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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Acentrella barbarae*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G2G3  
New York: Not Ranked  
Tracked: No

**Synopsis:**

This species is recently described and is known only from the Smokey Mountains and the Adirondacks. Recent records extend the known range of geographic distribution of this species northwards from Tennessee and North Carolina, representing the first reports of the species since its original description from Great Smoky Mountains National Park (Jacobus and McCafferty 2006).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

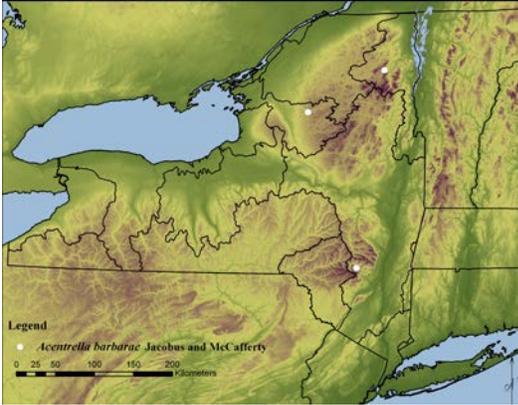
**Habitat Discussion:**

In New York, mature nymphs of this species have been collected in July and August from small perennial streams and medium-sized rivers.

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

This species has been documented in three locations in New York: West Branch of the Ausable River in Essex County (Myers et al. 2008), Sunday Creek in Herkimer County, and Panther Kill in Ulster County (B. Kondratieff, Colorado State University at Fort Collins).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural Systems Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Jacobus, L. M. and W. P. McCafferty. 2006. A new species of *Acentrella bengtsson* (Ephemeroptera: Baetidae) from Great Smoky Mountains National Park, USA. *Aquatic Insects* 28: 101-111.

Kondratieff, Boris. Personal communication. Colorado State University, Fort Collins Colorado.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Ameletus tertius*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Ameletus tertius* is a mayfly of which little is known in New York. Its range extends from the Canadian Maritime provinces southward to the southern Appalachian Mountains in the United States (Zloty 1996, DeWalt et al. 2007). This species appears to be relatively common in Maine and New Hampshire (Burian and Gibbs 1991, Chandler et al. 2006). There are four known occurrences of this species in New York and it has been reported recently from several northern rivers in the White Mountain region of New Hampshire and documented in New Brunswick as well (NatureServe 2013). The habitat for this species is described as stream order 1-4, erosional with secondary depositional areas (Burian and Gibbs 1991).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

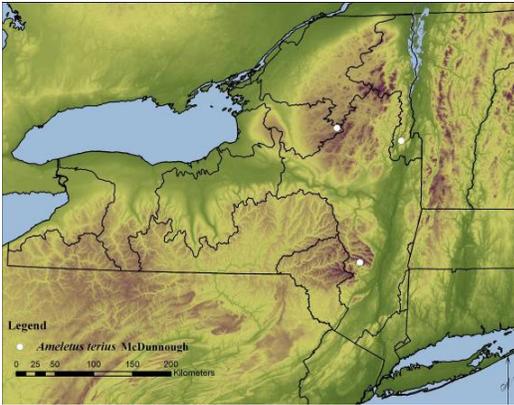
**Habitat Discussion:**

*Ameletus tertius* occurs in first through fourth order erosional streams with depositional areas (Burian and Gibbs 1991).

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

Previously known to occur only in the Susquehanna watershed, a recent study identified individuals in the Upper Hudson (Greene Co.), Lake Champlain (Washington County), and NE Lake Ontario – St. Lawrence (Hamilton Co.) watersheds (NYSDEC 2005, Myers et al. 2010).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Burian, S. K. and K. E. Gibbs. 1991. Mayflies of Maine: an annotated faunal list. Maine Agricultural Experiment Station, Technical Bulletin 142: 109 pp.

Chandler, D. S., G. D. Whitmore, S. K. Burian and J. F. Burger. 2006. The mayflies (Ephemeroptera) of New Hampshire: Seasonality and diversity of the stream fauna. *Transactions of the American Entomological Society* 132: 25-73.

DeWalt, R. E., L. M. Jacobus and W. P. McCafferty. 2007. Summer Ephemeroptera, Plecoptera, and Trichoptera from southwestern drainages in Great Smoky Mountains National Park, with additional Ephemeroptera records. *Proceedings of the Entomological Society of Washington* 109: 136-154.

