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NEW RECORDS OF STONEFLIES (PLECOPTERA) FROM NEW MEXICO¹

Bill P. Stark,² Theodore A. Wolff,² and Arden R. Gaufin²

ABSTRACT.—Distributional data are presented for 30 species of New Mexico Plecoptera including 8 species new to the state list. Previously, many of the included species were known from a single location in the state. A revised checklist of 46 confirmed species is presented for the state.

Distributional data on the New Mexico stonefly fauna have accumulated slowly because of the isolated nature of much potential stonefly habitat. Records of winter-emerging forms are particularly meager, with three species of Capniidae listed for New Mexico in a review of southwestern stoneflies by Stewart et al. (1974). Two species were recorded from a single location and the other from two locations in the state.

In this paper we report eight additional species, *Malenka flexura* (Claassen), *Podmosta delicatula* (Claassen), *Zapada haysi* (Ricker), *Capnia confusa* Claassen, *Capnia gracilaria* Claassen, *Paraleuctra rickeri* Nebeker and Gaufin, *Diura knowltoni* (Frison), and *Isonenoides zionensis* Hanson; new distributional data for species previously reported are also given. Two of us (Stark and Wolff) collected all material unless otherwise noted.

The authors thank M. R. Cather for providing records from her personal collection, and R. W. Baumann for sending records from the United States National Museum.

Taenionema nigripennis (Banks).—New Records: *Sandoval Co.*, Santa Clara Canyon, Wem Povi Pond, elev. 6,900', 20-III-73, nymphs. *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 21-IV-73, nymphs; Rio Enmidio, Hyde Park Ski Basin, 10-VI-74, 1 ♂.

Malenka coloradensis (Banks).—New Records: *Catron Co.*, Willow Creek, Willow Creek Campground, 11-VI-74, 2 ♂ 1 ♀. *Sandoval Co.*, Tschicoma Pond, Santa Clara Canyon, 13-VI-74, 3 ♂ 9 ♀.

Malenka flexura (Claassen).—Distribution: *Taos Co.*, West Fork Red River, Wheeler Peak Wilderness Area, 10 miles south of Red River, 9-VI-74, 25 ♂ 14 ♀.

Podmosta delicatula (Claassen).—Distribution: *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 8-VI-74, 9 ♂ 19 ♀.

Taos Co., Red River, 2 miles east of Red River, 9-VI-74, 1 ♀.

Prostoia besametsa (Ricker).—New Records: *Santa Fe Co.*, Rio Santa Cruz, near Espanola, elev. 5,600', 17-III-74, 1 ♂; Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 17-III-74, exuvium.

Zapada cinctipes (Banks).—New Records: *Sandoval Co.*, Santa Clara Canyon, Wem Povi Pond, elev. 6,900', 20-III-73, 1 ♀. *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 21-IV-73, 5 ♂ 10 ♀.

Zapada frigida (Claassen).—New Records: *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 10-VI-74, 1 ♂.

Zapada haysi (Ricker).—Distribution: *Lincoln Co.*, North Fork Ruidoso River, 17-V-72, S. M. Fiance, 1 ♀, nymphs. *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 10-VI-74, 2 ♂ 5 ♀; same location, 21-IV-73, nymphs; Rio Enmidio, Hyde Park Ski Basin, 10-VI-74, elev. 10,560', 2 ♂ 7 ♀. *Taos Co.*, Wheeler Peak, 15 to 25-VI-60, Burks and Kinzer, 1 ♂ 1 ♀; 4 miles north of Arroyo Seco, 22-VI-61, S. G. Jewett, Jr., 2 ♂ 1 ♀; Rio Hondo, Taos Ski Valley, 22-III-67, R. W. Baumann, nymphs; Rio Trampas, above El Valle, 10-VI-74, 2 ♂ 8 ♀; West Fork Red River, Wheeler Peak Wilderness Area, 10 miles south of Red River, 9-VI-74, 3 ♂ 4 ♀.

