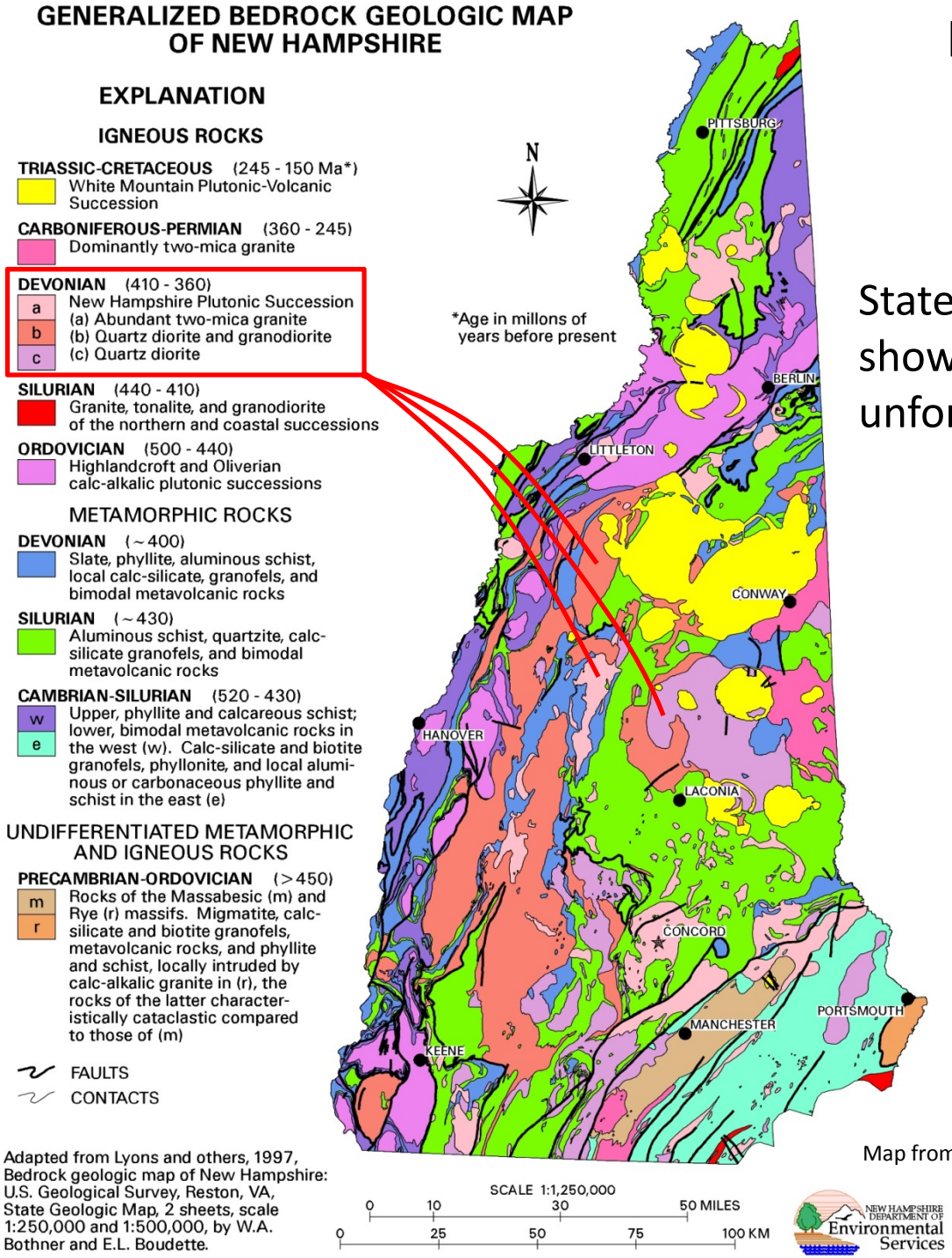
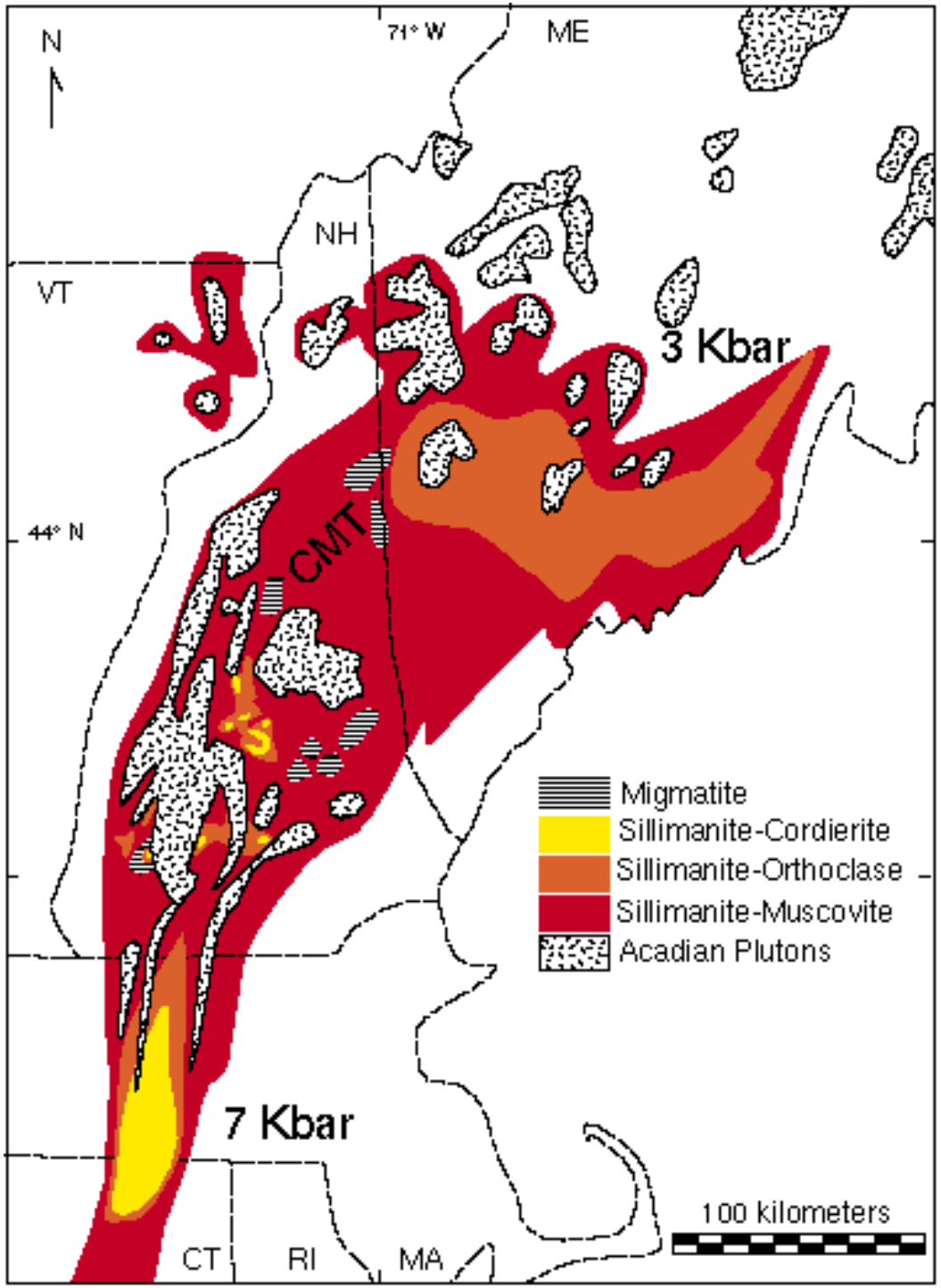
Igneous rocks of the White Mountain Magma Series