NatureServe. 2013. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: January 25, 2012).

New York State Department of Environmental Conservation. (2005). *New York State Comprehensive Wildlife Conservation Strategy*. Albany, NY. Available: <http://www.dec.ny.gov/index.html>.

Zloty, J. 1996. A revision of the Nearctic *Ameletus* mayflies based on adult males, with descriptions of seven new species (Ephemeroptera: Ameletidae). *Canadian Entomologist* 128: 293-34.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Baetis rusticans*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G2G3  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Baetis rusticans* is a mayfly of which little is known in New York. This species occurs primarily in the northeastern United States and Canada, and a small disjunct population is known in Texas (McCafferty and Jacobus 2001). McCafferty and Jacobus (2001) reviewed past reports, including historic misidentifications; larvae are still unknown for this species. Preliminary DNA barcode data obtained from these recent collections of *B. rusticans* in New York has raised concerns over the validity of this species. This mayfly was known to occur historically only in the NE Lake Ontario – St. Lawrence watershed (Traver 1935). Recent surveys have located additional occurrences of this species in the Lake Champlain (Clinton Co.), NE Lake Ontario – St. Lawrence (St. Lawrence, Fulton counties), and the Upper Hudson (Lewis, Warren, Saratoga, Greene counties) watersheds. The habitat for this species consists of medium to large streams and rivers (Myers et al. 2010).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon	X		
> 50%		Rare			

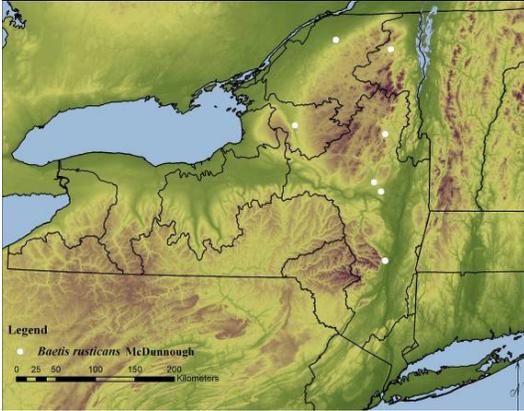
**Habitat Discussion:**

*Baetis rusticans* occurs in medium to large streams and rivers (Myers et al. 2010).

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

This species is known from Clinton, Fulton, Greene, Lewis, Saratoga, and Warren counties (Myers et al. 2008; B. Kondratieff, Colorado State University at Fort Collins).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Kondratieff, Boris. Personal communication. Colorado State University, Fort Collins Colorado.

McCafferty, W. P. and L. M. Jacobus. 2001. Revisions to *Pauditus cestus* and *P. gloveri* (Ephemeroptera: Baetidae). *Entomological News* 112: 305-310.

Myers, L. W., L. M. Jacobus and B. C. Kondratieff. 2008. Insecta, Ephemeroptera: New and additional records from New York (U.S.A.). *Check List* 4: 415-423.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Traver, J. R. 1935. Part II: Systematic. pp. 237-739. In J. G. Needham, J. R. Traver, and Y. C. Hsu. *The biology of mayflies, with a systematic account of North American species*. Ithaca, Comstock Publishing.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Eurylophella bicoloroides*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Eurylophella bicoloroides* is a species of mayfly that has been found in the Delaware, Upper Hudson, and SE Lake Ontario watersheds. More specifically, this species has been reported from the Delaware River, Mohawk River, and Schoharie Creek (Funk and Sweeney 1994). Elsewhere, this species has been reported infrequently from Nova Scotia, Vermont, and Pennsylvania (Funk and Sweeney 1994).

Habitat from which this mayfly has been collected includes small streams (2nd order) to medium sized rivers (6th to 7th order). Its distribution can be very patchy at the local level (Funk and Sweeney 1994). Funk and Sweeney (1994) also reported this species from reaches of larger streams below dams with hypolimnetic releases.

