

A CHECKLIST OF THE STONEFLIES (PLECOPTERA) OF KENTUCKY¹

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ABSTRACT: Examination of numerous collections and published records has resulted in a summary of the stoneflies of Kentucky. A total of 77 species representing nine families and 30 genera is found in the state. Five state records are added to the plecopteran fauna of Kentucky. Fifteen additional species which occur in nearby states, but which have not yet been found in Kentucky, are also noted.

Prior to 1982, little detailed work had been focused on the identification of stoneflies from Kentucky. Some investigators, including Ross and Ricker (1964), Illies (1966), Ricker and Ross (1968), Zwick (1973), White (1974), James (1976), Stark and Baumann (1978), Harker et al. (1979, 1980) and Picazo and DeMoss (1980), have published plecopteran records for the state. In a preliminary checklist, Tarter et al. (1982) recorded 70 species of stoneflies for Kentucky. The classification system of Illies (1966) and Zwick (1973) is followed in this study.

The following numbers of species have been recorded from nearby states: Illinois - 49 species (Frison, 1942); Ohio - 42 species (Gaufin, 1956); Indiana - 61 species (Bednarik and McCafferty, 1977); Virginia - 116 species (Kondratieff and Voshell, 1979); and West Virginia - 106 species (Tarter and Kirchner, 1980).

Fifteen additional species should eventually be collected in Kentucky. The following list includes species which occur in nearby states: *Acroneuria mela* Frison (IN, IL), *Allocapnia illinoensis* Frison (VA, IN, IL), *Alloperla banksi* Frison (VA, IL), *A. caudata* Frison (IL, IN, OH, VA), *Attaneuria ruralis* Hagen (IL, VA, OH), *Hydroperla crosbyi* (Needham and Claassen) (IN, IL), *Isogenoides varians* (Walsh) (IN, IL, TN, VA), *Isoperla decepta* Frison (IN, OH, IL), *I. dicala* Frison (WV, VA, IN), *I. orata* Frison (WV, VA, OH), *Leuctra tenuis* (Pictet), WV, IN, VA, OH), *Paracapnia angulata* Hanson (WV, VA, IN), *Paragnetina kansensis* (Banks) (IN, IL), *Prostoia completa* (Walker) (WV, IN, VA) and *Talloperla maria* (Needham and Smith) (VA, TN, WV).

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Order **Plecoptera**
 Suborder **Arctoperlaria**
 Group **Euholognatha**
 Superfamily **Neumouroidea**
 Family **Leuctridae**
 Subfamily **Leuctrinae**

Leuctra alexanderi Hanson
L. ferruginea (Walker)
L. sibleyi Claassen

Paraleuctra sara (Claassen)
Zealeuctra claasseni (Frison)
Z. fraxina Ricker and Ross

Family **Taeniopterygidae**
 Subfamily **Brachypterinae**

**Oemopteryx contorta* (Needham and
 Claassen)
Taenionema atlanticum Ricker and Ross

Strophopteryx fasciata
 (Burmeister)

Subfamily **Taeniopteryginae**

Taeniopteryx burski Ricker and Ross
T. lita Frison
T. maura (Pictet)

T. metequi Ricker and Ross
T. parvula Banks

Family **Nemouridae**
 Subfamily **Amphinemurinae**

Amphinemura delosa (Ricker)
A. nigrutta (Provancher)

A. varshava (Ricker)
A. wui (Claassen)

Subfamily **Nemourinae**

Prostoia similis (Hagen)

Soyedina vallicularia (Wu)

Family **Capniidae**

Allocapnia cunninghami Ross and Ricker
A. curiosa Frison
A. forbesi Frison
A. frisoni Ross and Ricker
A. granulata (Claassen)
A. indianae Ricker
A. mystica Frison
A. mystica Frison
A. nivicola (Fitch)

A. ohioensis Ross and Ricker
A. pygmaea (Burmeister)
A. recta (Claassen)
A. rickeri Frison
A. smithi Ross and Ricker
A. vivipara (Claassen)
A. vivipara (Claassen)
A. zola Ricker

Group **Systellognata**
 Superfamily **Pteronarcyzoidea**
 Family **Pteronarcyidae**

Allonarcys proteus (Newman)
 **Pteronarcys dorsata* (Say)

**P. pictetii* Hagen

Family **Peltoperlidae**
Subfamily **Peltoperlinae**

Peltoperla arcuata Needham

Superfamily **Perloidea**
Family **Perlodidae**
Subfamily **Isoperlinae**

<i>Isoperla bilineata</i> (Say)	<i>I. namata</i> Frison
<i>I. burski</i> Frison	<i>I. nana</i> (Walsh)
<i>I. clio</i> (Newman)	<i>I. richardsoni</i> Frison
* <i>I. holochlora</i> (Klapalek)	<i>I. similis</i> (Hagen)
<i>I. marlynia</i> Needham and Claassen	<i>I. transmarina</i> (Newman)