State Geologic Map of New Hampshire, showing Devonian plutons in unfortunately hard-to-distinguish shades.



Adapted from Lyons and others, 1997, Bedrock geologic map of New Hampshire: U.S. Geological Survey, Reston, VA, State Geologic Map, 2 sheets, scale 1:250,000 and 1:500,000, by W.A. Bothner and E.L. Boudette.

Map from: http://des.nh.gov/organization/commissioner/pip/publications/geologic/



Highest grade of metamorphism in central New England

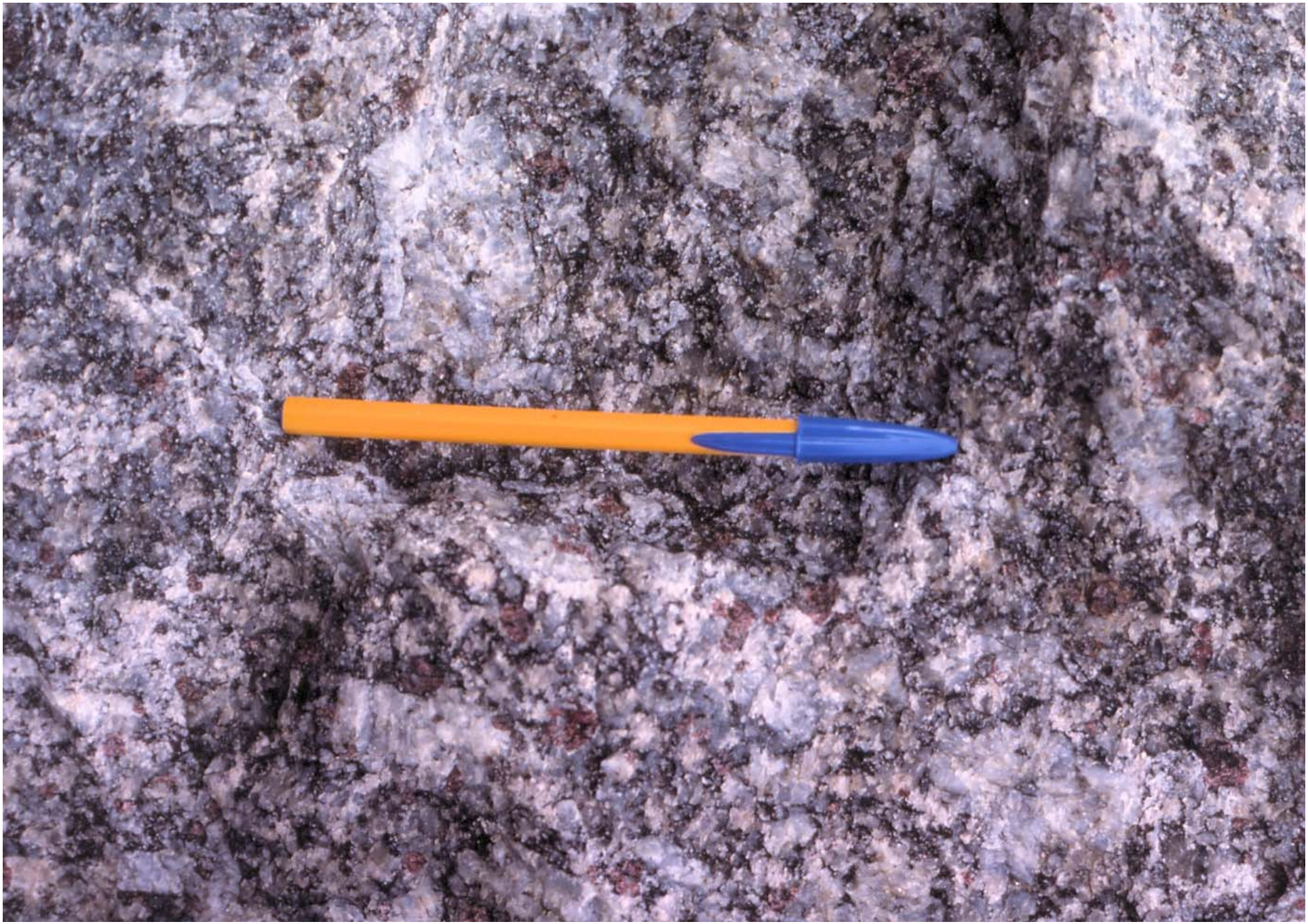
This map is attempting to show that Devonian plutons are associated with the highest grade of regional metamorphism.

