

## A dolichopodid hotspot: Montana's Milligan Creek Canyon

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In southwest Montana, near the town of Three Forks, Milligan Creek cuts a small and seemingly mundane notch through dry limestone hills. Milligan Creek is unassuming and small enough to be effortlessly stepped over in most places. In fact, it flows underground for much of its 4-5 mile journey to the Jefferson River. Incredibly, forty-nine species of long-legged flies (Dolichopodidae) – fully 61% of the 81 species recorded to occur in Montana (Pollet et al. 2004) – have been collected along a very short stretch of this creek (see list below). These species were found during eight short trips to Milligan Creek since 2001, using only nets, and along about a 200 meter length of the creek (about 1,000 square meters in area). Species were found where Milligan Creek Road crossed the creek near a large limestone cliff (with nesting cliff sparrows) with a small pool of water at base (Figure 1; N45°53.26', W111°40.72'; 1300 m elevation). Milligan Creek has yielded seven apparently undescribed dolichopodid species (including *Telmaturgus robinsoni*; Runyon 2012), the only known occurrence of the genus *Micromorphus* in Montana, and state records for several species. If you find yourself in Montana and wish to try your luck at Milligan Creek, let me know!

1	<i>Argyra condomina</i> Harmston & Knowlton	26	<i>Lamprochromus</i> n. sp. near <i>canadensis</i>
2	<i>Calyxochaetus cilifemoratus</i> (Van Duzee)	27	<i>Medetera veles</i> Loew
3	<i>Calyxochaetus isoaristus</i> (Harmston & Knowlton)	28	<i>Micromorphus</i> sp. 1
4	<i>Calyxochaetus oreas</i> (Wheeler)	29	<i>Micromorphus</i> sp. 2
5	<i>Calyxochaetus pennarista</i> (Harmston & Knowlton)	30	<i>Parasyntormon</i> n. sp. 1
6	<i>Calyxochaetus distortus</i> (Van Duzee)	31	<i>Parasyntormon</i> n. sp. 2
7	<i>Campsicnemus claudicans</i> Loew	32	<i>Pelastoneurus cyaneus</i> Wheeler
8	<i>Campsicnemus degener</i> Wheeler	33	<i>Pelastoneurus vagans</i> Loew
9	<i>Campsicnemus utahensis</i> Harmston & Knowlton	34	<i>Pelorocephalus cornuta</i> (Van Duzee)
10	<i>Chrysotus</i> "argentatus" group	35	<i>Rhaphium atkinsoni</i> Curran
11	<i>Chrysotus</i> sp. (female)	36	<i>Rhaphium femoratum</i> (Van Duzee)
12	<i>Diaphorus</i> sp. (female)	37	<i>Rhaphium</i> sp. (female)
13	<i>Dolichopus adaequatus</i> Van Duzee	38	<i>Sympycnus marcidus</i> Wheeler
14	<i>Dolichopus bifRACTUS</i> Loew	39	<i>Sympycnus pugil</i> Wheeler
15	<i>Dolichopus jugalis</i> Tucker	40	<i>Sympycnus</i> n. sp. near <i>fasciventris</i>
16	<i>Dolichopus obcordatus</i> Aldrich	41	<i>Sympycnus</i> n. sp. near <i>latitarsis</i>
17	<i>Dolichopus plumipes</i> (Scopoli)	42	<i>Syntormon dissimilipes</i> Van Duzee
18	<i>Dolichopus penicillatus</i> Van Duzee	43	<i>Syntormon</i> sp. (female)
19	<i>Dolichopus ramifer</i> Loew	44	<i>Tachytrechus greeni</i> Foot et al.
20	<i>Dolichopus renidescens</i> Melander & Brues	45	<i>Tachytrechus sanus</i> Osten Sacken
21	<i>Dolichopus variabilis</i> Loew	46	<i>Telmaturgus robinsoni</i> Runyon
22	<i>Dolichopus vernaee</i> Harmston & Knowlton	47	<i>Teuchophorus utahensis</i> Harmston & Knowlton
23	<i>Hercostomus longilamellus</i> Harmston & Knowlton	48	<i>Thrypticus fraterculus</i> (Wheeler)
24	<i>Hydrophorus altivagus</i> Aldrich	49	<i>Thrypticus</i> n. sp.
25	<i>Hydrophorus philombrius</i> Wheeler		



**Figure 1.** Forty-nine species of long-legged flies (Dolichopodidae) have been collected along a short stretch of Milligan Creek in southwest Montana. The small canyon is seen at left; note the small pool of water at base of cliff (lower right). The remainder of the creek is open with many grasses, rushes, and sedges.

### References

- Pollet, M.A., Brooks, S.E., Cumming, J.M. 2004. Catalog of the Dolichopodidae (Diptera) of America north of Mexico. *Bulletin of the American Museum of Natural History* 283: 1-114.
- Runyon, J.B. 2012. The Nearctic species of *Telmaturgus* (Diptera: Dolichopodidae). *The Canadian Entomologist* 144: 337-347.

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