

# Idaho Batholith

**Kgd** - Granite and granodiorite of the two-mica suite (Cretaceous)--Includes biotite granodiorite of the 2-mica suite (Kgd) and muscovite-biotite granite and granodiorite of the 2-mica suite (Kmg); also Kgd of Salmon Forest.

**Kgdh** - Granite and granodiorite of the hornblende-biotite suite (Cretaceous)--Includes hornblende-biotite granodiorite (Khbgd), hornblende granodiorite (Khgd; check), biotite granodiorite (Kgbd), and potassium-rich granodiorite). Also includes megacrystic granodiorite and minor syenite.

**Kog** - Orthogneiss, foliated granodiorite, and foliated granite (Cretaceous)--Includes Kpg of Salmon Forest

**Ktg** - Tonalite and quartz diorite (Cretaceous)--

**Kmp** - Mylonitic plutonic rocks within the western Idaho suture zone (Cretaceous)--

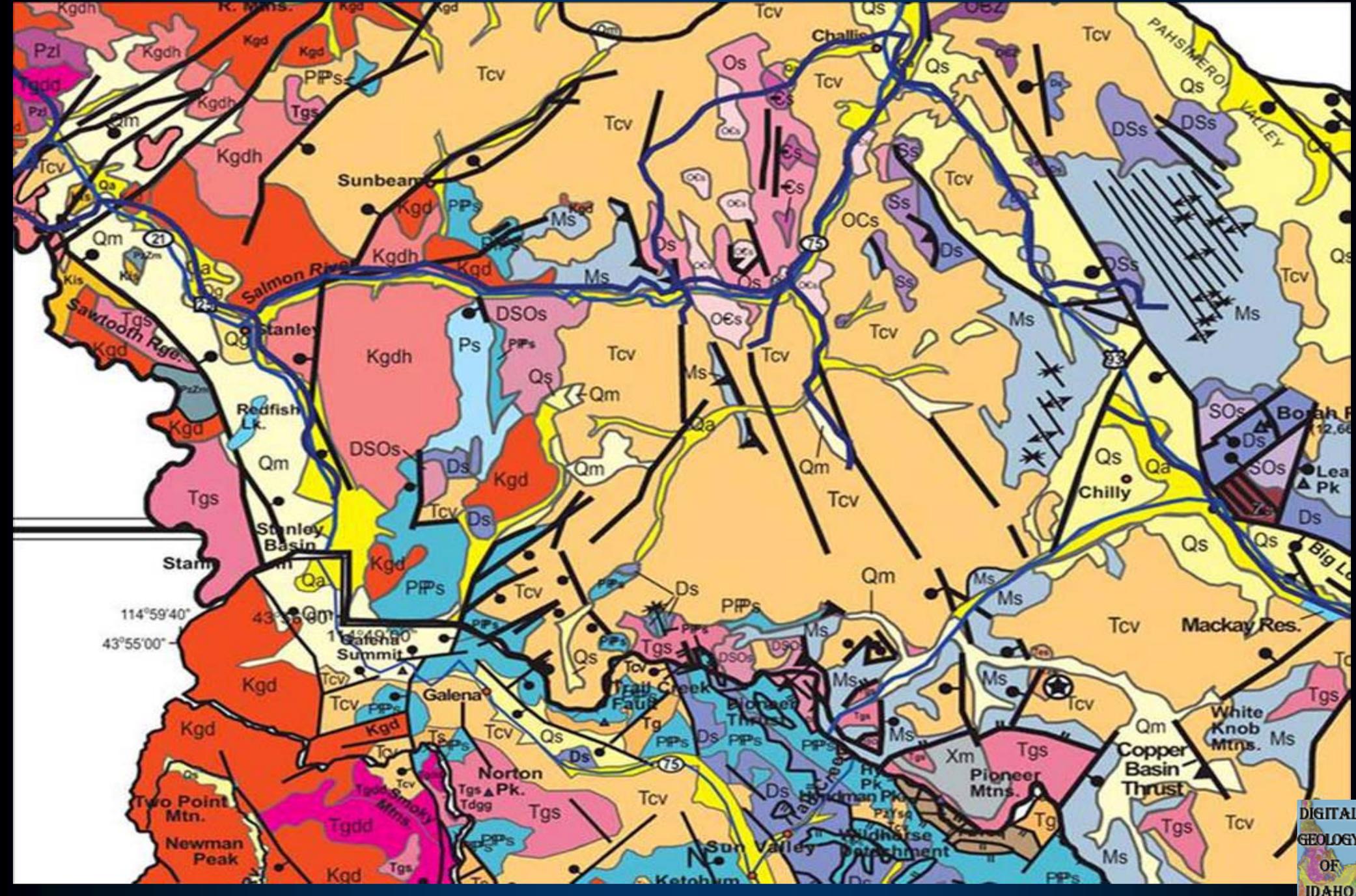
**KJtt** - Tonalite and trondhjemite (Cretaceous and Jurassic?)--Includes biotite- and hornblende-biotite tonalite and biotite-muscovite trondhjemite. Primarily along suture zone. All dated bodies are Cretaceous.

