

Quaternary Fault and Fold Database of the United States

As of January 12, 2017, the USGS maintains a limited number of metadata fields that characterize the Quaternary faults and folds of the United States. For the most up-to-date information, please refer to the [interactive fault map](#).

Maple Grove faults (Class A) No. 2443

Last Review Date: 2004-07-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: Black, B.D., Hylland, M.D., and Hecker, S., compilers, 2004, Fault number 2443, Maple Grove faults, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, <https://earthquakes.usgs.gov/hazards/qfaults>, accessed 12/14/2020 02:56 PM.

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| Synopsis | Poorly understood late Quaternary faults near Maple Grove in southern part of Scipio Valley |
| Name comments | Fault ID: Refers to fault number 8-17 of Hecker (1993 #642). |
| County(s) and State(s) | SEVIER COUNTY, UTAH MILLARD COUNTY, UTAH |
| Physiographic province(s) | COLORADO PLATEAUS BASIN AND RANGE |
| Reliability of | Good |

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| location | <p>Compiled at 1:62,500 scale.</p> <p><i>Comments:</i> Mapped or discussed by Bucknam and Anderson (1979 #517), Oviatt (1992 #4544), and Hintze and Davis (2002 #6754, 2003 #6741) and Hintze and others (2003 #6756). Fault traces from 1:100,000-scale mapping of Oviatt (1992 #4544).</p> |
| Geologic setting | <p>North-trending range-front normal faults along the eastern side of the Pavant Range at the south end of Scipio Valley. The faults are south of and on trend with the Pavant Range fault [2442], and both structures dip eastward beneath the valley. Scipio Valley is an elongate north-south graben bounded on the east and west by high-angle normal faults. Unconsolidated deposits in the valley are mainly lake deposits and alluvium. Hecker (1993 #642) also includes an older Quaternary fault on the eastern slope of the Pavant Range (west of Scipio Lake) in the Maple Grove faults.</p> |
| Length (km) | 17 km. |
| Average strike | N11°W |
| Sense of movement | Normal |
| Dip Direction | W; E |
| Paleoseismology studies | |
| Geomorphic expression | <p>Scarps on alluvium have displacements of as much as 12 m, clearly a result of multiple faulting events. Crestal rounding and dissection suggest that some scarps are older than the Bonneville shoreline. Steepness of the scarps (maximum 47%) is likely due to the coarseness of the alluvium and youngest event on the fault.</p> |
| Age of faulted surficial deposits | Late Pleistocene to Holocene. |
| Historic earthquake | |
| Most recent prehistoric deformation | <p>latest Quaternary (<15 ka)</p> <p><i>Comments:</i> Oviatt (1992 #4544) documented a Holocene fault scarp along the southern extension of the Pavant Range fault [2442], and faults cut late Pleistocene to Holocene alluvial</p> |

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| | deposits in the southern part of Round Valley (Oviatt, 1992 #4544; Hintze and Davis, 2002 #6754, 2003 #6741; Hintze and others, 2003 #6756). |
| Recurrence interval | |
| Slip-rate category | Less than 0.2 mm/yr |
| Date and Compiler(s) | 2004 Bill D. Black, Utah Geological Survey Michael D. Hylland, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey |
| References | <p>#517 Bucknam, R.C., and Anderson, R.E., 1979, Map of fault scarps on unconsolidated sediments, Delta 1° x 2° quadrangle, Utah: U.S. Geological Survey Open-File Report 79-366, 21 p. pamphlet, 1 sheet, scale 1:250,000.</p> <p>#642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000.</p> <p>#6754 Hintze, L.F., and Davis, F.D., 2002, Geologic map of the Tule Valley 30' x 60' quadrangle and parts of the Ely, Fish Springs, and Kern Mountains 30' x 60' quadrangles, northwest Millard County, Utah: Utah Geological Survey Map 186, scale 1:100,000.</p> <p>#6741 Hintze, L.F., and Davis, F.D., 2003, Geology of Millard County, Utah: Utah Geological Survey Bulletin 133, 305 p.</p> <p>#6756 Hintze, L.F., Davis, F.D., Rowley, P.D., Cunningham, C.G., Steven, T.A., and Willis, G.C., 2003, Geologic map of the Richfield 30' x 60' quadrangle, southeast Millard County and parts of Beaver, Piute, and Sevier Counties, Utah: Utah Geological Survey Map 195, scale 1:100,000.</p> <p>#4544 Oviatt, C.G., 1992, Quaternary geology of the Scipio Valley area, Millard and Juab Counties, Utah: Utah Geological Survey Special Studies 79, 16 p., scale 1:100,000.</p> |

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