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# AN ANNOTATED LIST OF THE AQUATIC INSECTS OF SOUTHEASTERN IDAHO. PART I. PLECOPTERA

Robert L. Newell<sup>1</sup> and G. W. Minshall<sup>2</sup>

ABSTRACT.— All of the known records of Plecoptera occurring in southeastern Idaho have been compiled in this list, which includes a number of new records obtained by the authors. The study region includes all of the streams in the Snake River and Great Basin drainages of the state found east of the Wood River and south of the Continental Divide and covers about one-third of the state's 216,413 km<sup>2</sup> area. A total of 71 species were found to occur in the area. These are listed by family and the specific habitats in which each is known to occur are noted.

The distribution of aquatic insects in Idaho is still poorly known, and existing information is scattered throughout published sources or is obtainable only from unpublished theses or museum records. This work is an effort to bring together these diverse pieces of information and to make them more readily available. Included are a large number of new records obtained by the authors and their colleagues over the past few years.

In an early work Needham and Claassen (1925) recorded only two species of stoneflies from Idaho; Jewett (1959) reported 13 species from the state. Gaufin (1964) and Gaufin et al. (1966) listed a total of 75 species from Idaho. Logan and Smith (1966) reported additional Idaho Plecoptera, raising the state total to 84 species. The present study records 71 species from southeastern Idaho. By contrast the neighboring state of Utah has 75 species (Baumann 1973) and Montana has over 120 species (Gaufin et al. 1972). The taxonomic treatment is that of Illies (1966) and Zwick (1973).

The study area includes all streams and bodies of water in southeastern Idaho (Fig. 1). The area includes a portion of the Bear River drainage, the Lost River System, and all of the Snake River system upstream from where the Wood River joins the Snake River. This area comprises about one-third of the state's 216,413 km<sup>2</sup> area.

The authors thank the many people who contributed time, effort, and specimens for this study. They also thank Dr. Richard Baumann who identified some of the specimens.

## FAMILY NEMOURIDAE

1. *Amphinemura banksi* Baumann and Gaufin: Bannock Co., Gibson Jack Cr.; Mink Cr. Blaine Co., Big Wood R.;



Fig. 1. An outline map of Idaho showing the location of the study area in relation to the major river drainage systems. A. Snake River; B. Salmon River; C. Clearwater River. The shaded area designates the region covered by this study.

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Bonneville Co., Palisades Cr.; Pine Cr.; Rainey Cr. Franklin Co., Cottonwood Cr.; Cub R.

2. *Malenka californica* (Claassen): Bannock Co., Cedar Lake Cr.; Mink Cr.; Rapid Cr. Bonneville Co., Palisades Cr.; Pine Cr.; Rainey Cr. Franklin Co., Cub R. Fremont Co., Big Springs. Gooding Co., Hagerman; Niagara Springs. Teton Co., Trail Cr.

3. *Malenka flexura* (Claassen): Blaine Co., Horse Cr. Fremont Co., Snake R. (Henry's Fork); Warm R.

4. *Malenka tina* (Ricker): Blaine Co., Big Wood R. Butte Co., Craters of the Moon Nat'l Monument. Lemhi Co., Birch Cr. Twin Falls Co., Rock Cr.

5. *Podmosta decepta* (Frison): Blaine Co., Big Wood R. Bonneville Co., Tie Canyon, 16 km north of Swan Valley.

6. *Podmosta delicatula* (Claassen): Bannock Co., Mink Cr. Bonneville Co., Jensen Cr. Caribou Co., Pebble Cr.

7. *Prostoia besametsa* (Ricker): Bannock Co., Gibson Jack Cr.; Mink Cr. Blaine Co., Big Wood R. Bonneville Co., Palisades Cr.; Pine Cr.; Rainey Cr. Franklin Co., Cottonwood Cr.; Cub R.

8. *Visoka cataractae* (Neave): Blaine Co., Big Wood R. Bonneville Co., Pine Cr.

