



**Records of Vivid Dancer, *Argia vivida*, Hagen in Selys, 1865
In New Mexico and from the Black Range
in Grant and Sierra Counties**

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Records of Vivid Dancer from the Black Range in Grant and Sierra Counties, New Mexico

Jonathan Batkin

Vivid Dancer, *Argia vivida*, Hagen in Selys, 1865, is one of New Mexico's most poorly documented damselflies. Despite published range maps showing nearly statewide distribution, it has rarely been collected in the southern half of the state or east of the Sangre de Cristo Mountains. *Argia vivida* barely overlaps the range of the confusingly similar Springwater Dancer, *Argia funebris* (Hagen, 1861). In Arizona, Colorado, and New Mexico the two species have seldom been documented in proximity to one another.

A "western" form of *A. funebris*, with males exhibiting varying amounts of violet coloration (see top on the following page), occupies most of the species' range in New Mexico. An "eastern" form (see bottom on the following page), which can vary in tone from sky blue to a bright blue similar to that of *A. vivida*, is predominant in Eddy County, where it has been mistaken for *A. vivida*. The blue form is not dominant in other parts of New Mexico but does occur.

The intertwined histories of description of the two species reflect their similarities. *Argia vivida* was described by Hermann Hagen in 1865 (Hagen in Selys, 1865: 406 - 407). *Agrion funebre*, described by Hagen in 1861 (Hagen, 1862: 92), was redescribed by him as *Argia funebris* in 1865 (Hagen in Selys 1865: 398 - 399). In 1902, Philip P. Calvert, who acknowledged *Argia funebris* as a distinct species, described *Argia vivida* var. *plana* (Calvert, 1902: 96), treating what is popularly known as Springwater Dancer as a subspecies of Vivid Dancer.

In 1958 Leonora Gloyd defined differences between *A. vivida* and *A. vivida* var. *plana* based on examination of caudal appendages of more than 100 specimens – of the former from California and of the latter from Arizona and Texas. She elevated *Argia plana* to species rank and added



Vivid Dancer (*Argia vivida*), Aztec, San Juan County, New Mexico, 7 July 2025.
Photo by the author.

that "all specimens taken in the region between the Mississippi River and Rocky Mountains, some of which have been recorded in the literature by various authors as *vivida*, are actually a blue form of *plana*" (Gloyd 1958: 19-20). Garrison and von Ellenrieder examined specimens on which Hagen and Calvert based their descriptions, plus more than 600 specimens of *A. plana* collected in the U.S. and Mexico, south to Guatemala, by themselves and others. They concluded that *A. plana* was "a junior synonym of *A. funebris*," restoring the latter as the scientific name for Springwater Dancer (2022: 87).

A. vivida is known roughly from southern British Columbia, southern Alberta, Montana, and southern South Dakota south to Baja California, southern Nevada, Arizona, New Mexico, and Nebraska. In Mexico it occurs only in Baja California.

A. funebris is known from Arizona, New Mexico, southeastern Colorado, and the northern plains south through Texas and Mexico to Honduras and El Salvador. It does not occur in Baja California, but there are scattered records further east in the United States.

Prather and Prather (2015: 16,17) reported that in Colorado, *A. vivida* and *A. funebris* were found near each other only on the southeastern plains in El Paso and Pueblo Counties, but in both counties the species were separated by 30 km. *A. vivida* occurs in northern and western Arizona, and

sympatry with *A. funebris* was documented by Bailowitz et al. only on the Bill Williams River on the La Paz/Mohave County line (2015: 159). Rich Bailowitz explained to Rosser Garrison that "the species were allotopic, with *A. funebris* occurring at seeps where water oozed from the below-impoundment soil of the Alamo Lake dam, and *A. vivida* along the creek below the dam, perhaps a few hundred feet below these seeps" (Garrison and von Ellenrieder 2022: 88).

Perception of the distribution of *A. vivida* in New Mexico has been influenced by the Dot Map Project, initiated in 1994 by the late Thomas W. Donnelly. Data contributed by more than 100 odonatologists or derived from literature resulted in maps illustrating the distribution of every known species in the United States and Canada by county or its Canadian equivalent (Donnelly 2004).

