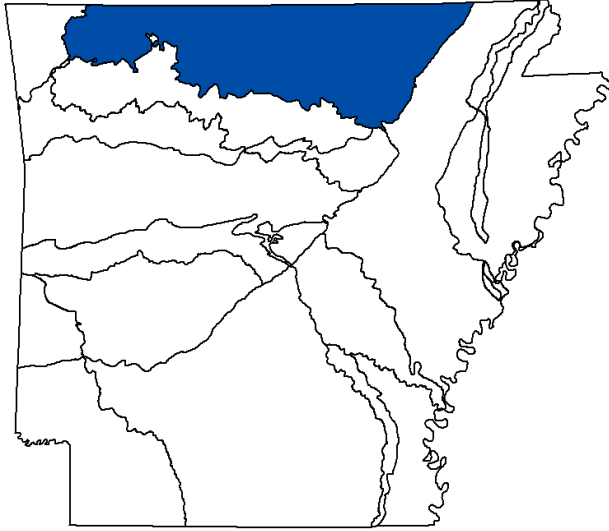
**Element Occurrence Records**

Ecoregions where the species occurs:

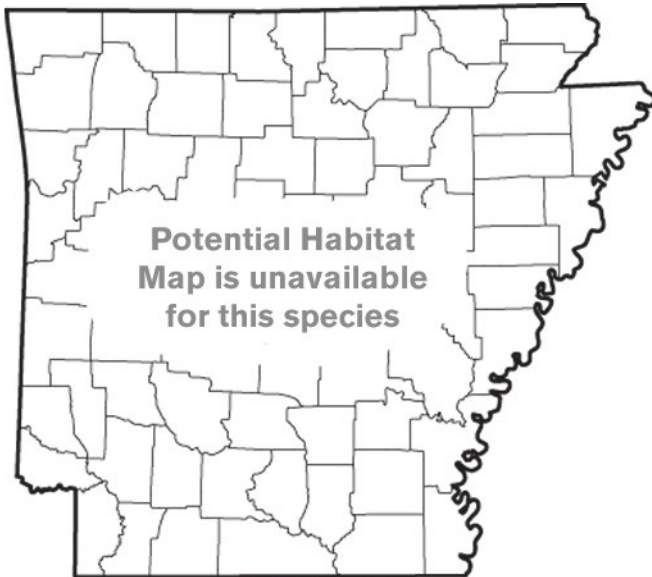
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- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat Obligate

**Aquatic Habitats**

Natural Cave Stream: Headwater - Small Obligate

Natural Groundwater: Data Gap

Natural Seep: Headwater - Small Data Gap

Natural Spring Run: Headwater - Small Data Gap

## Problems Faced

Threat: Sedimentation  
Source: Forestry activities

---

Threat: Toxins/contaminants  
Source: Municipal/Industrial point source

---

## Data Gaps/Research Needs

Determine life history information.

---

Determine taxonomic status. Validity of this species is in question.

---

Survey for baseline information on distribution and population status.

---

## Conservation Actions

Importance	Category
------------	----------

More data is needed to determine conservation actions.	Medium	Data Gap
--	--------	----------

---

## Monitoring Strategies

More data is needed before a monitoring strategy can be developed.

---

## Comments

This Arkansas endemic isopod is only known from a seep in the Ozark Mountains of Boone County (Hubricht and Mackin 1949).

*Stygobromus ozarkensis*

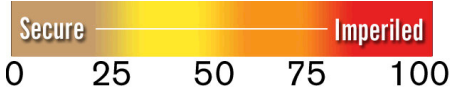
Ozark Cave Amphipod

Class: Malacostraca

Order: Amphipoda

Family: Crangonyctidae

Priority Score: **27 out of 100**



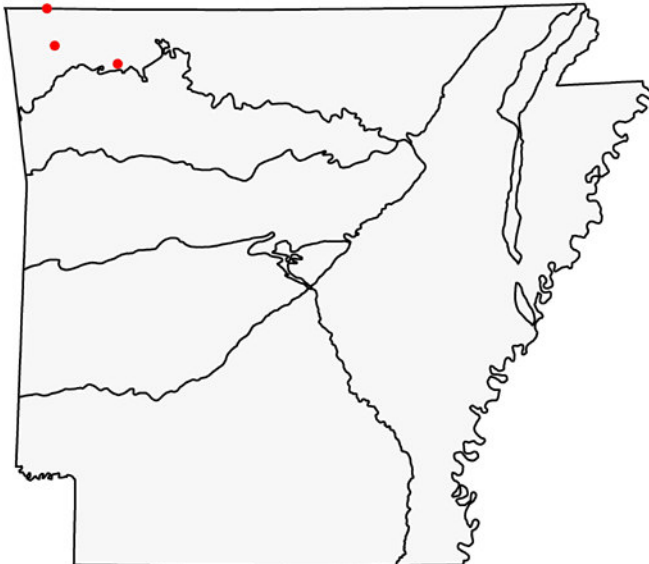
Population Trend: Unknown



G Rank: G4 – Apparently secure species

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



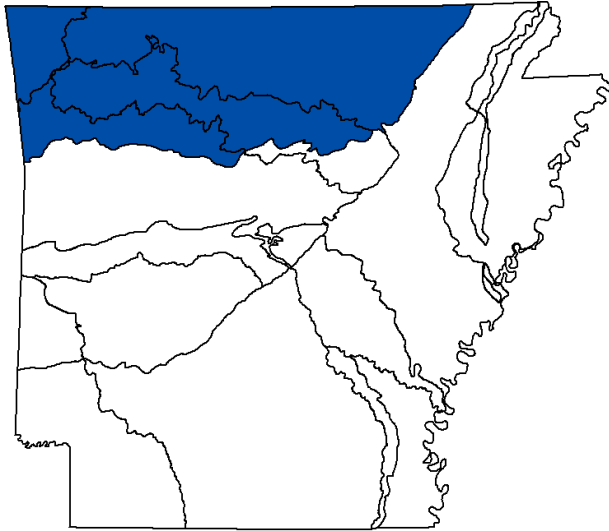
**Element Occurrence Records**

Ecoregions where the species occurs:

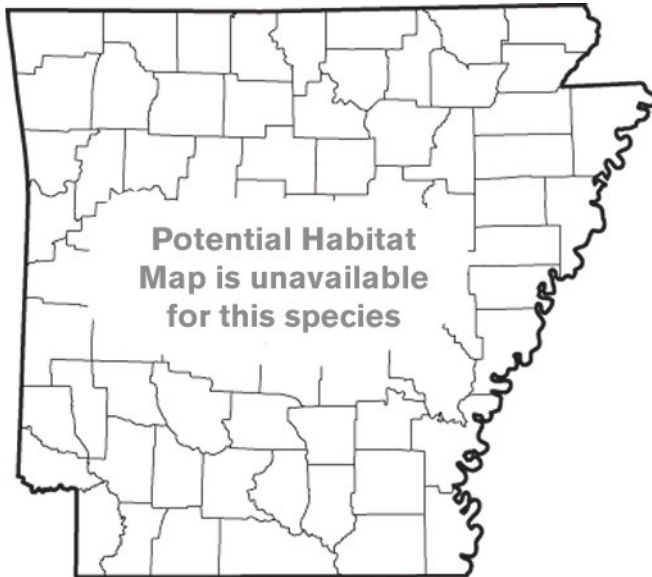
- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Boston Mountains - Arkansas River

Boston Mountains - White River

Ozark Highlands - Arkansas River

Ozark Highlands - White River

**Terrestrial Habitats**

Caves, Mines & Karst Habitat

Obligate



## Aquatic Habitats

Natural Cave Stream: Headwater - Small	Optimal
Natural Groundwater:	Optimal
Natural Seep: Headwater - Small	Suitable
Natural Spring Run: Headwater - Small	Marginal

## Problems Faced

Threat: Sedimentation  
Source: Urban development

Threat: Toxins/contaminants  
Source: Urban development

## Data Gaps/Research Needs

Determine life history information.

Evaluate taxonomic relationships.

Survey and model for additional occurrences.

## Conservation Actions

Protect caves and cave recharge zones.

**Importance**    **Category**

Medium    Habitat Protection

## Monitoring Strategies

Monitor known occurrences in cave surveys.

## Comments

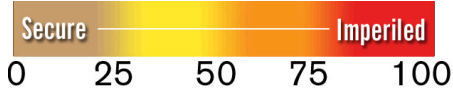
Crustacean. This species is limited to groundwater habitats and occurs in fewer than 15 caves in Arkansas (personal communication, Mike E. Slay).

*Zealeuctra wachita*

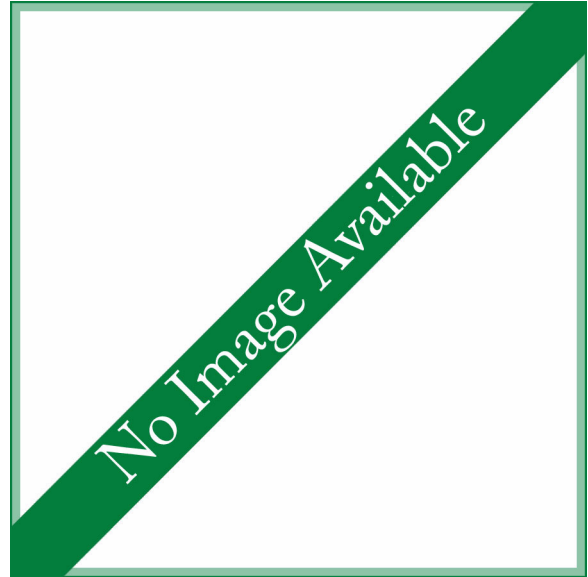
Ouachita Needlefly

Class: Insecta  
Order: Plecoptera  
Family: Leuctridae

Priority Score: **50 out of 100**



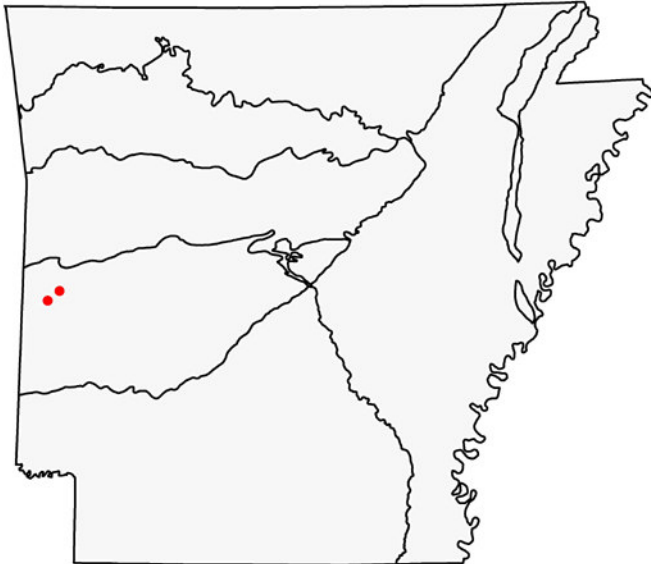
Population Trend: Unknown



G Rank: G2 – Imperiled species

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Team and reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner

**No Ecobasin Map  
is available**

**Ecobasins where this species occurs**



**Potential Terrestrial Habitat**



**Ecobasins**

Ouachita Mountains - Red River

**Problems Faced**

Threat: Sedimentation  
Source: Resource extraction

Threat: Toxins/contaminants  
Source: Municipal/Industrial point source

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

## Conservation Actions

More data is needed to determine conservation actions.

