DISTRIBUTION AND RECORDS OF COLORADO TRICHOPTERA

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Abstract—Previous published records, new records, damage, habitat preference, altitudinal range, and adult collection dates are presented for 176 species in 15 families of Colorado Trichoptera. Of this listing 53 species are new records for Colorado.

A comprehensive publication on the systematics, distribution, ecology, and records of Colorado Trichoptera is nonexistent. No major caddisfly monographs or species listings similar to that of Ross (1944) for Illinois, Anderson (1976) for Oregon, Roembild (1982) for Montana or Denning (1956) for California have been published for Colorado. Only one statewide family listing, that for the Hydropsyliidae, is available (Herrmann, 1982).

Most records of Colorado caddisflies are scattered throughout the literature and represent collections made from small geographic regions of the State. The purpose of our work is fourfold: 1) to compile the list of literature sources necessary for regional trichopterists to conduct future studies in Colorado, 2) to provide a view on the validity of the Colorado caddisfly records reported in earlier publications, 3) to report new records for Colorado caddisflies, and 4) to provide distributional, altitudinal, and ecological data for Colorado Trichoptera.

Colorado is a large state, 103,483 mi² (268,021 km²), and topographically diverse. The lowest point in the state, 3350 ft (1020 m), is in the bed of the Arkansas River in eastern Prowers County. Mt. Elbert in Lake County is the highest peak in the state at 14431 ft (4399 m) and second highest in the 48 contiguous states. Colorado with a mean altitude of 6800 ft (2073 m) is also the highest state of all 50 states. These topographic extremes along with great climatic variations, steep stream gradients, intermittent stream flows, hot and warm springs, closed drainage basins, and diverse geological chemistries, combine to create many diverse aquatic habitats. The headwaters of four river systems, the Colorado, Rio Grande, Platte, and Arkansas, are located in the mountains of Colorado (Fig 1).

Materials and Methods—In reviewing previous publication records, only the studies listing a collection locality which could be located by county were included. The exception was the case where the record (without a collection locality) was the only Colorado record available in the literature. Publications that cited previous Colorado records but did not supply additional collection data were excluded. A special effort was made to locate specimens of published records for which no specific locality data were given, and of species that had not been collected since being reported in the literature. If specimens of a questionable record could not be located but the species was reported from any of the states adjoining Colorado, the species was retained in our listing and its status documented. Special efforts were also made to assign all the published records to a county. Many of the older locality records were vague, for example, southwest Colorado or Colorado mountains, or simply, Colorado; so county assignment was not always
possible. We made the assumption that South Park, the locality for several old records, is entirely within Park County. Dodds and Hisaw's (1925b) localities were divided into two counties based on 2438 m altitude. Every record above 2438 m was considered Gilpin County and every record below 2438 m considered Boulder County. The actual Boulder-Gilpin County line rises from 2271 m to 2463 m. Ward's (1976) records from the South Platte River were listed in both Douglas and Jefferson counties as the river in the collection area is the county line.

Thousands of Colorado specimens, primarily adults, were examined by us or other caddisfly specialists prior to preparation of this publication. These specimens came primarily from collections of Herrmann, who collected extensively throughout Colorado since 1966; Ruiter, who collected northcentral and northwestern Colorado since 1975; the Illinois Natural History Survey (INHS), Champaign, IL; the United States National Museum (USNM), Smithsonian Institution, Washington, D.C.; and the Peabody Museum, Yale University, New Haven, CT. In addition, many other specimens from individual and institutional collections were examined.

United States Geological Survey (U.S.G.S.) topographic quadrangle maps (standard 7.5 minute, 15 minute, and county series) were used to establish collection site coordinates, altitudes, and descriptions. Precise definitions of aquatic habitats are neither easily generated nor practically applied. Lotic habitats range from large rivers with considerable volume of flowing surface water to small seeps with only enough discharge to wet the surrounding soil. Springs, in contrast to seeps, are usually characterized by relative constancy of water chemistry, discharge, and temperature. The term "stream" refers to an intermediate size body of running water in a surface channel, and includes the terms "creek" and "brook." Lakes and ponds are the primary types of lentic habitats; the former are characterized by large limnetic and profundal zones and a small littoral zone, and the latter by the converse set of zonal proportions. In describing a species habitat we generally listed the lotic or lentic descriptor that appears as part of a collection site's proper name on U.S.G.S. maps. For example, the Colorado River descriptor for habitat type is listed as "river," Texas Creek as "stream," and Grand Lake as "lake."

Reference is made to Pennak's (1958) limnological zones of northcentral Colorado; they are plains 1020 m to 1700 m, foothills 1700 m to 2500 m, montane 2500 m to 3200 m, and alpine (> 3200 m). Discussion of a species altitudinal distribution is facilitated by making reference to these zones. The range of altitude appropriate to each zone for a given region of Colorado may vary considerably due to many interacting factors; therefore, this zonation scheme is applied quite generally.

RESULTS AND DISCUSSION—In the literature we found Colorado records for 146 species of Trichoptera. Three species, *Apatania stigmatella* (Zetterstedt) 1840, *Limnephilus euctus* Ross 1941, and *Pseudostomiphylax edwardsi* (Banks) 1920 have been reported to be Colorado records that are in error (Nimno, 1971; Anderson, 1976; Anderson, 1974). Three species, *Limnephilus concolor* Banks 1899, *Lepidostoma stigma* (Banks) 1907 and *Nectopsyche coloradensis* (Banks) 1899 are reported as either unassociated females or damaged, and of questionable species validity (Flint, 1966; Ross, 1946; Haddock, 1977). Another limnephilid, *Limnephilus clausus* Banks 1924, was considered by Ross and Merkley (1952) to be a synonym of *L. picturatus* MacLachlan 1875. *Hydropsyche frisoni* Ross 1938 and *Rhyacophila bifila* Banks 1914 were reported from Colorado by Harris and Lawrence (1978). Personal communication with Harris (1981) has confirmed the error in these two records. Dodds and Hisaw (1925b) reported *Rhyacophila atrata* Banks 1911 and *Hydropsyche scalaris* (Hagen) 1861 from Colorado; these two records are probably a result of incorrect identifications. Ross (1944) cited the known distribution of *R. atrata* as eastern North America. Flint et al. (1979) discussed the identification problem of *H. scalaris* and did not include Colorado in the known distribution. Ward (1975) reported *Lepidostoma rayneri* Ross 1941 and *Agapetus taho* Ross 1947 as occurring in Boulder County, Colorado; as
these species can be confused with *Lepidostoma ormea* Ross 1946 and *Agapetus boulderensis* Milne 1936 respectively, and Ward's specimens cannot be located at this time, we will delete these two species from the Colorado list until such time as specimens can be located. Hagen (1875) reported *Pycnopsyche divergens* (Walker) 1852 from Colorado. Hagen stated that the specimens were fragments and were possibly two species. Until specimens can be located we have deleted this species from the Colorado list. Dodds and Hisaw (1925b) cited *Limnephilus sansoni* Banks 1918 from one collection at about 2700 m elevation. Since this collection could not be located and substantiation not possible, and since this species has not been reported from Utah (Baumann and Unzicker, 1981), Oregon (Anderson, 1976), or Montana (Roemhild, 1982), we deleted the record of *L. sansoni*. *Rhyacophila tucula* Ross 1950 was reported from Boulder County by Ward (1981) and Larimer County by Short and Ward (1980a) from larval identifications. Adults are not available for positive identification, therefore this species has been deleted from our Colorado list. Two species, *Brachycentrus occidentalis* Banks 1911 and *Rhyacophila oreta* Ross 1941 were identified as larvae (Canton and Chadwick, 1983a; Canton, 1984). Some uncertainty exists, therefore, for these two records. *Brachycentrus occidentalis* is commonly collected by Ruiter and Herrmann; *R. oreta* adults from Colorado have not been collected by us. Colorado records of *Ochrotrichia unio* (Ross) 1941 in the INHS collection and *Nectopsyche albida* (Walker) 1852 in the USNM collection were deleted from our listing because the former species' record was based on seven larvae and the latter on three unassociated females. Nimmo (1971) cited Colorado records for *Apatania shoshone* Banks 1924 and *Limnephilus rhombicus* (Linnaeus) 1758; however, they were deleted from our list because they could not be substantiated. Searches for *Hesperophylax oreades* Saether 1970 at the type locality and elsewhere in Boulder County and Colorado have proven fruitless. Parker (1984) felt that this species is actually *Psychoronia costalis* (Banks) 1901. Schmid (1954) reported *Asynarchus montanus* (Banks) 1907 from Colorado without giving a collection locality; both *A. montanus* and *A. circopa* (Ross and Merkley) 1952 were considered *A. nigriculus* (Banks) 1908 by us. These considerations reduce the number of what we feel are valid published species records from Colorado to 123 species.

**Distribution Records for Colorado Trichoptera**—In the following list families, genera, and species are listed alphabetically using the classification scheme of Wiggins (1984). Each species, with type locality, is cited first, followed in order by previous published county records, new county records, river drainage basins, habitat, altitudinal range in meters above mean sea level, extreme dates of adult collection, and for most species, additional commentary. If a species has been collected from only one site or on only one date, one value appears under the heading of altitudinal range or adult collection date. Species reported as new Colorado records are preceded by an asterisk.

**BRACHYCENTRIDAE**

*Ammocentrus aspilus* (Ross) 1938. Type locality (T.L.) Wyoming, Pinedale.

Previous county records: Jackson (Denning, 1948c), Larimer (Denning, 1948c).

New county records: Routt.
Fig. 1—Map of Colorado showing counties and river drainages. The number adjacent to a county name indicates the number of species of Trichoptera reported from that county.
Drainages: North Platte, South Platte, Yampa.
Habitat: rivers, streams.
Altitudinal range: 2042 to 2662 m.
Adult collection dates: 19 July to 17 August.
Commentary: In Colorado this species appears to be restricted to the rivers and streams bordering Wyoming.

New records: Chaffee, Clear Creek, Conejos, Costilla, El Paso, Fremont, Garfield, Gilpin, Hinsdale, Huerfano, Jackson, Lake, La Plata, Las Animas, Park, Pitkin, Saguache, Mineral, Montrose, Ouray, Summit.
Habitat: rivers, streams.
Altitudinal range: 1606 to 3048 m.
Adult collection dates: 17 April to 6 September.
Commentary: Denning (1983) compared the male and female of this species with *B. occidentalis* Banks 1911 making future incorrect identifications of adults of the two species unlikely. Flint (1984) wrote keys to adult males and larvae for the species of *Brachycentrus* in North America.