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

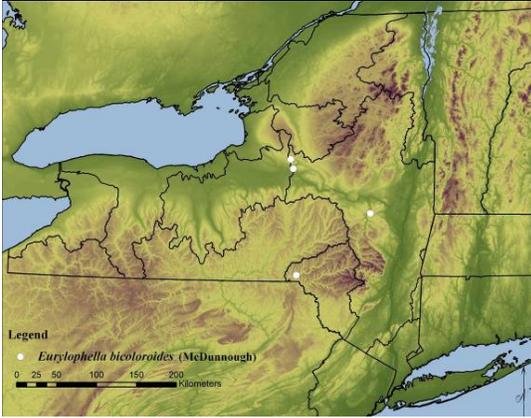
**Habitat Discussion:**

This mayfly has been collected from small streams (2nd order) to medium sized rivers (6th to 7th order). Its distribution can be very patchy at the local level (Funk and Sweeney 1994). Funk and Sweeney (1994) also reported this species from reaches of larger streams below dams with hypolimnetic releases.

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

*Eurylophella bicoloroides* occurred historically in Delaware (1983), Oneida (1979), and Schoharie (1979) counties (Funk and Sweeney 1994). There are no recent records of this species in New York.



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agriculture & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Funk, D. H. and B. W. Sweeney. 1994. The larvae of eastern North American *Eurylophella* Tiensuu (Ephemeroptera: Ephemerellidae). Transactions of the American Entomological Society 120: 209-286.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Leucrocuta thetis*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3  
New York: SNR  
Tracked: No

**Synopsis:**

*Leucrocuta thetis* is a species of mayfly of which little is known in New York. There is one historic record of this species in the state, from the Susquehanna watershed (Chemung Co.) in 1976. It has also been reported from Pennsylvania, Tennessee, Virginia, North Carolina, and South Carolina (Traver 1935, Unzicker and Carlson 1982, Grant and Masteller 1984, Long and Kondratieff 1996, DeWalt and Heinold 2005, McCafferty and Meyer 2008, McCafferty 2009). Grant et al. (1997) reported a discontinuous six-week emergence period starting in mid-May and ending in late-June for a population of *L. thetis* in Pennsylvania. Its habitat is described as streams and rivers (Myers et al. 2010).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

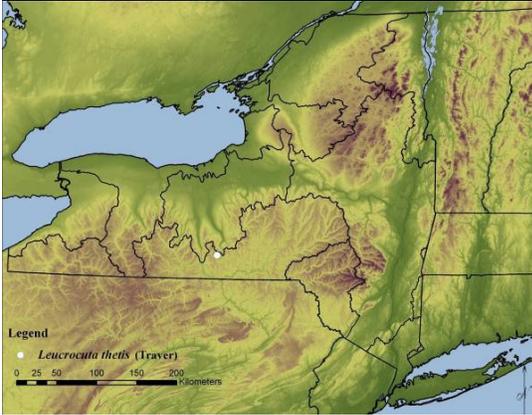
**Habitat Discussion:**

The habitat of this mayfly is described as streams and rivers (Myers et al. 2010).

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

Jacobus and McCafferty (2001) reported this species at McCorn Creek at Van Etten in Chemung County in 1976.



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

DeWalt, R. E. and B. D. Heinold. 2005. Summer emerging Ephemeroptera, Plecoptera, and Trichoptera of Abrams Creek, Great Smoky Mountains National Park. *Proceedings of the Entomological Society of Washington* 107: 34-48.

