Geologic Map of Dinosaur National Monument

Colorado, Utah

National Park Service
U.S. Department of the Interior

Geologic Resources Inventory
Natural Resources Stewardship and Science

NPS Boundary

Infrastructure

- cities
- visitor centers
- roads
- stateline

Linear Joints

- joint, known or certain

Folds

- anticline - solid where known or certain, dashed where approximate, dotted where concealed
- syncline - solid where known or certain, dashed where approximate, dotted where concealed
- monocline, anticlinal bend - solid where known or certain, dashed where approximate, dotted where concealed
- monocline, synclinal bend - solid where known or certain, dashed where approximate, dotted where concealed
- asymmetrical anticline - solid where known or certain, dashed where approximate, dotted where concealed

- asymmetrical syncline - solid where known or certain, dashed where approximate, dotted where concealed

Faults

- thrust fault - solid where known or certain, dashed where approximate, dotted where concealed; teeth on up block
- normal fault - solid where known or certain, dashed where approximate or inferred, dotted where concealed; ? indicates queried fault
- unknown offset/displacement, high-angle, or reverse fault - solid where known or certain, dashed where approximate or inferred, dotted where concealed; ? indicated queried fault
- right-lateral fault, vertical displacement/offset unknown - solid where known or certain, dashed where approximate, dotted where concealed
- left-lateral fault, vertical displacement/offset unknown - solid where known or certain, dashed where approximate, dotted where concealed

Linear Geologic Units

- Tcpm - Green River Formation, Parachute Creek Member (Eocene) - solid where known or certain, dashed where approximate
- Kmvc - Mesa Verde Group, main coal unit (Upper Cretaceous) - solid where known or certain, dashed where inferred
- Kmvm - Mesa Verde Group, minor coal unit (Upper Cretaceous) - solid where known or certain, dashed where approximate or inferred
- Kmvs - Mesa Verde Group, Sego Sandstone (Upper Cretaceous) - solid where known or certain
- Kmlo - Mancos Shale, base of Loyd Sandstone Member (Upper Cretaceous) - solid where known or certain, dashed where approximate
- Kmsc - Mancos Shale, base of sandstone unit C (Upper Cretaceous) - solid where known or certain, dashed where approximate
- Kmsb - Mancos Shale, base of sandstone unit B (Upper Cretaceous) - solid where known or certain, dashed where approximate
- Kme - Mancos Shale, base of Emery (?) Sandstone member - solid where known or certain, dashed where approximate or inferred