9. *Zapada cinctipes* (Banks): Bannock Co., Cherry Cr.; City Cr.; Gibson Jack Cr.; Green Cr.; Indian Cr.; Mink Cr.; Pocatello Cr.; Rapid Cr.; Walker Cr. Bear Lake Co., Emigration Cr. Blaine Co., Big Wood R. Bonneville Co., Jensen Cr.; Palisades Cr.; Pine Cr.; Rainey Cr.; Sheep Cr. Caribou Co., Wood Cr. Franklin Co., Cub R.; Strawberry Cr. Fremont Co., Big Springs; Buffalo R.; Howard Cr.; Osborn Springs; Robinson Cr.; Warm R. Gooding Co., Niagara Springs. Oneida Co., Deep Cr.; Devil Cr. Teton Co., Trail Cr.

10. *Zapada columbiana* (Claassen): Bear Lake Co., Emigration Cr. Bonneville Co., Pine Cr.; Rainey Cr.

11. *Zapada frigida* (Claassen): Bonneville Co., Jensen Cr.

12. *Zapada haysi* (Ricker): Bear Lake Co., Emigration Cr. Blaine Co., Big Wood R.; Owl Cr. Bonneville Co., Pine Cr.; Sheep Cr. Franklin Co., Cub R.

13. *Zapada oregonensis* (Claassen): Blaine Co., Spring Cr. Bonneville Co., Indian Cr.; Jensen Cr.; Spring Run. Butte

Co., Little Cottonwood Cr. Fremont Co., S. Fk. Fish Cr.

#### FAMILY CAPNIIDAE

14. *Capnia coloradensis* Claassen: Blaine Co., Big Wood R. Bonneville Co., Pine Cr. Fremont Co., Robinson Cr.; Warm R. Teton Co., N. Fk. Teton R.

15. *Capnia confusa* Claassen: Bannock Co., Mink Cr. Bear Lake Co., Bloomington Cr.; St. Charles Cr. Blaine Co., Big Wood R. Bonneville Co., Rainey Cr. Franklin Co., Cub R. Fremont Co., Robinson Cr.; Snake R. (Henry's Fork).

16. *Capnia distincta* Frison: Blaine Co., Big Wood R. Bonneville Co., Pine Cr. Fremont Co., Robinson Cr. Teton Co., Teton R.

17. *Capnia gracilaria* Claassen: Bannock Co., Gibson Jack Cr.; Green Cr.; Indian Cr.; Mink Cr.; Pocatello Cr.; Portneuf R.; Quinn Cr.; Rapid Cr.; Robber's Roost Cr. Blaine Co., Big Wood R.; Warm Springs Cr. Bonneville Co., Pine Cr.; Rainey Cr.; Snake R. at Swan Valley. Franklin Co., Cottonwood Cr.; Cub R. Fremont Co., Buffalo R.; Falls R.; Robinson Cr.; Snake R. at Mack's Inn and Ashton; Warm R. Jefferson Co., Snake R. Teton Co., Teton R.; Trail Cr.

18. *Capnia lemoniana* Nebeker: Bannock Co., Fish Cr.; Gibson Jack Cr.; Mink Cr.; Portneuf R.; Rapid Cr. Bear Lake Co., Bloomington Cr. Blaine Co., Big Wood R.; Silver Cr. Franklin Co., Cub R.; Warm Cr. Fremont Co., Snake R. at Mack's Inn. Oneida Co., Deep Cr. Teton Co., Teton R.; Trail Cr.

19. *Capnia limata* Frison: Power Co., Rock Cr.

20. *Capnia milami* Nebeker and Gaufin: Blaine Co., Big Wood R. near Ketchum.

21. *Capnia nana* Claassen: Bannock Co., Gibson Jack Cr.; Green Cr.; Mink Cr.; Pocatello Cr.; Rapid Cr. Bonneville Co., Rainey Cr. Franklin Co., Cub R.

22. *Capnia petila* Jewett: Bonneville Co., Pine Cr.; Rainey Cr.

23. *Capnia uintahi* Gaufin: Bannock Co., Indian Cr.; Mink Cr.; Rapid Cr. Bonneville Co., Pine Cr. Franklin Co., Cub R. Oneida Co., Deep Cr.

24. *Eucapnopsis brevicauda* (Claassen): Bannock Co., Gibson Jack Cr. Blaine Co., Big Wood R. Bonneville Co., Rainey Cr. Franklin Co., Cub R.