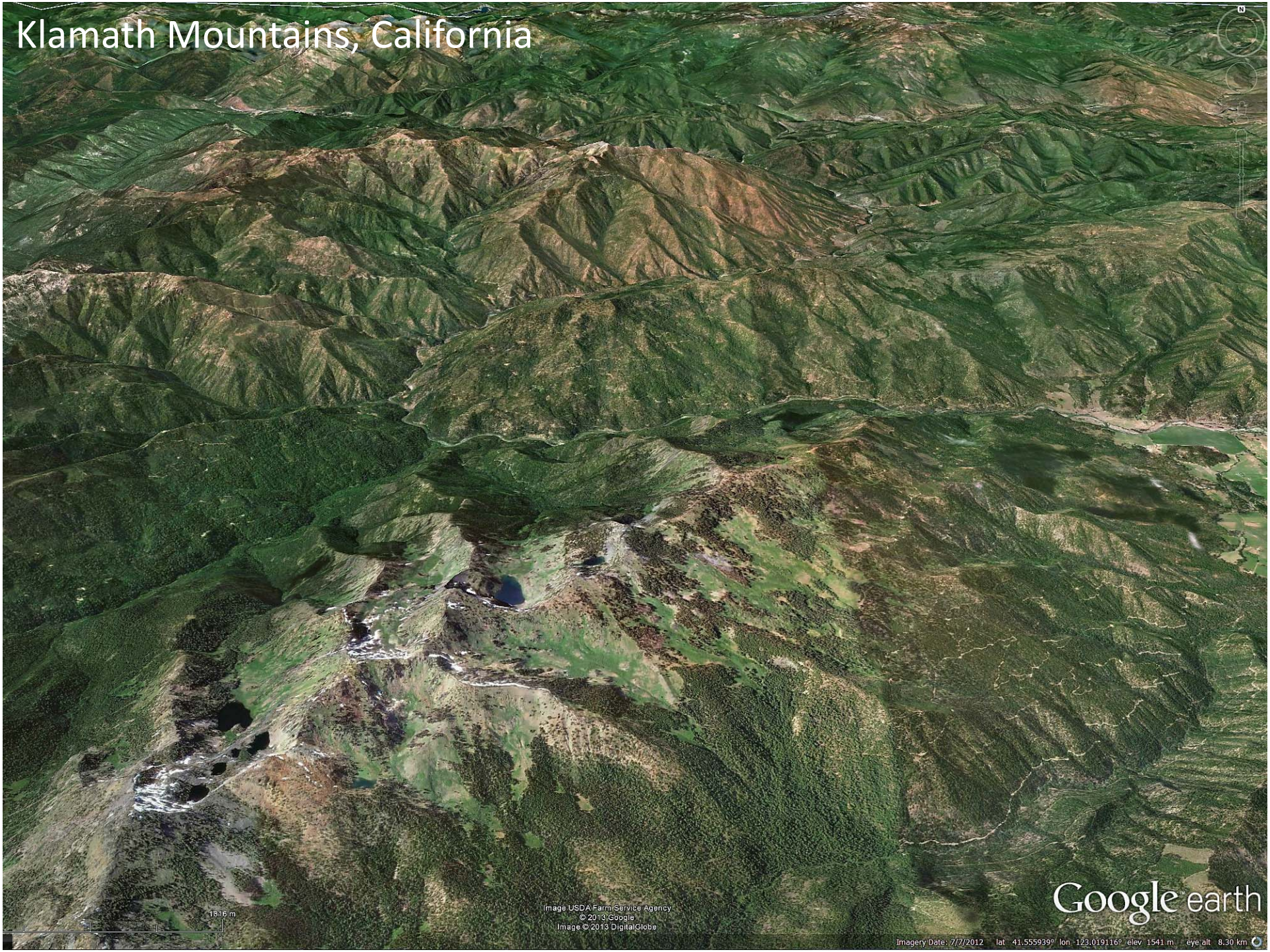
Note that the highest grades of metamorphism in Massachusetts and Connecticut is Pennsylvanian, and a lot of it in southern Maine is Permian. The migmatite regions are strange and should be ignored. Source unknown.

