

## THE MAYFLIES OF UTAH

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THE list of the mayflies (Ephemeroptera) of Utah presented below is a result of more than ten year's study by the writer. A monographic report of this study is being prepared but until this is available a list of the species can be of use. This list is presented with two main purposes in mind: (1) to present a list of the species of mayflies known to occur in Utah, of which more than half are previously unrecorded for the state; and (2) to make more useful the previous reports on the Utah mayfly fauna, especially that of Needham and Christenson (1927), by including a synonymy of names used in earlier reports when such records were based on misidentifications or when the names differ from those currently used. The arrangement of families and subfamilies is one devised by the author and Jay R. Traver, and should be credited to both rather than to the present author only.

### Superfamily Heptagenioidea

#### Family Siphonuridae

- ✓ *Siphonurus occidentalis* (Eaton)
- Genus et species incertus
- Parameletus columbiae* McDunnough
- ✓ *Ameletus velox* Dodds
- ✓ *Ameletus* spp. — Two undescribed species present.

#### Family Isonychiidae

- ✓ *Isonychia campestris* McDunnough (? = *Chirotenetes* sp. [sic] of Needham and Christenson, 1927:12)

#### Family Oligoneuriidae

- ✓ *Lachlania powelli* Edmunds

#### Family Heptageniidae

- Heptagenia criddlei* McDunnough
- Heptagenia simplicioides* McDunnough
- Heptagenia solitaria* McDunnough
- Heptagenia elegantula* (Eaton) (= *Rithrogena elegantula* [sic] of Needham and Christenson, 1927:15)
- Stenonema* sp. - an undescribed species (= *Stenonema terminatum* of Edmunds, 1951:162)
- ✓ *Cinygmula tarda* (McDunnough)
- Cinygmula mimus* (Eaton) (= *Rithrogena mimus* [sic] of Needham 1927:133, and Needham and Christenson, 1927:14, adult not nymph).
- Cinygmula ramaleyi* (Dodds)
- Cinygmula par* (Eaton)

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## Family Ephemerellidae

- ✓ *Ephemerella inermis* Eaton (in part, not figure 1, Needham, 1927:114; in part, Needham and Christenson, 1927:9)
- Ephemerella infrequens* McDunnough (= *Ephemerella inermis*, in part, of Needham, 1927:114; and Needham and Christenson, 1927:9)
- Ephemerella tibialis* McDunnough (= *Ephemerella angusta* Traver, 1934:211, and 1935:581, new synonymy)
- Ephemerella coloradensis* Dodds
- Ephemerella grandis* Eaton
- Ephemerella doddsi* Needham
- Ephemerella margarita* Needham
- Ephemerella hecuba* Eaton
- [*Ephemerella spinifera* of Needham 1927:110, apparently does not occur in Utah.]

## Family Tricorythidae

- 9 ✓ *Tricorythodes minutus* Traver (= *Tricorythus explicatus* of Needham and Christenson 1927:12)
- Tricorythodes* spp. — at least two additional species

## Superfamily Caenoidea

## Family Caenidae

- ✓ *Caenis simulans* McDunnough
- Brachycerus* sp. (probably *prutlens* McDunnough)