Subfamily **Perlodinae**

<i>Cultus dicisus</i> (Walker)	<i>Malirekus hastatus</i> (Banks)
<i>Diploperla robusta</i> Stark and Gaufin	<i>Remenus bilobatus</i> (Needham and Claassen)
<i>Helopicus subvarians</i> (Banks)	

Family **Chloroperlidae**
Subfamily **Chloroperlinae**

<i>Alloperla chloris</i> Frison	<i>Hastaperla brevis</i> (Banks)
<i>A. ideii</i> (Ricker)	<i>Sweltsa onkos</i> (Ricker)
<i>A. imbecilla</i> (Say)	

Family **Perlidae**
Subfamily **Acroneuriinae**

<i>Acroneuria abnormis</i> Newman)	<i>A. perplexa</i> Frison
<i>A. carolinensis</i> (Banks)	<i>Eccoptera xanthenes</i> (Newman)
<i>A. evoluta</i> Klapalek	<i>Perlesta placida</i> (Hagen)
<i>A. filicis</i> Frison	<i>P. frisoni</i> Banks
<i>A. internata</i> (Walker)	* <i>Perlinella drymo</i> (Newman)
<i>A. lycorias</i> (Newman)	<i>P. ephyre</i> (Newman)

Subfamily **Perlinae**

<i>Neoperla freytagi</i> Stark and Bauman	<i>Paragnetina media</i> (Walker)
<i>N. gaufini</i> Stark and Baumann	<i>Phasganophora capitata</i> (Pictet)
<i>N. stewarti</i> Stark and Baumann	

*state record

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REFERENCES

- Bednarik, A.F., and W.P. McCafferty. 1977. A checklist of the stoneflies, or Plecoptera, of Indiana. *Great Lakes Entomol.* 10: 223-226.
- Frison, T.H. 1942. Studies of North American Plecoptera, with special reference to the fauna of Illinois. *Bull. Illinois Nat. Hist. Surv., Urbana* 22: 235-355.
- Gaufin, A.R. 1956. An annotated list of the stoneflies of Ohio. *Ohio J. Sci.* 56: 321-324.
- Harker, D.F., Jr., S.M. Call, M.L. Warren, Jr., K.E. Camburn, and P. Wigley. 1979. Aquatic biota and water quality survey of the Cumberland River Basin. *Tech. Rpt.*, 2 vols., Ky. Nat. Pres. Comm.
- , M.L. Warren, Jr., K.E. Camburn, S.M. Call, G.J. Fallo, and P. Wigley. 1980. Aquatic biota and water quality survey of the Upper Cumberland River Basin. *Tech. Rpt.*, 2 vols., Ky. Nat. Pres. Comm.
- Illies, J. 1966. Katalog der rezenten Plecoptera. *Das Tierreich*, 82. Walter de Gruyter and Co., Berlin. 632 pp.
- James, A.M. 1976. Two new species of *Leuctra* with notes on the *ferruginea* group (Plecoptera: Leuctridae). *Ann. Entomol. Soc. Amer.* 69: 882-884.
- Kondratieff, B.C. and J.R. Voshell, Jr. 1979. A checklist of the stoneflies (Plecoptera) of Virginia. *Ent. News*. 90: 241-246.
- Picazo, E.P. and G.L. DeMoss. 1980. The aquatic insects, exclusive of Diptera, of Hays Branch, Rowan County, Kentucky. *Trans. Ky. Acad. Sci.* 41: 99-104.
- Ricker, W.E., and H.H. Ross. 1968. North American species of *Taeniopteryx* (Plecoptera, Insecta). *J. Fish. Res. Bd. Can.* 25: 1423-1439.
- Ross, H.H., and W.E. Ricker. 1964. New species of winter stoneflies, genus *Allocapnia* (Plecoptera, Capniidae). *Trans. Ill. St. Acad. Sci.* 57: 88-93.
- Stark, B.P., and R.W. Baumann. 1978. New species of nearctic *Neoperla* (Plecoptera: Perlidae) with notes on the genus. *Great Basin Nat.* 38: 97-114.
- Tarter, D.C., and R.F. Kirchner. 1980. List of stoneflies (Plecoptera) of West Virginia. *Ent. News* 91: 49-53.
- , D.A. Adkins, K.B. Benson, and C.V. Covell, Jr. 1982. A preliminary checklist of the stoneflies (Plecoptera) of Kentucky. *Trans. Ky. Acad. Sci.* 43(3-4): 138-141.
- White, D. 1974. The distribution of stoneflies (Insecta: Plecoptera) of the Salt River, Kentucky. *Trans. Ky. Acad. Sci.* 35: 17-23.
- Zwick, P. 1973. Insecta: Plecoptera. *Phylogenetisches System und Katalog. Das Tierreich*, 94. Walter de Gruyter and Co., Berlin. 465 pp.



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