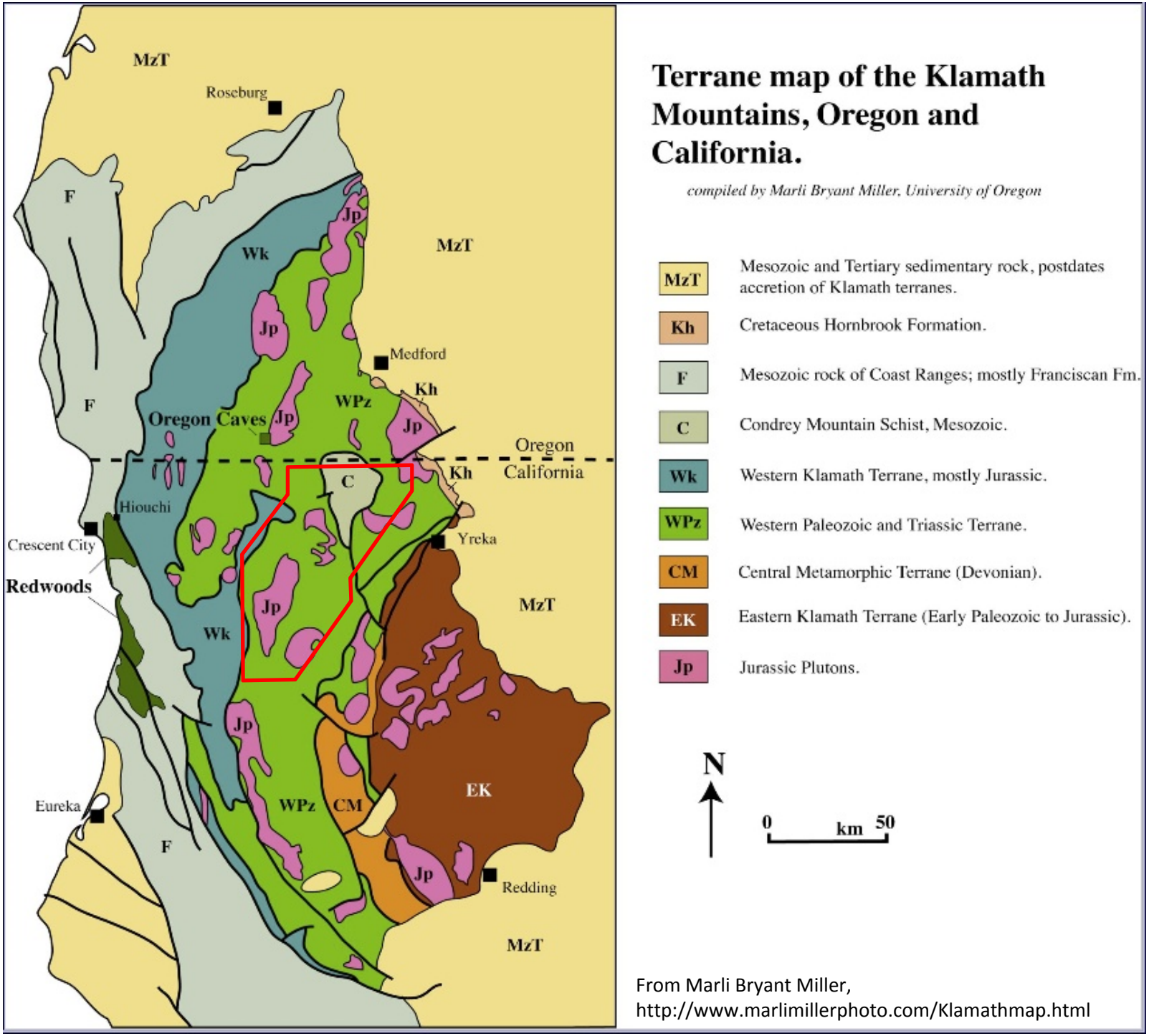
Summit of Mt. Cardigan, NH, made of Kinsman granodiorite and pegmatite dikes

