

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](#).

Delamar Mountains fault (Class A) No. 1126

Last Review Date: 1999-07-16

citation for this record: Anderson, R.E., compiler, 1999, Fault number 1126, Delamar Mountains fault, 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 02:17 PM.

Synopsis

The Delamar Mountains fault is poorly defined by a set of discontinuous, short (<3 km), convex-west, west-facing scarps on Quaternary-Tertiary alluvium at the west base of and west of the Delamar Mountains south of the townsite of Delamar. These scarps may mark part of a much longer, northerly trending, range-bounding fault separating the basin beneath Delamar Valley on the west from the Delamar Mountains on the east. The range margin has a highly irregular map trace and is flanked on the west by extensive areas of unfaulted Quaternary-Tertiary alluvium, suggesting long-term structural stability of the range-margin fault, except for the short Quaternary trace. Scarps are formed on deposits estimated to be middle Pleistocene to Pliocene. No data are reported that allow for estimates of either recurrence or slip rate. A very low slip rate is inferred from knowledge of slip rates on other faults in the Basin and Range province that are marked by weakly expressed Quaternary scarps.

Name comments	Name taken from Schell (1981 #2844) for a set of discontinuous fault traces at the west base of and west of the Delamar Mountains south of the townsite of Delamar. Fault ID: Refers to fault #30 of Schell (1981 #2844, Table A2).
County(s) and State(s)	LINCOLN COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. <i>Comments:</i> Fault compiled from mapping at 1:50,000 by Swadley (1995 #2621).
Geologic setting	The relatively short and discontinuous convex-westward set of scarps may mark part of a much longer, northerly trending, range-bounding fault separating the basin beneath Delamar Valley on the west from the Delamar Mountains on the east. The range margin has a highly irregular map trace and is flanked on the west by extensive areas of unfaulted Quaternary-Tertiary alluvium, suggesting long-term structural stability of the range-margin fault, except for the short Quaternary trace (Swadley, 1995 #2621).
Length (km)	6 km.
Average strike	N7°E
Sense of movement	Normal <i>Comments:</i> As a potential range-bounding structure, it is probably a normal fault.
Dip Direction	W <i>Comments:</i> Probably steep
Paleoseismology studies	
Geomorphic expression	Fault is poorly defined by a convex-west set of short (<3 km) discontinuous, west-facing scarps in Quaternary-Tertiary

	alluvium.
Age of faulted surficial deposits	Scarps are formed on deposits estimated to be middle Pleistocene to Pliocene? by Swadley (1995 #2621). Locally, scarps are mapped as terminating within those deposits, rather than extending to the contact with younger (post-faulting) deposits. It is unclear whether those terminations reflect the limit of surface displacement or the removal of the scarp by post-faulting erosion. Schell (1981 #2844, Table A2) estimated the range of the faulted intermediate alluvium (his unit A5i) to extend to significantly younger age (700-15 ka, and mainly 200-15 ka).
Historic earthquake	
Most recent prehistoric deformation	middle and late Quaternary (<750 ka) <i>Comments:</i> Based on age estimates of faulted deposits made by Swadley (1995 #2621).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> No data that could constrain an estimate are reported. A very low slip rate is inferred from knowledge of slip rates on other faults in the Basin and Range province that are marked by weakly expressed Quaternary scarps.
Date and Compiler(s)	1999 R. Ernest Anderson, U.S. Geological Survey, Emeritus
References	#2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000. #2621 Swadley, W.C., 1995, Map showing modern fissures and Quaternary faults in the Dry Lake Valley area, Lincoln County, Nevada: U.S. Geological Survey Miscellaneous Investigations Map I-2501, 1 sheet.

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