

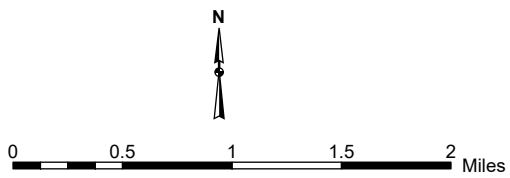
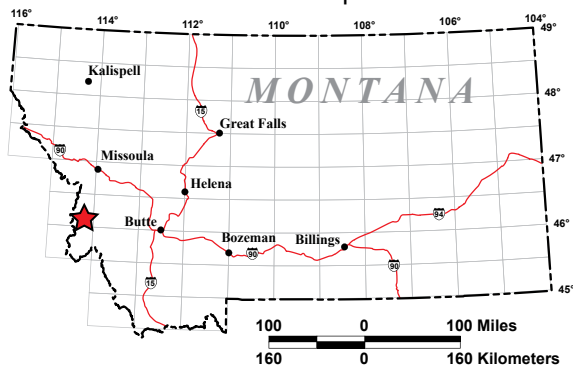
Map Units

Qal	Stream alluvium (Holocene and Late Pleistocene)
Qpa	Paludal deposit (Holocene)
Qaf	Alluvial fan and debris-flow deposits (Holocene and Late Pleistocene)
Qls	Landslide and earthflow deposits (Holocene and late Pleistocene)
Qatd	Alluvium of the Darby terrace (late Pleistocene?)
Qatr	Alluvium of the Riverside terrace (late Pleistocene?)
Qath	Alluvium of the Hamilton terrace (late Pleistocene?)
Qgto/to	Younger glacial outwash deposits and older glacial till deposits, undivided (Pleistocene)
Qgoy	Younger glacial outwash deposits (latest Pleistocene to early Holocene)
Qgty	Younger glacial till deposits (late Pleistocene)
Qdfy	Younger glacial debris flow deposits (latest Pleistocene to early Holocene)
Qgom	Middle-aged glacial outwash deposits (Pleistocene)
Qgtm	Middle-aged glacial till deposits (Pleistocene)
Qdfm	Middle-aged glacial debris flow deposits (late Pleistocene)
Qgoo	Older glacial outwash deposits (Pleistocene)
Qgto	Older glacial till deposits (Pleistocene)
Qdfo	Older glacial debris flow deposits (Pleistocene)
QTgc	Gravel and clay of the ancestral Bitterroot River deposits (Oligocene to Plio-Pleistocene?)
Tv	Volcanic rocks (Paleocene to Miocene?)
TKg	Foliated granodiorite and unfoliated granite, undivided (Cretaceous and Eocene)
YXm	Metamorphic rocks (Proterozoic)

MAP SYMBOLS

	Contact: dashed where approximately located
	Fault: dashed where approximately located.
	Detachment fault: hachures on upper plate; dashed where approximately located
	Scarp on fault: dashed where approximately located; hachures point downscarp
	Inclined metamorphic or tectonic foliation: showing strike and dip
	Approximate plunge direction of inclined lineation
	Cosmogenic radionuclide sample location
	Shoreline
	Glacial Moraine Crest
	Glacial Lake Missoula Maximum Elevation
	Breccia

Location Map



Shaded relief created from 1 meter lidar and 10 meter digital elevation model from U.S. Geological Survey National Elevation Dataset.

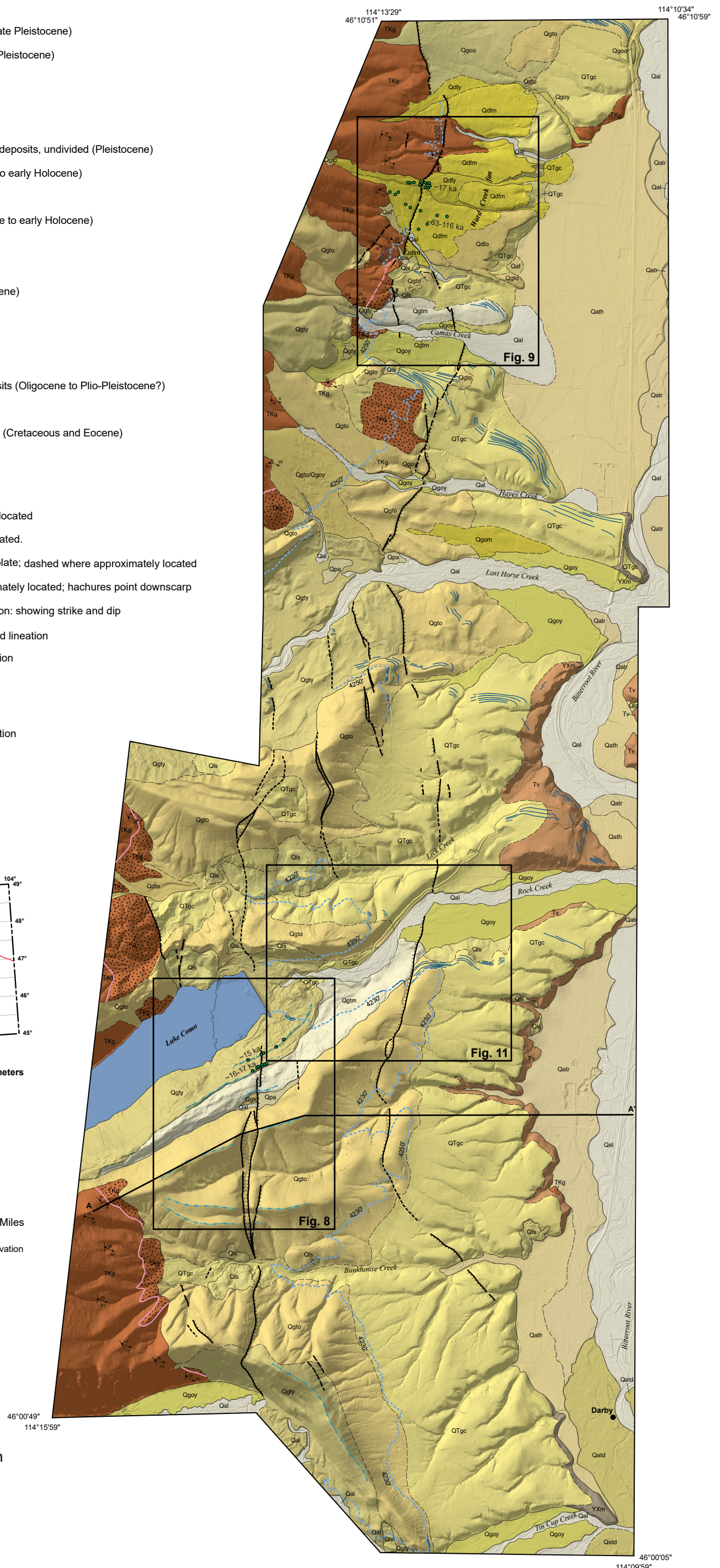


Figure 4. Geologic map of the Southern Bitterroot study areas modified from Lonn and Gavillot (2022). See figure 2 for location. Cross-section along transects A–A' shown in figure 5.

From: Gavillot, Y., Lonn, J., Stickney, M., and Hidy, A., 2023, Quaternary slip rates and most recent surface rupture of the Bitterroot fault, western Montana: Montana Bureau of Mines and Geology Bulletin 142, 44 p