Geologic Units

- water
- Qfp - Floodplain deposits (Holocene)
- Qdf - Debris fan deposits (Holocene)
- Qd - Dune sand (Holocene)
- Qe - Eolian sand (Holocene)
- Qal - Alluvium (Holocene)
- Qac - Alluvial and colluvial deposits, undivided (Holocene)
- Qavb - Alluvium in valley bottoms (Holocene)
- Qaf - Alluvial fan (Holocene)
- Qavb2 - Alluvium in valley bottoms, older (Holocene and Pleistocene?)
- Qac2 - Alluvium and colluvium (Holocene and Pleistocene)
- Qas - Alluvium and slope wash (Holocene and Pleistocene)
- Qp - Pediment deposits (Holocene and Pleistocene)
- Qt - Terrace deposits (Holocene and Pleistocene)
- Qt1 - Terrace deposits 1 (Holocene and Pleistocene)
- Qt2 - Terrace deposits 2 (Holocene and Pleistocene)
- Qt3 - Terrace deposits 3 (Holocene and Pleistocene)
- Qt4 - Terrace deposits 4 (Holocene and Pleistocene)
- Qtafc - Talus and alluvial fan deposits and colluvium (Holocene and Pleistocene)
- Qtc - Talus and other undifferentiated colluvium (Holocene and Pleistocene)
- Ql - Landslide deposits (Holocene and Pleistocene)
- Qg - Gravel deposits (Quaternary)
- Qop - Older pediment deposits (Pleistocene)
- Qdi - Dissected fan deposits (Pleistocene)
- Qod - Older debris fan deposits (Pleistocene)
- Qr - River-terrace deposits (Pleistocene)
- Qc - Channel deposits (Pleistocene)
- Qot - Terrace gravel (Pleistocene)
- Qoa - Older alluvium (Pleistocene)
- QTs - Sediments of East Cactus Flat (Quaternary and Tertiary?)
- Tbp - Browns Park Formation (Miocene)
- Tbpb - Browns Park Formation and Bishop(?) Conglomerate (Miocene and Oligocene)
- Tb - Bishop Conglomerate (Oligocene)
- Tge - Green River Formation, Evacuation Canyon Member (Eocene)
- Tgp - Green River Formation, Parachute Creek Member (Eocene)
- Tgg - Green River Formation, Garden Gulch Member (Eocene)
- Tgd - Green River Formation, Douglas Creek Member (Eocene)
- Twt - Tongue of Wasatch Formation (Eocene)
- Tw - Wasatch Formation (Eocene)
- Kmvu - Mesa Verde Group, upper unit (Upper Cretaceous)
- Kmvc - Mesa Verde Group, main coal unit (Upper Cretaceous)
- Kmvm - Mesa Verde Group, minor coal unit (Upper Cretaceous)
- Kmvs - Mesa Verde Group, Sego Sandstone (Upper Cretaceous)
- Kwf - Williams Fork Formation (Upper Cretaceous)
- Kit - Iles Formation, Trout Creek Member (Upper Cretaceous)
- Ki - Iles Formation, main body (Upper Cretaceous)
- Kc - Castlegate Sandstone, undivided (Upper Cretaceous)
- Kcu - Castlegate Sandstone, upper unit (Upper Cretaceous)
- Kcl - Castlegate Sandstone, lower unit (Upper Cretaceous)
- Kms - Mancos Shale, upper shale member (Upper Cretaceous)
- Kmu - Mancos Shale, upper unit (Upper Cretaceous)
- Kmmb - Mancos Shale, main body (Upper Cretaceous)
- Kmb - Buck Tongue of Mancos Shale (Upper Cretaceous)
- Kmf - Mancos Shale, Frontier Sandstone (Upper Cretaceous)
- Kmm - Mancos Shale, Mowry Member (Lower Cretaceous)
- Kd - Dakota Sandstone (Lower Cretaceous)
- Kcm - Cedar Mountain Formation (Lower Cretaceous)
- Kcs - Cedar Mountain Formation, shale member (Lower Cretaceous)
- Kcb - Cedar Mountain Formation, Buckhorn Conglomerate Member (Lower Cretaceous and Upper Jurassic)
- KJum - Undifferentiated Lower Cretaceous Rocks and Morrison Formation (Lower Cretaceous and Upper Jurassic)
- KJcm - Cedar Mountain Formation and Morrison Formation (Lower Cretaceous and Upper Jurassic)
- Jm - Morrison Formation (Upper Jurassic)
- Jsr - Stump Formation, Redwater Member (Upper Jurassic)
- Jsc - Stump Formation, Curtis Member (Middle Jurassic)
- Je - Entrada Sandstone (Middle Jurassic)
- JTReg - Entrada Sandstone and Glen Canyon Sandstone (Jurassic and Triassic)
- Jca - Carmel Formation (Middle Jurassic)
- JTRg - Glen Canyon Sandstone (Lower Jurassic and Upper Triassic)
- TRc - Chinle Formation (Upper Triassic)
- TRcm - Chinle Formation, Main body (Upper Triassic)
- TRcg - Chinle Formation, Garta Member (Upper Triassic)
- TRm - Moenkopi Formation (Lower Triassic)
- TRPm - Moenkopi Formation and Park City Formation, undivided (Triassic and Permian)
- Pp - Park City Formation (Permian)
- Ppu - Park City Formation, Upper soft member (Upper and Lower Permian)
- Ppc - Park City Formation, Main body (Upper and Lower Permian)
- Ppl - Park City Formation, Lower unit (Upper and Lower Permian)
- PNw - Weber Sandstone (Middle Pennsylvanian)
- PNm - Morgan Formation (Middle Pennsylvanian)
- PNmu - Morgan Formation, Upper member (Middle Pennsylvanian)
- PNml - Morgan Formation, Lower member (Middle Pennsylvanian)
- PNrv - Round Valley Limestone (Lower Pennsylvanian)
- Mdh - Doughnut Shale and Humbug Formation (Upper Mississippian)
- Ms - Shale and dolomite (Mississippian)
- Mm - Madison Limestone (Lower Mississippian)
- MDm - Madison Limestone and older rocks (Mississippian and Devonian)
- OCd - Dike (Lower Ordovician or Upper Cambrian)
- Cl - Lodore Formation (Upper Cambrian)
- Yu - Uinta Mountain Group, undivided (Precambrian/Proterozoic)
- Yus - Uinta Mountain Group, sandstone (Precambrian/Proterozoic)
- Yuss - Uinta Mountain Group, shale and sandstone (Precambrian/Proterozoic)
- Yus4 - Uinta Mountain Group, unit 4 (Precambrian/Proterozoic)
- Yus3 - Uinta Mountain Group, unit 3 (Precambrian/Proterozoic)
- Yus2 - Uinta Mountain Group, unit 2 (Precambrian/Proterozoic)
- Yus1 - Uinta Mountain Group, unit 1 (Precambrian/Proterozoic)

This map was produced by Rachel Yoder (Colorado State University) in June, 2013. It is an overview of compiled geologic data prepared as part of the NPS Geologic Resources Inventory. This map is not a substitute for site-specific investigations.

Minor inaccuracies may exist regarding the location of geologic features relative to other geologic or geographic features on the figure. Based on the source map scales (1:24,000 and 1:62,500) and U.S. National Map Accuracy Standards, geologic features represented here are within 12 meters / 40 feet (24,000) and 32 meters / 104 feet (62,500) (horizontally) of their true location.

The source maps used in creation of the digital geologic data product include paper U.S. Geological Survey Publications (see Geologic Map Data section for specific sources).

All digital geologic data and publications prepared as part of the Geologic Resources Inventory are available at the NPS Integrated Resource Management Applications Portal (IRMA): https://irma.nps.gov/App/Reference/Search. Enter "GRI" as the search text and select a park from the unit list.