Importance

Medium

Category

Data Gap

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## Monitoring Strategies

Surveys to locate additional populations and protection of stream habitats

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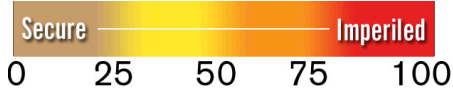
## Comments

Only known from Polk Co. and Scott Co., Arkansas from fewer than five occurrences. Inhabits intermittent streams (Ricker and Ross 1969).

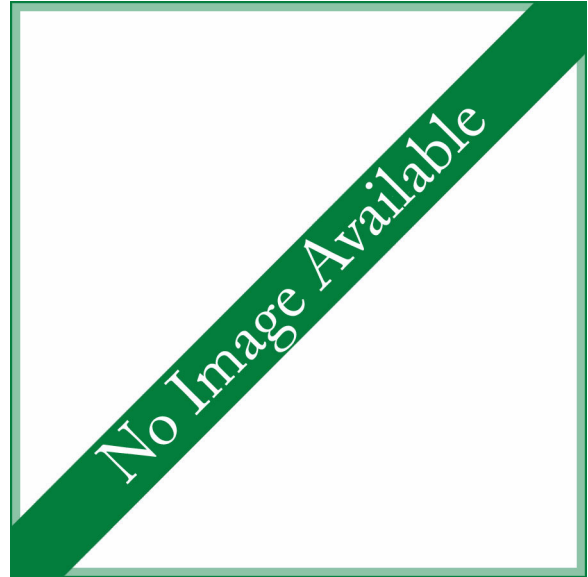
*Abacion wilhelminae*  
millipede

Class: Diplopoda  
Order: Callipodida  
Family: Abacionidae

Priority Score: **23 out of 100**



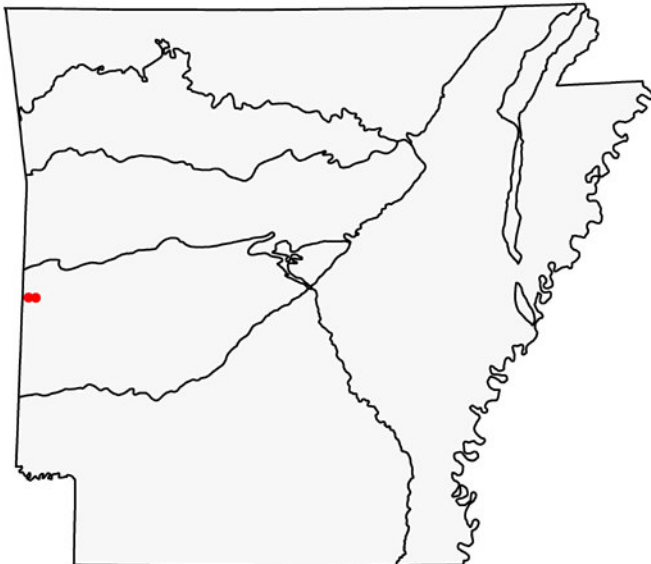
Population Trend: Unknown



G Rank: G? – Uncertain global ranking

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Problems Faced**

Threat: Habitat destruction  
Source:

**Data Gaps/Research Needs**

Life history, status surveys and basic biological information needs to be obtained.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**    **Category**

Medium    Data Gap

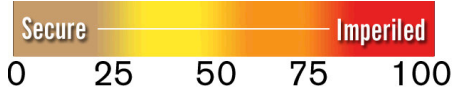
**Comments**

Endemic millipede of the Ouachita Mountains of Arkansas (Robison and Allen 1995).

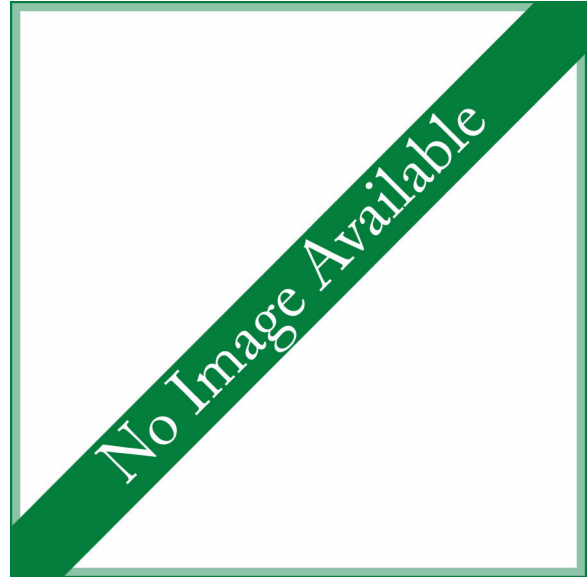
*Apochthonius diabolus*  
cave obligate pseudoscorpion

Class: Arachnida  
Order: Pseudoscorpiones  
Family: Chthoniidae

Priority Score: **65 out of 100**



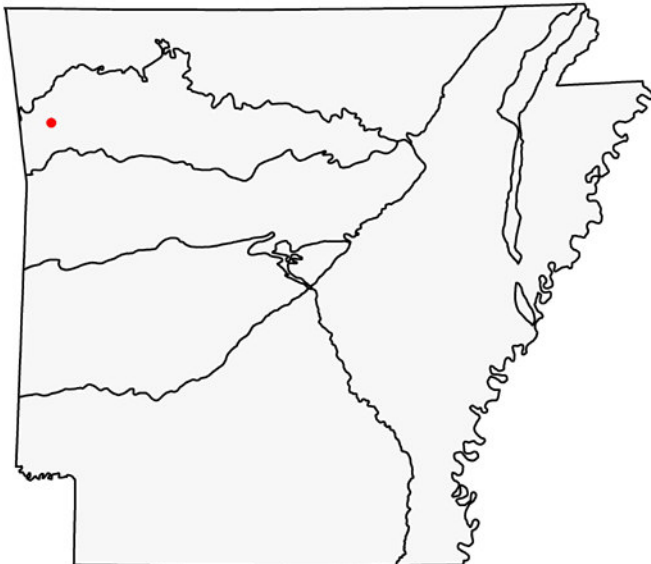
Population Trend: Unknown



G Rank: G1G2 – Critically imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



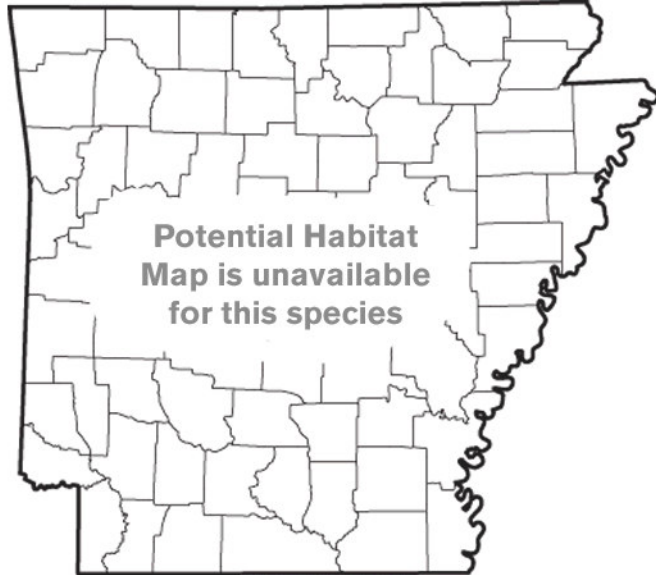
Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Development/disturbance of cave habitat and recharge zone, groundwater contamination

Threat:  
Source:

**Conservation Actions**

Maintain groundwater quality.

**Importance**

Medium

**Category**

Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

**Comments**

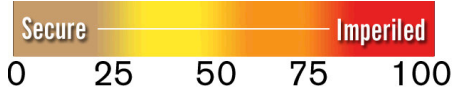
Pseudoscorpion. No information available.



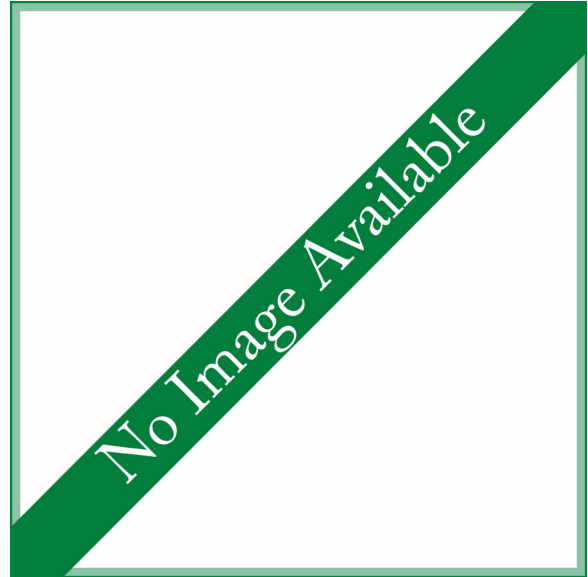
*Apochthonius titanicus*  
cave obligate pseudoscorpion

Class: Arachnida  
Order: Pseudoscorpiones  
Family: Chthoniidae

Priority Score: **65 out of 100**



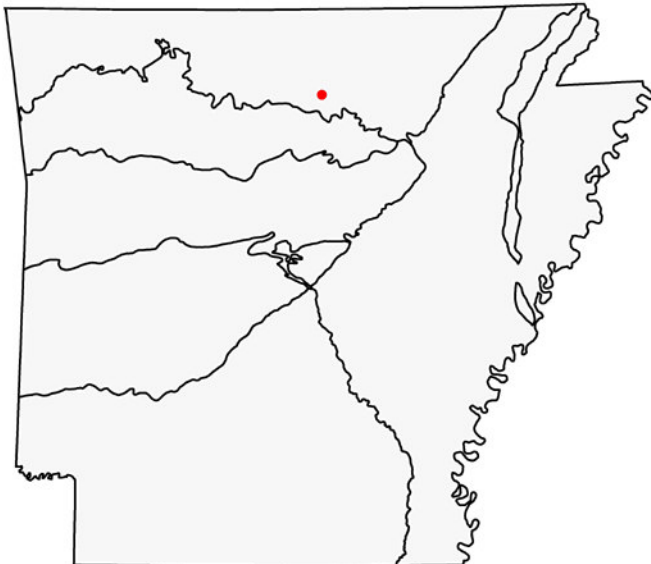
Population Trend: Unknown



G Rank: G1G2 – Critically imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Development/disturbance of cave habitat and recharge zone, groundwater contamination

Threat:  
Source:

**Data Gaps/Research Needs**

No data gaps or research needs were identified..