## Superfamily Ephemeroidea

## Family Ephemeridae

- ✓ *Ephemerella simulans* Walker
- ✓ *Hexagenia limbata* Serville

## Family Polymitarcidae

- ✓ *Ephoron album* Say

## Literature Cited

- Edmunds, G. F., Jr. Oviviparous mayflies of the genus *Callibaetis*. Ent. News 56:169-171. 1945.
- Edmunds, G. F., Jr. Western records of the mayfly genus *Stenonema*. Kans. Ent. Soc. Jour. 24:162. 1951.
- Knowlton, G. F., and F. C. Harmston. Ephemerida, in Insects of Utah. Utah Agr. Exp. Sta. Mimeo. series 200. 1939. p. 3.
- Needham, J. G. A baetine mayfly nymph with tusked mandibles. Canad. Ent. 59:44-47. 1927. 1 fig.
- Needham, J. G. The life history and habits of a mayfly from Utah. Canad. Ent. 59:133-136. 1927. 1 fig.
- Needham, J. G. Rocky Mountain species of the mayfly genus *Ephemerella*. Ent. Soc. Amer. Ann. 20:107-117. 1927. 2 fig.
- Needham, J. G., and R. O. Christenson. Economic insects in some streams of northern Utah. Utah Agr. Exp. Sta. Bul. 201. 1927. p. 1-36. 44 fig.
- Traver, J. R. New North American species of mayflies. Elisha Mitch. Sci. Soc. Jour. 50:189-254. 1934. 1 pl.
- Traver, J. R. Systematic, pt. 2 in Needham, Traver, and Hsu. The biology of mayflies. Ithaca, New York, Comstock Pub. Co., 1935. p. 237-739.

- Cinygmula kootenai* McDunnough  
*Rhithrogena doddsi* McDunnough (= *Rithrogena mimus* [sic] of Needham, 1927:133 and Needham and Christenson, 1927:13, nymph not adult).  
*Rhithrogena morrisoni* (Banks) (? = *Rithrogena futillis* [sic] of Knowlton and Harmston, 1939:3)  
*Rhithrogena futillis* McDunnough  
*Rhithrogena undulata* (Banks)  
*Rhithrogena robusta* Dodds  
*[Rhithrogena brunnea* (Hagen), reported by Needham and Christenson, 1927:13, probably does not occur in Utah.]  
*Epeorus* (Iron) *longimanus* (Eaton) (= *Iron longimanus* of Needham and Christenson, 1927:15)  
*Epeorus* (Iron) *deceptivus* (McDunnough)  
*Epeorus* (Iron) *albertae* (McDunnough) (= *Epeorus* sp. of Needham and Christenson, 1927:15)  
*Anepeorus rusticus* McDunnough  
*Pseudiron* sp. — An undescribed species.

## Family Ametropodidae

- ✓ *Ametropus albrighti* Traver

## Family Baetidae

- ✓ *Callibaetis nigritus* Banks (= *Callibaetis claudiae*, nomen nudum, of Edmunds, 1945:169)  
*Callibaetis fuscus* Dodds  
*Callibaetis montanus* Eaton  
*Callibaetis doddsi* Traver  
*[Callibaetis pallidus* Banks, reported by Needham and Christenson, 1927:11, probably does not occur in Utah.]  
✓ *Baetis parvus* Dodds  
*Baetis quilleri* Dodds  
*Baetis tricaudatus* Dodds  
*Baetis intermedius* Dodds  
*Baetis bicaudatus* Dodds  
*Baetis dardanus* McDunnough  
*Baetis insignificans* McDunnough  
*Baetis* spp. — Three undescribed species  
✓ *Centroptilum oreophilum* Edmunds  
*Centroptilum selanderorum* Edmunds  
*Centroptilum conturbatum* McDunnough  
*Centroptilum* spp. — Some additional undetermined species present.  
✓ *Pseudocloeon turbidum* McDunnough

## Superfamily Leptophlebioidea

## Family Leptophlebiidae

- ✓ *Paraleptophlebia heteronea* (McDunnough) (= *Leptophlebia pallipes* of Needham and Christenson, 1927:10)  
*Paraleptophlebia pallipes* (Hagen)  
*Paraleptophlebia debilis* (Walker)  
*Paraleptophlebia packii* (Needham) (= *Leptophlebia packii* of Needham, 1927:44, and Needham and Christenson, 1927:10)  
✓ *Leptophlebia* (*Blasturus*) *gravastellus* McDunnough  
✓ *Choroterpes albimaculata* McDunnough  
✓ *Traverella albertana* (McDunnough) (= *Thraulius albertanus* of Traver, 1935:544, and Knowlton and Harmston, 1939:3)