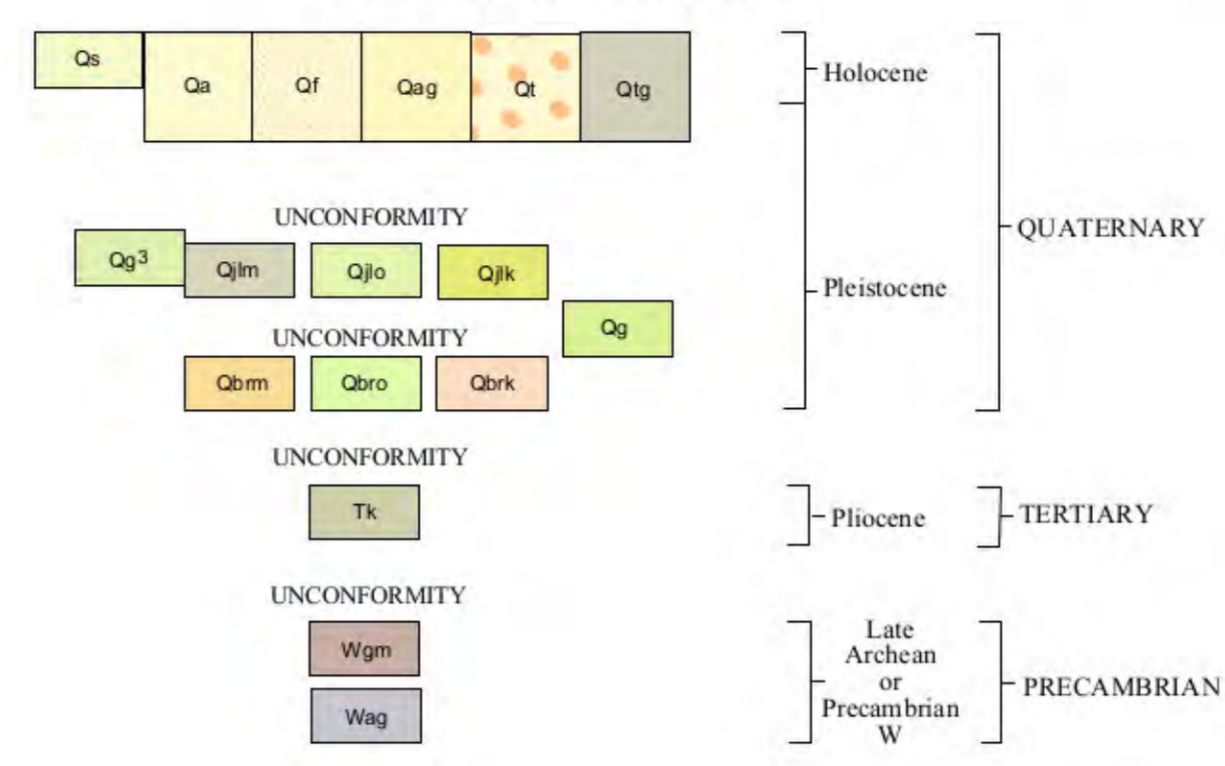


Geology mapped by J. D. Love, 1952, 1973; J. C. Reed, Jr., 1970-1973.  
Digital cartography by Phyllis A. Ranz