Previous records: Boulder (Flint, 1984), Montezuma (Canton and Chadwick, 1983a), Montrose (Flint, 1984), Rio Grande (Flint, 1984), and Routt (Flint, 1984).
Habitat: rivers, streams.
Altitudinal range: 1615 to 2926 m.
Adult collection dates: 16 April to 6 July.
Commentary: In Colorado this species is usually more common below 1829 m while *B. americanus* more common above 1829 m; *B. occidentalis* also appears to emerge earlier.

New records: Chaffee, Eagle, Garfield, Pitkin.
Habitat: streams.
Altitudinal range: 2103 to 2896 m.
Adult collection dates: 24 July to 26 July.
Commentary: Anderson (1976) reported Oregon emergence from early May through June.

GLOSSOSOMATIDAE

Drainages: Arkansas, Colorado, Dolores, Gunnison, Rio Grande, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1975 to 2749 m.
Adult collection dates: 3 August to 2 October.
Commentary: Our data show this species to be more widespread in Colorado than previously reported.

*Anagapetus debilis* (Ross) 1938. T. L. Utah, Logan Canyon.
Previous records: Douglas (Ross, 1951), El Paso (Ross, 1951), Larimer (Ross, 1951).
New records: Chaffee, Clear Creek, Garfield, Mineral, Rio Blanco.
Habitat: springs, streams, rivers.
Altitudinal range: 1896 to 3060 m.
Adult collection dates: 4 June to 1 September.
Commentary: This species is widespread in Colorado but seldom collected in large numbers.

*Culoptila cantha* (Ross) 1938. T. L. Wyoming, Parco.
Previous records: unspecified locality (Flint, 1974a).
New records: Mesa, Moffat.
Drainages: Colorado, Yampa.
Habitat: rivers.
Altitudinal range: 1494 to 1801 m.
Adult collection dates: 3 August to 11 August.
Commentary: This species appears to be restricted to the west side of the continental divide in Colorado.

Previous records: unspecified locality (Flint, 1974a).
New records: Clear Creek, Eagle, Garfield, Grand, Jefferson, Summit.
Drainages: Arkansas, Colorado, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1615 to 3298 m.
Adult collection dates: 15 July to 10 August.

Commentary: Northcentral Colorado counties are the only ones from which this species has been collected. However, Waltz and McCafferty (1988) recently reported it from New Mexico.

*Glossosoma alasense* Banks, 1900. T. L. Alaska, Popof Island.
New records: Clear Creek.
Drainages: South Platte.
Habitat: streams.
Altitudinal range: 2817 m.
Adult collection dates: 21 June.
Commentary: Nimmo (1974) found this species in a wide variety of lotic habitats in Alberta.

*Glossosoma parvulum* Banks 1904. T. L. New Mexico, Pecos.
Habitat: rivers.
Altitudinal range: 1516 to 2911 m.
Adult collection dates: 6 April to 20 October.
Commentary: This species is widespread and common in Colorado.

Previous records: Grand (Swegman and Ferrington, 1980).
New records: none.
Drainages: Colorado.
Habitat: rivers.
Altitudinal range: 2590 m.
Adult collection dates: 2 August.
Commentary: This record was made on the basis of one male collected at Winding River Campground just west of the west entrance to Rocky Mountain National Park.

*Glossosoma ventrale* Banks 1904. T. L. New Mexico, East Las Vegas.
Previous records: Boulder (Dodds and Hisaw, 1925b), Gilpin (Dodds and Hisaw, 1925b), Rio Blanco (Gray and Ward, 1977), Routt (Canton and Chadwick, 1983b; Canton and Ward, 1981a and c).
Drainages: Arkansas, Colorado, San Juan, South Platte.
Habitat: streams.
Altitudinal range: 1844 to 2691 m.
Adult collection dates: 26 February to 3 September.
Commentary: This species has a narrower altitudinal range than *G. parvulum*. 
New records: Clear Creek, Custer, El Paso, Garfield, Grand, Jefferson, Lake, La Plata, Larimer, Pitkin, Saguache, Summit.  
Drainages: Arkansas, Colorado, San Juan, South Platte.  
Habitat: streams.  
Altitudinal range: 1875 to 3094 m.  
Adult collection dates: 8 May to 23 August.  
Commentary: This species is not unexpected in Colorado since Ross' (1938b) holotype male is from Wyoming and five of his paratype males are from Utah.

Protoptila coloma Ross 1941. T. L. California, Hot Creek.  
Previous records: Grand (Ross, 1941).  
New records: Larimer.  
Drainages: Colorado, South Platte.  
Habitat: rivers.  
Altitudinal range: 1615 to 2423 m.  
Adult collection dates: 16 July to 4 August.  
Commentary: Roemhild (1982) found this species commonly in Montana intermountain streams and rivers. It is uncommon in Colorado.

New records: Garfield, Moffat.  
Drainages: Colorado, Yampa.  
Habitat: rivers.  
Altitudinal range: 1615 m.  
Adult collection dates: 3 to 20 August.  
Commentary: This species has been collected only from sites west of the continental divide in Colorado.

HELCICOPSCHIDAE  
Helicopsyche borealis (Hagen) 1861. T. L. Canada, St. Lawrence River.  
Previous records: Boulder (Dodds and Hisaw, 1925b; Mecom, 1972a and b; Ward, 1981).  
New records: Archuleta, Fremont, Garfield, Huerfano, Larimer, Moffat, Park, Pueblo.  
Drainages: Arkansas, Colorado, San Juan, South Platte, Yampa.  
Habitat: streams, rivers, springs.  
Altitudinal range: 1494 to 3109 m.  
Adult collection dates: 28 February to 7 September.  
Commentary: This species is more common in Colorado than previously reported.

HYDROPSYCHIDAE  
Arctopsyche grandis (Banks) 1900. T. L. southwest Colorado.  
Drainages: Animas, Arkansas, Colorado, Gunnison, San Juan, South Platte, Yampa.  
Habitat: rivers, streams.  
Altitudinal range: 1913 to 3036 m.  
Adult collection dates: 10 May to 10 October.  
Commentary: This large hydropsychid is widespread and easily collected with an ultraviolet light.

New records: Garfield, Grand, Jefferson, Moffat.  
Drainages: Colorado, South Platte, Yampa.  
Habitat: rivers.  
Altitudinal range: 1615 to 1920 m.  
Adult collection dates: 1 July to 7 August.  
Commentary: Ross (1944) cited this species as being "...most abundant through the Corn Belt states but is found over almost all other parts of the continent...." In Colorado this species appears to be restricted in altitude.
**Cheumatopsyche enonis** Ross 1938. T. L. Wyoming, Parco.
New records: Archuleta, Conejos, Costilla, Delta, Eagle, Garfield, Grand, Mesa, Moffat.
Drainages: Colorado, Conejos, Gunnison, Rio Grande, San Juan, Yampa.
Habitat: rivers.
Altitudinal range: 1515 to 2333 m.
Adult collection dates: 13 July to 20 August.
Commentary: In Colorado this species is widespread west of the continental divide but spotty in occurrence.

**Cheumatopsyche gracilis** (Banks) 1899. T. L. Colorado, Fort Collins.
New records: Jackson, Park.
Previous records: Boulder (Dodds and Hisaw, 1925b).
Drainages: North Platte, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2411 to 2707 m.
Adult collection dates: 3 to 8 July.
Commentary: This species is common in the central and eastern U.S. but not common in Colorado or other parts of the west and southwest (Gordon, 1974).

**Cheumatopsyche petitii** (Banks) 1908. T. L. Michigan, Agricultural College.
Previous records: Arapahoe (Gordon, 1974), Boulder (Ward, 1981), Clear Creek (Gordon, 1974).
Drainages: Arkansas, Colorado, Republican, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1085 to 2438 m.
Adult collection dates: 23 April to 3 October.
Commentary: Distinction could not be made between specimens identified as *C. smithi* Gordon (1974) and *C. petitii*; hence, all specimens were considered *C. petitii*. This species is particularly common in the Arkansas and South Platte Rivers of eastern Colorado.

**Cheumatopsyche wabasha** Denning 1947. T. L. Minnesota, Wabasha.
New records: Moffat.
Drainages: Yampa.
Habitat: river.
Altitudinal range: 1789 m.
Adult collection dates: 3 July.
Commentary: This is a significant southerly range extension. Gordon (1974) listed this species from Oregon and Minnesota.

**Hydropsyche bronta** Ross 1938. T. L. Michigan, Bronson.
New records: Pueblo.
Drainages: Arkansas.
Habitat: river.
Altitudinal range: 1431 m.
Adult collection dates: 3 October.
Commentary: This species was previously reported from Wyoming (Ross, 1944) and Arkansas (Unzicker et al., 1970).

**Hydropsyche cockerelli** Banks 1905. T. L. New Mexico, Pecos.
Previous records: Routt (Canton and Ward, 1981a and c).
Habitat: streams, rivers.
Altitudinal range: 1311 to 3109 m.
Adult collection dates: 26 May to 7 September.
Commentary: In Colorado this species is common and widespread in the foothills and montane zones both east and west of the continental divide.

**Hydropsyche confusa** (Walker) 1852. T. L. Canada, Northwest Territories.
New records: Moffat.
Drainages: White.
Habitat: rivers, streams.
Altitudinal range: 1828 m.
Adult collection dates: 12 July.
Commentary: Nimmo (1981) synonymized *H. separata* Banks 1936 under *H. confusa*. Our only Colorado record of this species is from a site 2.5 miles (4 km) east of Dinosaur; the male and female specimens of this record were identified by D. G. Denning. Baumann and Unzicker (1981) reported it from Utah.

*Hydropsyche morosa* Hagen 1861. T. L. Canada, St. Lawrence River.
Previous records: Larimer (Banks, 1905).
New records: Garfield, Grand.
Drainages: Colorado, South Platte.
Habitat: rivers.
Altitudinal range: 1615 to 2550 m.
Adult collection dates: 24 July to 8 August.
Commentary: Until recently, western populations of this species were named *Hydropsyche bifida* Banks 1905. Schefter and Unzicker (1984) synonymized *H. bifida* Banks with *H. morosa* Hagen.

Previous records: Boulder (Dodds and Hisaw, 1925b; Mecom, 1970, 1972a and b), Gilpin (Dodds and Hisaw, 1925b), Routt (Canton and Ward, 1981a and c).
Drainages: Arkansas, Colorado, Dolores, Gunnison, Republican, San Juan, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1085 to 2941 m.
Adult collection dates: 25 May to 18 October.
Commentary: This species' altitudinal range overlaps that of *H. cockerelli*, although *H. occidentalis* occurs in the lowest portions of the plains zone in eastern Colorado. The lowest altitude reported for *H. occidentalis* outside Colorado by Harris and Lawrence (1978) was 805 m.