25. *Isocapnia crinita* (Needham & Claassen): Franklin Co., Cub R. Jefferson Co., Snake R.

26. *Isocapnia hyalita* Ricker: Bonneville Co., Rainey Cr.

27. *Isocapnia missouri* Ricker: Bonneville Co., S. Fk. of Snake R.

#### FAMILY TAENIOPTERYGIDAE

28. *Doddsia occidentalis* (Banks): Blaine Co., Big Wood R. Bonneville Co., Palisades Cr.; Pine Cr.; S. Fk. Snake R. Teton Co., Trail Cr.

29. *Taenionema nigripennis* (Banks): Bannock Co., Cherry Cr.; Gibson Jack Cr.; Mink Cr. Blaine Co., Big Wood R. Bonneville Co., Palisades Cr.; Rainey Cr. Franklin Co., Cub R.

30. *Taenionema pacifica* (Banks): Blaine Co., Big Wood R.

#### FAMILY LEUCTRIDAE

31. *Paraleuctra forcipata* Frison: Bannock Co., Mink Cr.

32. *Paraleuctra sara* (Claassen): Blaine Co., Big Wood R.

#### FAMILY PTERONARCIDAE

33. *Pteronarcella badia* (Hagen): Bannock Co., Mink Cr. Butte Co., Little Lost R. Clark Co., Beaver Cr.; Birch Cr.; Medicine Lodge Cr. Custer Co., Big Lost R.

34. *Pteronarcys californica* Newport: Bannock Co., Gibson Jack Cr.; Mink Cr.; Portneuf R. Bonneville Co., S. Fk. Snake R. Butte Co., Little Lost R. Caribou Co., Blackfoot R. Clark Co., Birch Cr. Fremont Co., Henry's Fk. Snake R.; Robinson Cr.; Warm R. Teton Co., Teton R.

35. *Pteronarcys princeps* Banks: Bannock Co., City Cr.; Gibson Jack Cr.; Mink Cr.

#### FAMILY PERLODIDAE

36. *Cultus aestivalis* (Needham & Claassen): Fremont Co., Henry's Fork Snake R. Teton Co., Teton R.; Warm R.

37. *Cultus tostonus* (Ricker): Fremont Co., Henry's Fork Snake R. Teton Co., Teton R.; Warm R.

38. *Diura knowltoni* (Frison): Bannock Co., Gibson Jack Cr.

39. *Isogenoides elongatus* (Hagen): Bonneville Co., Fall Cr.

40. *Isogenoides colubrinus* (Hagen): Bonneville Co., Snake R.

41. *Isoperla fulva* Claassen: Bannock Co., Mink Cr. Bonneville Co., Jensen Cr. Butte Co., Little Lost R. Caribou Co., Portneuf R. Clark Co., Beaver Cr.; Birch Cr.; Camas Cr.; Medicine Lodge Cr. Custer Co., Big Lost R. Fremont Co., Robinson Cr.; Snake R.

42. *Isoperla fusca* Needham and Claassen: Bannock Co., Mink Cr. Bonneville Co., Snake R. Fremont Co., Fish Cr. Lemhi Co., Firebox Cr.

43. *Isoperla longiseta* Banks: Upper Snake R. (Ricker 1964).

44. *Isoperla mormona* Banks: Bannock Co., Portneuf R. Bingham Co., Spring Cr. Butte Co., Little Lost R. Clark Co., Birch Cr. Fremont Co., Fall R.; Snake R. Twin Falls Co., Little Cr.

45. *Isoperla patricia* Frison: Bingham Co., Spring Cr. Bonneville Co., Fall Cr.; Pine Cr.; Snake R. Butte Co., Little Lost R. Caribou Co., Portneuf R. Cassia Co., Indian Spring. Fremont Co., Henry's Fork Snake R. Teton Co., Teton R.; Warm Cr.

46. *Isoperla petersoni* Needham and Christensen: Bannock Co., Mink Cr.

47. *Isoperla phalerata* (Needham and Claassen): Bannock Co., Mink Cr. Blaine Co., Big Wood R.

48. *Isoperla pinta* Frison: Cassia Co., near Malta. Teton Co., Teton R.

49. *Isoperla sordida* (Banks): Teton Co., Trail Cr.