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

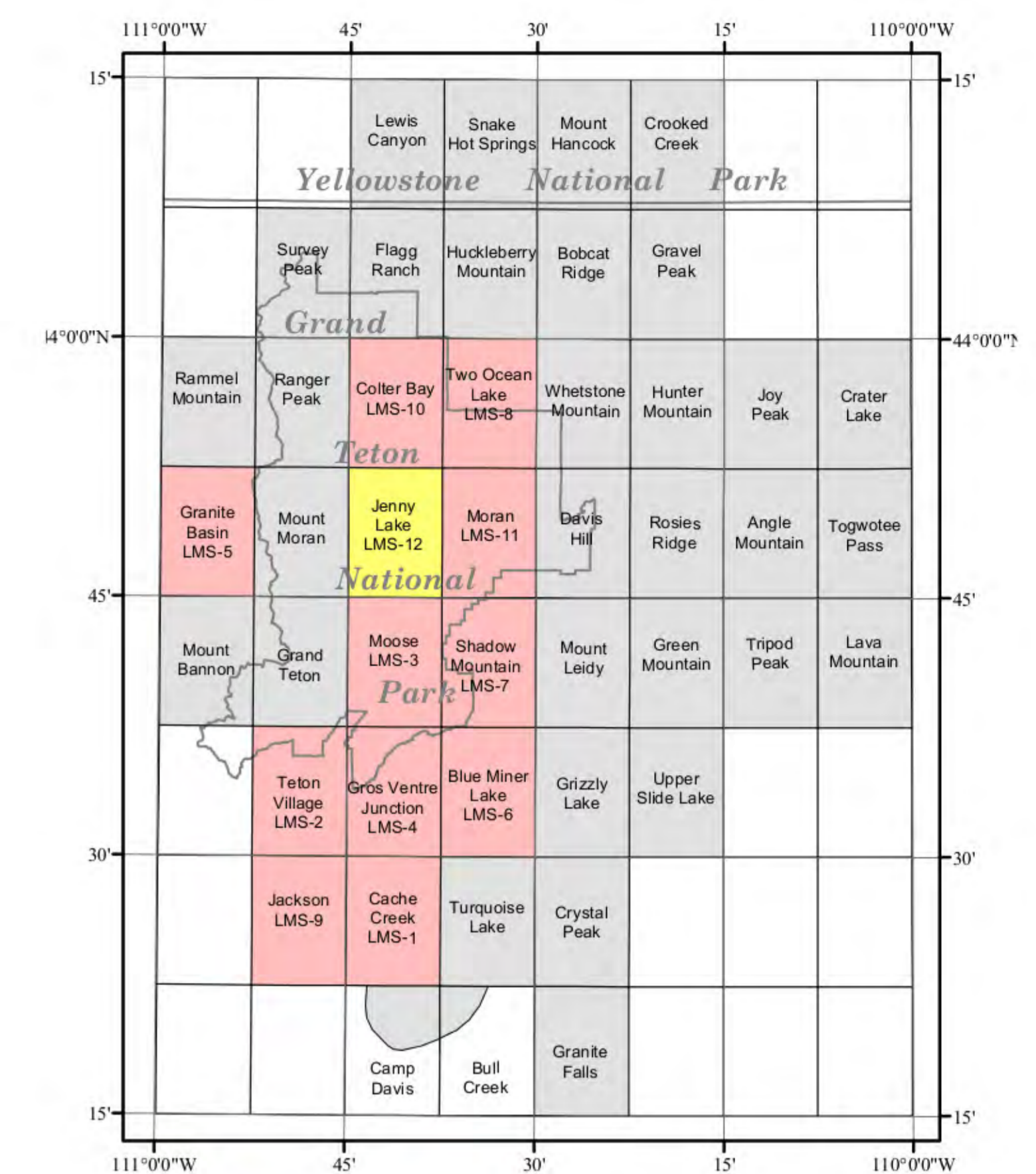
- Surficial deposits (Holocene)**
  - Qs** Swamp deposits—Clay, silt, and fine sand, dark-gray and brown; rich in vegetal debris
  - Qa** Alluvium—Gravel, sand, silt, and clay along modern streams. In places includes fan glacial outwash and stream-laid ice-contact deposits
- Surficial deposits (Holocene and Pleistocene)**
  - Qf** Alluvial fan deposits (including rock glaciers)—Fan-shaped, crudely stratified deposits of water-laid gravel, sand, silt, and clay spread outward from mouths of ravines and canyons; show linear sorting along distributaries; finer grained debris becomes progressively more abundant toward downstream margins of fans
  - Qag** Gravel deposits—Gravel deposited along flood channelways of major streams; composed chiefly of quartzite roundstones
  - Qr** Talus deposits—Locally derived coarse angular rock fragments that accumulate on steep slopes and at the base of cliffs within mountains
  - Qtg** Terrace gravel—Predominantly gravel of rounded quartzite fragments deposited by meltwater from adjacent glaciers
- Surficial deposits (Pleistocene)**
  - Qp3** Glacial debris of third (Pinedale) major glaciation—Morainal debris with sharp rough unmodified surface topography, little weathering of rock fragments (composed mostly of Precambrian rocks from the Teton Range), and sparse soil development. Supports abundant coniferous trees, locally may include older glacial deposits
  - Qjk** Knob-and-kettle topography on Jackson Lake moraine—Abundant irregular closed depressions left by melting of local ice masses buried in outwash deposits from the Jackson Lake moraine
  - Qjo** Jackson Lake outwash—Gravel deposits downstream from Jackson Lake moraine (part of third or Pinedale glaciation); forms terraces graded to Jackson Lake moraine
  - Qjm** Jackson Lake moraine—Part of third (Pinedale) glaciation. Till that is part of the Jackson Lake moraine or that accumulated nearby at the same time; composed largely of locally derived rock fragments. Occurs south and east of Jackson Lake; derived from glacial ice from Teton Range and Yellowstone National Park. Slightly younger than Burned Ridge moraine