**Conservation Actions**

Maintain groundwater quality.

**Importance**

Medium

**Category**

Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

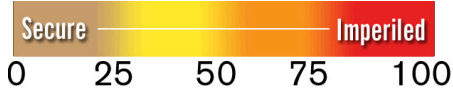
**Comments**

Pseudoscorpion.

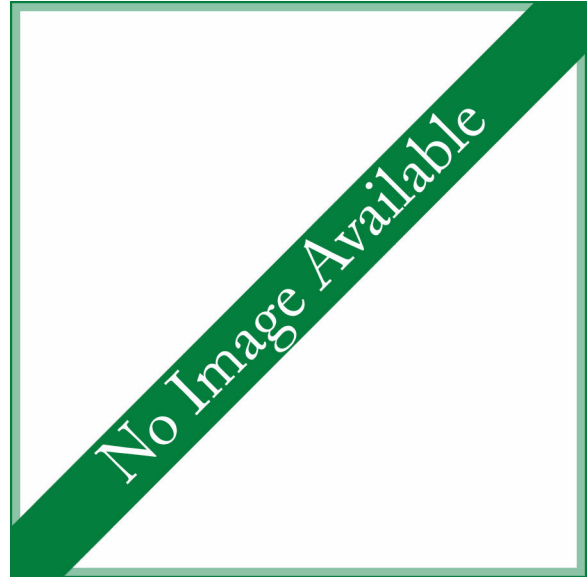
*Arrhopalites clarus*  
springtail

Class: Euliplura  
Order: Collembola  
Family: Sminthuridae

Priority Score: **25 out of 100**



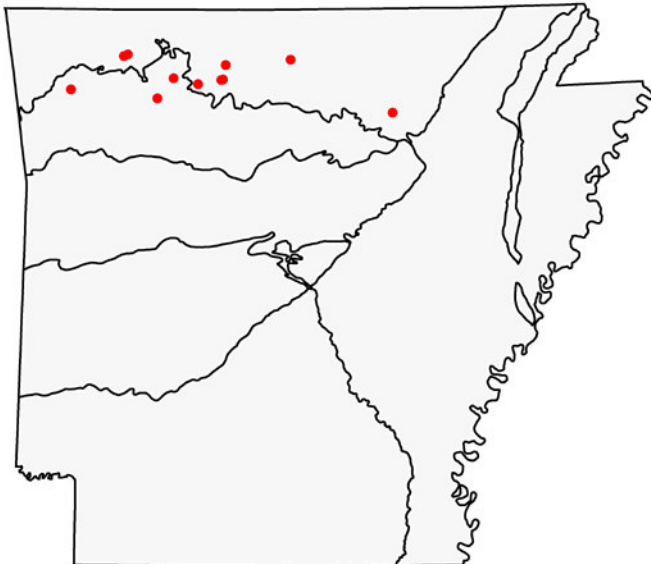
Population Trend: Unknown



G Rank: G4 – Apparently secure species

S Rank: S1S2 – Critically imperiled in Arkansas (uncertain rank)

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains
- Arkansas Valley

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

groundwater contamination

Threat: Toxins/contaminants  
Source: Urban development

Development/disturbance of cave habitat and recharge zone

Threat: Habitat disturbance  
Source: Urban development

**Data Gaps/Research Needs**

Determine life history information.

Survey for baseline information on distribution and population status.

**Conservation Actions**

**Importance Category**

Maintain groundwater quality.

Medium Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium Habitat Protection

**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

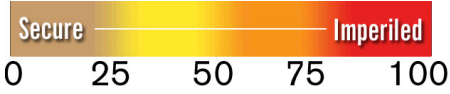
**Comments**

Collembola. This is a terrestrial cave adapted springtail that is only known from caves in the Ozarks (personal communication, Mike E. Slay).

*Crosbyella distincta*  
cave obligate harvestman

Class: Arachnida  
Order: Opiliones  
Family: Phalangodidae

Priority Score: **65 out of 100**



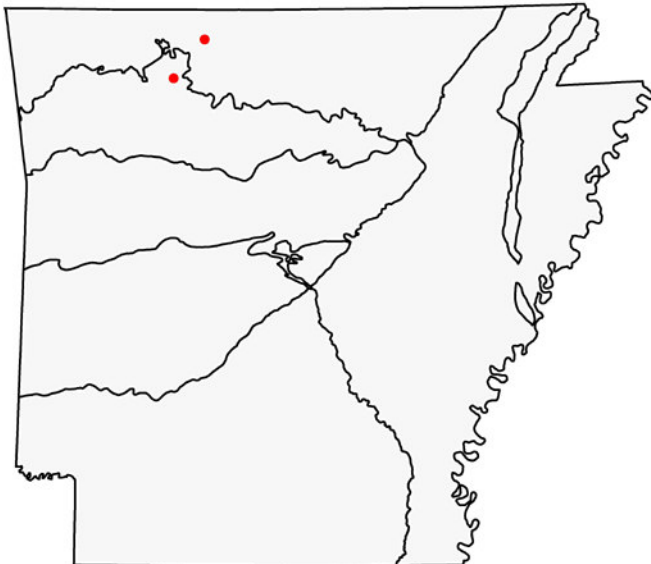
Population Trend: Unknown



**G Rank:** G1G2 – Critically imperiled (uncertain rank)

**S Rank:** S1 – Critically imperiled in Arkansas

**Distribution**



**Ecoregions where the species occurs:**

- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Development/disturbance of cave habitat and recharge zone, groundwater contamination

Threat:  
Source:

**Conservation Actions**

Maintain groundwater quality.

**Importance**

Medium

**Category**

Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

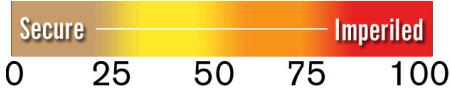
**Comments**

Arachnid.

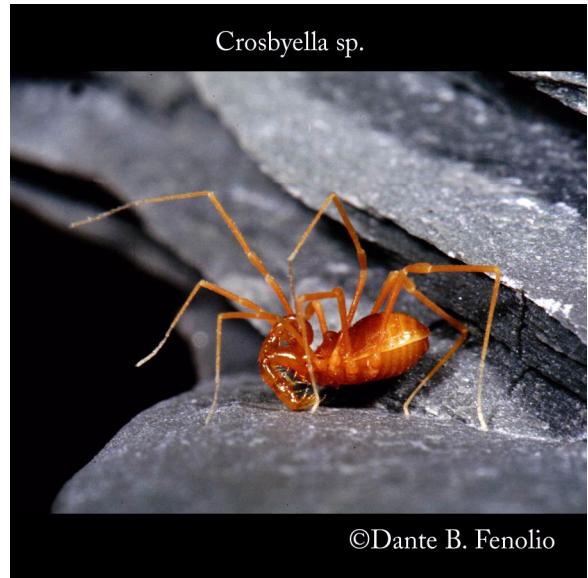
*Crosbyella roeweri*  
cave obligate harvestman

Class: Arachnida  
Order: Opiliones  
Family: Phalangodidae

Priority Score: **65 out of 100**



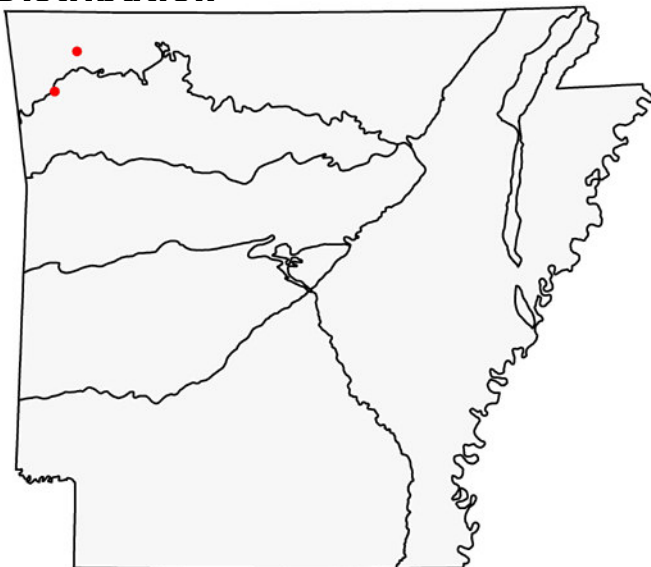
Population Trend: Unknown



**G Rank:** G1G2 – Critically imperiled (uncertain rank)

**S Rank:** S1 – Critically imperiled in Arkansas

**Distribution**



**Ecoregions where the species occurs:**

- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Development/disturbance of cave habitat and recharge zone, groundwater contamination

Threat:  
Source:

**Conservation Actions**

Maintain groundwater quality.

**Importance**

Medium

**Category**

Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

**Comments**

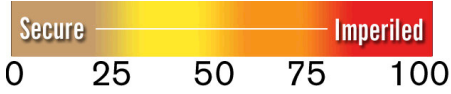
Arachnid.



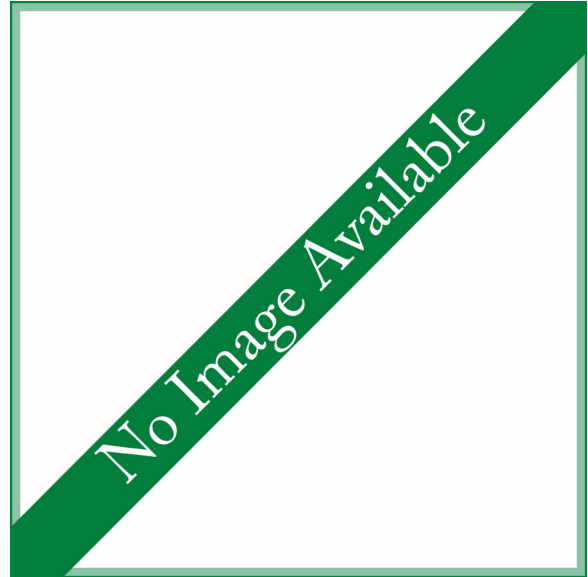
*Diplocardia meansi*  
earthworm

Class: Oligochaeta  
Order: Opisthopora  
Family: Acanthodrilidae

Priority Score: **17 out of 100**



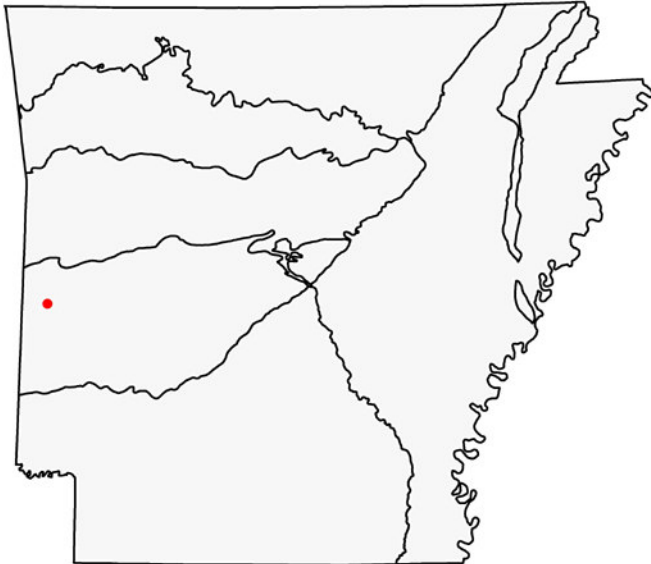
Population Trend: Unknown



G Rank: G? – Uncertain global ranking

S Rank: S2S3 – Imperiled species in Arkansas (uncertain rank)