Source unknown

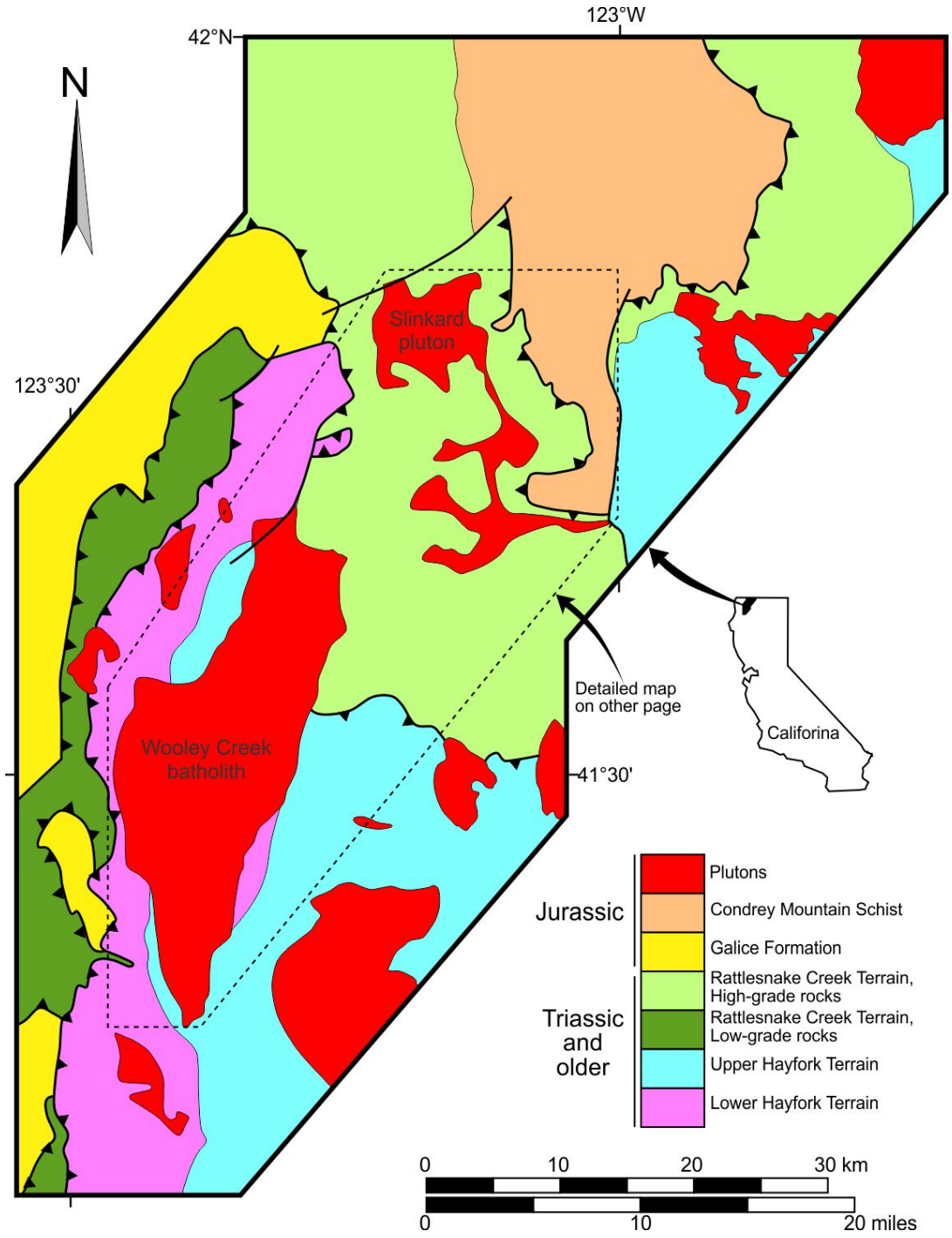
Kinsman granite. Note the large microcline porphyroblasts and garnets.