  - Qg** Undifferentiated glacial debris—Morainal debris deposited by southward-moving ice from area of Yellowstone National Park or eastward-moving ice from the Teton Range; debris at higher elevations has more subdued topography than the Jackson Lake moraine, probably much is contemporaneous with Burned ridge morainal debris
  - Qbrk** Knob-and-kettle topography on Burned Ridge moraine—Abundant irregular closed depressions left by melting of local ice masses buried in outwash deposits from the Burned Ridge moraine
  - Qbro** Burned Ridge outwash—Gravel deposits downstream from Burned Ridge moraine (part of third or Pinedale glaciation); forms terraces graded to Burned Ridge moraine
  - Qbrm** Burned Ridge moraine—Part of third (Pinedale) glaciation. Chiefly a mixture of quartzite clasts and Cretaceous sands and claystone fragments? Extends across the floor of Jackson Hole south of Jackson Lake. Slightly older than Jackson Lake moraine, although recessional deposits may be the same age. Northeastern and eastern source contributed finer debris that resulted in more subdued topography than that of the Jackson Lake moraine
- Tertiary volcanic rocks**
  - Tk** Kilgore Tuff (Pliocene)—Pale lavender crystal-poor slabby hard rhyolitic welded tuff; black vitrophyric welded tuff at base (where exposed on Two Ocean Lake Quadrangle to the northeast). Potassium-argon (K-Ar) age date on Two Ocean Lake Quadrangle of 5.57 ± 0.19 Ma (Mega-annum or millions of years before present) (Morgan and McIntosh, in press). Previously mapped as Conant Creek Tuff
- Precambrian metamorphic rocks**
  - Wgm** Layered gneiss and migmatite (Late Archean or Precambrian W)—Complexly interlayered fine-to medium-grained biotite gneiss and schist, quartz-plagioclase gneiss, amphibole gneiss and schist, and amphibolite. Layers range from 0.4 inches to 6 or 7 feet in thickness; some extend only 6 or 7 feet, while some are continuous for 600 to 1000 feet or more. Locally sequence contains layers of anthophyllite schist, cordierite gneiss, impure marble, and magnetite iron formation
  - Wag** Augen gneiss (Late Archean or Precambrian W)—Medium-grained strongly foliated and linedated ruddy layered to non-layered medium-to dark-gray biotite gneiss containing conspicuous augen of white microcline 0.4 to 1.6 inches in diameter. Locally contains thin layers of amphibolite and biotite gneiss lacking feldspar augen