**Distribution**



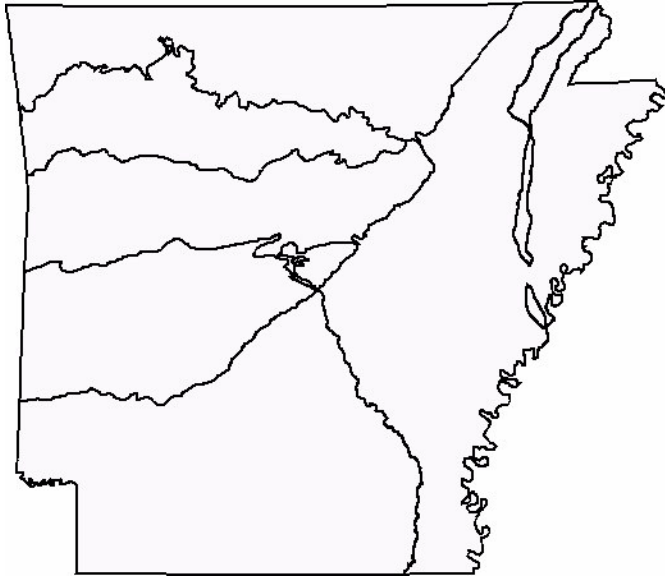
Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Ozark-Ouachita Mesic Hardwood Forest

**Weight**

Suitable

**Problems Faced**

Habitat degradation/disturbance

Threat: Habitat disturbance  
Source: Forestry activities

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

Limit soil disturbance.

**Importance**

High

**Category**

Habitat Protection

Suspend application of herbicides where this species occurs.

Medium

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

**Comments**

The second largest earthworm in the United States, *D. meansi* is an Arkansas endemic only known from the slopes of Rich Mountain (Gates 1977).

# Gastrocopta rogersensis

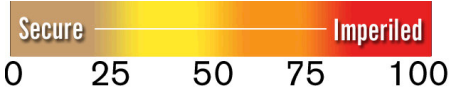
land snail

Class: Gastropoda

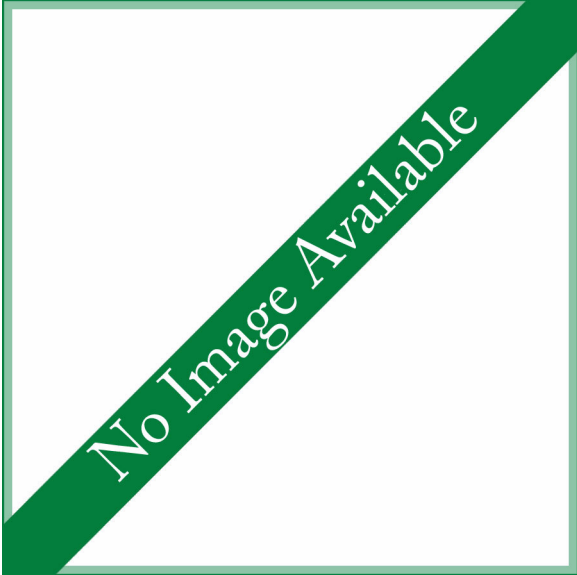
Order: Stylommatophora

Family: Pupillidae

Priority Score: **27 out of 100**



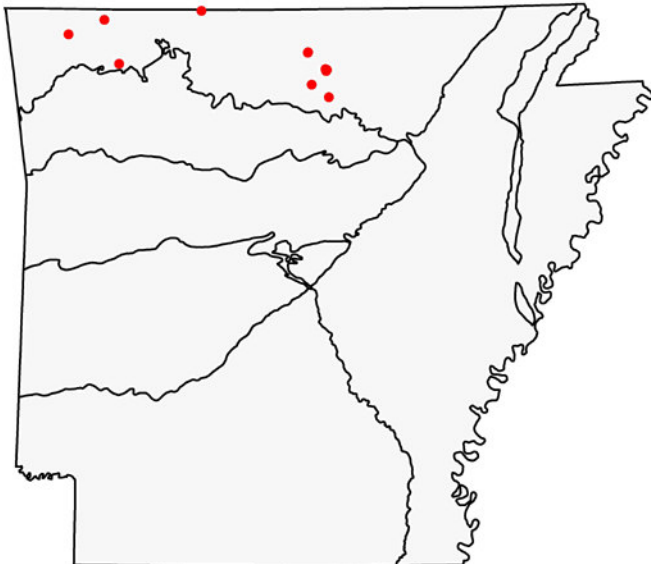
Population Trend: Unknown



G Rank: G3G4 – Vulnerable (uncertain rank)

S Rank: S2 – Imperiled in Arkansas

## Distribution



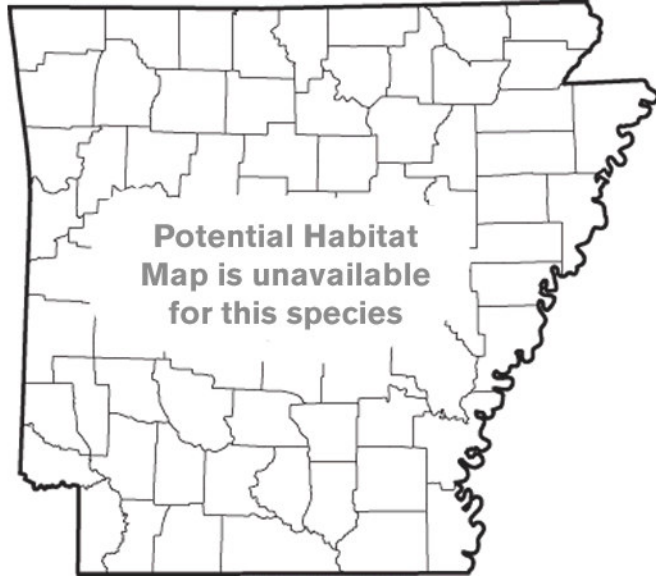
## Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

## Element Occurrence Records

### Taxa Association Team and Peer Reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Central Interior Acidic Cliff and Talus

**Weight**

Optimal

**Problems Faced**

Forestry practices that disturb litter layer and create xeric conditions.

Threat: Habitat disturbance  
Source: Forestry activities

**Data Gaps/Research Needs**

Need to assess population status of known occurrences.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Survey areas near known occurrences to locate additional populations.

**Comments**

A regionally endemic (Arkansas, Missouri) terrestrial snail that occupies habitat in and along bluff lines (Nekola and Coles 2001).

# *Inflectarius magazinensis*

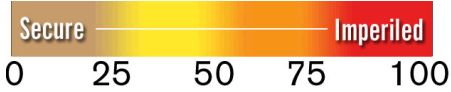
## Magazine Mountain Shagreen

Class: Gastropoda

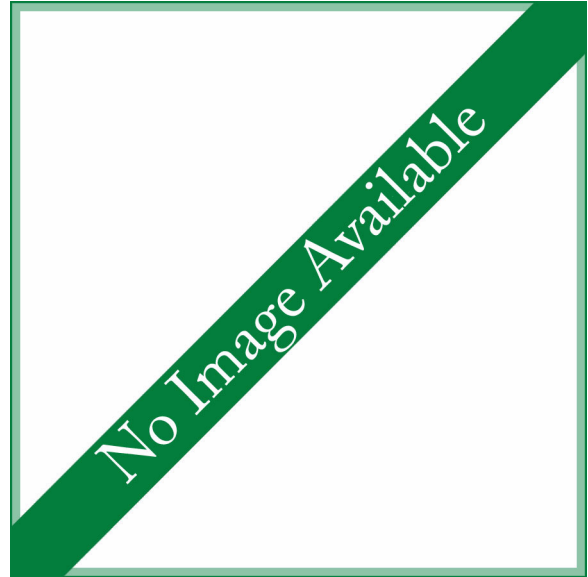
Order: Stylommatophora

Family: Polygyridae

Priority Score: **80 out of 100**



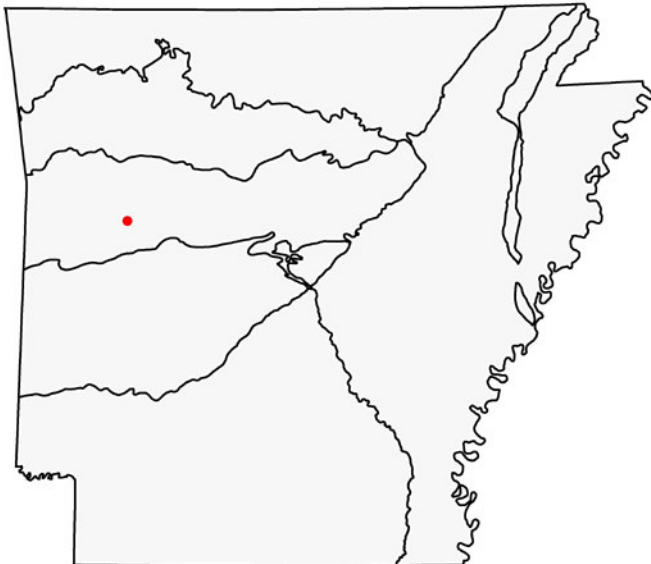
Population Trend: Unknown



G Rank: G1 – Critically imperiled species

S Rank: S1 – Critically imperiled in Arkansas

### Distribution



### Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

### Element Occurrence Records

#### Taxa Association Team and Peer Reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Central Interior Acidic Cliff and Talus

**Weight**

Optimal

**Problems Faced**

Development or activities that alter talus slopes where this species occurs

Threat: Habitat disturbance  
Source: Forestry activities

Development or activities that alter talus slopes where this species occurs

Threat: Habitat disturbance  
Source: Recreation

**Data Gaps/Research Needs**

Need to assess population status of known occurrences.

**Conservation Actions**

Protect known occurrences from development or activities that could alter talus slopes

**Importance**

High

**Category**

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

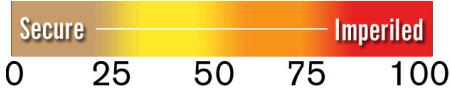
**Comments**

An Arkansas endemic species only known from sites on Magazine Mountain in Logan County (Pilsbry and Ferris 1906).