Klamath Mountains, California
Image USDA Farm Service Agency
© 2013 Google
Image © 2013 DigitalGlobe
Google earth
Imagery Date: 7/7/2012 lat 41.555939° lon -123.019116° elev 1541 m eye alt 8.30 km



From Marli Bryant Miller,
http://www.marlimillerphoto.com/Klamathmap.html

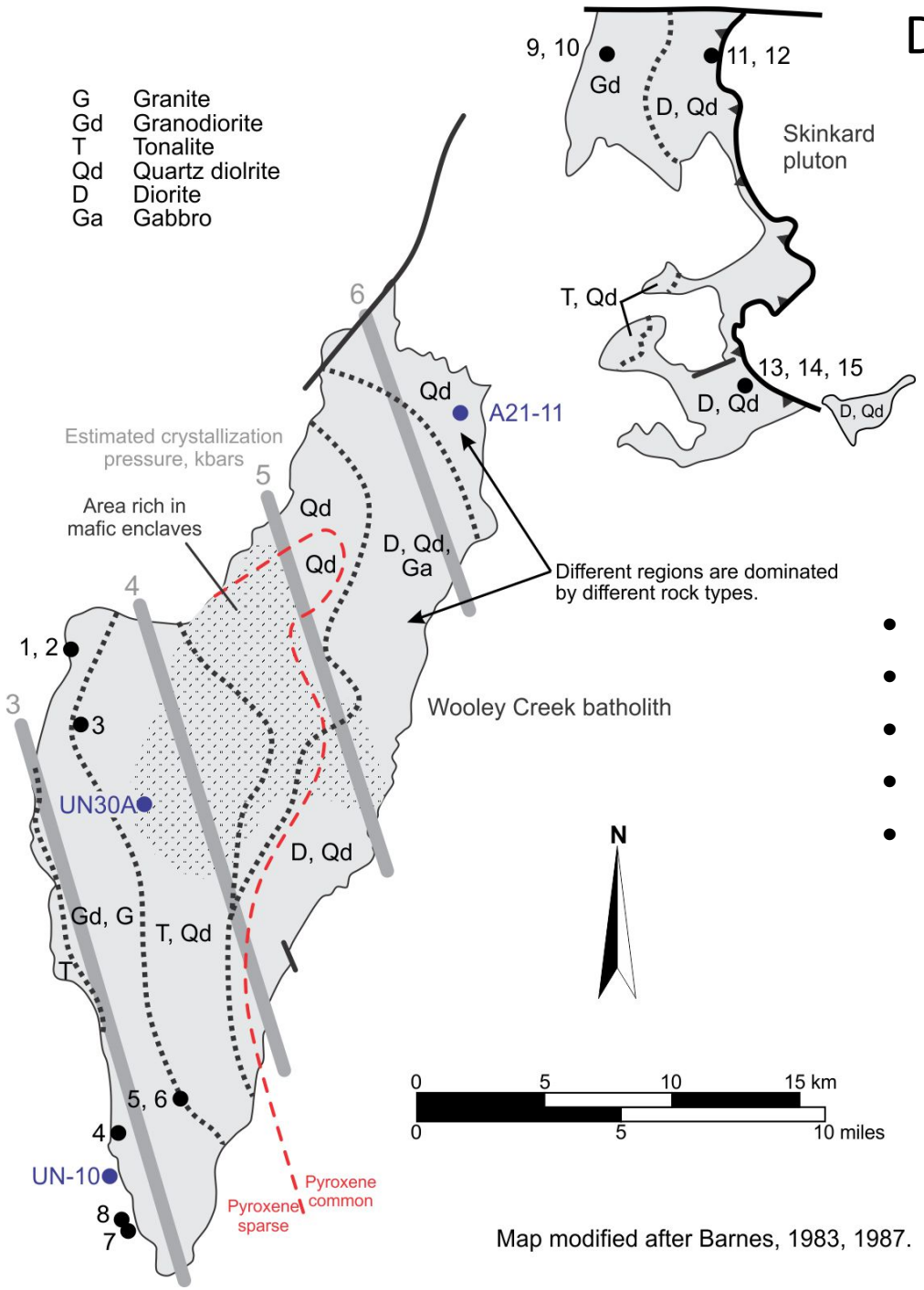


Generalized geologic map of the Wooley Creek Batholith-Slinkard pluton area.