*Hydropsyche oslari* Banks 1905. T. L. southwestern Colorado.
Drainages: Arkansas, Colorado, Dolores, Gunnison, San Juan, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1615 to 2895 m.
Adult collection dates: 10 June to 1 September.
Commentary: Fischer (1960-1973) reported the geographical range from British Columbia to California and east to New Mexico and Utah.

Previous records: unspecified locality (Ross, 1944).
Drainages: South Platte.
Habitat: river.
Altitudinal range: 1053 to 1406 m.
Adult collection dates: 7 July to 17 August.
Commentary: Our Colorado records are from the South Platte River in northeastern Colorado; it is common in the Corn Belt (Ross, 1944) of the midwest.

Previous records: unspecified locality (Smith 1968a).
New records: Clear Creek, Douglas, El Paso, Garfield.
Habitat: streams, rivers.
Altitudinal range: 1981 to 2804 m.
Adult collection dates: 18 to 26 July.
Commentary: In Montana Roemhild (1982) reported this species from cold streams and rivers of the alpine and intermountain zones.

Habitat: streams, rivers.
Altitudinal range: 2408 to 3200 m.
Adult collection dates: 25 June.
Commentary: This species is uncommon in Colorado.

Previous records: Adams (Flint, 1974b).
New records: none.
Drainages: South Platte.
Habitat: stream.
Altitudinal range: 1670 m.
Adult collection dates: 4 to 5 July.
Commentary: The only record of this species from Colorado is that of one female from Watkins (Flint, 1974b). Boxelder Creek is an intermittent stream passing through the town of Watkins on the Colorado Piedmont of the Great Plains. Habitat conditions similar to those described for this species by Flint are absent in Boxelder Creek at Watkins. Flint (1974b) reported this species from Oklahoma, Arizona, and Texas.

*Smicridea signata* (Banks) 1903. T. L. Colorado, Fort Collins.
Previous records: Garfield (Flint, 1974b), Larimer (Banks, 1903).
New records: Molat.
Drainages: Colorado, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1615 to 1801 m.
Adult collection dates: 3 to 7 August.

**HYDROPTILIDAE**

Previous records: Gilpin (Dodds and Hisaw, 1925b), Larimer (Banks, 1907b), Routt (Canton and Ward, 1981c), Weld (Herrmann, 1977).
Drainages: Animas, Arkansas, Colorado, South Platte, White.
Habitat: lakes, rivers.
Altitudinal range: 1615 to 2911 m.
Adult collection dates: 18 May to 1 September.

New records: Boulder.
Drainages: South Platte.
Habitat: stream.
Altitudinal range: 2505 m.
Adult collection dates: 6 August.

New records: Alamosa, Arapahoe, Delta, Garfield, La Plata, Molat, Park, Pueblo.
Drainages: Arkansas, Colorado, Gunnison, Rio Grande, San Juan, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1444 to 1643 m.
Adult collection dates: 3 July to 7 November.
Commentary: *Hydronyma ajax* appears to be restricted altitudinally to below 5577 ft (1700m).

Previous records: Chaffee (Flint and Herrmann, 1976).
Drainages: Arkansas, Colorado, San Juan, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1584 to 2749 m.
Adult collection dates: 2 July to 1 September.


Drainages: Arkansas, Colorado, Gunnison, San Juan, South Platte, White, Yampa.

Habitat: streams, rivers.

Altitudinal range: 1515 to 2633 m.

Adult collection dates: 15 June to 10 September.

Commentary: This species occurs commonly in the warmer lotic waters of the State.


Previous records: unspecified locality (Blickle, 1979).

New records: none.

Drainages: data not available.

Habitat: data not available.

Altitudinal range: data not available.

Adult collection dates: data not available.

Commentary: The only Colorado record of this species is that of Blickle (1979), which does not include collection locality and date information. Neither Denning (1984) nor Blickle (1984) could locate the specimens or collection record for this species from Colorado. Blickle (1979) also reported this species from Wyoming.


New records: Garfield, Larimer, Park.

Drainages: Colorado, South Platte.

Habitat: rivers.

Altitudinal range: 1615 to 2579 m.

Adult collection dates: 13 February to 31 August.


Previous records: unspecified locality (Blickle, 1979).

New records: none.

Drainages: data not available.

Habitat: data not available.

Altitudinal range: data not available.

Adult collection dates: data not available.

Commentary: The only Colorado citation of this species is that of Blickle (1979), which does not include collection locality and date information. According to Denning (1984) the original vial label for this Colorado record was apparently lost; only a handwritten label of "Colo" exists. This species was reported from Utah (Baumann and Unzicker, 1981) and Wyoming (Blickle, 1979).

*Hydroptila icona* Mosely 1937. T. L. Mexico, Chiapas.

New records: Garfield, Larimer.

Drainages: Colorado, South Platte.

Habitat: rivers.

Altitudinal range: 1615 m.

Adult collection dates: 10 July to 10 September.

Commentary: Confusion between this species and *H. ajax* can be avoided by using Ross (1944), Figures 525B and 526B.

*Hydroptila pecos* Ross 1941. T. L. New Mexico, Carlsbad.

Previous records: Boulder (Denning, 1947a).

New records: Larimer, Pueblo, Weld.

Drainages: Arkansas, South Platte.

Habitat: streams, rivers.

Altitudinal range: 1388 to 1477 m.

Adult collection dates: 23 April to 29 September.

Commentary: This hydroptilid was only collected east of the continental divide on the plains of Colorado. Its range extends from New Mexico to Wyoming (Denning, 1947a).


Previous records: Grand (Ross, 1941), Larimer (Ross, 1941).


Drainages: Arkansas, Colorado, South Platte.

Habitat: streams.
Altitudinal range: 2042 to 3048 m.
Adult collection dates: 3 April to 1 September.
Commentary: Roemhild (1982) in Montana and Anderson (1976) in Oregon reported this species to be uncommon to rare.

New records: Pueblo.
Drainages: Arkansas.
Habitat: river.
Altitudinal range: 1444 m.
Adult collection dates: 3 October.
Commentary: Denning (1947b) reported this species to be one of the most widely distributed *Hydroptila* in North America.

New records: Alamosa, La Platta, Park, Pueblo.
Drainages: Arkansas, Rio Grande, San Juan, South Platte.
Habitat: rivers.
Altitudinal range: 1444 to 2707 m.
Adult collection dates: 3 July to 30 August.
Commentary: Roemhild (1982) reported this species as rare and inhabiting warm rivers and lakes in Montana.

Previous records: Larimer (Ross, 1944).
Drainages: Arkansas, Colorado, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1676 to 2120 m.
Adult collection dates: 20 June to 8 August.
Commentary: This species is widespread over North America (Wiggins, 1977).

New records: Rio Blanco.
Drainages: White.
Habitat: rivers.
Altitudinal range: 1798 m.
Adult collection dates: 5 August.
Commentary: Ross’ (1944) holotype male was collected from a spring habitat.

Previous records: Park (Ross, 1948).
New records: Moffat.
Drainages: South Platte, Yampa.
Habitat: streams and rivers.
Altitudinal range: 1801 to 2515 m.
Adult collection dates: 3 July to 8 August.

Previous records: Routt (Canton and Ward, 1981c).
New records: none.
Drainages: Yampa.
Habitat: streams.
Altitudinal range: 2260 m.
Adult collection dates: 26 August.
Commentary: The two male specimens from Routt County were identified by R. L. Blickle but could not be located (Canton, 1984). This species was reported from Utah (Baumann and Unzicker, 1981) and Kansas (Schuster and Hamilton, 1978).

*Neotrichia osmena* Ross 1944. T. L. Utah, Blacksmith Fork Canyon.
New records: Gunnison.
Drainages: Gunnison.
Habitat: river.
Altitudinal range: 2573 m.
Adult collection dates: 2 September.
Ochrotrichia logana (Ross) 1941. T. L. Utah, Logan County.
Previous records: Chaffee (Flint and Herrmann, 1976), Routt (Canton and Ward, 1981c).
Drainages: Animas, Arkansas, Colorado, Dolores, Gunnison, North Platte, San Juan, South Platte, White.
Habitat: streams, rivers, springs.
Altitudinal range: 1569 to 2579 m.
Adult collection dates: 18 June to 18 October.
Commentary: This hydroptilid is abundant in Colorado throughout its altitudinal range on both sides of the continental divide.

Ochrotrichia lometa (Ross) 1941. T. L. New Mexico, High Rolls.
Previous records: unspecified locality (Blickle and Denning, 1977).
New records: none.
Drainages: data not available.
Habitat: data not available.
Altitudinal range: data not available.
Adult collection dates: data not available.
Commentary: The only Colorado record is that of Blickle and Denning (1977), which does not indicate collection locality and date. The specimens constituting this record could not be located (Denning, 1984). This species was reported from Utah (Baumann and Unzicker, 1981).

Ochrotrichia oregona (Ross) 1938. T. L. Oregon, La Grande.
Previous records: Grand (Denning, 1947a).
New records: none.
Drainages: Colorado.
Habitat: rivers.
Altitudinal range: 2423 m.
Adult collection dates: 27 September.
Commentary: Denning (1947a) also reported this species from Wyoming near the Colorado border.

Previous records: Boulder (Denning, 1947a).
Drainages: Arkansas, Colorado, Gunnison, San Juan, South Platte, White, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1369 to 2579 m.
Adult collection dates: 18 June to 18 October.
Commentary: This common species is often collected with O. logana.

Previous records: Chaffee (Flint and Herrmann, 1976).
New records: none.
Drainages: Arkansas.
Habitat: spring.
Altitudinal range: 2749 m.
Adult collection dates: 18 April to 20 July.
Commentary: This species is known only from the type locality.

Previous records: Chaffee (Ross, 1947).
New records: none.
Drainages: Arkansas.
Habitat: lake.
Altitudinal range: 2807 m.
Adult collection dates: 5 August.
Commentary: Herbert H. Ross probably collected this site only once, according to his son, C. A. Ross (1984). Attempts to collect more specimens of this species at Yale Lake were not successful.
Previous records: Chaffee (Flint and Herrmann, 1976).
New records: Boulder, Garfield, Pueblo.
Drainages: Arkansas, Colorado, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1445 to 3098 m.
Adult collection dates: 1 July to 4 October.
Commentary: Ross (1944) reported this species to be widely distributed over the continent, but not often collected.