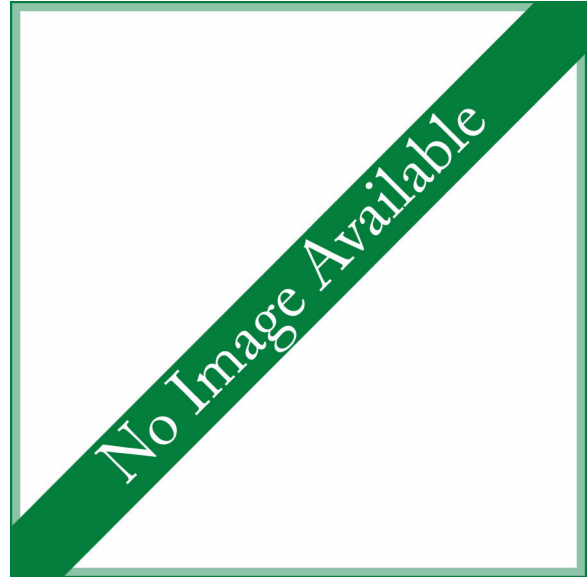
*Microcreagris ozarkensis*  
pseudoscorpion

Class: Arachnida  
Order: Pseudoscorpiones  
Family: Neobisiidae

Priority Score: **23 out of 100**



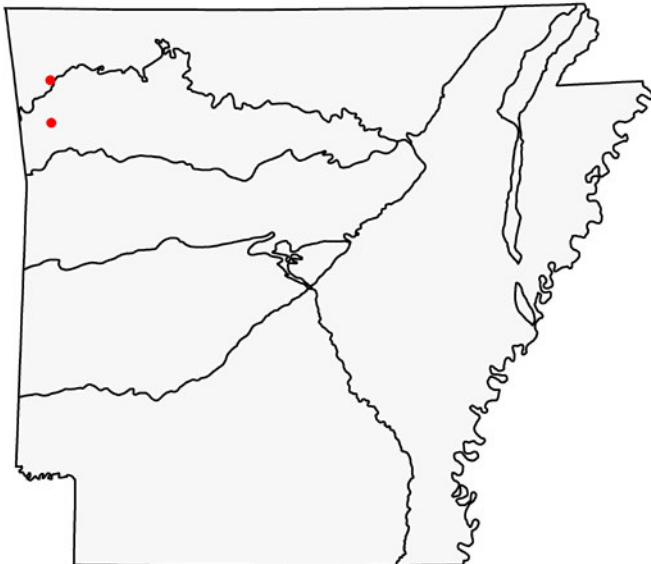
Population Trend: Unknown



G Rank: G? – Uncertain global ranking

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



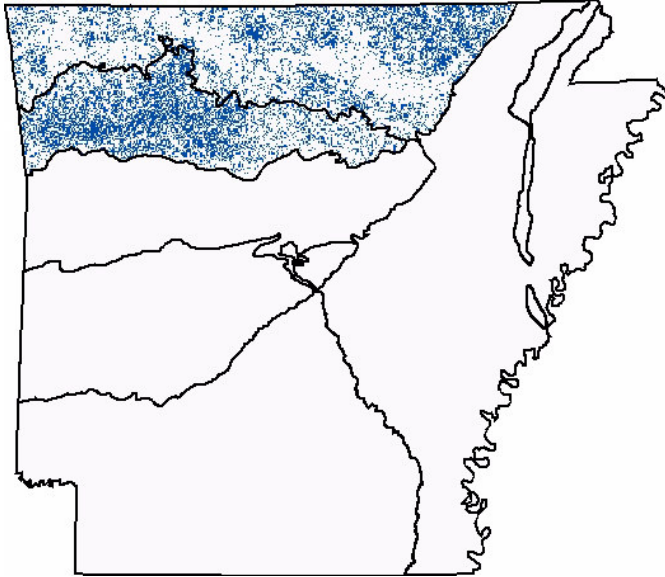
Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains
- Arkansas Valley

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Ozark-Ouachita Dry-Mesic Oak Forest	Suitable
Ozark-Ouachita Mesic Hardwood Forest	Suitable

**Weight**

**Problems Faced**

Timber harvesting that decreases available dead wood and leads to more xeric forest conditions

Threat: Habitat disturbance  
Source: Forestry activities

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

Limit timber harvesting in areas where this species is known to occur

**Importance Category**

Medium      Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

**Comments**

An Arkansas endemic pseudoscorpion that has been collected only from Washington County (Hoff 1945).



*Millerelix peregrina*

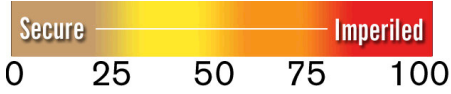
White Liptooth

Class: Gastropoda

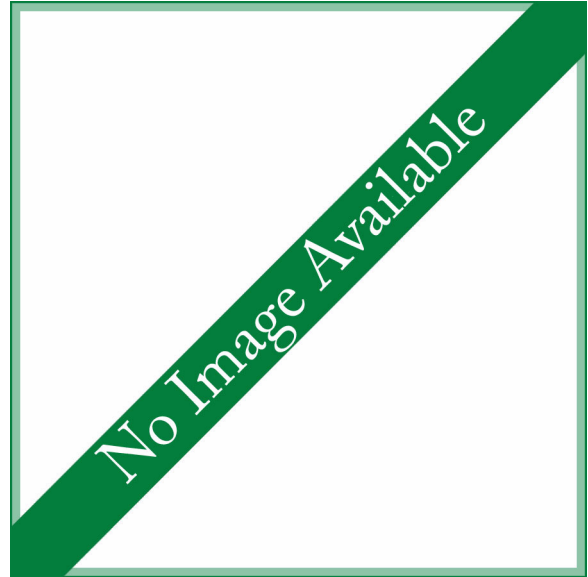
Order: Stylommatophora

Family: Polygyridae

Priority Score: **34 out of 100**



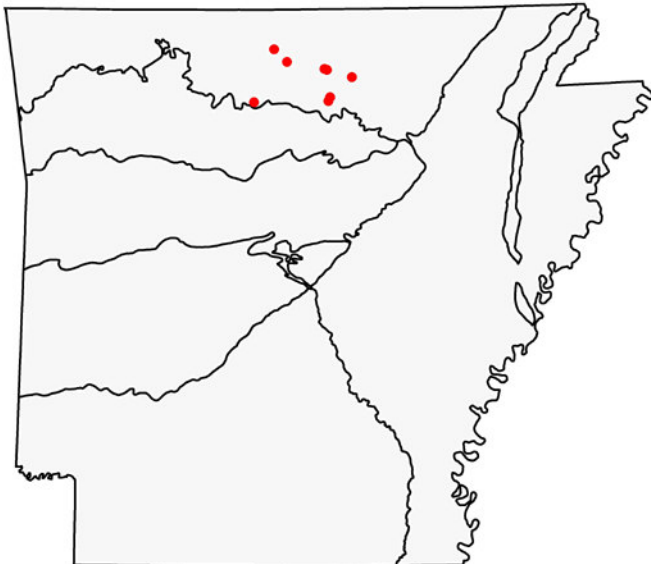
Population Trend: Unknown



G Rank: G2 – Imperiled species

S Rank: S? – Uncertain ranking in Arkansas

**Distribution**



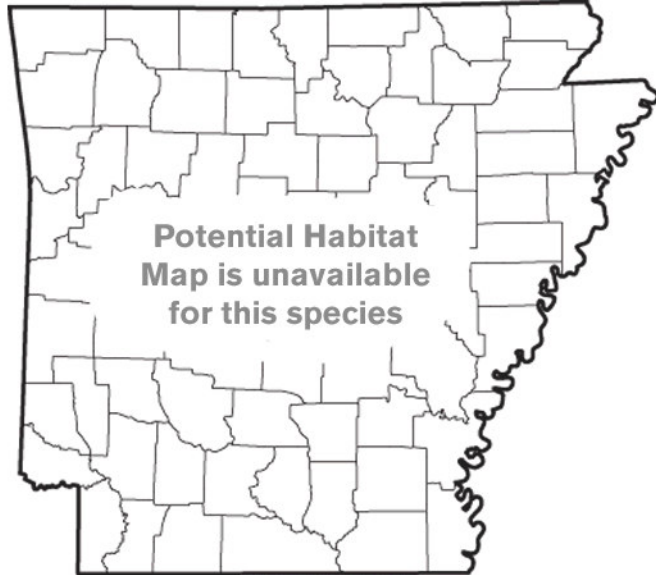
Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Ozark-Ouachita Mesic Hardwood Forest

**Weight**

Data Gap

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Surveys to locate additional populations and protection of stream habitats

**Comments**

Terrestrial snail. (Turgeon and others 1998).

# Paravitrea aulacogyra

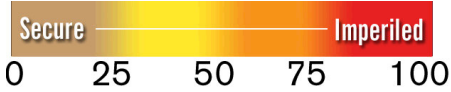
## Striate Supercoil

Class: Gastropoda

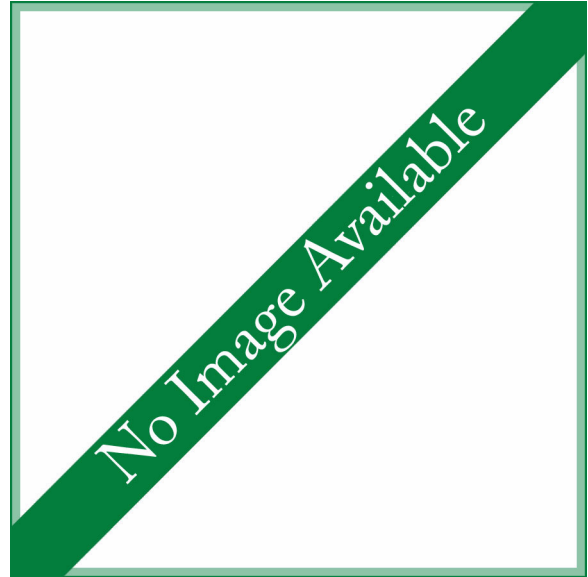
Order: Stylommatophora

Family: Zonitidae

Priority Score: **80 out of 100**



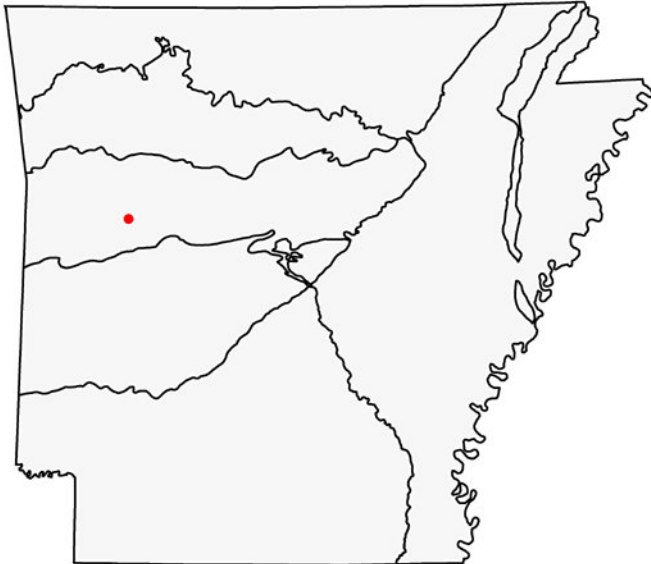
Population Trend: Unknown



G Rank: GHQ – Historic record of questionable taxonomy

S Rank: SH – Historic record. Possibly extirpated in Arkansas.