Capnia confusa Claassen.—Distribution: *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 19-IV-73, 13 ♂ 9 ♀. *Sandoval Co.*, Santa Clara Canyon, Wem Povi Pond, elev. 6,900', 20-III-73, 2 ♂. *San Miguel Co.*, Pecos River, Tererro, elev. 7,600', 21-IV-73, 26 ♂ 10 ♀. *Taos Co.*, Rio Trampas, 1½ miles southeast of El Valle, elev. 7,800', 20-IV-73, 1 ♀.

Capnia gracilaria Claassen.—Distribution: *Santa Fe Co.*, Big Tesuque Creek,

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Big Tesuque Campground, elev. 9,700', 21-IV-73, 3 ♂ 13 ♀; same location, 17-III-74, 2 ♂; Rio Enmidio, Hyde Park Ski Basin, elev. 10,560', 10-VI-74, 2 ♀. *Taos Co.*, West Fork Red River, Wheeler Peak Wilderness Area, 9-VI-74, 1 ♂ 1 ♀.

Eucapnopsis brevicauda Claassen.—New Records: *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 21-IV-73, 1 ♂.

Paraleuctra rickeri Nebeker & Gaufin.—Distribution: *Taos Co.*, West Fork Red River, Wheeler Peak Wilderness Area, 10 miles south of Red River, 9-VI-74, 12 ♂ 26 ♀.

Paraleuctra vershina Gaufin and Ricker.—This species has been previously reported from the state as *P. sara* (Claassen). New records: *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 8-VI-74, 2 ♂ 2 ♀. *Taos Co.*, Rio Trampas, above El Valle, 9-VI-74, 6 ♂ 11 ♀.

Pteronarcella badia (Hagen).—New Records: *Sandoval Co.*, Santa Clara Canyon, Wem Povi Pond, elev. 6,900', 20-III-73, nymphs.

Diura knowltoni (Frison).—Distribution: *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 8-VI-74, 2 ♂ 6 ♀; same location, 25-V-74, M. and E. Cather, nymphs. *Taos Co.*, Rio Trampas, 1½ miles southeast of El Valle, elev. 7,800', 20-IV-73, nymphs.

Isogenoides elongatus (Hagen).—New Records: *San Miguel Co.*, Pecos River, Pecos, 24-V-74, M. and E. Cather, 5 ♂ 5 ♀.

Isogenoides zionensis Hanson.—Distribution: *Catron Co.*, San Francisco River, Glenwood, 19-II-70, M. Snavely, nymph. *McKinley Co.*, McGaffey Lake, 10-IV-70, nymph. *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 19-IV-73, 1 ♂ (reared); same location, 8-VI-74, 6 ♂ 2 ♀. *Taos Co.*, Red River, Red River, 5-III-61, A. R. Gaufin, nymph; Red River, 3 miles east of Cuesta, 9-VI-74, nymphs.

Kogotus modestus (Banks).—New Records: *Taos Co.*, Red River, 2 miles east of Red River, 9-VI-74, nymphs.

Megarcys signata (Hagen).—New Records: *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 21-IV-73, nymphs; same location, 10-VI-74, 46 ♂ 1 ♀; Rio Enmidio, Hyde Park Ski Basin, elev. 10,560', 17-III-74, nymphs. *Taos Co.*, Rio Trampas, 1½ miles southeast of El Valle, elev. 7,800',

20-IV-73, nymphs; West Fork Red River, Wheeler Peak Wilderness Area, 9-VI-74, nymphs.

Skwala parallela (Frison).—New Records: *Taos Co.*, Rio Hondo, Hwy. 3, 5-III-61, A. R. Gaufin, nymphs.

Isoperla cbria (Hagen).—New Records: *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 10-VI-74, 1 ♂; same location, 21-IV-73, nymphs; Rio Enmidio, Hyde Park Ski Basin, elev. 10,560', 17-III-74, nymphs.

Isoperla fulva Claassen.—New Records: *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 21-IV-73, nymphs.