50. *Kogotus modestus* (Banks): Bonneville Co., Pine Cr. Teton Co., Trail Cr.; Warm Cr.

51. *Megarcys signata* (Hagen): Bannock Co., Portneuf R.; Walker Cr. Bonneville Co., Jensen Cr.; Palisades Cr.; Pine Cr.; Rainey Cr. Butte Co., Little Lost R. Teton Co., Trail Cr.

52. *Megarcys watertoni* (Ricker): Lemhi Co., Little Lost R.

53. *Pictetia expansa* (Banks): Bonneville Co., Rainey Cr. Teton Co., Trail Cr.

54. *Setvena bradleyi* (Smith): Fremont Co., Henry's Fork Snake R.

55. *Skwala parallela* (Frison): Bannock Co., Cherry Cr.; Mink Cr. Blaine Co., Big Wood R. Bonneville Co., Willow Cr. Butte Co., Little Lost R. Caribou Co., Portneuf R. Clark Co., Beaver Cr.; Birch Cr.; Camas Cr.; Medicine Lodge Cr. Franklin Co., Cottonwood Cr. Fremont Co., Falls R.; Robinson Cr. Snake R.



## FAMILY CHLOROPERLIDAE

56. *Alloperla severa* (Hagen): Bannock Co., Mink Cr. Bonneville Co., Pine Cr.; Snake R. Teton Co., Teton R.

57. *Suwallia lineosa* (Banks): Bonneville Co., Pine Cr.

58. *Suwallia pallidula* (Banks): Bonneville Co., Pine Cr. Custer Co., Wildhorse Cr. Fremont Co., Robinson Cr. Power Co., Rock Cr. Teton Co., Trail Cr.

59. *Sweltsa albertensis* Needham and Claassen: Cassia Co., Indian Springs; Spring Seep. Custer Co., Wildhorse Cr. Fremont Co., Snake R.

60. *Sweltsa borealis* (Banks): Butte Co., Little Lost R. Custer Co., Wildhorse Cr.

61. *Sweltsa coloradensis* (Banks): Bannock Co., Mink Cr. Blaine Co., Big Wood R. Bonneville Co., Jensen Cr.; Pine Cr. Caribou Co., Pebble Cr. Teton Co., Teton Cr.; Trail Cr.

62. *Sweltsa fidelis* Banks: Bannock Co., Mink Cr. Bonneville Co., Spring Run. Butte Co., Little Cottonwood Cr. Fremont Co., Fish Cr. Lemhi Co., Firebox Cr.

63. *Sweltsa lamba* Needham and Claassen: Bonneville Co., Jensen Cr.; Rainey Cr.

64. *Triznaka diversa* (Frison): Bonneville Co., Pine Cr. Teton Co., Trail Cr.

65. *Triznaka pintada* (Ricker): Cassia Co., Cassia Cr. Teton Co., Teton Cr.; Teton R.

66. *Triznaka signata* (Banks): Bonneville Co., Snake R. Teton Co., Teton R.; Trail Cr.

67. *Utaperla sopladora* Ricker: Blaine Co., Big Wood R.

## FAMILY PERLIDAE

68. *Claassenia sabulosa* (Banks): Butte Co., Little Lost R. Clark Co., Birch Cr.; Camas Cr. Custer Co., Big Lost R.

69. *Doronuria californica* (Banks): Bannock Co., Mink Cr. Bonneville Co., Jensen Cr.; Snake R. Butte Co., Little Cottonwood Cr. Fremont Co., Snake R.

70. *Doronuria theodora* (Needham and Claassen): Bonneville Co., Rainey Cr. Butte Co., Little Lost R.

71. *Hesperoperla pacifica* (Banks): Bannock Co., City Cr.; Gibson Jack Cr.; Mink Cr. Bingham Co., Jimmy Drinks Spring; Spring Cr. Bonneville Co., Jensen Cr.; McCoy Cr. Butte Co., Little Lost R. Caribou Co., Portneuf R. Clark Co., Beaver Cr.; Birch Cr.; Camas Cr.; Medicine Lodge Cr. Custer Co., Big Lost R. Fremont Co., Robinson Cr.; Warm R. Teton Co., Teton Cr.; Warm Cr.

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