



4-30-2004

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### Recommended Citation

Shelley, Rowland M. and Six, Diana L. (2004) "Discovery of the centipede *Scolopocryptops gracilis* Wood in Montana (Scolopendromorpha: Scolopocryptopidae)," *Western North American Naturalist*: Vol. 64 : No. 2 , Article 12.

Available at: <https://scholarsarchive.byu.edu/wnan/vol64/iss2/12>

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## DISCOVERY OF THE CENTIPEDE *SCOLOPOCRYPTOPS GRACILIS* WOOD IN MONTANA (SCOLOPENDROMORPHA: SCOLOPOCRYPTOPIDAE)

Rowland M. Shelley<sup>1</sup> and Diana L. Six<sup>2</sup>

*Key words:* Scolopocryptops gracilis, “northern population,” Idaho, Montana, Missoula County.

The centipede *Scolopocryptops gracilis* Wood occupies 3 segregated areas in North America west of the Rocky Mountains (Shelley 2002): (1) an inverted triangularly shaped northern region in southeastern Washington, northeastern Oregon, and north central Idaho that extends southward to the vicinity of Boise; (2) an irregularly shaped main area that ranges from northern California to Lake Tahoe and southward west of the crest of the Sierra Nevada to Ensenada, Baja California Norte, with an eastward extension through the Mojave Desert into southwestern Utah and northwestern Arizona; and (3) an isolated site in Salt Lake County, Utah. The easternmost record of the “northern population” is a site along Moose Creek in the Selway-Bitterroot Wilderness Area, Nez Perce National Forest, approximately 25 miles (40 km) west of the border with Montana. In May and June 1999, the 2nd author collected 2 adults, 1 subadult, and 1 juvenile of *S. gracilis* near Petty Creek fishing access, Lolo National Forest, Missoula County, Montana, around 25 miles (40 km) west of Missoula and 50 miles (80 km) northeast of Moose Creek. This is the 2nd representative of the Scolopendromorpha recorded from the state, the 1st being *Scolopendra polymorpha* Wood (Scolopendridae) from Big Horn, Rosebud, and Treasure Counties in the plains of southeastern Montana (Shelley 2002). Along with the 2 sites in Whitman County, Washington, at about the same latitude, these records form the known northern distributional limits for both this population and the species as a whole. The distribution of the northern population is shown in Figure 1, although we cannot place the records from Saddleback Mountain, Oregon, and Idaho Pass, Idaho (Shelley 2002), which may lie outside this area.

The specimens were collected in pitfall traps that were placed on a regular grid as part of a study on arthropod communities in knapweed-invaded and uninvaded savannas of the northern Rocky Mountains (Six and Ortega unpublished data). Collection data are as follows: (1) the adult from Petty Pasture is deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC (NMNH); and (2) other specimens are housed in the 1st author’s institution (NCSM).

MONTANA: Missoula Co., ca. 25 miles (40 km) W Missoula, Petty Pasture, ca. 0.6 miles (0.9 km) E Petty Creek and 2.5 miles (4.0 km) S Petty Creek Fishing Access (GPS X696200, Y5202000) [4300 feet (1311 m) elevation], 1 adult, 1 subadult, 1 juvenile, 25–26 May 1999, D. Six (NCSM, NMNH); and Lower Madison Gulch, 1.1 miles (1.7 km) W, 1.4 miles (2.2 km) S Petty Creek Fishing Access (GPS X697050, Y5204000) [4400 feet (1341 m) elevation], 1 adult, 9 June 1999, D. Six (NCSM).

Both sites consist of montane savannas on steep slopes (average 30%) with scattered ponderosa pine (*Pinus ponderosa* Dougl. Ex Laws.; 60% of trees), Douglas-fir [*Pseudotsuga menziesii* (Mirb.) Franco; 40% of trees], and shrubs [primarily serviceberry, *Amelanchier alnifolia* (Nutt.), and snowberry, *Symphoricarpos albus* (L.) Blake], which are located within a matrix of denser Douglas-fir-dominated coniferous forest. Understory vegetation at the sites consists of bluebunch wheatgrass [*Agropyron spicatum* (Pursh.) Scribn.] and other common bunchgrasses including Idaho fescue (*Festuca idahoensis* Elmer), Sandberg’s bluegrass (*Poa sandbergii* Vasey), and June grass [*Koeleria macrantha* (Ledeb.) Schultes]. The native forb community is highly diverse but with major

