
Common Name: A stonefly *SPCN*
Scientific Name: *Alloperla leonarda*
Taxon: Stoneflies

Federal Status: Not Listed **Natural Heritage Program Rank:**
New York Status: Not Listed Global: G4
New York: Not Ranked
Tracked: No

Synopsis:

This species has been reported from scattered locations extending from New Brunswick and Quebec south and west along the Great Lakes and St. Lawrence Drainages to Missouri (Surdick 1985, Kondratieff and Baumann 1994, Surdick 2004, Willett and Stark 2009, Stark et al. 2010). A morphological analysis of *A leonarda* has indicated that there maybe be two distinct species in eastern North America (Willett and Stark 2009).

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		

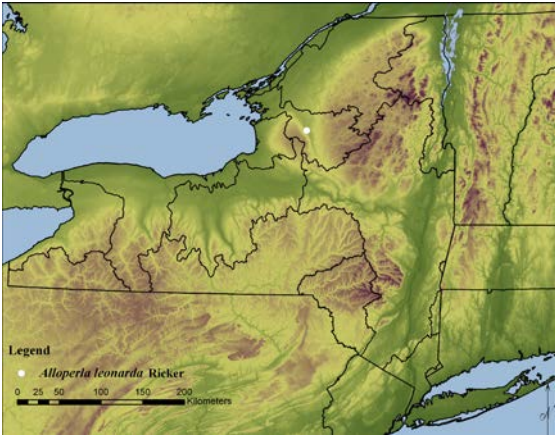
Habitat Discussion:

This species is found in large rivers.

Primary Habitat Type
Headwater/Creek
Medium River; High Gradient
Riparian

Distribution:

A leonarda has been reported at one location at the Black River in Lewis County in 2008 (B. C. Kondratieff, R. W. Baumann, and L. Myers 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:

Kondratieff, B.C. and R.W. Baumann. 1994. Assault on Atlantic Canada: A stonefly collecting foray to the Canadian Maritime Provinces. *Perla*, 12:16-19.

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.

Stark, B. P., R. W. Baumann, and R. E. DeWalt. 2010. Valid Stonefly Names for North America. Available <http://plsa.inhs.uiuc.edu/plecoptera> (Accessed: January 27, 2010).

Surdick, R. F. 1985. Nearctic genera of Chloroperlidae (Plecoptera: Chloroperlidae). Illinois Biological Monographs 54: 1-146.

Surdick, R. F. 2004. Chloroperlidae (The Sallflies), In B. P. Stark and B. J. Armitage (editors), The Stoneflies (Plecoptera) of eastern North America Volume II. Chloroperlidae, Perlidae, and Perlodidae (Perlodinae). Bulletin of the Ohio Biological Survey New Series 14: 1-60.

Willett, M. R. and B. P. Stark. 2009. The *Alloperla leonarda* Group of eastern North America, with SEM images of four out-groups species (Plecoptera: Chloroperlidae4). Illiesia 5: 108-127.

Common Name:	Lawrence sallfly	<i>SPCN</i>
Scientific Name:	<i>Alloperla voinae</i>	
Taxon:	Stoneflies	

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

Synopsis:

There are four occurrences of Lawrence sallfly in New York, two historic and two recent. Both historic occurrences were from the Lake Champlain watershed in Essex County. One recent occurrence is from the Lake Champlain watershed (Clinton Co.) and the other is from the St. Lawrence River watershed (Franklin Co.). All occurrences for this species were found within the Adirondack Park (Myers et al. 2010). Outside of New York, records of this uncommon species are available from the following Canadian Provinces and states: Nova Scotia, Quebec, Maine, Massachusetts, and Vermont (Surdick 1985, 2004, Baumann and Kondratieff 2009, Stark et al. 2010). In New York, this species has been collected from cold, small to medium sized, high elevation streams in the Adirondack Mountains. Adult collection dates ranged from mid-June to late July.

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 small to medium-sized cool headwater streams (Myers et al. 2010).