*Stactobiella brustia (Ross) 1938. T. L. Wyoming, Parco.
Drainages: Colorado, San Juan, South Platte.
Habitat: rivers, streams.
Altitudinal range: 1519 to 2579 m.
Adult collection dates: 25 July to 10 September.
Commentary: Ross (1938b) and Denning (1947a) reported this species from the North Platte River in Wyoming. The same river in Colorado has not yielded this species.

Stactobiella delira (Ross) 1938. T. L. Wisconsin, Spooner.
Previous records: Grand (Swegman and Ferrington, 1980), Jackson (Denning, 1947a), Larimer (Denning, 1947a).
New records: none.
Drainages: Colorado, North Platte, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2285 to 2590 m.
Adult collection dates: 26 July to 2 August.
Commentary: Denning (1947a) reported this species from Wyoming.

**Lepidostomatidae**

Lepidostoma cascadense (Milne) 1936. T. L. British Columbia, Cultus Lake.
Previous records: Chaffee (Ross, 1946), El Paso (Ross, 1946), Larimer (Ross, 1946).
New records: Boulder, Custer, Gunnison, Jackson, Saguache, San Juan, Teller.
Drainages: Animas, Arkansas, Gunnison, North Platte, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2408 to 3124 m.
Adult collection dates: 4 July to 21 August.
Commentary: As its species name indicates, this species inhabits rapid, cascading streams and rivers.

New records: Garfield.
Drainages: Colorado.
Habitat: springs.
Altitudinal range: 2743 m.
Adult collection dates: 25 August.

Lepidostoma knowltoni Ross 1938. T. L. Utah, Clinton.
Previous records: Montezuma (Ross, 1946), Routt (Canton and Ward, 1981c).
New records: Conejos, Grand, Gunnison, Montrose, Park.
Drainages: Colorado, Conejos, Dolores, Gunnison, San Juan, South Platte.
Habitat: rivers.
Altitudinal range: 1814 to 2707 m.
Adult collection dates: 8 July to 30 August.
Commentary: Colorado sites closely match Anderson's (1976) site description for Oregon—fast, silty stream flowing over rocks, gravel and stones.

New records: Boulder, Clear Creek, Custer, Gilpin, Huerfano.
Drainages: Arkansas, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2316 to 3024 m.
Adult collection dates: 3 July to 18 August.
Commentary: This species is seldom collected in great numbers.
  Previous records: Routt (Canton and Ward, 1981a and c).
  New records: Archuleta.
  Drainages: San Juan, Yampa.
  Habitat: rivers.
  Altitudinal range: 2006 to 2260 m.
  Adult collection dates: 14 July to 9 September.
  Commentary: In Colorado this species has been collected only west of the continental divide.
  The specimens for both county records were identified by D. G. Denning; those from Archuleta County are located at Brigham Young University (R. W. Baumann), those from Routt County could not be located.

  Previous records: Jackson (Denning, 1948a and 1949).
  New records: Conejos, Eagle, Garfield, Grand, La Plata, Larimer, Pitkin.
  Habitat: streams, rivers.
  Altitudinal range: 1615 to 2395 m.
  Adult collection dates: 14 July to 17 August.
  Commentary: This species appears confined to the foothills zone in Colorado.

Lepadostoma pluviale (Milne) 1936. T. L. Colorado, Creede.
  Previous records: Chaffee (Flint and Herrmann, 1976), Grand (Ross, 1946), Larimer (Ross, 1946, Short et al., 1980), Mineral (Milne, 1936).
  Drainages: Arkansas, Colorado, Rio Grande, South Platte.
  Habitat: streams, rivers.
  Altitudinal range: 2057 to 2749 m.
  Adult collection dates: 27 June to 10 August.
  Commentary: This species was reported from the western montane region (Colorado, Montana, Wyoming, and Utah) and Oregon (Anderson, 1976).

Lepadostoma roafi (Milne) 1936. T. L. Colorado, Sheephorn.
  Previous records: Boulder (Ross, 1946), Chaffee (Ross, 1946), Eagle (Milne, 1936), El Paso (Ross, 1946), Grand (Milne, 1936), Larimer (Ross, 1946).
  New records: Garfield, Gunnison, Jackson, Las Animas, Saguache.
  Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
  Habitat: streams, rivers.
  Altitudinal range: 1926 to 3109 m.
  Adult collection dates: 19 July to 26 August.
  Commentary: This species has a great altitudinal range.

  Previous records: Jackson (Ross, 1946).
  New records: none.
  Drainages: North Platte.
  Habitat: streams, rivers.
  Altitudinal range: 2716 m.
  Adult collection dates: data not available.
  Commentary: Ross (1946) reported this species from Gould but gave no collection date.
  Denning (1954) considered this species transcontinental and well distributed throughout the West.

Lepidostoma unicolor (Banks) 1911. T. L. California, San Gabriel Mountains.
  Previous records: Chaffee (Ross, 1946), El Paso (Ross, 1946), Larimer (Ross, 1946).
  New records: Boulder, Custer, Garfield, Jefferson, La Plata, Saguache.
  Drainages: Animas, Arkansas, Colorado, South Platte.
  Habitat: streams, rivers.
  Altitudinal range: 1878 to 2536 m.
  Adult collection dates: 21 May to 5 September.
  Commentary: This species is widespread in the foothills and montane zones of Colorado.

Drainages: Arkansas, Gunnison, Rio Grande, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1700 to 2835 m.
Adult collection dates: 24 June to 19 August.
Commentary: From Ward's (1981) altitudinal data on Middle St. Vrain Creek, Boulder County, the lower limit for this species was adjusted downward to 1700 m.

LEPTOCERIDAE

Previous records: Grand (Ross, 1944).
New records: Garfield.
Drainages: Colorado.
Habitat: rivers.
Altitudinal range: 2420 m.
Adult collection dates: 24 July.
Commentary: Ross (1944) cited this species as being holarctic.

New records: Grand, Park.
Drainages: Colorado, South Platte.
Habitat: rivers.
Altitudinal range: 2420 to 2649 m.
Adult collection dates: 17 June to 10 July.
Commentary: Roemhild (1982) recorded this species in Montana as being rare.

New records: Larimer.
Drainages: South Platte.
Habitat: river.
Altitudinal range: 1890 m.
Adult collection dates: 20 July.
Commentary: Only one collection site, the Big Thompson Canyon near Drake, was found for this species in Colorado.

Previous records: Gilpin (Dodds and Hisaw, 1925b).
New records: none.
Drainages: South Platte.
Habitat: data not available.
Altitudinal range: 2591 to 2896 m.
Adult collection dates: data not available.
Commentary: The altitudinal range was derived from Fig. 3 of Dodds and Hisaw (1925b).

Previous records: Gilpin (Dodds and Hisaw, 1925b), Larimer (Yamamoto and Wiggins, 1964).
New records: Boulder, Jackson.
Drainages: North Platte, South Platte.
Habitat: lakes.
Altitudinal range: 1646 to 3097 m.
Adult collection dates: 3 July to 27 July.
Commentary: *Molanna flavicornis* is frequently collected with this species. Yamamoto and Ross (1966) stated all previous North American records cited under the name *M. longicornis* (Linnaeus) 1758 should be considered *interjecta*.

New records: Jackson.
Drainages: North Platte, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1544 to 2438 m.
Adult collection dates: data not available.
Commentary: Roemhild (1982) reported this species as common in Montana and inhabiting warm streams and rivers.
**Nectopsyche gracilis** (Banks) 1901. T. L. Mexico, Cuernavaca.

New records: none.
Drainages: South Platte.
Habitat: stream.
Altitudinal range: 1544 m.
Adult collection dates: data not available.
Commentary: Ward's (1981) record of this species from Middle St. Vrain Creek is outside the expected distribution described by Haddock (1977).

**Nectopsyche lahontanensis** Haddock 1977. T. L. Utah, Sevier River.

New records: Crowley, Garfield, Jackson, Larimer, Logan, Sedgwick, Yuma.
Drainages: Arkansas, Colorado, North Platte, Republican, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1053 to 2384 m.
Adult collection dates: 23 April to 19 August.
Commentary: Our data extend eastward the published range (Haddock, 1977) of this species.

**Nectopsyche stigmatica** (Banks) 1914. T. L. New Mexico, Jemez Mountains.

New records: Jackson, Larimer, Moffat.
Drainages: North Platte, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1544 to 2438 m.
Adult collection dates: 20 March to 28 August.
Commentary: The distribution pattern for *N. stigmatica* remains much the same as described by Haddock (1977).

**Oecetis arizonica** Denning 1951. T. L. Arizona, Huachuca.

New records: Archuleta, La Plata.
Drainages: San Juan.
Habitat: rivers.
Altitudinal range: 2006 m.
Adult collection dates: 28 July.
Commentary: This species was previously reported only from central and southern Arizona (Denning, 1951).

**Oecetis avara** (Banks) 1895. T. L. Quebec, Sherbrooke.

Drainages: Colorado, Gunnison, North Platte, San Juan, South Platte, Yampa.
Habitat: streams, rivers, lakes.
Altitudinal range: 1494 to 2454 m.
Adult collection dates: 3 July to 21 August.
Commentary: The incorrect identification of *Oecetis disjuncta* as *O. avara* is easily avoided by the use of Smith and Lehmkuhl (1980).

**Oecetis disjuncta** (Banks) 1920. T. L. California, San Gabriel Mountains.

Drainages: Arkansas, Colorado, Conejos, San Juan, South Platte.
Habitat: streams, rivers, lakes.
Altitudinal range: 1320 to 2720 m.
Adult collection dates: 20 June to 1 September.
Commentary: Our data indicate that *O. disjuncta* at altitudes almost 305 m higher and 183 m lower than *O. avara*.

**Oecetis inconspicua** (Walker) 1852. T. L. Georgia.

Previous records: Weld (Herrmann, 1977).
Drainages: Arkansas, Colorado, Gunnison, Republican, San Juan, South Platte.
Habitat: streams, rivers, lakes, seeps.
Altitudinal range: 1295 to 2896 m.
Adult collection dates: 10 June to 1 September.
Commentary: This species is common in the arid regions of Colorado.

New records: Denver, Larimer.
Drainages: South Platte.
Habitat: data not available.
Altitudinal range: 1615 to 1656 m.
Adult collection dates: 27 July to 20 August.
Commentary: Our records of *O. ochracea* are from highly populated Denver and Fort Collins. No aquatic habitat was apparent at the collection sites. Roemhild (1982) reported this species to inhabit warm-water lakes in Montana.