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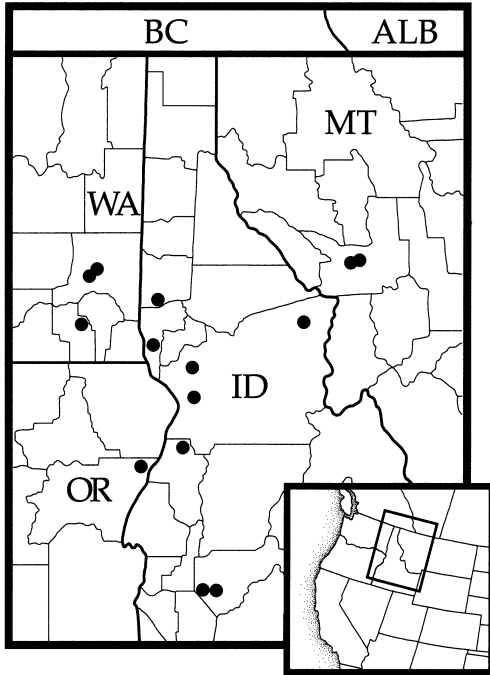


Fig. 1. Distribution of the northern population of *Scolocryptops gracilis*. ALB, Alberta; BC, British Columbia; ID, Idaho; MT, Montana; OR, Oregon; WA, Washington.

components of arrowleaf balsamroot [*Balsamorhiza sagittata* (Pursh.) Nutt.], lupine (*Lupinus* spp.), yarrow [*Achillea millefolium* (L.)], and blue-eyed Mary (*Collinsia parvifolia* Lindl.; Ortega unpublished data). The lower Madison Gulch site is moderately invaded by the exotic pest plant spotted knapweed (*Centaurea maculosa* Lam.).

The adults measure 42.5 mm and 45.0 mm long and both are 3.3 mm wide; the subadult is 31.2 mm long and 2.3 mm wide, and the juvenile is 27.2 mm long and 1.2 mm wide. The cephalic plate is faintly margined caudo-laterad in the adults and not margined in the other specimens, and the 2nd antennomere is moderately hirsute dorsad in all individuals, less so than the 3rd and more so than the 1st, but the pilosity is markedly less in the juvenile and this article is only slightly more hirsute than the basal one. Complete paramedian dorsal sutures begin on tergite 2 and extend through 22 on all specimens. The ultimate legs are missing from the individuals from Petty Pasture and are sparsely hirsute on those from lower

Madison Gulch. Shelley (2002) suggests that the density of the pilosity on these appendages represents sexual dimorphism, with females being sparsely hirsute and males possessing dense clusters of setae in a "bottlebrush" arrangement on the last 3 or 4 podomeres.

The discovery of *S. gracilis* in Missoula County suggests that the centipede also occurs in Mineral and Ravalli Counties, adjacent counties to the west and south, respectively. Occurrence to the east in Granite and Well Counties, and to the north in Lake County seems less likely, but the centipede fauna of western Montana has been poorly sampled, and additional discoveries would not be surprising; conceivably, *S. gracilis* could range eastward to the western slope of the Rocky Mountain Front, the crest of which forms the Continental Divide. Loomis and Schmitt (1971) published copious, detailed records of millipeds from western Montana based on intensive sampling in every county west of the Divide, but they did not mention sympatric centipedes, which presumably were ignored. Modern workers must now reexamine this area to gather the other myriapods that occur in these environments.

We thank W.A. Shear, Hampden-Sydney College, for bringing this discovery to the 1st author's attention, and R.S. Zack, Washington State University, for advice on Idaho localities. We also thank Yvette Ortega for conducting pitfall trapping and developing site descriptions. Trapping efforts were funded by the Wildlife Ecology Research Unit of the Rocky Mountain Research Station (RMRS) and by the Bitterroot Ecosystem Management Research Project, a partnership between the RMRS, the Bitterroot National Forest, and the University of Montana.

#### LITERATURE CITED

- LOOMIS, H.F., AND R. SCHMITT. 1971. The ecology, distribution, and taxonomy of the millipeds of Montana west of the Continental Divide. *Northwest Science* 45:107–131.
- SHELLEY, R.M. 2002. A synopsis of the North American centipedes of the order Scolopendromorpha (Chilopoda). *Virginia Museum of Natural History Memoir* 5:1–108.

Received 10 June 2003  
Accepted 29 January 2004