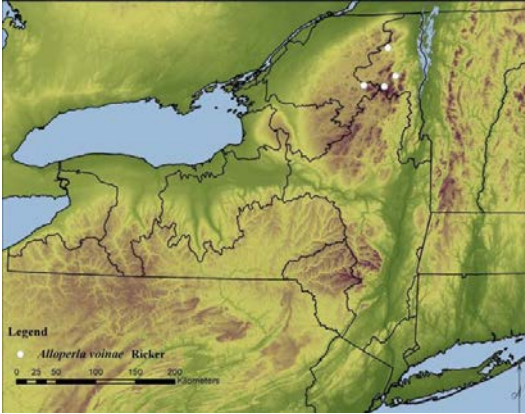
Primary Habitat Type
Riparian

Distribution:

Clinton Co: Cold Brook, Standish Rd. High Banks, 44.6191N, 73.9032W, July 27, 2007, 4♂, L. Myers (CSUC).

Essex Co: Adirondack Lodge, June 28, 1923, 1♂, P.W. Claassen (CUIC); Keene, Tributary of Ausable River, June 20, 1941, 1♂, T.H. Frison and H.H. Ross (paratype, INHS).

Franklin Co: Ampersand Brook, Coreys Rd. nr. Pickerel Pond Outlet, 44.1988N, 74.2916W, July 28, 2007, 3♂, 3♀, L. Myers (CSUC); Same location, June 27, 2007, 4♂, 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:

Baumann, R. W. and B. C. Kondratieff. 2009. A study of the eastern Nearctic *Alloperla* (Plecoptera: Chloroperlidae) with hirsute epiprocts using the scanning electron microscope. *Illiesia* 5: 99-107.

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.

Stark, B. P., R. W. Baumann, and R. E. DeWalt. 2010. Valid Stonefly Names for North America. Available <http://plsa.inhs.uiuc.edu/plecoptera> (Accessed: January 27, 2010).

Surdick, R. F. 1985. Nearctic genera of Chloroperlidae (Plecoptera: Chloroperlidae). Illinois Biological Monographs 54: 1-146.

Surdick, R. F. 2004. Chloroperlidae (The Sallflies), In B. P. Stark and B. J. Armitage (editors), The Stoneflies (Plecoptera) of eastern North America Volume II. Chloroperlidae, Perlidae, and Perlodidae (Perlodinae). Bulletin of the Ohio Biological Survey New Series 14: 1-60.

Common Name: Scotia sallfly *SPCN*
Scientific Name: *Alloperla vostoki*
Taxon: Stoneflies

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

Synopsis:

There is one historic occurrence of Scotia sallfly from the Lake Ontario watershed (Wyoming Co.) and three recent occurrences: two from the Lake Ontario watershed (Jefferson Co.) and one from the Upper Hudson River watershed (Greene Co.) (Myers et al. 2010). This species has also been reported infrequently from Nova Scotia, New Brunswick, Maine, and Pennsylvania (Surdick 1985, Surdick 2004, Stark et al. 2010). More surveys using effective collection techniques (i.e., beating sheets and light traps) targeting appropriate habitats, may yield additional distributional records of this rare species in New York (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:

This species is found in medium-sized rivers (Myers et al. 2010).

Primary Habitat Type
Riparian

Distribution:

Greene Co., Schoharie Creek, Jct. Denning Rd. and Rt. 23A, 42.2164N, 74.2431W, June 25, 2007, 1♂, L. Myers and B. C. Kondratieff (CSUC).

Jefferson Co., BLT, South Sandy Creek, CR-95, N. Bullock Corners, 43.7881N, 75.8948W, June 29, 2009, 1♂, L. Myers (CSUC); N. B. Sandy Creek, Jct. CR-69 and Fuller Rd, 43.8518N, 75.9951W, June 30, 2009, 2♂, L. Myers (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:

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.

Stark, B. P., R. W. Baumann and R. E. DeWalt. 2010. Valid Stonefly Names for North America. Available <http://plsa.inhs.uiuc.edu/plecoptera> (Accessed: January 27, 2010).