_Triaenodes frontalis_ Banks 1907. T. L. Colorado, Fort Collins.
Previous records: Larimer (Banks, 1907a).
New records: Garfield, Montezuma, Park.
Drainages: Colorado, San Juan, South Platte.
Habitat: streams, rivers, lakes.
Altitudinal range: 1615 to 2050 m.
Adult collection dates: 15 July to 15 August.

Previous records: Boulder (Dodd and Hisaw, 1925b), Denver (Banks, 1899).
New records: Garfield, Gunnison, Huerfano, Lake, Larimer, Park.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams, rivers, ponds, lakes.
Altitudinal range: 1615 to 2920 m.
Adult collection dates: 23 June to 11 September.
Commentary: The altitudinal distribution of this species includes the foothills and montane zones.

Drainages: Arkansas, Republican, South Platte.
Habitat: streams, rivers, lakes.
Altitudinal range: 1435 to 1911 m.
Adult collection dates: 11 July to 1 September.
Commentary: This species has the narrowest altitudinal range of the three species of _Triaenodes_ reported for Colorado, and unlike the previous two, occurs only on the east side of the continental divide.

**LIMNEPHILIDAE**

Previous records: Chaffee (Ross, 1950b), Gilpin (Ross, 1950b).
New records: Clear Creek, Custer, Gunnison, Park, Pitkin.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams.
Altitudinal range: 2713 to 3616 m.
Adult collection dates: 19 June to 5 August.
Commentary: Until recently, this species was placed in the genus _Imania_ (Schmid, 1980). This genus and species appears restricted to cold rapid streams of the montane and alpine zones of Colorado.

_Alimonyia triplungata_ (Banks) 1900. T. L. Alaska, Yakutat.
Previous records: Boulder (Ward, 1981), Gilpin (Dodd and Hisaw, 1925b).
New records: Chaffee.
Drainages: Arkansas, South Platte.
Habitat: streams.
Altitudinal range: 3194 to 3352 m.
Adult collection dates: 7 July.
Commentary: The upper limit in the altitudinal range was derived from Fig. 3 of Dodd and Hisaw (1925b).

* _Amphicorosmoecus canax_ (Ross) 1947. T. L. Utah, Logan Canyon.
New records: Chaffee, Fremont, Garfield, Jefferson, Lake, Ouray.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1765 to 2911 m.
Adult collection dates: 11 January to 11 October.
Commentary: Usually adults appear in September and October in Colorado.

Anabolia bimaculata (Walker) 1852. T. L. Canada, Albany River.
Previous records: Gilpin (Dodds and Hisaw, 1925b), Grand (Swegman and Ferrington, 1980), Routt (Canton and Ward, 1981c).
Drainages: Arkansas, Colorado, Conejos, Gunnison, North Platte, Rio Grande, San Juan, South Platte.
Habitat: streams, rivers, lakes.
Altitudinal range: 1615 to 3200 m.
Adult collection dates: 17 July to 15 October.
Commentary: This limnephilid is common in the foothills and montane zones of Colorado.

New records: Elbert.
Drainages: South Platte.
Habitat: stream.
Altitudinal range: 2045 m.
Adult collection dates: 17 July.
Commentary: In Colorado this species is known only from Kiowa Creek at Elbert.

Apatania zonella (Zetterstedt) 1840. T. L. Lapland.
New records: Custer, Huerfano.
Drainages: Arkansas.
Habitat: lakes.
Altitudinal range: 3761 to 3844 m.
Adult collection dates: 31 July to 3 August.
Commentary: Apatania zonella is rare and only found in the highest of alpine lentic habitats in Colorado.

Asynarchus nigriculus (Banks) 1908. T. L. Colorado, Clear Creek.
Previous records: Clear Creek (Banks, 1908), Gilpin (Dodds and Hisaw 1925b), Teller (Banks, 1908).
New records: Boulder, Custer, Delta, Eagle, Gunnison, Jackson, Lake, Larimer, Pitkin, Saguache, Summit.
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
Habitat: lakes.
Altitudinal range: 2621 to 3687 m.
Adult collection dates: 3 July to 3 September.
Commentary: This species is common from the middle montane into the alpine zone of Colorado.

Chryanda centralis (Banks) 1900. T. L. Colorado, South Park.
Previous records: Boulder (Dodds and Hisaw, 1925b), Clear Creek (Banks, 1900), Gilpin (Dodds and Hisaw, 1925b), Park (Banks, 1900).
New records: Garfield, Gunnison, Huerfano, Summit.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams.
Altitudinal range: 2743 to 3658 m.
Adult collection dates: 18 June to 26 August.
Commentary: In Colorado this species appears to occur only in the montane and alpine zones.

Clisitornia maculata (Banks) 1904. T. L. New Mexico, Pecos.
New records: Elbert.
Drainages: South Platte.
Habitat: stream.
Altitudinal range: 2045 m.
Adult collection dates: 1 May to 17 July.
Commentary: This species is known in Colorado only from Kiowa Creek at Elbert. Ross (1958a) synonymized C. formosa (Banks) 1900 with this species. We have followed that conclusion.
Dicosmoecus atripes (Hagen) 1875. T. L. Colorado, mountains.
Previous records: Lake (Hagen, 1877; Banks, 1943), Park (Banks, 1943), Routt (Canton and Ward, 1981c).
Habitat: streams, rivers, lakes.
Altitudinal range: 1640 to 3688 m.
Adult collection dates: 18 July to 7 September.
Commentary: Wiggins and Richardson (1982) summarized the taxonomy, anatomy, and biology of this species and others in the genus *Dicosmoecus*. *Dicosmoecus jucundus* Banks 1943 was synonymized with this species by Flint (1966).

Dicosmoecus gilvipes (Hagen) 1875. T. L. British Columbia, Quesnel Lake.
Previous records: Gilpin (Dodds and Hisaw, 1925b).
New records: none.
Drainages: South Platte.
Habitat: stream.
Altitudinal range: 2743 m.
Adult collection dates: data not available.
Commentary: The altitudinal value was derived from Fig. 3 of Dodds and Hisaw (1925b).

Ecclisomya conspersa (Banks) 1907. T. L. Washington, Olympia.
Previous records: Gunnison (Allan, 1975).
New records: Clear Creek, Custer, Larimer, Park, San Juan, Teller.
Drainages: Animas, Arkansas, South Platte.
Habitat: streams.
Altitudinal range: 2971 to 3667 m.
Adult collection dates: 28 May to 17 July.
Commentary: Roemhild (1982) found this species abundant in Montana. It is uncommon in Colorado.

Previous records: Boulder (Ross, 1938a and 1950b; Mecom, 1970, 1972a and b; Ward, 1981), Gilpin (Dodds and Hisaw, 1925b), Summit (Ross, 1938a and 1950b).
New records: Garfield, Grand, Gunnison, Larimer.
Drainages: Colorado, Gunnison, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2558 to 3377 m.
Adult collection dates: 12 July to 6 September.
Commentary: Roemhild (1982) reported *E. maculosa* only from the alpine zone of Montana. In Colorado it was collected from montane and alpine zones.

*Glyphopsyche irrata* (Fabricius) 1781. T. L. Unknown.
New records: Boulder, Larimer, Pitkin.
Drainages: Colorado, South Platte.
Habitat: streams.
Altitudinal range: 2999 m.
Adult collection dates: 9 April to 29 September.
Commentary: This species was rarely reported in Colorado.

Previous records: Gunnison (Flint, 1960), Larimer (Denning, 1941).
New records: Elbert, Garfield, Pitkin.
Drainages: Colorado, Gunnison, South Platte, White.
Habitat: ponds, lakes.
Altitudinal range: 1935 to 3085 m.
Adult collection dates: 11 August.
Commentary: This species was reported only from Colorado. There was probably a typographical error in the type description, with Cameron Pass being the type locality.

Hesperophylax consimilis (Banks) 1900. T. L. Colorado, South Park.
Previous records: Park (Banks, 1900), Rio Blanco (Gray and Ward, 1977), Routt (Canton and Ward, 1981c).
New records: Eagle, Garfield, Grand, Gunnison, La Plata, Pitkin.
Habitat: streams, rivers.
Altitudinal range: 1615 to 2743 m.
Adult collection dates: 13 February to 10 September.
Commentary: We appreciate the assistance of Charles R. Parker for providing information allowing the identification of much of our *Hesperophylax* material. A systematic revision of this genus is forthcoming (Parker and Wiggins, In Press).

Previous records: Gilpin (Dodds and Hisaw, 1925a and b), Larimer (Ward and Dufford, 1979), Pueblo (Banks, 1904).
Drainages: Arkansas, South Platte, White.
Habitat: streams, rivers, springs.
Altitudinal range: 1768 to 2432 m.
Adult collection dates: 24 May to 9 September.
Commentary: Ross (1938c) recognized this species as being similar to *Hesperophylax occidentalis* (Banks) 1908, but not a synonym. Parker and Wiggins (In press) consider *Hesperophylax incisus* (Banks) 1943 a junior synonym of *H. designatus*.

*Hesperophylax magnus* Banks 1918. T. L. Arizona, Palmerlee.
Previous records: Park (Banks, 1918).
New records: El Paso, Larimer, Pueblo.
Drainages: Arkansas, South Platte.
Habitat: streams, rivers, springs.
Altitudinal range: 1826 to 1963 m.
Adult collection dates: 20 August to 11 October.
Commentary: This species appears confined to the lower foothills zone of eastern Colorado.

Previous records: Gilpin (Dodds and Hisaw, 1925b), Rio Blanco (Martinson and Ward, 1982), Routt (Canton and Ward, 1981c), Teller (Banks, 1908).
Habitat: streams, rivers, springs, lakes.
Altitudinal range: 1756 to 3667 m.
Adult collection dates: 2 April to 19 August.
Commentary: Martinson and Ward (1982) described portions of the life history of this species from three springs in northwestern Colorado. *Hesperophylax occidentalis* occurs from the lower foothills to alpine; in alpine lakes it shows brachyptery, reduced body size, and darker body pigmentation.

Previous records: Boulder (Denning, 1964a), Park (Banks, 1900).
New records: Custer, Garfield, Gunnison.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams.
Altitudinal range: 2743 to 3616 m.
Adult collection dates: 6 July to 24 August.
Commentary: Roemhild (1982) reported this species to be rare in cold, alpine streams of Montana.

Previous records: Gilpin (Dodds and Hisaw, 1925b).
New records: Larimer.
Drainages: South Platte.
Habitat: ponds, lakes.
Altitudinal range: 3036 m.
Adult collection dates: 27 July.
Commentary: In Montana Roemhild (1982) found this species only in the alpine and rarely so.