Bitterroot  
Lobe

Atlanta Lobe



Map showing lobes of the Idaho  
Batholith and geology



Geologic map of parts of Blaine and Custer Counties. Shows cross section from batholith east through core complex to thrust belt.



Sawtooth Valley, view to northwest from Galena Summit. The jagged peaks in the north part of the view are in the Eocene Sawtooth batholith. The more gentle peaks south of the prominent glacial lake (Alturas Lake) in center of view are cut from Cretaceous granodiorite of the Idaho batholith. The sculpted hill in foreground is made of glacial debris.



Aerial view of Idaho batholith flying from Boise to Pocatello. Note the concordant summit surface, likely of Miocene age, and predating uplift of the batholith. The river is the south fork of the Boise River. View is to the north.



Castle Peak in the White Cloud Mountains. Peak is underlain by gray granodiorite of the Idaho batholith. White rocks on the right are baked impure limestone of the Permian Grand Prize Formation, intruded by the Cretaceous granodiorite. View is to north from north of 4th of July Creek.



View of White Cloud Mountains from Washington Basin. Dark bedded rocks in foreground are Permian Grand Prize Formation. Low knobby hills in distance are underlain by Idaho batholith.



Buttercup Mountain in the southern Smoky Mountains north of Fairfield. The mountain is underlain by Cretaceous Idaho batholith. Rocks in foothills are Pennsylvanian and Permian Dollarhide Formations.