### Distribution



### Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

### Element Occurrence Records

#### Taxa Association Team and Peer Reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Central Interior Acidic Cliff and Talus

**Weight**

Optimal

**Problems Faced**

Forestry practices that disturb litter layer and create xeric conditions.

Threat: Habitat disturbance  
Source: Forestry activities

Loss of habitat to development.

Threat: Habitat destruction or conversion  
Source: Recreation

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Survey areas near known occurrences to locate additional populations.

**Comments**

An Arkansas endemic species, this terrestrial snail is known only from a site on the northern summit of Magazine Mountain in Logan County (Pislbry and Ferris 1906).

*Patera clenchi*

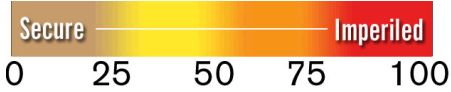
Calico Rock Oval

Class: Gastropoda

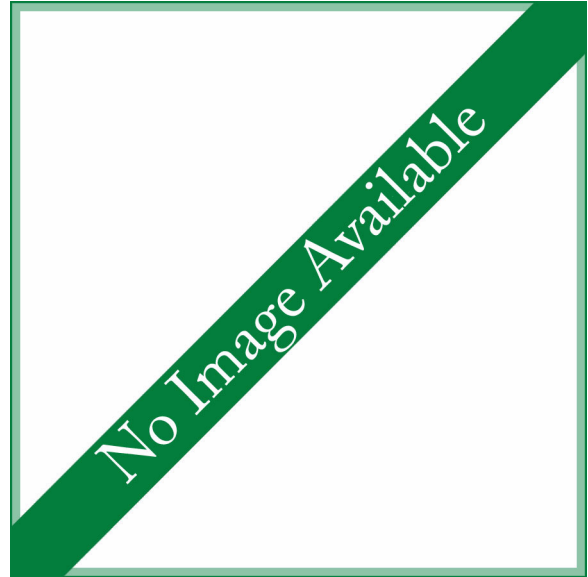
Order: Stylommatophora

Family: Polygyridae

Priority Score: **65 out of 100**



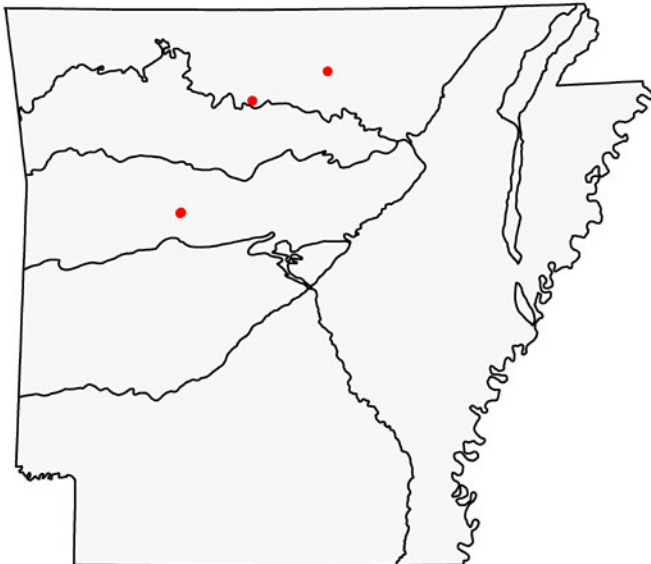
Population Trend: Unknown



G Rank: G1 – Critically imperiled species

S Rank: S? – Uncertain ranking in Arkansas

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Surveys to locate additional populations.

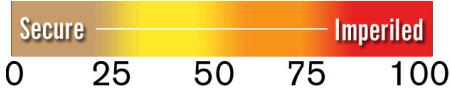
**Comments**

Terrestrial snail. (Turgeon and others 1998).

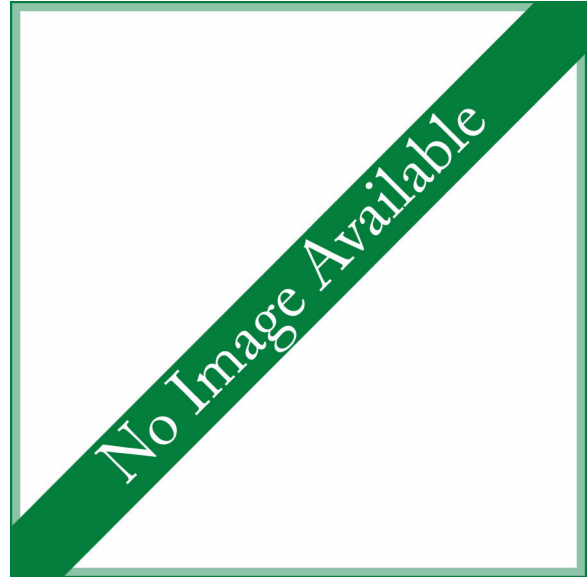
*Pseudosinella dubia*  
springtail

Class: Euliplura  
Order: Collembola  
Family: Entomobryidae

Priority Score: **50 out of 100**



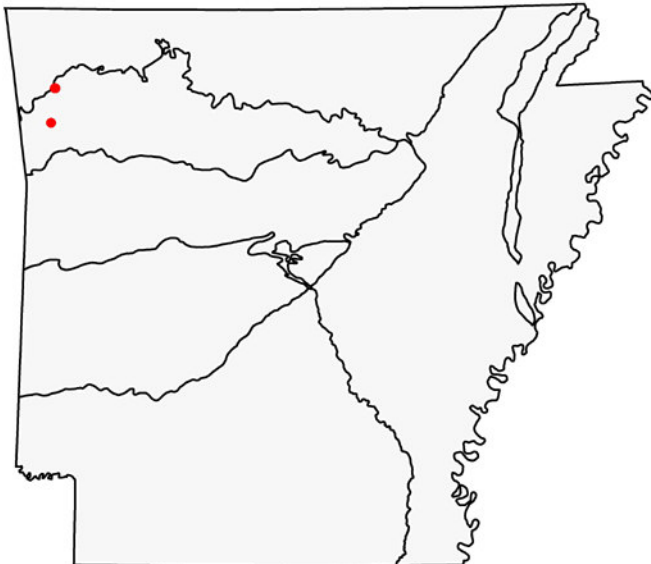
Population Trend: Unknown



G Rank: G1G2 – Critically imperiled (uncertain rank)

S Rank: S? – Uncertain ranking in Arkansas

**Distribution**



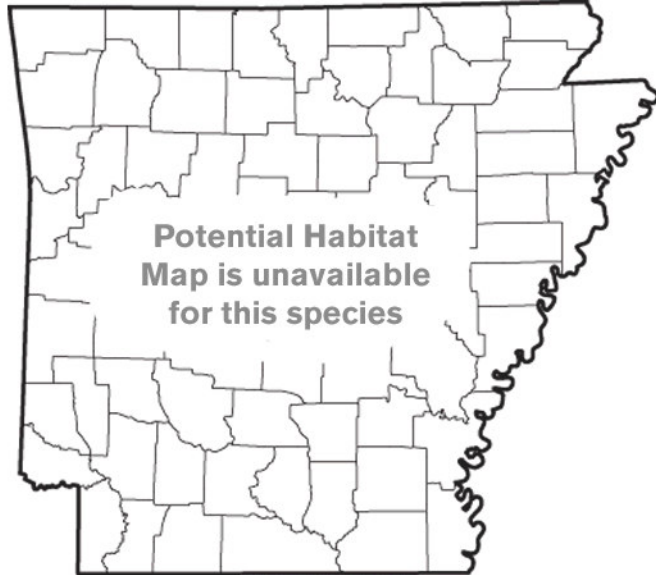
Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Disturbed litter layer creates xeric conditions.

Threat: Habitat disturbance  
Source: Forestry activities

Loss of habitat to development.

Threat: Habitat destruction or conversion  
Source: Urban development

**Data Gaps/Research Needs**

Determine life history information.

Evaluate taxonomic relationships.

Survey for additional populations.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Additional information is needed before a monitoring strategy can be developed.

**Comments**

Collembola.

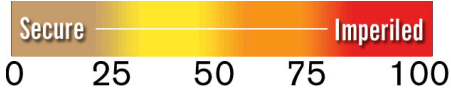


*Pseudosinella testa*

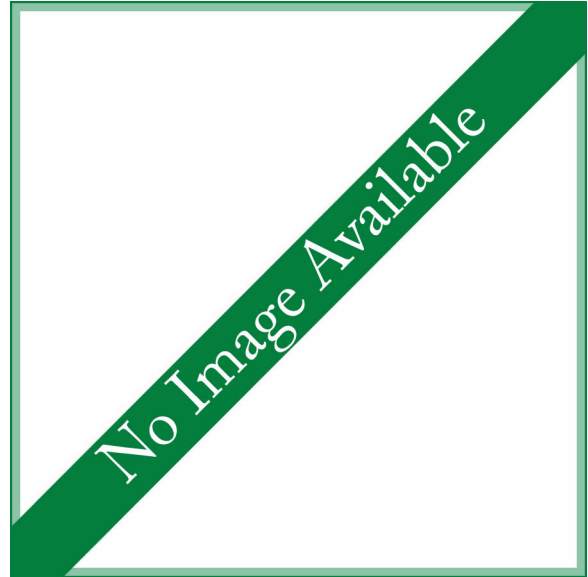
Shelled Cave Springtail

Class: Elliplura  
Order: Collembola  
Family: Entomobryidae

Priority Score: **42 out of 100**



Population Trend: Unknown



G Rank: G2G3 – Imperiled (uncertain rank)  
S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



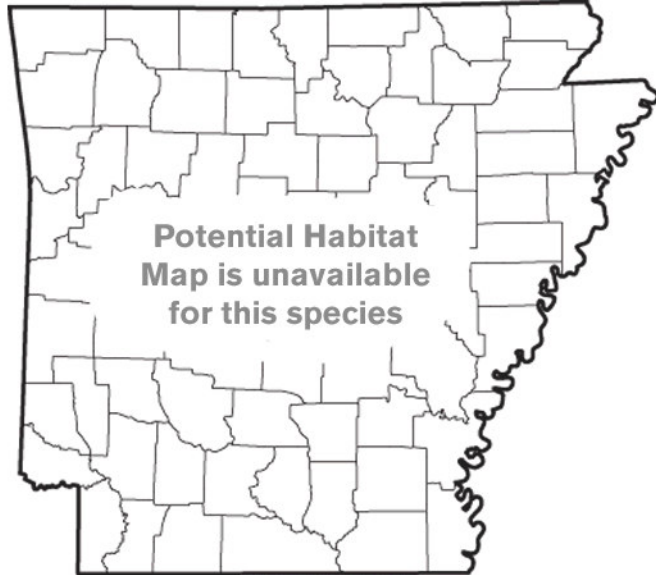
Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Development/disturbance of cave habitat and recharge zone

Threat: Habitat disturbance  
Source: Urban development

Groundwater contamination

Threat: Habitat disturbance  
Source: Urban development

**Data Gaps/Research Needs**

Determine life history information.