Isoperla mormona Banks.—New Records: *Catron Co.*, Whitewater Creek, Catwalk Picnic Area, 11-VI-74, 1 ♂; West Fork Gila River, 17-V-74, M. and E. Cather, 15 ♂ 6 ♀. Grant Co., Gila River, 31 miles north of Pinos Altos, Hwy 15, 11-VII-73, 1 ♂ (reared); same location, 17-V-74, M. and E. Cather, 26 ♂ 17 ♀.

Claassenia sabulosa (Banks).—New Records: *San Miguel Co.*, Pecos River, Tererro, elev. 7,600', 21-IV-73, nymphs.

Hesperoperla pacifica (Banks).—New Records: *Catron Co.*, Whitewater Creek, 16-V-74, M. and E. Cather, exuvium.

Sweltsa coloradensis (Banks).—New Records: *Catron Co.*, Willow Creek, Willow Creek Campground, 11-VI-74, 8 ♂ 7 ♀. *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 8-VI-74, 1 ♂ 3 ♀. *Sandoval Co.*, Tschicoma Pond, Santa Clara Canyon, 13-VI-74, 2 ♀.

Sweltsa lamba (Needham & Claassen).—New Records: *Taos Co.*, West Fork Red River, Wheeler Peak Wilderness Area, 10 miles south of Red River, 9-VI-74, 1 ♂.

Triznaka diversa (Frison).—New Records: *Santa Fe Co.*, Big Tesuque Creek, Big Tesuque Campground, elev. 9,700', 10-VI-74, 31 ♂ 24 ♀.

Triznaka pintada (Ricker).—New Records: *Taos Co.*, Rio Pueblo, Penaasco, 9-VI-74, 2 ♂ 13 ♀.

Triznaka signata (Banks).—New Records: *Rio Arriba Co.*, Rio Chama, Chama, elev. 7,870', 8-VI-74, 17 ♂ 10 ♀.

NEW MEXICO LIST

Below is a checklist of 46 stonefly species that have been confirmed for New Mexico. Species regarded as questionable

or unconfirmed by actual specimens and distributional data have been omitted.

Taeniopterygidae

Taenionema nigripennis (Banks)

T. pallida (Banks)

Taeniopteryx sp.

Nemouridae

Amphinemura mogollonica Baumann and Gaufin

Malenka coloradensis (Banks)

M. flexura (Claassen)

Podmosta delicatula (Claassen)

Prostoia besametsa (Ricker)

Zapada cinctipes (Banks)

Z. frigida (Claassen)

Z. haysi (Ricker)

Capniidae

Capnia confusa Claassen

C. fibula Claassen

C. gracilaria Claassen

Eucapnopsis brevicauda Claassen

Mesocapnia frisoni (Baumann and Gaufin)

Leuctridae

Paraleuctra rickeri Nebeker and Gaufin

P. vershina Gaufin and Ricker

Perlomyia utahensis Needham and Claassen

Pteronarcidae

Pteronarcella badia (Hagen)

Pteronarcys californica Newport

Perlodidae

Cultus aestivalis (Needham and Claassen)

Diura knowltoni (Frison)

Isogenoides elongatus (Hagen)

I. zionensis Hanson

Kogotus modestus (Banks)

Megarctys signata (Hagen)

Skwala parallela (Frison)

Isoperla ebria (Hagen)

I. fulva Claassen

I. longiseta Banks

I. mormona Banks

I. patricia Frison

I. phalerata (Smith)

I. quinquepunctata (Banks)

Perlidae

Claassenia sabulosa (Banks)

Hesperoperla pacifica (Banks)

Neoperla clymene (Newman)

Chloroperlidae

Paraperla frontalis Banks

Suwallia pallidula (Banks)

Suwelta borealis (Banks)

S. coloradensis (Banks)

S. lamba (Needham and Claassen)

Triznaka diversa (Frison)

T. pintada (Ricker)

T. signata (Banks)

LITERATURE CITED

- STEWART, K. W., R. W. BAUMANN, AND B. P. STARK. 1974. The distribution and past dispersal of southwestern United States Plecoptera. *Trans. Amer. Entomol. Soc.* 99:507-546.