New records: Grand, Jackson.
Drainages: Colorado, North Platte.
Habitat: lakes, ponds.
Altitudinal range: 2873 m.
Adult collection dates: 9 August.
Commentary: Baumann and Unzicker (1981) reported this species from Utah.


Previous records: Gilpin (Dodds and Hisaw, 1925b), Grand (Banks, 1908).
New records: Boulder, Chaffee, El Paso, Gunnison, Jackson, Lake, Larimer, Mesa, Park, Summit, Teller.
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
Habitat: ponds, lakes, streams, seeps.
Altitudinal range: 1911 to 3356 m.
Adult collection dates: 11 July to 10 September.
Commentary: Ross and Merkley (1952) reported this limnephilid as occurring only in Colorado and Wyoming.

**Limnephilus castor** Ross and Merkley 1952. T. L. Utah, 5½ miles east of Beaver.

New records: Custer, Garfield, Gunnison, La Plata.
Drainages: Animas, Arkansas, Colorado, Gunnison.
Habitat: ponds, lakes.
Altitudinal range: 1990 to 3048 m.
Adult collection dates: 4 to 25 August.
Commentary: This species has been reported only from Colorado and Utah.


Previous records: Gilpin (Dodds and Hisaw, 1925b), Larimer (Banks, 1899).
New records: Boulder, Gunnison, Jackson, Park, Rio Blanco, Summit, Teller.
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
Habitat: lakes, seeps.
Altitudinal range: 2743 to 3658 m.
Adult collection dates: 10 July to 10 September.
Commentary: Banks reported the type locality as Fort Collins, Colorado. The altitude of Fort Collins (1519 m) is inconsistent with that of our lowest collection site (2743 m). Therefore, we doubt the validity of Fort Collins being the type locality for this species.

*Limnephilus dispar* McLachlan 1875. T. L. Finland.

Previous records: unspecific locality (Nimmo, 1971).
New records: Boulder, Teller.
Drainages: Arkansas, South Platte.
Habitat: lakes, ponds.
Altitudinal range: 3094 to 3319 m.
Adult collection dates: 7 July to 25 August.
Commentary: Recently Malicky (1979) synonymized *Limnephilus minusculus* (Banks) 1907 under *L. dispar*. We have specimens from only two Colorado sites—Red Rock Lake and Pikes Peak Seven Lakes.


Previous records: unspecific locality (Banks, 1903 and 1907b).
Drainages: Arkansas, South Platte.
Habitat: streams, lakes, springs.
Altitudinal range: 1434 to 1737 m.
Adult collection dates: 2 May to 21 September.
Commentary: This species is most often collected in May and June, and is apparently restricted to the plains and lower foothills of eastern Colorado.

*Limnephilus externus* (Hagen) 1861. T. L. Canada, North Red River.

Previous records: Gilpin (Dodds and Hisaw, 1925b), Grand (Banks, 1907a), Park (Banks, 1907a; Kendall et al., 1981), Routt (Canton and Ward, 1981c).
New records: Boulder, Delta, Eagle, Garfield, Gunnison, Jackson, Jefferson, Larimer, Mesa, Teller.
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
Habitat: ponds, lakes, rivers, streams.
Altitudinal range: 2036 to 3356 m.
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Adult collection dates: 13 February to 9 October.
Commentary: This species is commonly collected from the lower foothills to the alpine zone.

**Limnephilus frijole** Ross 1944. T. L. Texas, Frijole.
Previous records: Larimer (Ward and Dufford, 1979).
New records: Chaffee, Pueblo, Weld.
Drainages: Arkansas, South Platte.
Habitat: springs, streams, rivers.
Altitudinal range: 1477 to 1512 m.
Adult collection dates: 23 April to 17 June.
Commentary: This limnephilid seems restricted to the eastern plains of Colorado.

**Limnephilus hageni** Banks 1930. T. L. Northwest Territories, Fort Resolution.
Previous records: Grand (Swegman and Ferrington, 1980).
New records: none.
Drainages: Colorado.
Habitat: ponds.
Altitudinal range: 2590 m.
Adult collection dates: 2 August.
Commentary: Two males from Winding River Campground near the west entrance of Rocky Mountain National Park constitute the only record for Colorado.

**Limnephilus hyalinus** Hagen 1861. T. L. Canada, North Red River.
Previous records: indeterminable locality (Banks, 1943).
New records: Gunnison, Larimer, Moffat, Teller.
Drainages: Gunnison, South Platte, White.
Habitat: lakes, ponds.
Altitudinal range: 1828 to 2736 m.
Adult collection dates: 12 July to 2 September.
Commentary: Banks' Colorado record is from Great Lake; we are unable to locate this lake.

Previous records: Gilpin (Dodds and Hisaw, 1925b; Ross, 1938a) Grand (Swegman and Ferrington, 1980).
New records: Boulder, Larimer.
Drainages: Colorado, South Platte.
Habitat: ponds, lakes.
Altitudinal range: 2420 to 3097 m.
Adult collection dates: 24 July to 15 August.

Previous records: Boulder (Ross, 1941), Gilpin (Ross, 1941).
New records: Douglas, Elbert, Fremont.
Drainages: Arkansas, South Platte.
Habitat: streams, rivers, springs.
Altitudinal range: 1911 to 2896 m.
Adult collection dates: 1 May to 26 July.
Commentary: Nimmo (1971) stated the range of this species was from Alberta and Saskatchewan south to Colorado. In Alberta it was found only in the southern and central plains and foothills.

Previous records: Boulder (Milne, 1935); indeterminable locality (Milne 1935).
New records: Larimer, Park, Pueblo.
Drainages: Arkansas, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1487 to 2707 m.
Adult collection dates: 12 April to 3 October.
Commentary: We were unable to locate Milne's collection site of Regnier, Colorado.

**Limnephilus moestus** Banks 1908. T. L. Newfoundland, Grand Lake.
Previous records: unspecified locality (Ross, 1944).
New records: Boulder, El Paso, Gunnison, Larimer, San Juan, Teller.
Drainages: Animas, Arkansas, Gunnison, South Platte.
Habitat: ponds, lakes.
Altitudinal range: 2438 to 3358 m.
Adult collection dates: 4 July to 25 August.
Commentary: In Alberta, Nimmo (1971) collected this species primarily in the mountains.

**Limnephilus perpusillus** Walker 1852. T. L. Canada, Hudson’s Bay.
Previous records: unspecified locality (Ross and Merkley, 1952).
New records: Boulder, Chaffee, El Paso, Summit, Teller.
Drainages: Arkansas, Colorado, South Platte.
Habitat: streams, lakes, springs.
Altitudinal range: 2438 to 3319 m.
Adult collection dates: 30 June to 25 August.
Commentary: Nimmo (1971) reported this limnephilid primarily from ponds or small creeks with abundant sedge or bulrushes in the plains and low foothills of Alberta. In Colorado it was collected in comparable habitats from the upper foothills to lower alpine.

**Limnephilus picturatus** MacLachlan 1875. T. L. Sweden.
Previous records: Boulder, (Dodds and Hisaw, 1925b), Gilpin (Dodds and Hisaw, 1925b), unspecified locality (Banks 1924).
New records: Chaffee, Grand, Gunnison, Jackson, Larimer, Teller.
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
Habitat: ponds, lakes.
Altitudinal range: 2438 to 3658 m.
Adult collection dates: 24 July to 6 September.
Commentary: Ross and Merkley (1952) synonymized the following: *L. exulans* McLachlan 1876, *L. clausus* Banks 1924, and *L. kincaidi* Banks 1900. Banks (1924) described *L. clausa* from Long Lake; however, there are several Long Lakes in Colorado, and we do not know which one is correct. This species is abundant in montane and alpine ponds with highly colored brown water. Dodds and Hisaw (1925b) cited an altitudinal range of 1828 m to 3353 m for *L. clausa*.

New records: Garfield, Gunnison, Lincoln.
Drainages: Arkansas, Colorado, Gunnison.
Habitat: streams.
Altitudinal range: 1597 to 2896 m.
Adult collection dates: 3 August to 16 August.
Commentary: Anderson (1976) reported this species from Utah, California and Oregon; Roemhild (1982) cited it for Montana. Flint (1966) found the lectotype of *L. concolor* Banks 1899 to be an unassociated female without an abdomen. He stated this species might be *L. assimilis* (Banks) 1908, *L. productus*, or *L. diversus*. Caudell’s (1902) specimens from Pikes Peak were identified as *L. concolor* by Banks. From our altitudinal data it appears as if *L. concolor* (Banks) is *L. productus* Banks.

**Limnephilus rohweri** Banks 1908. T. L. Colorado, Florissant.
Previous records: Teller (Banks, 1908).
New records: Chaffee, Eagle, Gunnison, Jackson, Lake, Park.
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte.
Habitat: streams, springs, lakes.
Altitudinal range: 2490 to 3177 m.
Adult collection dates: 10 June to 20 August.
Commentary: This species appears to be restricted to the montane zone of Colorado.

**Limnephilus secludens** Banks 1914. T. L. British Columbia, Penticion.
Previous records: Grand (Swegman and Ferrington, 1980), unspecified locality (Nimmo, 1971).
New records: Jackson, Larimer.
Drainages: North Platte, South Platte.
Habitat: data not available.
Altitudinal range: 2286 to 2713 m.
Adult collection dates: 25 July to 28 August.
Commentary: Nimmo (1971) found this species in Alberta near lakes and sloughs with luxuriant growth of sedges and cattails; he collected it primarily on the plains but occasionally the foothills.

**Limnephilus spinatus** Banks 1914. T. L. Utah, Vineyard.
Previous records: unspecified locality (Ross and Merkley, 1952).
New records: Chaffee, Gunnison, Park.
Drainages: Arkansas, Gunnison, South Platte.
Habitat: streams, rivers, springs.
Altitudinal range: 2511 to 2859 m.
Adult collection dates: 8 July to 1 September.
Commentary: Our collections were not from lakes or ponds as reported by Nimmo (1971) and Roembild (1982).

*Limnephilus sublunatus* Provancher 1877. T. L. Canada, Quebec.
Previous records: unspecified locality (Ross and Merkley, 1952).
New records: Eagle, Grand, Gunnison, Jackson, Larimer.
Drainages: Colorado, Gunnison, North Platte, South Platte.
Habitat: lakes.
Altitudinal range: 2550 to 2896 m.
Adult collection dates: 12 June to 28 August.
Commentary: Nimmo (1971) reported this species inhabiting pools, sloughs, and lakes fringed with horse-tails or sedges.