Some Dot Map records from New Mexico lack supporting voucher material and are now treated in the Odonata Central (OC) database (Abbott, J.C. 2006-2025) as declined. Some specimens reported to be at the Smithsonian National Museum of Natural History (USNM) by one author (Evans 1995) cannot be located, and still others in museum collections are strongly suspected to be incorrectly identified. All of those issues apply to records of *A. vivida*, several of which are still accepted on OC and have been the basis of misleading range maps.



Springwater Dancer (*Argia funebris*), western form, Cienega Creek, Pima County, Arizona, 13 March 2024. Photo by the author.



Springwater Dancer (*Argia funebris*), eastern form, Sitting Bull Falls, Eddy County, New Mexico, 21 August 2023.
Photo by the author.

In early 2025 I began my own search for *Argia vivida* in New Mexico, which comprises two separate projects: collecting and identifying specimens, and locating specimens in institutions and private collections. Based on a suggestion from Bill Prather, I started collecting in San Juan County, in the northwestern corner of the state, and my records from there are in the Odonata Central (OC) database (records [2962418-2962421](#), [2962364-2962368](#), and [2962372-2962375](#)),* where I describe habitat and methods of identification. I did not encounter the species at several locations in other northern counties, and I will resume my quest in 2026.

Searching for specimens collected by others has been facilitated by datasets, some relating to the Dot Map Project; OC records; online databases of museums like the University of Michigan Museum of Zoology and USNM; and records from the Florida State Collection of Arthropods (FSCA) which were provided by William F. "Bill" Mauffray, curator of odonata and resident research associate. To date, those resources have yielded only 21 specimens of *A. vivida* collected in New Mexico between 1908 and 2024 and considered to be correctly identified. The suggestion is that the species is or was rare and local south of Interstate 40 and east of the Sangre de Cristo Mountains, where *A. funebris* is known to occur.

The paucity of records of *A. vivida* from the southern half of the state exists despite cumulatively extensive collecting by many of the leading odonatologists of the last 50 years; John C. Abbott, James E. Barr, R. Duncan Cuyler, Jerrell J. Daigle, Sidney W. Dunkle, Oliver and Carol Flint, Rosser W. Garrison, Paul D. Harwood, William F. Mauffray, John Michalski, Dennis R. Paulson, Fred C. Sibley, and others have worked in southern New Mexico, but apparently

none have documented *A. vivida* in the southern part of the state.

Given the likely distribution of *A. vivida*, there were few surprises until I received photos of two specimens (see following page) that came in response to one of my requests from Bill Mauffray at FSCA: *A. vivida* was collected in Grant and Sierra Counties by noted lepidopterist Clifford D. Ferris in 1978. These appear to be the southernmost confirmed records of the species in the state, possibly by as much as 150 miles.

I was initially tripped up by details on the specimen cards. The Grant County specimen was said to be from Gallinas Canyon in the Gila National Forest, but the coordinates were for a location with the same name in Socorro County. The specimen from Sierra County was said to be from an unspecified milepost along New Mexico State Road 90, which ends about 30 miles from that county.

Clifford D. Ferris, professor emeritus, College of Engineering, University of Wyoming, wrote the foundational work on butterflies of Grant County (Ferris 1976) based on field collecting starting in 1965. He has collected primarily in Grant County, but also in Catron, northern Hidalgo, Luna, and western Sierra Counties. His "primary forest collecting sites" include the Black Range east of Silver City. His specific collecting sites include many locations in Grant County, among them Gallinas Canyon in the Black Range; and two locations in Sierra County: Emory Pass and Kingston (Ferris 1976: 38-40).

I located Ferris through my lepidopterist friend Steve Cary and sent him Bill Mauffray's photos of the two specimens with some questions. His response explained how he ventured outside the realm of lepidoptera and filled in the gaps on the Sierra County specimen's card:

"For some years, Howard Weems (now deceased) at FSCA (DPI) recruited a network of volunteers around the country to collect insects. He supplied pins, vials, specimen boxes, etc. I was one of the volunteers. I did not retain any of the non-Lepidoptera specimens – all were sent to Weems. That's how the *Argia* specimens wound up there.

I checked my 1978 field log book. The only Sierra Co. record that I have is for MP 95 SR 90, 3 July, 1978. I did not go to New Mexico in April. Some years ago, the NM Hwy. dept. changed the route number to 152.