- Grant, P. and E. C. Masteller. 1984. New state mayfly (Ephemeroptera) records from Pennsylvania. *Entomological News* 95: 180-182.
- Grant, P., S. K. Burian and E. C. Masteller. 1997. Emergence of mayflies (Ephemeroptera) from streams or Erie Co., PA. *Journal of the Pennsylvania Academy of Science* 70:105-112.
- Jacobus, L. M. and W. P. McCafferty. 2001. The mayfly fauna of New York State (Insecta: Ephemeroptera). *Journal of the New York Entomological Society* 109: 47-80.
- Long, L. S. and B. C. Kondratieff. 1996. The mayflies (Ephemeroptera), of Tennessee with a review of the possibly threatened species occurring in the state. *The Great Lakes Entomologist* 29: 171-182.
- McCafferty, W. P. and M. D. Meyer. 2008. South Carolina mayflies (Ephemeroptera). *Transactions of the American Entomological Society* 134: 283-335.
- McCafferty, W. P. 2009. New state and provincial records for 100 Ephemeroptera species. *Transactions of the American Entomological Society* 135: 353-368.
- Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.
- Traver, J. R. 1935. Part II: Systematic. pp. 237-739. In J. G. Needham, J. R. Traver, and Y. C. Hsu. *The biology of mayflies, with a systematic account of North American species*. Ithaca, Comstock Publishing.
- Unzicker, J. D. and P. H. Carlson, 1982. Ephemeroptera, pp. 3.1-3.97. In A. R. Brigham, W. U. Brigham, and A. Gnilka (editors). *Aquatic insects and oligochaetes of North and South Carolina*, Midwest Aquatic Enterprises, Mohomet, Illinois.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Nixe rusticalis*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G5  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Nixe rusticalis* is a mayfly that is known to occur at several locations throughout New York. The only historical record of this species is from Traver (1935) who located three occurrences within the Susquehanna watershed (Tompkins Co.). Recent surveys by Myers et al. (2010) have located the species in three additional locations within the Upper Hudson watershed. More recently this species was collected from a wave-swept shoreline of Lake Champlain in 2011 (L. Myers, personal communication). It has been reported elsewhere in North America, with records from Quebec (McDunnough 1931), Saskatchewan (Whiting and Sheard 1990), Maine (Burian and Gibbs 1991), Ohio (Randolph and McCafferty 1998), Iowa (Klubertanz 1995), and Alabama (Kondratieff and Harris 1986). Its habitat is high gradient small streams to medium-sized rivers (Myers et al. 2010) and the wave-swept shorelines of large lakes (L. Myers, personal communication).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon	X		
> 50%		Rare			

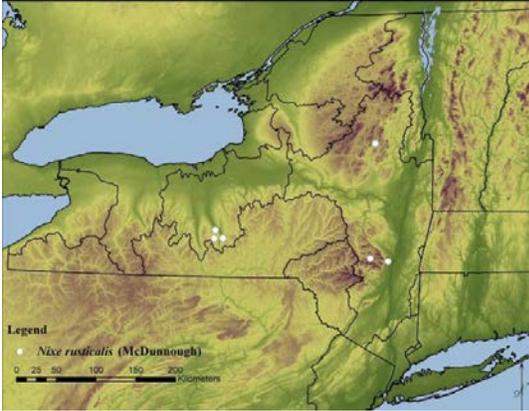
**Habitat Discussion:**

This species occurs in high gradient small streams to medium sized rivers and wave-swept shorelines of large lakes (L. Myers, personal communication, Myers et al. 2010).

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There are three historical records from Tompkins County: Ithaca, Taughannock Glens, and Enfield (Traver 1935). Three current records are from Greene County (Kaaterskill Creek and Schoharie Creek, both in 2007) and Warren County (Sacandaga River in 2007; L. Myers and B. C. Kondratieff, CSUC).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Burian, S. K. and K. E. Gibbs. 1991. Mayflies of Maine: an annotated faunal list. Maine Agricultural Experiment Station, Technical Bulletin 142: 109 pp.

Klubertanz, T. H. 1995. Survey of Iowa mayflies (Ephemeroptera). *Journal of the Kansas Entomological Society* 68: 20-26.

Kondratieff, B. C. and S. C. Harris. 1986. Preliminary checklist of the mayflies (Ephemeroptera) of Alabama. *Entomological News* 97: 230-236.

McDunnough, J. 1931. New species of North American Ephemeroptera. *Canadian Entomologist* 63: 82-93.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Randolph, R. P. and W. P. McCafferty. 1998. Diversity and distribution of the mayflies (Ephemeroptera) of Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin. *Ohio Biological Survey Bulletin, New Series* 13: 1-188.

Traver, J. R. 1935. Part II: Systematic. pp. 237-739. In J. G. Needham, J. R. Traver, and Y. C. Hsu. *The biology of mayflies, with a systematic account of North American species*. Ithaca, Comstock Publishing.