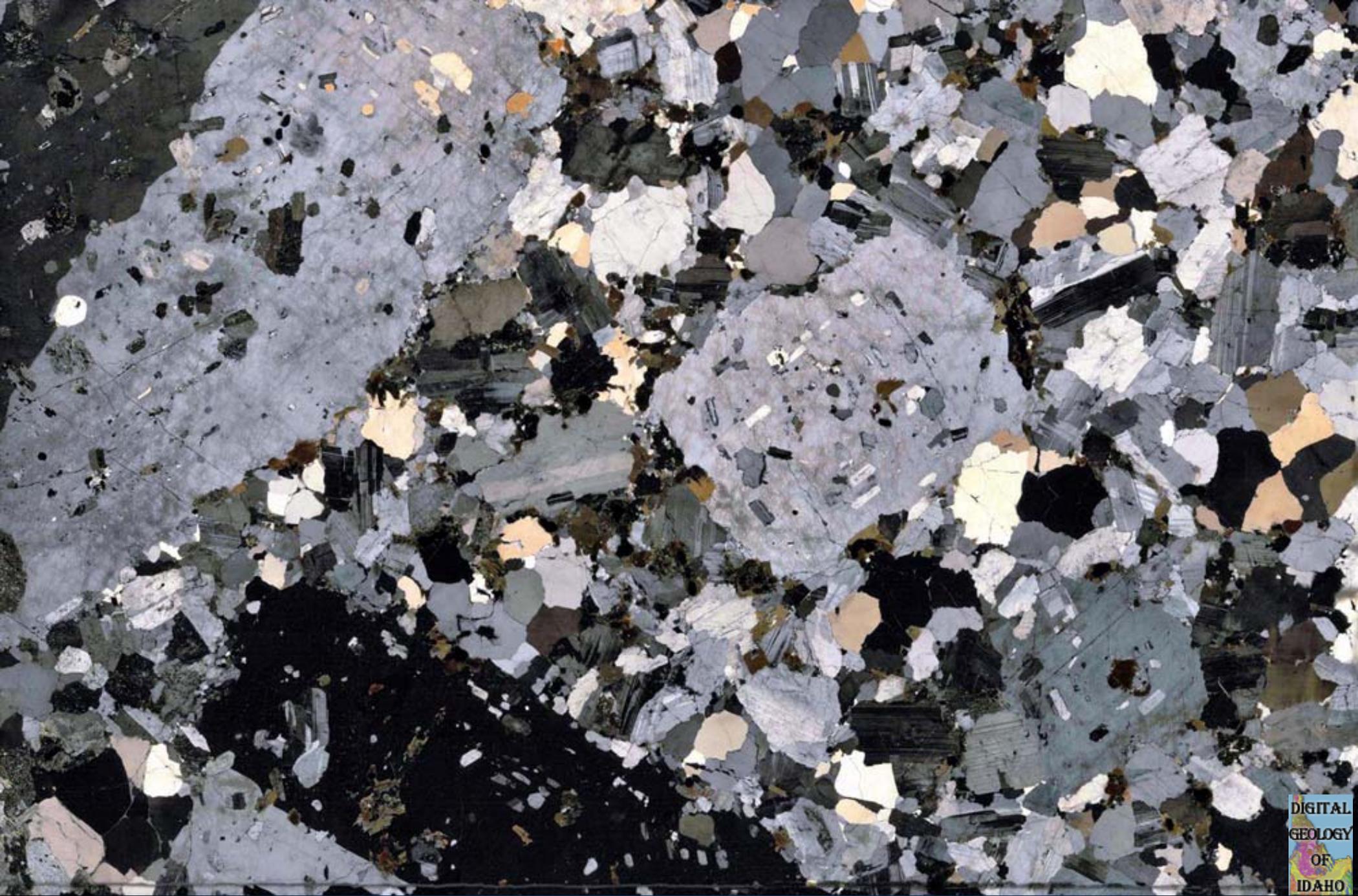
View of South Fork of Boise River and placer workings at Placerville. Rocks are Cretaceous Idaho batholith, mostly.



Yankee Fork dredge. This device mined for placer gold in Yankee Fork of Salmon River until about 1955. Tours are still available.



Middle Fork Boise River at Lightfoot Hot Springs, Atlanta Lobe Idaho batholith, photo by Reed Lewis.



Cretaceous Biotite granodiorite, crossed polars. Megacrysts of potassium feldspar with inclusions.



Biotite granodiorite, Bitterroot Lobe, Idaho batholith.



Gneiss (metamorphosed Belt Supergroup?), margin of Bitterroot Lobe, Idaho batholith.



Foliated xenolith in granodiorite, mp 151, Highway 12, Lochsa River.



Mafic dike cutting Idaho batholith. Dike may be related to Challis or Columbia River basalt magmatism.



Gneiss on margin of Bitterroot Lobe, Clearwater Mountains.



Foliated Cretaceous granodiorite, above Horse Creek, western border zone of batholith.  
Note boudinage of felsic minerals.



Foliated  
Jurassic diorite  
at Dworshak  
Dam visitors  
center, just east  
of Orofino shear  
zone.



Tonalite, mp 84, Highway 12, Clearwater River.



Kent Peak from trailhead to TwoMouth Lakes, Selkirk Mountains, Cretaceous Kaniksu batholith. Note exfoliation of glaciated granitic dome.



Joe's Lake Cirque, Selkirk Mountains, Cretaceous granodiorite.