

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 Pine Forest Range (Class A) No. 1491

Last Review Date: 1998-07-19

citation for this record: Sawyer, T.L., compiler, 1998, Fault number 1491, unnamed fault zone southwest of Pine Forest Range, 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 02:50 PM.

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| Synopsis | This linear zone has a range-bounding normal fault that extends along the west front of the Pine Forest Range from near Bartlett Pass north to east of Gridley Lake in the southern Bog Hot Valley and a piedmont fault east and southeast of Gridley Lake. The range-bounding faults juxtapose Quaternary alluvium and bedrock and are expressed as a linear and locally abrupt front of the Pine Forest Range and a low escarpment to the north, respectively. Reconnaissance photogeologic mapping of the fault zone is the source of data. Trench investigations and detailed studies of scarp morphology have not been conducted. |
| Name comments | Refers to faults mapped by Dohrenwend and Moring (1991 #281) along the southern part of the west front of the Pine Forest Range, from near Bartlett Pass north to east of Gridley Lake in the |

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| | southern Bog Hot Valley. |
| County(s) and State(s) | HUMBOLDT COUNTY, NEVADA |
| Physiographic province(s) | BASIN AND RANGE |
| Reliability of location | Good Compiled at 1:100,000 scale. <i>Comments:</i> Fault locations based on 1:250,000-scale maps of Dohrenwend and Moring (1991 #281); mapping from photogeologic analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to scale of the photographs and then reduced and transferred to 1:250,000-scale topographic maps. |
| Geologic setting | This linear zone has a range-bounding normal fault that extends along the west front of the Pine Forest Range, from near Bartlett Pass north to east of Gridley Lake in the southern Bog Hot Valley. |
| Length (km) | 27 km. |
| Average strike | N9°E |
| Sense of movement | Normal <i>Comments:</i> Not studied in detail; sense of movement is inferred from topography. |
| Dip Direction | W |
| Paleoseismology studies | |
| Geomorphic expression | Faults are expressed by the linear but dissected escarpment along the west front of the Pine Forest Range from Bartlett Pass north to east of Gridley Springs and by a fault along the east side of a low intrabasin ridge southeast of Gridley Lake (Dohrenwend and Moring, 1991 #281). |
| Age of faulted surficial deposits | Quaternary; Tertiary. Quaternary alluvial deposits have been mapped as juxtaposed against Tertiary volcanic and sedimentary rocks along the west front of the Pine Forest Range and along the east side of a low intrabasin ridge southeast of Gridley Lake (Dohrenwend and Moring, 1991 #281). |

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| Historic earthquake | |
| Most recent prehistoric deformation | undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is suspected by the reconnaissance photogeologic mapping of Dohrenwend and Moring (1991 #281). |
| Recurrence interval | |
| Slip-rate category | Less than 0.2 mm/yr <i>Comments:</i> 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. |

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