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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.

unnamed fault zone southwest of Bilk Creek Mountains (Class A) No. 1497

Last Review Date: 1998-07-19

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1497, unnamed fault zone southwest of Bilk Creek Mountains, 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 02:36 PM.**

Synopsis	This discontinuous zone of left-stepping normal faults bound the southwestern front of the southern part of the Bilk Creek Mountains. These faults are expressed as low, apparently subdued topographic escarpments that juxtapose piedmont-slope deposits against Tertiary volcanic and sedimentary rocks and older bedrock. The zone also includes subparallel intermontane faults that coincide with similar topographic lineaments and juxtapose Quaternary alluvium against Tertiary volcanic rocks. Reconnaissance photogeologic of the fault is the source of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
Name comments	Refers to faults mapped by Slemmons (1966, unpublished Vya 1? X 2? sheet) and Dohrenwend and Moring (1991 #281) along the

	southwestern front of and within the southern part of the Bilk Creek Mountains. These faults extend from the southern tip of the range north-northwest to about 2 km southeast of Black Butte.
County(s) and State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations based on 1:250,000-scale map of Dohrenwend and Moring (1991 #281) and 1:62,500-scale maps compiled by Slemmons (1966, unpublished Vya 1? X 2? sheet); mapping by Dohrenwend and Moring (1991 #281) was produced by analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic maps enlarged to scale of the photographs. Mapping by Slemmons (1966, unpublished Vya 1? X 2? sheet) is from analysis of 1:60,000-scale AMS photography transferred to mylar overlain onto 1:62,500-scale topographic maps using proportional dividers.
Geologic setting	This discontinuous zone of left-stepping normal faults bound the southwestern front of the southern part of the Bilk Creek Mountains and subparallel intermontane faults that coincide with similar topographic lineaments.
Length (km)	34 km.
Average strike	N10°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement is inferred from topography and from one location as indicated by Stewart (1978 #2866)
Dip Direction	W *Comments:* Not studied in detail; dip direction is inferred from topography.
Paleoseismology	

studies	
Geomorphic expression	The range-bounding faults are expressed as low, apparently subdued topographic escarpments that juxtapose Quaternary piedmont-slope deposits against Tertiary volcanic and sedimentary rocks and older bedrock. The intermontane faults coincide with similar topographic lineaments and juxtapose Quaternary alluvium and Tertiary volcanic rock from De Long Spring north to Road Spring (Dohrenwend and Moring, 1991 #281)
Age of faulted surficial deposits	Quaternary; Tertiary. The faults in this zone offset Quaternary alluvium, Tertiary volcanic and sedimentary rocks, and older bedrock (Willden, 1964 #3002; Dohrenwend and Moring, 1991 #281).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of most recent event is not well constrained, a Quaternary time is suspected based on reconnaissance photogeologic mapping by Dohrenwend and Moring (1991 #281).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#281 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Vya 1° by 2° quadrangle, Nevada, Oregon, and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2174, 1 sheet, scale 1:250,000. #2866 Stewart, J.H., 1978, Basin-range structure in western North America—A review, *in* Smith, R.B., and Eaton, G.P., eds., Cenozoic tectonics and regional geophysics of the western cordillera: Geological Society of America Memoir 152, p. 1-31,

	scale 1:2,500,000. #3002 Willden, R., 1964, Geology and mineral deposits of Humboldt County, Nevada: Nevada Bureau of Mines and Geology Bulletin 59, 154 p., scale 1:250,000.