Obtain baseline information on distribution and population status.

**Conservation Actions**

**Importance Category**

Maintain groundwater quality.

Medium Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium Habitat Protection

**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

**Comments**

Collembola.

# *Pseudozaona occidentalis*

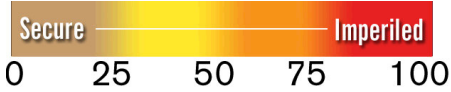
pseudoscorpion

Class: Arachnida

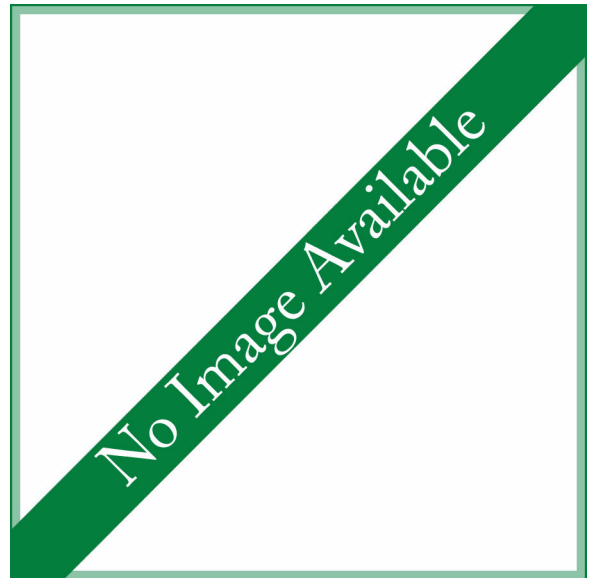
Order: Pseudoscorpiones

Family: Chernetidae

Priority Score: **23 out of 100**



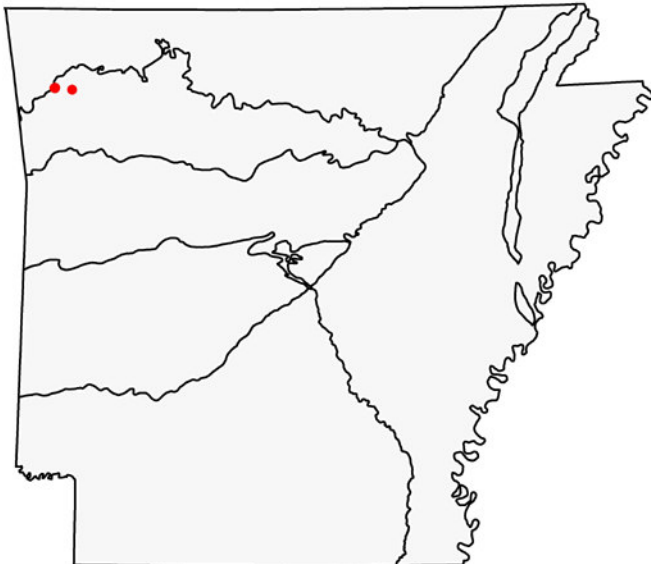
Population Trend: Unknown



G Rank: G? – Uncertain global ranking

S Rank: S1 – Critically imperiled in Arkansas

## Distribution



Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

## Element Occurrence Records

### Taxa Association Team and Peer Reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Disturbance of cave habitat and recharge zone.

Threat: Habitat disturbance  
Source: Recreation

Groundwater contamination

Threat: Toxins/contaminants  
Source: Municipal/Industrial point source

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

Maintain groundwater quality.

**Importance**

Medium

**Category**

Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium

Habitat Protection

**Monitoring Strategies**

Survey for additional populations and monitor known occurrences

**Comments**

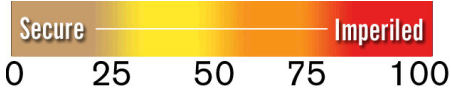
An Arkansas endemic species, this pseudoscorpion is only known from Fincher and Carrol Caves in Washington County (Hoff and Bolsterti 1956).

# Schaefferia alabamensis

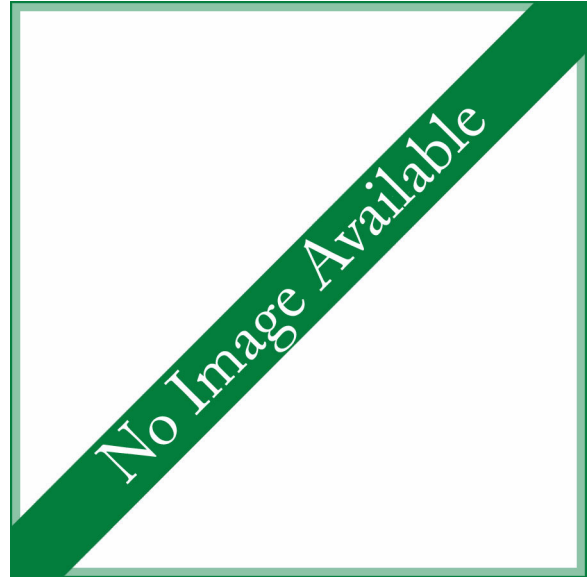
cave obligate springtail

Class: Elliplura  
Order: Collembola  
Family: Hypogastruridae

Priority Score: **65 out of 100**



Population Trend: Unknown



G Rank: G1G2 – Critically imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

## Distribution



## Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

## Element Occurrence Records

### Taxa Association Team and Peer Reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

groundwater contamination

Threat: Toxins/contaminants  
Source: Urban development

Development/disturbance of cave habitat and recharge zone

Threat: Habitat disturbance  
Source: Urban development

**Data Gaps/Research Needs**

Determine life history information.

Survey for baseline information on distribution and population status.

**Conservation Actions**

**Importance Category**

Maintain groundwater quality.

Medium Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium Habitat Protection

**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

**Comments**

Collembola. The Arkansas specimens that have been called this species are currently being redescribed as a new species (pers comm., Mike E. Slay).

# *Stenotrema pilsbryi*

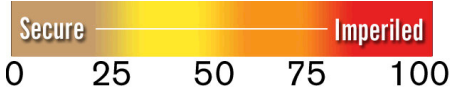
## Rich Mountain Slitmouth

Class: Gastropoda

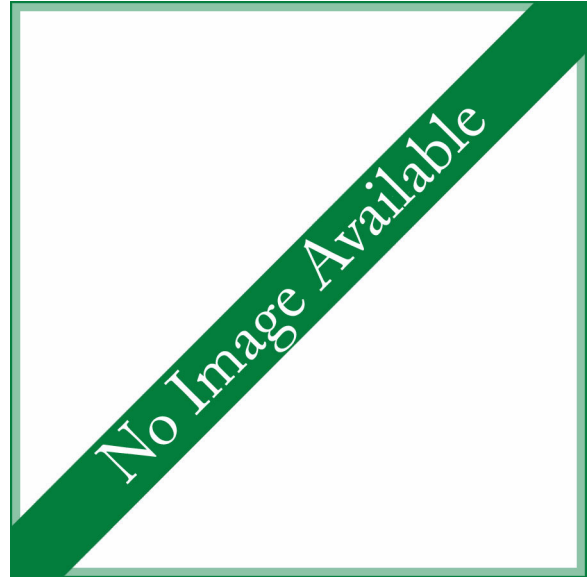
Order: Stylommatophora

Family: Polygyridae

Priority Score: **46 out of 100**



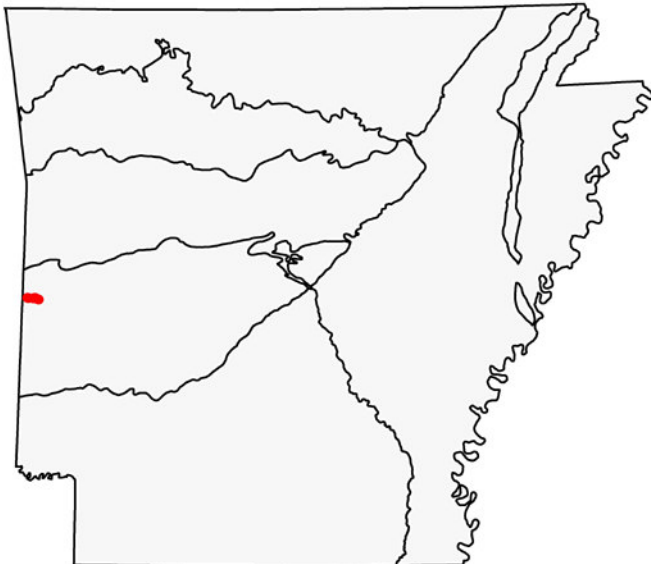
Population Trend: Unknown



G Rank: G2 – Imperiled species

S Rank: S2 – Imperiled in Arkansas

### Distribution



### Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

### Element Occurrence Records

#### Taxa Association Team and Peer Reviewers

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Central Interior Acidic Cliff and Talus

**Weight**

Obligate

**Problems Faced**

Road construction maintenance

Threat: Habitat destruction or conversion  
Source: Road construction

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Surveys to locate additional populations and protection of stream habitats

**Comments**

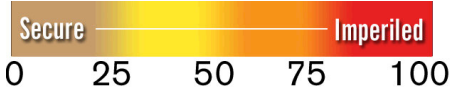
Terrestrial snail. It is known from numerous locations associated with rock glaciers usually above the 1600 ft. contour, and usually under hardwood forest cover, on Rich and Black Fork Mountains in AR and OK, and on Winding Stair Mountain, OK. There are no major threats to any of the populations. However, there are some activities that could conceivably impact snail habitat, including mowing, paving and repaving of the Talimena Scenic Drive, maintenance of vistas involving periodic localized vegetation management, and maintenance of hiking trails, electronic transmission sites, and one power line right-of way. Population trends are assumed to be steady (ANHI 2003, Rich Mountain Slitmouth Snail MOU 2001, Robison and Allen 1995).