Whiting, E. R. and J. W. Sheard. 1990. Patterns in the distribution of heptageniid species in Saskatchewan, Canada. *Freshwater Biology* 24: 143-157.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Plauditus gloveri*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G5  
New York: SNR  
Tracked: No

**Synopsis:**

*Plauditus gloveri* is a species of mayfly of which little is known in New York. The only occurrence of this species in the state is from the SW Lake Ontario watershed (Livingston Co.) (Jacobus and McCafferty 2001a). This uncommon species has also been reported from Kansas, Indiana, Manitoba, Montana, Saskatchewan, South Carolina, and Texas (McCafferty and Waltz 1998, Jacobus and McCafferty 2001a, Jacobus and McCafferty 2001b, McCafferty and Jacobus 2001, McCafferty et al. 2004, Webb et al. 2004, McCafferty and Jacobus 2008).

Adults of this species are currently undescribed. The known distribution has increased significantly since this species was first reported from New York and subsequently listed as a species of potential environmental concern by Jacobus and McCafferty (2001a). The specific habitat is unknown.

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon	X		
> 50%		Rare			

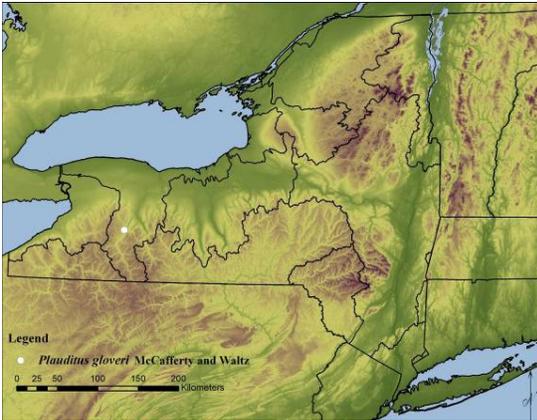
**Habitat Discussion:**

Specific habitat information for this species is unknown; it occurs in riverine habitats.

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There is one current record in New York from the Genesee River, Livingston County, in August 1999, L. M. Jacobus and R. P. Randolph (Jacobus and McCafferty 2001a).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Jacobus, L. M. and W. P. McCafferty. 2001a. The mayfly fauna of New York State (Insecta: Ephemeroptera). Journal of the New York Entomological Society 109: 47-80.

Jacobus, L. M. and W. P. McCafferty. 2001b. Additions to the Canadian Ephemeroptera. *Journal of the New York Entomological Society* 109: 367-371.

McCafferty, W. P. and L. M. Jacobus. 2008. Insecta, Ephemeroptera, Baetidae: Range extensions and new state records from Kansas, U.S.A. *Check List* 4: 92-97.

McCafferty, W. P. and R. D. Waltz. 1998. A new species of the small minnow mayfly genus *Plauditus* (Ephemeroptera: Baetidae) from South Carolina. *Entomological News* 109: 354-356.

McCafferty, W. P. and L. M. Jacobus. 2001. Revisions to *Pauditus cestus* and *P. gloveri* (Ephemeroptera: Baetidae). *Entomological News* 112: 305-310.

McCafferty, W. P., M. D. Meyer, J. M. Webb and L. M. Jacobus. 2004. New state and provincial records for North American small minnow mayflies (Ephemeroptera: Baetidae). *Entomological News* 115: 93-100.

**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Procloeon mendax*  
**Taxon:** Mayflies

**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G4  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Procloeon mendax* is a mayfly about which little is known in New York. There are a total of four occurrences for this species in the state: two in the Lake Champlain watershed (Clinton Co.), one in the NE Lake Ontario – St. Lawrence watershed (Herkimer Co.), and one in the Upper Hudson watershed (Albany Co.) (Needham 1908, Myers et al. 2010). This species has been reported infrequently from scattered localities in northeastern and midwestern North America (Wiersema and McCafferty 2004). The recent records by Myers et al. (2010) represent the first substantiated report of this species in New York since its initial report from the foot of First Lake in Herkimer County (Needham 1908). All specimens reported from these surveys were collected using light traps, therefore no specific habitat determinations can be made (Myers et al. 2010).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

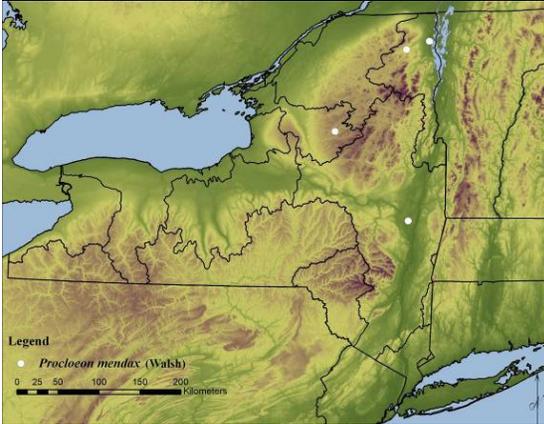
**Habitat Discussion:**

The habitat for this mayfly has not been described in detail; it is found in cold, shallow rivers.