In 1978, the western terminus of New Mexico State Road 90 was at US 70 north of Lordsburg. It went north to the junction with US 180 in Silver City (where it ends today). From the 180 junction the route headed east 7.5 miles to Santa Clara, then over the Black Range and through Kingston to Interstate 25 at Caballo (this is the section now known as NM-152). On NM 152 today, milepost 40 is at Kingston Campground (a USFS site), at the east end of the town of Kingston. In 1978 that was milepost 90 on SR 90 – five miles west of Ferris's location for the specimen of *A. vivida*.

The campground had become of interest to me, and I emailed Ferris again asking, "When you collected in/ near Kingston, do you recall if you collected only in the campground area, or if you also collected along Middle Percha Creek west and east of the campground?" His reply was, "It would not have been at the campground...I parked just off the highway and collected along the creek area" (emphasis mine).

On 3 August 1995, Bill Mauffray collected 41 specimens of *A. funebris* at the campground, but no specimen of *A. vivida*. His description of the location is "New Mexico, Sierra County, Kingston, E on SR-90, Kingston Rec Area, Middle Percha Creek, seepages, small pond" (emphasis mine). Most of the specimens are at FSCA today, but a few were deposited in other institutions, including USNM. Mauffray confirmed that the specimens still at FSCA are all *funebris* (pers. comm., 4 Nov. 2025), and Rosser Garrison concurred with that identification based on his own examination in 2022 (pers. comm., 11 Nov. 2025).

A sizable seep is still present at the campground, though a pond no longer exists (Bob Barnes, pers. comm., 31 Oct. 2025). So although the records were separated by 17 years, it is reasonable to surmise that

*Links to other records in these series:

[OC#2962419](#)
[OC#2962420](#)
[OC#2962365](#)
[OC#2962366](#)
[OC#2962367](#)
[OC#2962373](#)
[OC#2962374](#)

Argia vivida Hagen in Selys, 1865 ♂

det by: Leonora K. Gloyd, 1983

U.S.A.: New Mexico: Grant Co.: Gallinas Canyon, Gila National Forest

08 July 1978

34°11'17" N, 107°19'41" W; 2040 m [coordinates approximate]

Collected by: Clifford D. Ferris

Genital ligula extruded;



This specimen of *Argia vivida* from Grant County may be unique. The coordinates were not assigned by Clifford Ferris and are for another location of the same name in Socorro County.

ARGIA VIVIDA Hagen ♂

U. S.

det. ~~M. J. Westfall, Jr. 19~~ L. K. Gloyd 1983

NEW MEXICO, Sierra County

State Road 90, MP

? April 25, 1978 ?

C. D. Ferris



FLORIDA STATE COLLECTION OF ARTHROPODS

See the text for clarification of the location and date of this unique specimen from Sierra County.

A. funebris was present at the campground in 1978. Ferris's specimen specimen from five miles east of the campground documents a rare instance of *A. vivida* and *A. funebris* in proximity to one another in New Mexico.

Heading west from Kingston, NM 152 goes over Emory Pass and down the west slope of the Black Range through Gallinas Canyon, where Ferris collected another specimen of *A. vivida* five days after collecting near Kingston. As he explained, the location was the now-closed Lower Gallinas Campground: "There used to be a dirt road that ran along the creek to the point where the canyon boxes in. I would have collected along the creek. Remnants of the road remain, but are being taken over by vegetation" (pers. comm. 11 Nov. 2025).

Ferris also collected a specimen of *A. funebris* at that location, now at FSCA. The date on the specimen card (like information on the Sierra County specimen, misread from a handwritten note), was printed as 24 May 1978, but Ferris confirmed that he began his road trip from Laramie that year on 23 June and collected the specimen in July, probably the same day he collected *A. vivida* (pers. comm., 12 Nov. 2025). Rosser Garrison examined both of those specimens in 2022, concurring with Leonora Gloyd's determination of the specimen of *A. vivida* and identifying the specimen of *A. funebris* (pers. comm., 11 Nov. 2025).

Here Garrison confirmed the only known instance of sympatry between the two species in New Mexico, documented by chance in what would seem to be a highly unlikely location.

Argia vivida and *Argia funebris* require much more study in New Mexico. Confirmation of collected specimens will continue to be necessary to distinguish between them, and many reports of both species on Odonata Central and iNaturalist may remain unconfirmed indefinitely.

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