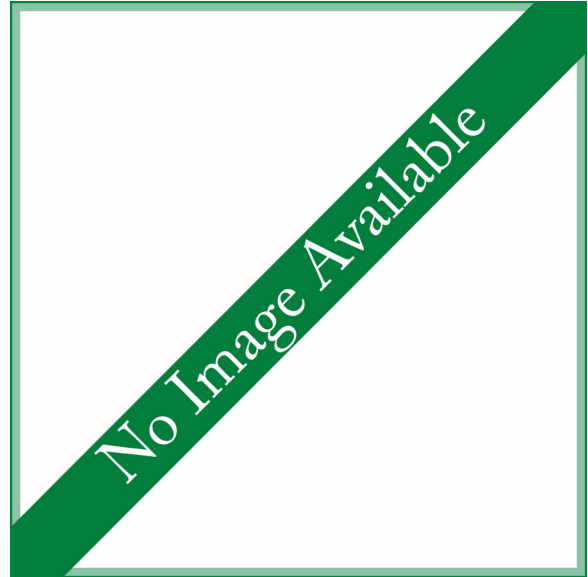
*Stenotrema unciferum*  
Ouachita Slitmouth

Class: Gastropoda  
Order: Stylommatophora  
Family: Polygyridae

Priority Score: **34 out of 100**



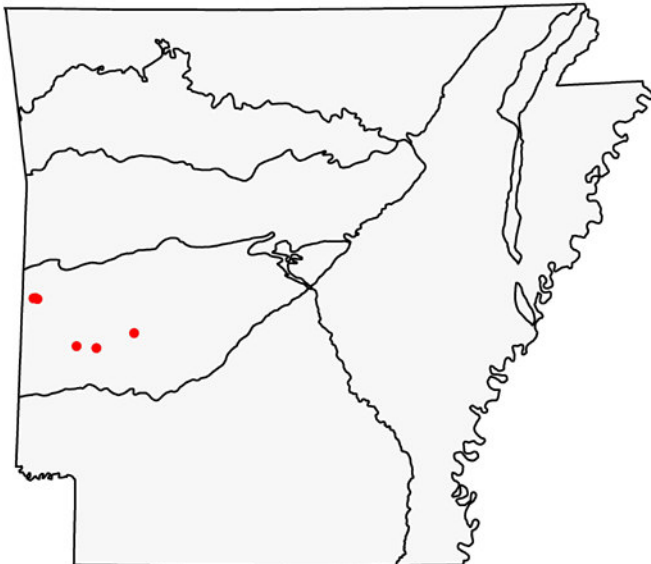
Population Trend: Unknown



G Rank: G2 – Imperiled species

S Rank: S? – Uncertain ranking in Arkansas

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Mississippi Valley Loess Plains
- Boston Mountains
- Mississippi Alluvial Plain
- Arkansas Valley
- South Central Plains
- Ouachita Mountains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Ouachita Mesic Hardwood Forest and Guild Habitat

**Weight**

Obligate

**Problems Faced**

Habitat disturbance that limits access to dead wood and creates xeric conditions.

Threat: Habitat disturbance  
Source: Forestry activities

**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Surveys to locate additional populations and protection of stream habitats

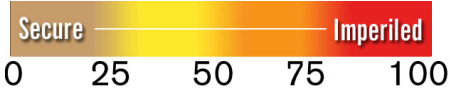
**Comments**

Terrestrial snail. Found to occur on moist slopes in rotting timbers, but most particularly under small talus (Brian Coles, pers. Comm.).

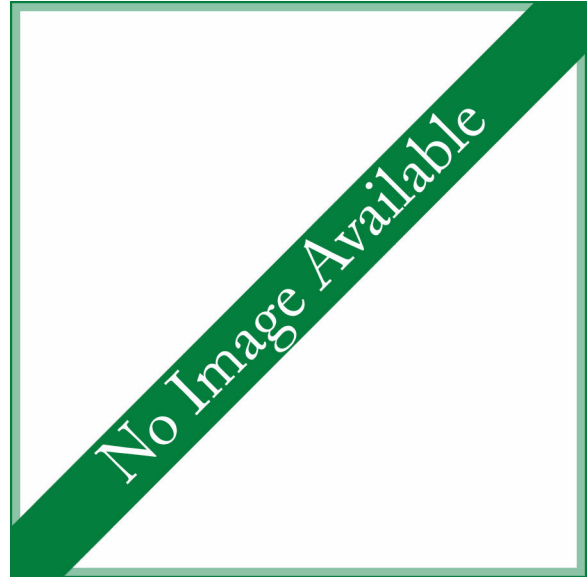
*Trigenotyla parca*  
cave obligate millipede

Class: Diplopoda  
Order: Chordeumatida  
Family: Trichopetalidae

Priority Score: **65 out of 100**



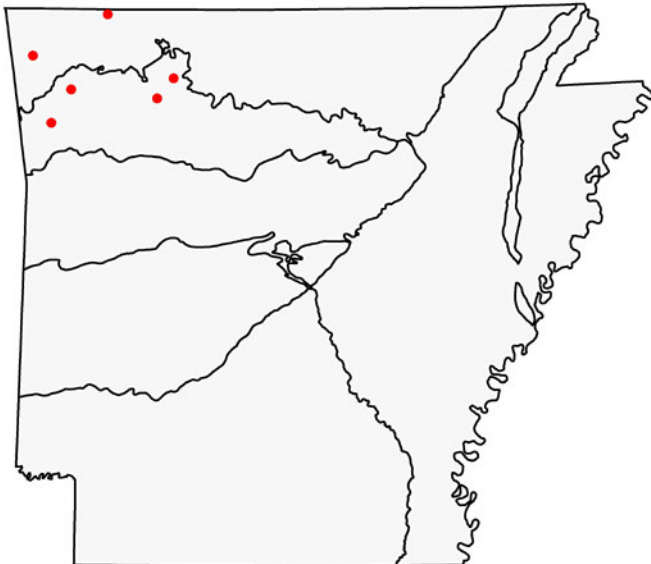
Population Trend: Unknown



G Rank: G1G2 – Critically imperiled (uncertain rank)

S Rank: S1 – Critically imperiled in Arkansas

**Distribution**



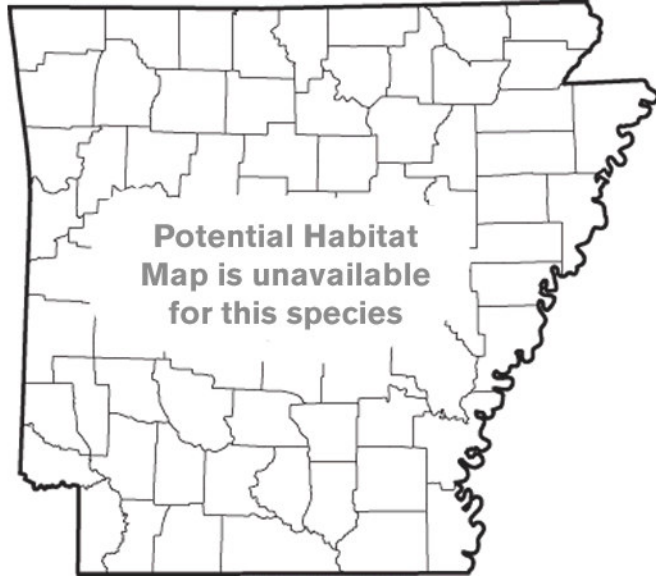
Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains
- Arkansas Valley

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Habitats**

Caves, Mines & Karst Habitat

**Weight**

Obligate

**Problems Faced**

Development/disturbance of cave habitat and recharge zone, groundwater contamination

Threat:  
Source:

**Data Gaps/Research Needs**

Determine life history information.

Obtain baseline information on distribution and population status.

**Conservation Actions**

Maintain groundwater quality.

**Importance Category**

Medium Habitat Protection

Protect cave habitat and recharge zone from development or disturbance.

Medium Habitat Protection

**Monitoring Strategies**

More data is needed before a monitoring strategy can be developed.

**Comments**

No information available.

*Xolotrema occidentale*

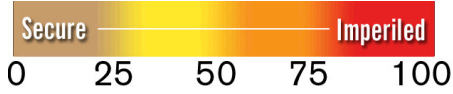
Arkansas Wedge

Class: Gastropoda

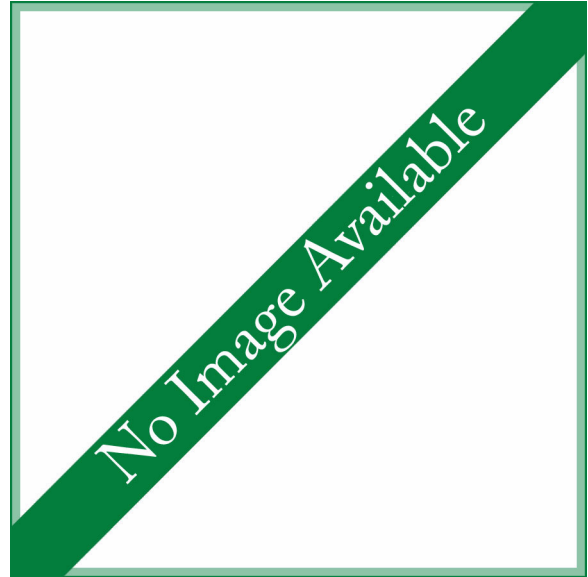
Order: Stylommatophora

Family: Polygyridae

Priority Score: **65 out of 100**



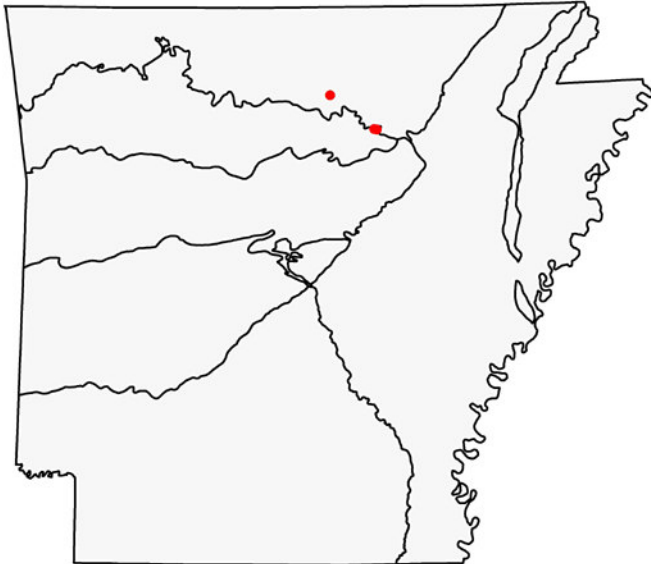
Population Trend: Unknown



G Rank: G1 – Critically imperiled species

S Rank: S? – Uncertain ranking in Arkansas

**Distribution**



Ecoregions where the species occurs:

- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- Mississippi Valley Loess Plains
- Mississippi Alluvial Plain
- South Central Plains

**Element Occurrence Records**

**Taxa Association Team and Peer Reviewers**

ANHC Mr. Michael Warriner, AGFC Mr. Brian Wagner



**Potential Habitat Map**



**Data Gaps/Research Needs**

Need to obtain baseline information on distribution and population status.

**Conservation Actions**

More data is needed to determine conservation actions.

**Importance**

Medium

**Category**

Data Gap

**Monitoring Strategies**

Surveys to locate additional populations and protection of stream habitats

**Comments**

Terrestrial snail. (Turgeon and others 1998)