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There are two current records, both from Clinton County: BLT, Wetland, Redford Sand Quarry, Ferrell Rd., 44.6061N, 73.8232W, August 3, 2006, 1♂, L. Myers (Myers et al. 2010); BLT, SUNY Plattsburgh, Jct. Beekman and Broad Streets, 44.6957N, 73.4666W, June 16, 2008, 4♂, R. Mowrey (CSUC).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural Systems Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H

**References Cited:**

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Needham, J. G. 1908. New data concerning mayflies and dragon flies of New York. New York State Museum Bulletin 124 (1907): 188-195.

Wiersema, N. A. and W. P. McCafferty. 2004. New specific synonyms and records of North American *Centroptilum* and *Proclloeon* (Ephemeroptera: Baetidae). *Entomological News* 115: 121-128.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Procloeon ozburni*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G2G4  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Procloeon ozburni* is a mayfly of which little is known in New York. The only record of this species in New York is from the SE Lake Ontario watershed (Tompkins Co.) (Traver 1935), but it is not likely to be extirpated in the state (L. Myers, personal communication). Outside of New York, this uncommon species has also been recorded from Quebec, Nova Scotia, Ontario, and Maine (McDunnough 1924, McDunnough 1925, Jacobus and McCafferty 2001). This species is at the southern edge of its apparent range in New York. Larvae reportedly occur in vegetation in first through third order streams (Burian and Gibbs 1991).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

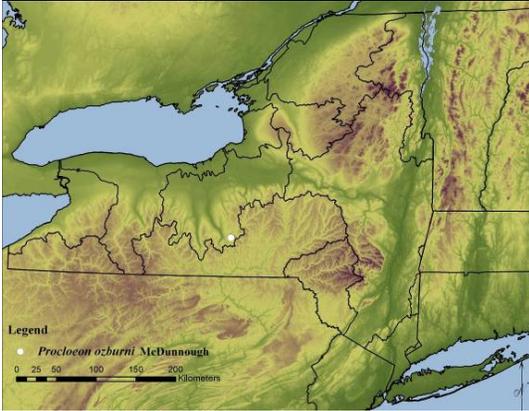
**Habitat Discussion:**

Larvae occur among vegetation in first through third order streams (Burian and Gibbs 1991).

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There is one historical record from Ringwood, Tompkins County (Traver 1935), but no records since that time.



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H

**References Cited:**

Burian, S. K. and K. E. Gibbs. 1991. Mayflies of Maine: an annotated faunal list. Maine Agricultural Experiment Station, Technical Bulletin 142: 109 pp.

Jacobus, L. M. and W. P. McCafferty. 2001. Additions to the Canadian Ephemeroptera. Journal of the New York Entomological Society 109: 367-371.

McDunnough, J. 1924. New Canadian Ephemeroptera with notes, II. Canadian Entomologist 56: 90-98

McDunnough, J. 1925. Ephemeroptera. pp. 104-106 In N. Criddle (editor). The entomological record, 1924. Annual Report of the Entomological Society of Ontario 55: 89-106.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Traver, J. R. 1935. Part II: Systematic. pp. 237-739. In J. G. Needham, J. R. Traver, and Y. C. Hsu. The biology of mayflies, with a systematic account of North American species. Ithaca, Comstock Publishing.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Procloeon simile*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3G4  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Procloeon simile* is a mayfly about which little is known in New York. There are three historical occurrences of this species in the state: the NE Lake Ontario – St. Lawrence (St. Lawrence Co.), SE Lake Ontario (Tompkins Co.), and Upper Hudson (Rensselaer Co.) watersheds. This species has also been reported infrequently in eastern North America from New Brunswick, Quebec, Ontario, and North and South Carolina (McDunnough 1924, Traver 1935, Pescador et al. 1999). No specific locality data are available from reports of this species in North and South Carolina. Recent surveys by Myers et al. (2010) did not locate this species. Adult collection dates range from May to June (Jacobus and McCafferty 2001). Specific habitat for this species is unknown.