Surdick, R. F. 1985. Nearctic genera of Chloroperlidae (Plecoptera: Chloroperlidae). Illinois Biological Monographs 54: 1-146.

Surdick, R. F. 2004. Chloroperlidae (The Sallflies), In B. P. Stark and B. J. Armitage (editors), The Stoneflies (Plecoptera) of eastern North America Volume II. Chloroperlidae, Perlidae, and Perlodidae (Perlodinae). Bulletin of the Ohio Biological Survey New Series 14: 1-60.

Common Name: Paddle stripetail *SPCN*
Scientific Name: *Isoperla myersi*
Taxon: Stoneflies

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

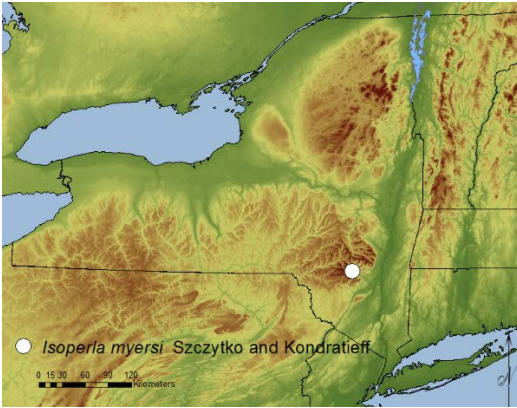
Synopsis:
This newly identified species is currently known from only one location in New York (L. Myers, personal communication); it has not been recorded elsewhere.

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 species has been found in medium-sized rivers and streams.

Primary Habitat Type
Headwater/Creek
Medium River; High Gradient
Riparian

Distribution:
The single record of this species is in Big Indian Hollow, Ulster County (L. Myers, personal communication).



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:

Myers, L. Personal communication, 17 March 2015. State University at Plattsburgh. Plattsburgh, NY.

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.

Szczytko, S. W. and B. C. Kondratieff. 2013. A review of the Eastern Nearctic Isoperlinae (Plecoptera: Perlodidae) with the description of 22 new species. *Illiesia* 1:1-289.

Common Name: Spiny salmonfly *SPCN*
Scientific Name: *Pteronarcys comstocki*
Taxon: Stoneflies

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

Synopsis:

There are five known occurrences of the spiny salmonfly in the state, including historical records from the Lake Champlain (Essex Co.), Upper Hudson (Herkimer/Hamilton, Oneida/Herkimer counties), and SE Lake Ontario (Tompkins Co.) watersheds, and one current record from the Lake Champlain (Essex Co.) watershed. Isolated populations of *P. comstocki* have also been reported from New Brunswick, Maine, Pennsylvania, West Virginia, Virginia, and Kentucky (Nelson 2000, Stark et al. 2010). Records from Myers et al. (2010) are the first reports of this relatively rare species from the state in more than 65 years.

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 is described as small to medium sized streams and rivers (Myers et al. 2010).

Primary Habitat Type
Riparian

Distribution:

Essex Co: reared, May 27, 2008, Boquet River, Rt. 9N, S. Elizabethtown, 44.2125N, 73.5839W, May 23, 2008, 1♂, 1♀, L. Myers, B. C. Kondratieff, and R. W. Baumann (NYSM); Same location, May 23, 2008, 4 exuvia, L. Myers, B. C. Kondratieff, and R. W. Baumann (NYSM); Same location, May 23, 2008, 2 exuvia, L. Myers, B. C. Kondratieff, and R. W. Baumann (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:

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.

Nelson, C. H. 2000. Pteronarcyidae, In B. P. Stark and B. J. Armitage (editors), Stoneflies (Plecoptera) of eastern North America, Volume I. Pteronarcyidae, Peltoperlidae, and Taeniopterygidae. Ohio Biological Survey Bulletin, New Series 14: 29-39.

Stark, B. P., R. W. Baumann and R. E. DeWalt. 2010. Valid Stonefly Names for North America. Available <http://plsa.inhs.uiuc.edu/plecoptera> (Accessed: January 27, 2010).