Previous records: Weld (Herrmann, 1977; Kumar et al. 1976)
Drainages: Arkansas, Colorado, Republican, South Platte, White.
Habitat: streams, springs, ponds, lakes.
Altitudinal range: 1091 to 2164 m.
Adult collection dates: 28 March to 3 October.
Commentary: This caddisfly inhabits some of the more arid regions of Colorado.

Previous records: Boulder (Banks, 1920), Gilpin (Dodds and Hisaw, 1925b).
New records: none.
Drainages: South Platte.
Habitat: data not available.
Altitudinal range: 2743 to 3353 m.
Adult collection dates: data not available.
Commentary: The altitudinal range of this species is derived from Fig. 3 of Dodds and Hisaw (1925b).

*Limnephilus thorus* Ross 1938. T. L. Utah, Blue Creek.
New records: Larimer.
Drainages: South Platte.
Habitat: data not available.
Altitudinal range: data not available.
Adult collection dates: 23 August.
Commentary: This species was reported only from Utah (Ross, 1938c; Ross and Merkley, 1952; Baumann and Unzicker, 1981). The only Colorado record is that of a male and a female from Rocky Mountain National Park. Identification was made by G. A. Schuster, Snow Museum, University of Kansas.

Previous records: Gilpin (Dodds and Hisaw, 1925b).
New records: Boulder, Gunnison, Larimer.
Drainages: Gunnison, South Platte.
Habitat: lakes.
Altitudinal range: 2475 to 3112 m.
Adult collection dates: 2 June to 29 September.
Commentary: In Colorado this species commonly occurs in semidrainage lakes described by Pennak (1969).

New records: Garfield.
Drainages: Colorado, White.
Habitat: streams.
Altitudinal range: 1920 m.
Adult collection dates: 23 April to 19 September.

Previous records: Clear Creek (Ross, 1941), Lake (Ross, 1949).
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New records: Grand, Routt, Summit.

Drainages: Arkansas, Colorado, Yampa.

Habitat: streams.

Altitudinal range: 3048 to 3658 m.

Adult collection dates: 19 June to 6 August.

Commentary: Ross (1941) reported this species occurring in a swift montane creek.

Oligophlebodes minula (Banks) 1897. T. L. Colorado.

Previous records: Boulder (Ross, 1949), Clear Creek (Ross, 1949), El Paso (Ross, 1949), Gilpin (Dodd and Hisaw, 1925b), Grand (Ross, 1949), Lake (Ross, 1949), Larimer (Ross, 1949), Teller (Ross, 1949).


Drainages: Animas, Arkansas, Colorado, Gunnison, San Juan, South Platte, Yampa.

Habitat: streams, rivers.

Altitudinal range: 2012 to 3094 m.

Adult collection dates: 8 June to 2 September.

Commentary: Clear, high gradient streams characterize the usual habitat of this common species in Colorado.

Oligophlebodes sierra Ross 1944. T. L. California, Yosemite National Park.

Previous records: unspecified locality (Nimmo, 1971).

New records: Eagle, Pitkin.

Drainages: Colorado.

Habitat: streams.

Altitudinal range: 2853 m.

Adult collection dates: 26 July.

Commentary: Aside from Nimmo's record, only three specimens from two Colorado localities were recorded.

*Oligophlebodes sigma Milne 1935. T. L. Utah, Parowan Canon.

New records: Custer, Garfield.

Drainages: Arkansas, Colorado.

Habitat: streams.

Altitudinal range: 2536 to 2871 m.

Adult collection dates: 7 July to 4 August.

Commentary: This species was collected infrequently in Colorado from clear, turbulent, montane creeks and streams.

Onocosmoecus unicolor (Banks) 1897. T. L. Washington, Snohomish River.

Previous records: Boulder (Banks, 1943), Routt (Canton and Ward, 1981c).


Drainages: Animas, Arkansas, Colorado, Dolores, Gunnison, North Platte, Rio Grande, South Platte, Yampa.

Habitat: streams, rivers.

Altitudinal range: 1768 to 3124 m.

Adult collection dates: 19 July to 6 September.

Commentary: We were not able to distinguish O. unicolor from O. coloradensis (Ulmer) 1905; therefore, we have reported all records as O. unicolor.

Philarchus quaeris (Milne) 1935. T. L. British Columbia, Quesnel Lake.

Previous records: Teller (Milne, 1955).

New records: Gunnison, Jackson, Park.

Drainages: Gunnison, North Platte, South Platte.

Habitat: ponds.

Altitudinal range: 2512 to 3034 m.

Adult collection dates: 8 July to 1 September.

Commentary: Wiggins (1963) found this species abundant in shallow ponds and sloughs on the prairies of Canada. Nimmo (1971) observed P. quaeris similarly in Alberta and eastern British Columbia. We collected this species in Colorado only from the montane zone.

*Psychoglypha ornata (Ross) 1938. T. L. Utah, Southfield.

New records: Larimer, Park.

Drainages: South Platte.
Habitat: streams.
Altitudinal range: 2878 to 3475 m.
Adult collection dates: 9 October.
Commentary: This species was reported from Utah, Oregon, and California (Denning, 1970).

*Psychoglypha subborealis* (Banks) 1924. T. L. Alaska.
Previous records: Park (Kendall et al., 1981).
New records: Custer, Garfield, Gunnison, Larimer, Mesa, Rio Blanco.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams, ponds, lakes.
Altitudinal range: 2896 to 3616 m.
Adult collection dates: 1 May to 9 October.
Commentary: Since adult collections were made from September to May in Alberta, Nimmo (1971) concluded that adults overwinter. We have not collected adults during the winter months. On 2 October 1980 large numbers of adults were observed taking wing under freezing temperatures at 3616 m in the Sangre de Cristo Mountains. The wind was calm, and the sun shown brilliantly. Solar insolation possibly warms the adults sufficiently to permit flight activity.

*Psychoronia costalis* (Banks) 1901. T. L. New Mexico, Las Vegas Range.
Previous records: Teller (Wiggins, 1975 and 1977).
Drainages: Arkansas, Colorado, South Platte.
Habitat: seeps, streams.
Altitudinal range: 2536 to 3627 m.
Adult collection dates: 2 May to 29 September.
Commentary: Females of this species are brachypterous. This limnephilid appears confined to cool to cold montane and alpine seeps and slower reaches and back waters of mountain streams.

*Pycnopsysche subfasciata* (Say) 1824. T. L. Pennsylvania.
New records: Larimer.
Drainages: South Platte.
Habitat: streams.
Altitudinal range: 1524 m.
Adult collection dates: 13 September.
Commentary: We have only one record of one male from Colorado; it was collected at Fort Collins in 1974.

**MOLANNIDAE**
*Pycnonecta flauicornis* Banks 1914. T. L. Manitoba, Husavick.
Previous records: Gilpin (Dodds and Hisaw, 1925b).
New records: Boulder, Garfield, Gunnison, Larimer.
Drainages: Gunnison, South Platte, White.
Habitat: lakes.
Altitudinal range: 2743 to 3112 m.
Adult collection dates: 26 June to 31 July.
Commentary: This species is frequently collected with *Mystacides interjecta*.

**PHILOPOTAMIDAE**
*Chimarra utahensis* Ross 1938. T. L. Utah, Gandy.
New records: Huerfano, Park.
Drainages: Arkansas, South Platte.
Habitat: streams, rivers, springs.
Altitudinal range: 1957 to 3109 m.
Adult collection dates: 2 July to 18 August.
Commentary: Since Fischer (1960-1973) listed this species from Idaho, California, South Dakota, and Wyoming, it has been reported from Oregon (Anderson, 1976), New Mexico (Waltz and McCafferty, 1983), and Montana (Roemhild, 1982). We have a record from a plains/foothills stream and a montane warm spring.

Previous records: Boulder (Ward, 1981), Gilpin (Banks, 1924; Dodds and Hisaw, 1925b).
Drainages: Arkansas, Colorado, Rio Grande, South Platte, White, Yampa.
Habitat: streams.
Altitudinal range: 1875 to 3048 m.
Adult collection dates: 12 March to 3 September.
Commentary: Our records indicate a peak spring emergence for this species similar to what Anderson (1976) reported in Oregon. We have not observed an obvious difference in size and pigmentation for early versus later emerging adults, as did Denning (1949).

Wormaldia gabriella (Banks) 1930. T. L. California, San Gabriel Mountains.
Previous records: Routt (Canton and Ward, 1981a).
New records: Douglas, Garfield, Jackson.
Drainages: Colorado, North Platte, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2103 to 2662 m.
Adult collection dates: 27 April to 20 August.

PHRYGANIIDAE

*Agrypina deflata* (Milne) 1931. T. L. Saskatchewan, Indian Head.
New records: Garfield, Lake, Larimer, Summit, Teller.
Drainages: Arkansas, Colorado, South Platte.
Habitat: ponds, lakes.
Altitudinal range: 2736 to 3181 m.
Adult collection dates: 20 June to 18 August.
Commentary: Adult daytime resting areas were almost exclusively sedges at the water’s edge.

*Agrypina glacialis* Hagen 1873. T. L. Labrador.
New records: Larimer, Park.
Drainages: South Platte.
Habitat: ponds.
Altitudinal range: 2720 to 2743 m.
Adult collection dates: 1 July to 16 July.
Commentary: The larvae and pupae are able to tolerate total dissolved solids levels up to 6000 mg/L.

*Agrypina straminea* Hagen 1873. T. L. Canada, Saskatchewan.
Previous records: unspecified locality (Ross, 1944).
New records: Larimer.
Drainages: South Platte.
Habitat: lake.
Altitudinal range: 2958 m.
Adult collection dates: 26 July and 27 July.
Commentary: We have only collected this species on two dates from Nymph Lake, Rocky Mountain National Park.

Phryganea cinerea Walker 1852. T. L. Canada, Albany River.
Previous records: Routt (Canton, 1982; Canton and Ward, 1979 and 1981b).
New records: Boulder, Larimer, Moffat, Pueblo.
Drainages: Arkansas, South Platte, Yampa.
Habitat: ponds, lakes.
Altitudinal range: 1707 to 3112 m.
Adult collection dates: 7 June to 25 October.
Commentary: Roemhild (1982) and Anderson (1976) reported this species to occur in rivers.

*Ptilostomis semifasciata* (Say) 1828. T. L. Ohio.
New records: El Paso.
Drainages: Arkansas.
Habitat: streams.
Altitudinal range: 2015 m.
Adult collection dates: 27 August.
Commentary: Our only record of this large species is a male from a site 4 mi (6.4 km) southwest of Rock Creek Park near Colorado Springs.