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon	X		
> 50%		Rare			

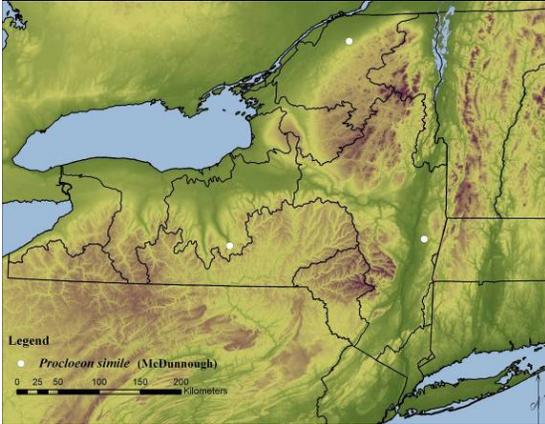
**Habitat Discussion:**

The habitat information for this species is not well known; it occur in cold streams and rivers.

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There are no current records for this species in New York.



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (salt & road maintenance)	W	L	H

**References Cited:**

Jacobus, L. M. and W. P. McCafferty. 2001. The mayfly fauna of New York State (Insecta: Ephemeroptera). Journal of the New York Entomological Society 109: 47-80.

McDunnough, J. 1924. New Canadian Ephemeridae with notes, II. *Canadian Entomologist* 56: 90-98.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Pescador, M. L., D. R. Lenat and M. D. Hubbard. 1999. Mayflies (Ephemeroptera) of North Carolina and South Carolina: an update. *Florida Entomologist* 82: 316-332.

Traver, J. R. 1935. Part II: Systematic. pp. 237-739. In J. G. Needham, J. R. Traver, and Y. C. Hsu. *The biology of mayflies, with a systematic account of North American species*. Ithaca, Comstock Publishing.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Procloeon vicinum*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G2G3  
New York: SNR  
Tracked: Yes

**Synopsis:**

*Procloeon vicinum* is a species of mayfly about which little is known in New York. There is only one historical record of the species in the state, from the NE Lake Ontario – St. Lawrence watershed (Herkimer Co.) (Needham 1908). This infrequently collected species has also been reported from the District of Columbia, West Virginia, Ontario, and Quebec (Hagen 1861, Needham 1908, Burks 1953, Jacobus and McCafferty 2001). No specific record data was listed for previous reports of this species from West Virginia by Burks (1953). This species has not been reported in North America for over fifty years; however, due to its rarity it should not be considered extirpated in New York (L. Myers, personal communication). The specific habitat for this species is unknown and it is rare (Myers et al. 2010).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

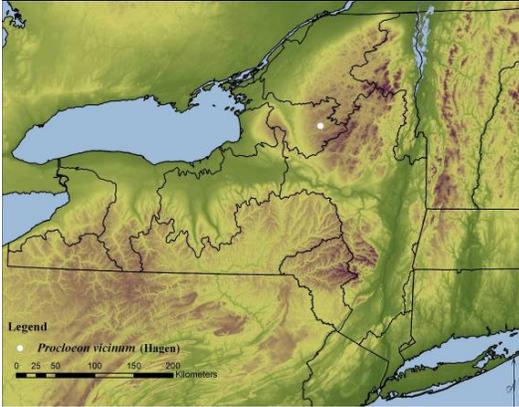
**Habitat Discussion:**

The specific habitat for this species is unknown. It occurs in riverine systems.

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There is one historical record at First Lake, Herkimer County in 1906 (Needham 1908).



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (road maintenance)	W	L	H

**References Cited:**

Burks, B. D. 1953. The mayflies, or Ephemeroptera, of Illinois. Bulletin of the Illinois Natural History Survey 26: 1-216.

Hagen, H. 1861. Synopsis of the Neuroptera of North America, with a list of the South American species. Smithsonian Miscellaneous Collections, Ephemera 4: 33-55.