MAP SYMBOLS

- Formation contact**
- Normal fault** - Dashed where concealed; ball and bar on downthrow side
- Strike and dip of beds**
  - Inclined**
  - Diabase**
  - Strike and dip of inclined compositional layering; arrow indicates direction and plunge of inclined fold or mineral lineations**
  - Strike and dip of inclined foliation; arrow indicates direction and plunge of inclined fold or mineral lineations**
  - Generalized direction of dip without strike; arrow without number indicates general dip of beds**
- Water well**
- Linear feature conspicuous on aerial photographs** - In bedrock units generally indicates trace of joint, fracture zone, or bedding. In surficial deposits indicates crest of morainal ridge, protalus rampart, ridge on glacier, or outline of talus lobe
- Selected stream channelway** - most have been abandoned because of subsequent drainage changes
- Outlet channel for Jackson Lake**

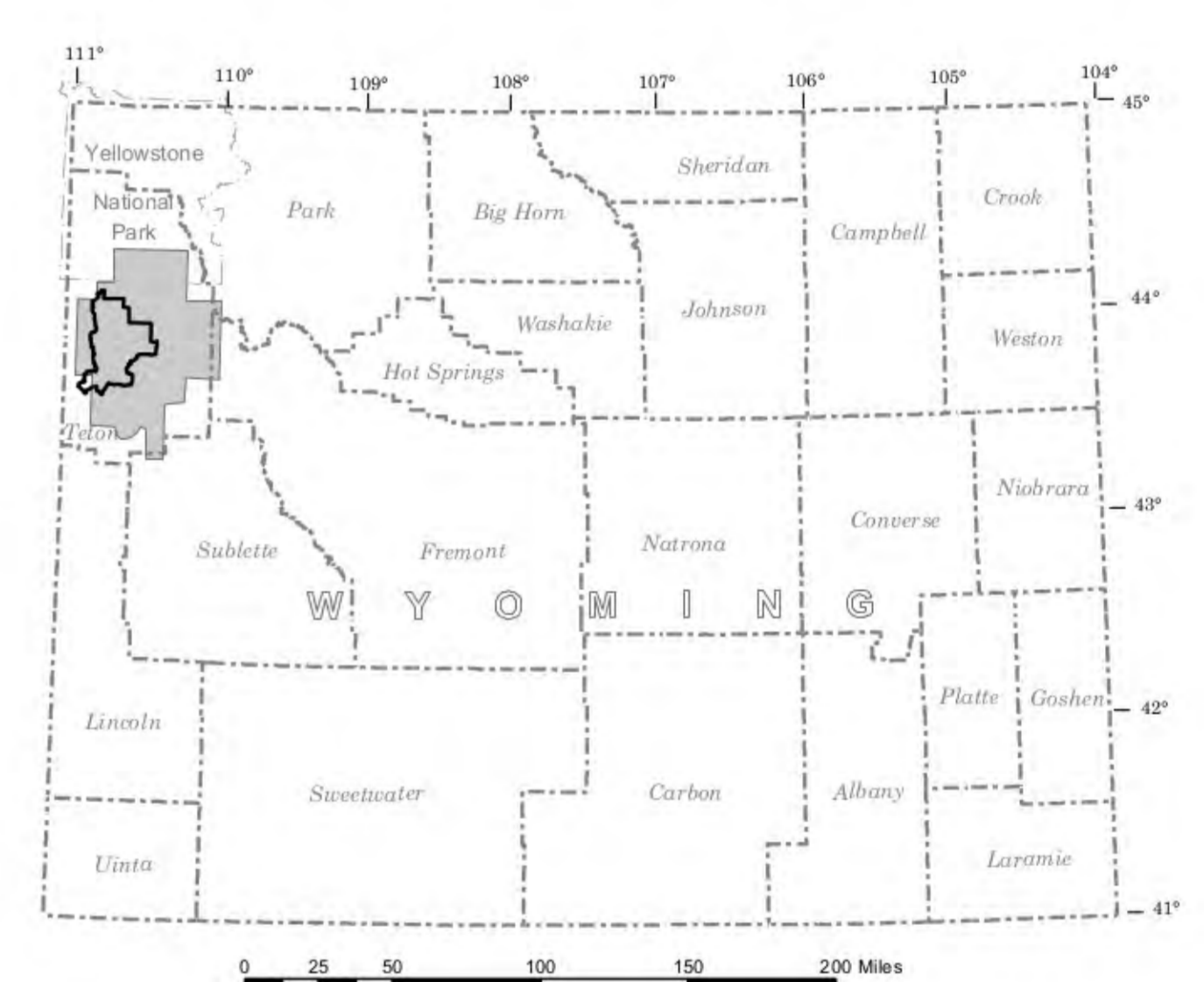
- Terrace sequence** - dots mark outer boundary of terrace surface; except where terrace marks contact between two mappable units; in those places the contact is shown as solid line with hachures on downslope side. Dotted or solid hatched lines within mappable unit depict terrace margins; hachures on downslope side; "WT-3 is youngest, WT-1 is oldest. Some local uncorrelated or unnamed terraces may be shown on map by indicating feet above river level or other terrace level
- Terraces related to opposite sides of Snake River:
  - West side:
    - WT-2 About 100 to 120 feet (30 to 36m) above river level
    - WT-2A 25 feet (7.5m) above WT-2 terrace or 220 to 240 feet (67 to 73m) above river level
  - East side:
    - ET-3 About 220 feet (67m) above river level

EXPLANATION



Current map Map completed Maps in progress

INDEX TO LOVE MAP SERIES SHOWING LOCATION OF 7.5 MINUTE QUADRANGLES AND MAPPING PROGRESS



GENERAL LOCATION MAP

Shaded area indicates Love Map Series; dark outline is boundary of Grand Teton national Park

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GEOLOGIC MAP OF THE JENNY LAKE QUADRANGLE, TETON COUNTY, WYOMING

by  
J. David Love  
2003