POLYCENTROPODIDAE

*Polycentropus cinereus* Hagen 1861. T. L. Canada, St. Lawrence River.
New records: Boulder, Larimer, Moffat.
Drainages: South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1707 to 3112 m.
Adult collection dates: 7 June to 25 October.

*Polycentropus gertschi* Denning 1949. T. L. Arizona, Oak Creek Canyon.
New records: Conejos.
Drainages: Rio Grande.
Habitat: river.
Altitudinal range: 2475 m.
Adult collection dates: 30 July to 17 August.
Commentary: This species was collected twice from the Conejos River in the lower San Luis Valley in 1981.

New records: Delta.
Drainages: Gunnison.
Habitat: river.
Altitudinal range: 1515 m
Adult collection dates: 18 August.
Commentary: Our only Colorado record is of two males collected from the Gunnison River near Delta in 1981.

Previous records: Jefferson (Banks, 1914).
New records: none.
Drainages: South Platte.
Habitat: data not available.
Altitudinal range: data not available.
Adult collection dates: data not available.
Commentary: This species has not been reported for Colorado with the exception of Banks' original listing and Ross (1944). Ross probably repeated Banks' (1914) report in his 1944 listing of five eastern states and Colorado.

*Polycentropus variagatus* Banks 1900. T. L. Washington, Pullman.
New records: El Paso.
Drainages: Arkansas.
Habitat: stream.
Altitudinal range: 1884 m.
Adult collection dates: 1 September.

**Psychomyiidae**

Psychomyia flavida Hagen 1861. T. L. Canada, St. Lawrence River.
Previous records: Boulder (Dodds and Hisaw, 1925b; Ward, 1975), Larimer (Banks, 1899), Mesa (Stanford and Ward, 1981).
Drainages: Arkansas, Colorado, Gunnison, North Platte, South Platte, White, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1444 to 2920 m.
Adult collection dates: 6 June to 16 September.
Commentary: This species is common in most major rivers of Colorado from the upper plains zone to the lower montane. We did not observe the unexpected sex ratio reported by Nimmo (1966) when using ultraviolet light traps.

**Rhyacophilidae**

*Rhyacophila alberta* Banks 1918. T. L. Alberta, Banff.
Previous records: Boulder (Ward, 1981), Gilpin (Dodds and Hisaw, 1925b; Ross, 1950a), Gunnison (Allan, 1975), San Juan (Ross, 1950a).
New records: Clear Creek, Grand, Lake, Larimer, Mineral, San Miguel.
Habitat: streams, rivers.
Altitudinal range: 2536 to 3295 m.
Adult collection dates: 4 August to 9 October.

*Rhyacophila angelita* Banks 1911. T. L. California, Pasadena.
New records: Eagle, Garfield, Gilpin, Grand, Jackson, Jefferson, Lake, Pitkin.
Drainages: Arvisas, Colorado, Gunnison, North Platte, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 1975 to 3036 m.
Adult collection dates: 19 July to 19 October.
Commentary: Smith (1968b) found this species to occur in cold, clear streams in Idaho; this species is found under similar conditions in Colorado.

*Rhyacophila brunnea* Banks 1911. T. L. New Mexico, Beulah.
Previous records: Boulder (Mecom, 1972a and b; Ward, 1981); Dolores (Canton and Chadwick, 1983a), Gilpin (Dodd and Hisaw, 1925b), Grand (Short and Ward, 1980b), Gunnison (Allan, 1975), Larimer (Denning, 1948b; Short et al., 1980; Short and Ward, 1980a), Teller (Short et al., 1978), Weld (Herrmann, 1977; Kumar et al., 1976).
Drainages: Arvisas, Colorado, Gunnison, Rio Grande, South Platte, Yampa.
Habitat: streams, rivers.
Altitudinal range: 2012 to 3261 m.
Adult collection dates: 2 April to 6 September.
Commentary: This rhyacophilid is abundant in Colorado throughout its altitudinal range.

*Rhyacophila coloradensis* Banks 1905. T. L. New Mexico, Las Vegas.
Previous records: Boulder (Banks, 1924; Dodds and Hisaw, 1925b; Ward, 1975 and 1981), Dolores (Canton and Chadwick, 1983a), Douglas (Ward, 1976), Gilpin (Dodds and Hisaw, 1925b), Gunnison (Allan, 1975), Jackson (Denning 1965), Jefferson (Ward, 1976), Larimer (Banks, 1904; Short and Ward, 1980a).
Habitat: streams, rivers.
Altitudinal range: 1658 to 3319 m.
Adult collection dates: 22 March to 20 September.
Commentary: Smith (1968b) reported the immature stages from "...the margins and in the deeper portion of rapids." In Colorado the majority of the pupae overwinter and emerge in the spring. Peck and Smith (1978) cited this rhyacophilid from Arizona, New Mexico, Colorado, Utah, Wyoming, Montana, and Idaho.

Previous records: Larimer (Denning, 1948b).
New records: Clear Creek, Eagle, Gilpin, Grand, Gunnison, Summit.
Drainages: Colorado, Gunnison, South Platte.
Habitat: streams, rivers.
Altitudinal range: 2713 to 3024 m.
Adult collection dates: 18 April to 18 August.
Commentary: To date we know of reports of this species only from Utah (Ross 1944), California (Denning, 1956), and Colorado.

Previous records: Boulder (Dodds and Hisaw, 1925b; Ward, 1981), Gunnison (Allen, 1975), Larimer (Denning, 1948b; Short and Ward, 1980a).
New records: Custer, Grand, Ouray, San Miguel, Summit, Teller.

Drainages: Animas, Arkansas, Colorado, Gunnison, South Platte.

Habitat: streams, rivers.

Altitudinal range: 2804 to 3542 m.

Adult collection dates: 20 July to 8 September.


Previous records: Gilpin (Dodds and Hisaw, 1925b).

New records: none.

Drainages: South Platte.

Habitat: streams.

Altitudinal range: 2743 to 3353 m.

Adult collection dates: data not available.

Commentary: We have not collected this species even though we made repeated visits to South Boulder Creek where Dodds and Hisaw (1925b) made their collections. The data for altitudinal range were derived from Dodds and Hisaw (1925b).


Previous records: Dolores (Canton and Chadwick, 1983a).

New records: none.

Drainages: Dolores.

Habitat: streams.

Altitudinal range: 2688 to 2761 m.

Adult collection dates: data not available.

Commentary: Canton and Chadwick (1983a) reported this species from larval identification. This rhyacophilid was not unexpected in Colorado since it was reported from Utah (Baumann and Unzicker, 1981) and Wyoming (Smith, 1968b).


Previous records: Boulder (Ward, 1981), Larimer (Ross, 1938b; Denning, 1948b).


Drainages: Arkansas, Colorado, Gunnison, South Platte, Yampa.

Habitat: streams, rivers.

Altitudinal range: 2286 to 3194 m.

Adult collection dates: 8 May to 24 August.


Previous records: unspecified locality (Smith, 1968b).

New records: Clear Creek, Garfield, Larimer, Ouray.

Drainages: Colorado, Gunnison, South Platte.

Habitat: streams.

Altitudinal range: 2012 to 2950 m.

Adult collection dates: 13 February to 4 November.

Commentary: This species appears to be limited in distribution to California, Nevada, Utah, and Colorado (Smith, 1968b).


Previous records: Gunnison (Allan, 1975), Lake (Milne, 1936), Pitkin (Denning, 1948b).

New records: Fremont.

Drainages: Arkansas, Colorado, Gunnison.

Habitat: streams, rivers.

Altitudinal range: 2195 m.

Adult collection dates: 13 July.

Commentary: Anderson (1976) reported this species as having a flight period from late March through September in Oregon. Roemhild (1982) found this species rare in alpine streams of Montana.


New records: Summit.

Drainages: Colorado.

Habitat: stream.

Altitudinal range: data not available.

Adult collection dates: 8 August.

Commentary: Anderson (1976) stated *R. vao* was more tolerant of siltier and warmer streams than *R. brunnea* (syn. *R. acropedes*).
Previous records: Boulder (Ward, 1981), Gunnison (Allan, 1975), Larimer (Short and Ward, 1980a), Teller (Short et al., 1978).
New records: Clear Creek, Custer, Eagle, Garfield, Gilpin, Grand, Lake, Pitkin.
Drainages: Arkansas, Colorado, Gunnison, South Platte.
Habitat: streams, rivers.
Altitudinal range: 1707 to 3048 m.
Adult collection dates: 13 July to 19 October.
Commentary: Smith (1968b) reported this species from Colorado but gave no collection data.
He also pointed out that, in Idaho, R. verrula was always found in association with a green alga, Prasiola sp., which it ate.

New records: Pitkin.
Drainages: Colorado.
Habitat: rivers.
Altitudinal range: 2853 m.
Adult collection dates: 26 July.
Commentary: Smith (1968b) found this species to be similar to R. hyalina; he stated it may be a variable form of R. hyalina. This species was reported from Utah (Baumann and Unzicker, 1981).

New records: Eagle, Lake.
Drainages: Arkansas, Colorado.
Habitat: streams.
Altitudinal range: 3121 to 3177 m.
Adult collection dates: 16 to 17 July.
Commentary: Nimmo (1971) recorded the flight season in Alberta to be from 15 July to 31 August.

UENOIDAE
Neothrema alicia Dodds and Hisaw 1925. T. L. Colorado, Tolland.
Previous records: Boulder (Mecom, 1972a and b; Ward, 1981), Gilpin (Dodds and Hisaw, 1925a; Banks, 1930), Gunnison (Allan, 1975), Routt (Canton and Ward, 1978).
New records: Clear Creek, Conejos, Custer, Eagle, El Paso, Garfield, Grand.
Habitat: streams, seeps.
Altitudinal range: 2536 to 3170 m.
Adult collection dates: 24 July to 25 August.
Commentary: The two western Nearctic genera Neothrema and Farula were removed from the family Limnephilidae and assigned to the family Uenoidae (Wiggins et al., In press).

The total number of species of Trichoptera reported from each Colorado county is shown in Fig. 1. The counties in the eastern Great Plains contain the fewest records. No species have been reported for Phillips County or Cheyenne County. The low number of records from eastern Colorado is a result of both low collection effort in this area and lack of permanent surface water throughout much of the region. Those counties with a range in elevation from the plains to the alpine zone appear to have the greatest trichopteran species diversity. Previous valid Colorado records total 123 species; with the addition of 53 new records from our work the total now stands at 176 species in 15 families. Undoubtedly other new records for Colorado will be published in the future. We are particularly interested in seeing specimens and new records from Colorado counties bordering adjoining states.
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