Jacobus, L. M. and W. P. McCafferty. 2001. Additions to the Canadian Ephemeroptera. Journal of the New York Entomological Society 109: 367-371.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Needham, J. G. 1908. New data concerning mayflies and dragon flies of New York. New York State Museum Bulletin 124 (1907): 188-195.

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**Common Name:** A mayfly *SPCN*  
**Scientific Name:** *Rhithrogena anomala*  
**Taxon:** Mayflies

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**Federal Status:** Not Listed **Natural Heritage Program Rank:**  
**New York Status:** Not Listed Global: G3G4  
New York: SNR  
Tracked: No

**Synopsis:**

*Rhithrogena anomala* is a species of mayfly about which little is known in New York. There are four recorded occurrences for this species in the state: two in the Lake Champlain watershed (Clinton Co.), one in the NE Lake Ontario – St. Lawrence watershed (St Lawrence Co.), and one in the SE Lake Ontario watershed (Onondaga Co.) (Traver 1935, Jacobus and McCafferty 2001, Myers et al. 2010). Previous distributional accounts of this species range from the Canadian Maritime Provinces south along the Appalachians to Alabama (McDunnough 1928, Harris et al. 1996). Adult collection dates in New York range from early June to early July. The habitat for this species is described as high gradient, medium-sized rivers (Myers et al. 2010).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

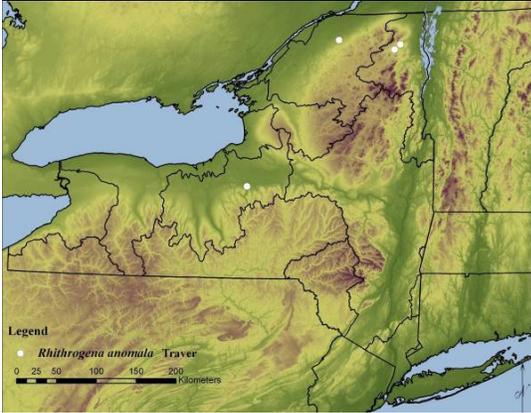
**Habitat Discussion:**

The habitat for this species is described as high gradient, medium-sized rivers (Myers et al. 2010).

Primary Habitat Type
Headwater/Creek
Lake
Riparian

**Distribution:**

There are three records from the 1930s: Clinton, Onondaga, and St. Lawrence counties (Traver 1935, Jacobus and McCafferty 2001). There is one current record from Clinton County in 2005.



Myers et al. (2010)

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
1. Natural System Modifications	Dams & Water Management/Use (altered hydrology)	R	M	H
2. Pollution	Agricultural & Forestry Effluents (nutrient runoff, pesticides)	W	H	H
3. Pollution	Industrial & Military Effluents (heavy metals)	W	H	H
4. Pollution	Excess Energy (artificial light)	W	H	V
5. Climate Change & Severe Weather	Temperature Extremes	P	H	V
6. Invasive & Other Problematic Species & Genes	Invasive Non-native/Alien Species (Didymo)	R	M	H
7. Transportation & Service Corridors	Roads & Railroads (road maintenance)	W	L	H
8. Pollution	Household Sewage & Urban Waste Water	W	L	H

**References Cited:**

Harris, S. C., B. C. Kondratieff and B. P. Stark. 1996. New records of Ephemeroptera, Plecoptera and Trichoptera from Alabama. Entomological News 107: 237-242.

Jacobus, L. M. and W. P. McCafferty. 2001. The mayfly fauna of New York State (Insecta: Ephemeroptera). *Journal of the New York Entomological Society* 109: 47-80.

McDunnough, J. 1928. Ephemerid notes with description of a new species. *Canadian Entomologist* 60: 238-240.

Myers L.W., T.B. Mihuc and B.C. Kondratieff. 2010. Mayflies (Ephemeroptera), Stoneflies (Plecoptera), and Caddisflies (Trichoptera) of the Upper Hudson, Lake Champlain, and Northeastern Lake Ontario Watersheds: A baseline inventory with management considerations for SGCN and other rare and possibly imperiled species. Final Report to the New York State Department of Environmental Conservation.

Traver, J. R. 1935. Part II: Systematic. pp. 237-739. In J. G. Needham, J. R. Traver, and Y. C. Hsu. *The biology of mayflies, with a systematic account of North American species*. Ithaca, Comstock Publishing.