Common Name:	Gaspe sallfly	<i>SPCN</i>
Scientific Name:	<i>Utaperla gaspesiana</i>	
Taxon:	Stoneflies	

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

Synopsis:

The Gaspe sallfly (*Utaperla gaspesiana*) is a species of stonefly that occurs in New York. There are twelve recorded occurrences of this species in the state within the Lake Champlain, Upper Hudson, Delaware, and Susquehanna watersheds (Myers et al. 2010). This relatively rare species has been reported from Quebec and Maine, and southward to Maryland and West Virginia (Surdick 1985, Surdick 2004, Stark et al. 2010). Harper et al. (1991) examined the life history of *U. gaspesiana* in Quebec, suggesting that it has a two-year life cycle similar to that of *Sweltsa onkos* (Ricker). In New York, adults have been collected from larger rivers and medium-sized streams lined with bedrock, boulders, and large cobble. Adult collection dates range from early May to mid-September. The above collections represent significant new records of this species.

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:

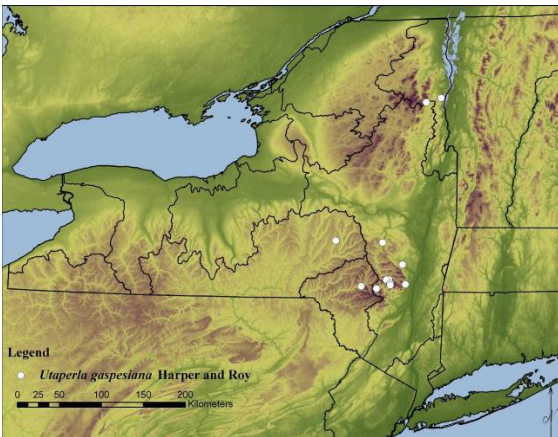
In New York, adults have been collected from larger rivers and medium-sized streams lined with bedrock, boulders, and large cobble (Myers et al. 2010).

Primary Habitat Type
Riparian

Distribution:

Delaware Co., E. B. Delaware River, Rt. 28, SW Margaretville, 42.1242N, 74.6726W, May 27, 2009, 10♂, 13♀, 3 larvae, L. Myers and B. C. Kondratieff (CSUC).
 Greene Co., T.L. McCabe (NYSM); West Kill Creek, Spruceton Rd., 42.1948N, 74.2718W, June 25, 2007, 2♀, L. Myers and B. C. Kondratieff (CSUC); Bowery Brook, Rt. 145 nr. E. Durham, 42.3545N, 74.0713W, May 21, 2008, 1♂, R. W. Baumann (BYUC).
 Essex Co., Stacy Brook, Spring Rd., SW Westport, 44.1475N, 73.4704W, May 23, 2008, 1♀, L. Myers, B. Kondratieff and R. W. Baumann (CSUC); S. F. Boquet River Rt. 73, 44.1039N, 73.6913W, May 21, 2006, 1♀, L. Myers (CSUC).

Otsego Co., Pleasant Valley Brook, Pleasant Valley Rd., Hartwick, 42.6163N, 75.0386W, May 27, 2009,
 1♂, 1♀, 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:

Harper, P. P., M. Lauzon, and F. Harper. 1991. Life cycles of sundry stoneflies (Plecoptera) from Quebec. *Revue d'entomologie du Québec* 36: 28-42.

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.

Stark, B. P., R. W. Baumann, and R. E. DeWalt. 2010. Valid Stonefly Names for North America. Available <http://plsa.inhs.uiuc.edu/plecoptera> (Accessed: January 27, 2010).

Surdick, R. F. 1985. Nearctic genera of Chloroperlidae (Plecoptera: Chloroperlidae). *Illinois Biological Monographs* 54: 1-146.

Surdick, R. F. 2004. Chloroperlidae (The Sallflies), In B. P. Stark and B. J. Armitage (editors), *The Stoneflies (Plecoptera) of eastern North America Volume II. Chloroperlidae, Perlidae, and Perlodidae (Perlodinae)*. *Bulletin of the Ohio Biological Survey New Series* 14: 1-60.