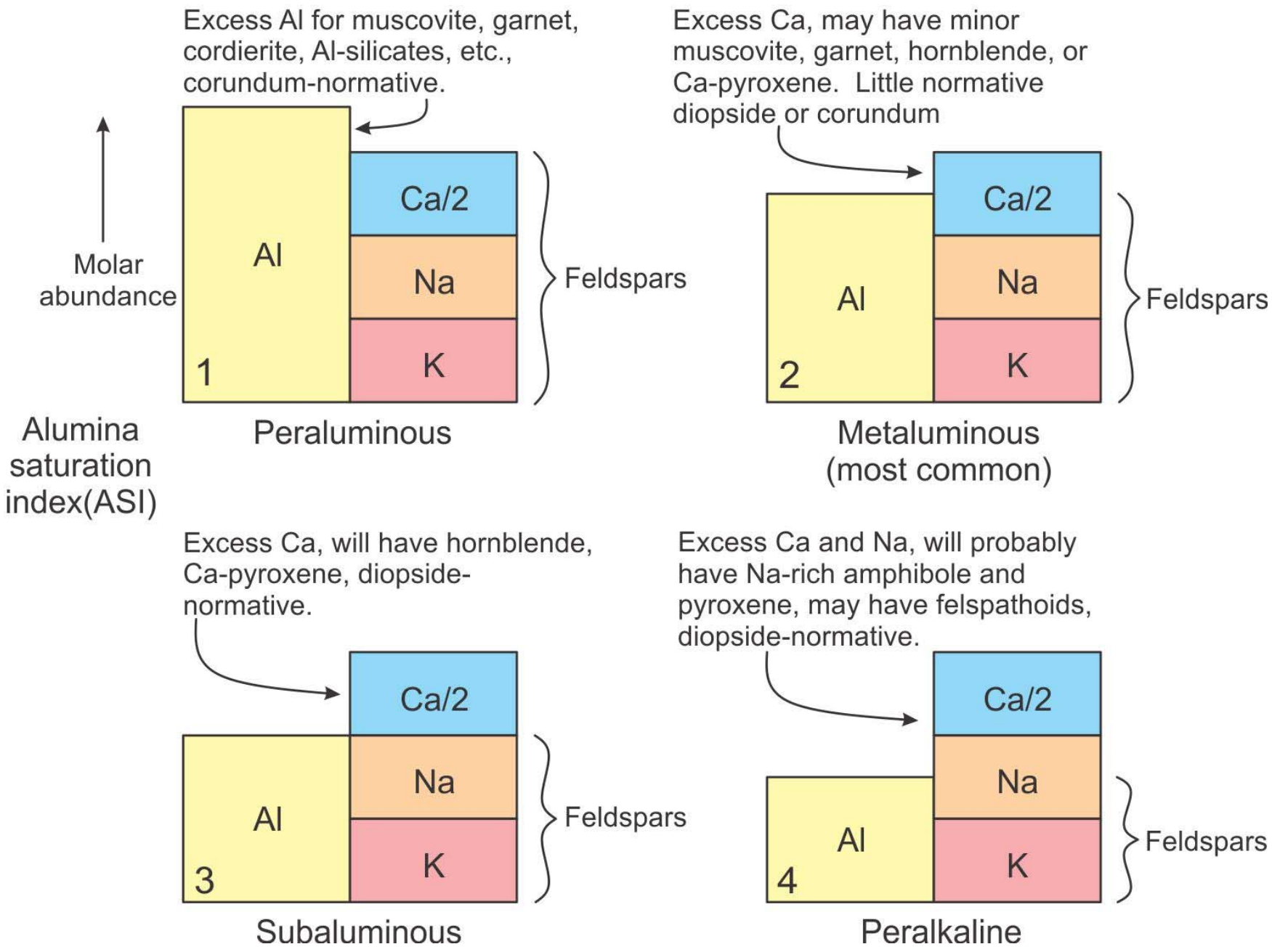
Jurassic continental arc plutons cut mostly Triassic older rocks.

Map after Barnes, 1983.

Detailed map of the Wooley Creek batholith and Slinkard pluton



- Most common rock types
- Pyroxene abundance
- Calculated igneous crystallization pressure
- Enclave abundance
- Sample locations



Calculating the alumina saturation index: molar Al/(Na+K+(Ca-1.67*P)*2)