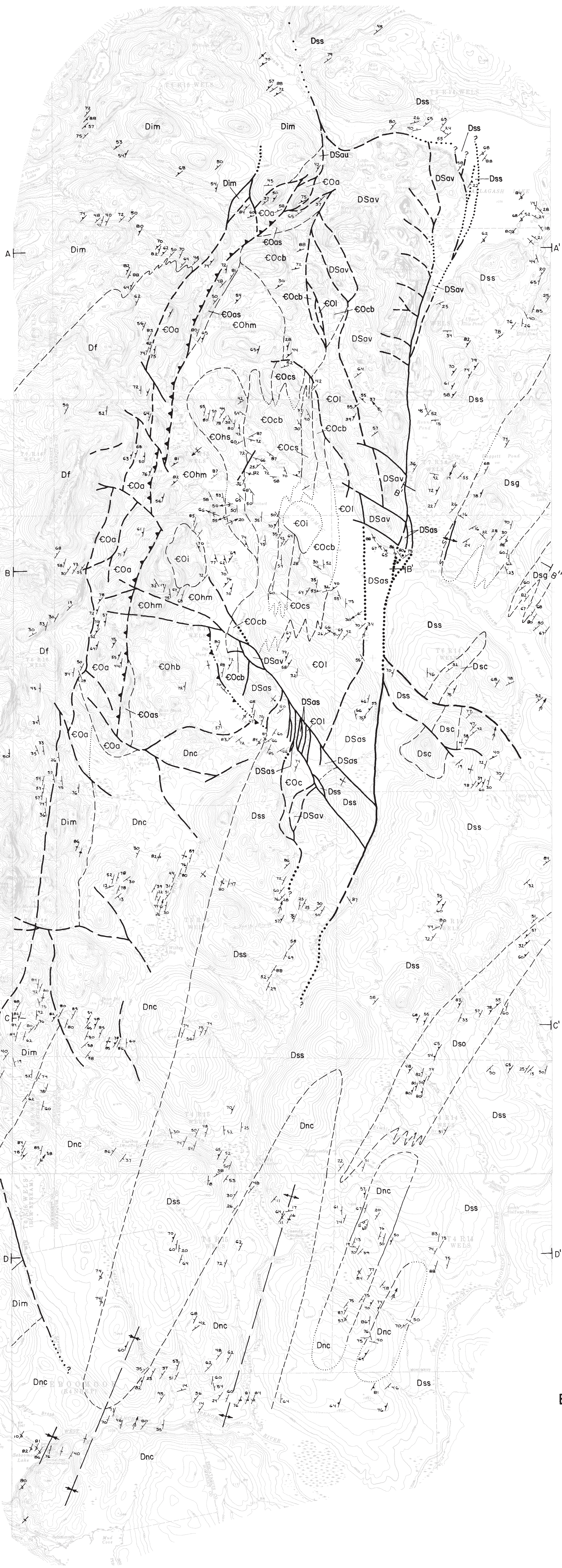


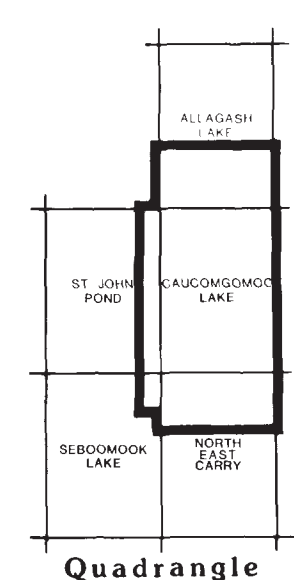
BEDROCK GEOLOGY
of the
CAUCOMGOMOC LAKE AREA, MAINE
by
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DEPARTMENT OF CONSERVATION
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1985



- Contact
- - - Fault
- - - Premetamorphic thrust fault associated with melange formation
- 77° / 41° Strike and dip of beds, inclined, vertical, and overturned (dot indicates topping direction)
- 77° / 41° Strike and dip of foliation/slaty cleavage
- 41° / 77° Strike and dip of basalt flow tops
- 77° / 41° Fold axis of minor folds in the melange
- 77° / 41° Trend and plunge of small anticline
- 77° / 41° Trend and plunge of small syncline
- 77° / 41° Axis of major anticline
- 77° / 41° Axis of major syncline



- Dss** Medium dark gray to dark gray slate. Bedding thickness ranges from 1 cm to 35 cm. This unit consists of three varieties of slate based on the abundance, bedding characteristics, and sedimentary structures of metasilstone and metasandstone laminae or beds. The first variety of slate is characterized by very fine-grained metacalcarenites in beds 15 to 35 cm thick and rare to uncommon metasilstone laminae less than 5 mm thick. Also, isolated metasandstones in beds to 1 m thick are rare. The second variety of slate is characterized by very fine- to fine-grained metacalcarenite in beds 1 to 15 cm thick and abundant metasilstone or metasandstone laminae less than 5 mm thick. Very fine-grained metasandstone beds less than 10 cm thick are rare. Laminae of this unit are of uniform thickness and commonly devoid of sedimentary structures. The third variety of slate consists of slate with ubiquitous, discontinuous, flaser laminae of metasilstone. The third variety is uncommon.
- Dsg** Thin-bedded medium dark gray to dark gray slate interbedded with thin-bedded medium dark gray metasandstone. Overall, this unit consists of approximately 50% slate and 50% metasandstone. Maximum bedding thicknesses are 8 cm. The metasandstone beds commonly exhibit ripple cross lamination.
- Dsc** Metaconglomerate consisting predominantly of pebble to cobble size clasts of aphanitic and phryic volcanics. Clasts are commonly subangular to subrounded. The conglomerate is clast supported.
- Dso** Sedimentary melange (olistostrome) consisting of claystone slate matrix supporting clasts (pebbles to small boulders) of aphanitic felsic to intermediate volcanics, gabbros and monodiorites. Additionally, slumped metasandstone beds are common.
- Dnc** Northeast Carry Formation - Medium dark gray, very fine-grained metasandstone with subordinate slate. Metasandstone beds range from 5 cm to 1.5 m thick. Sedimentary structures in the metasandstone beds are variable but commonly exhibit structures consistent with deposition from turbidity currents. Slate is subordinate, occurring as thin beds (less than 6 cm) interbedded with the metasandstones. Locally the slate may occur in units several meters thick interbedded with the metasandstones.
- Dim** Ironbound Mountain Formation - Medium dark gray to dark gray claystone slate. Bedding thicknesses are variable. Slate beds range from 2 cm to 30 cm. Thin laminae of metasilstone and very fine-grained metasandstone are generally uncommon.
- Dimg** Metasandstone member - Thin-bedded, medium dark gray to greenish gray, very fine-grained metasandstone. Beds are commonly less than 15 cm thick. Slate is a subordinate lithology as thin beds, less than 6 cm, interbedded with the metasandstone. Sedimentary structures are not well developed within the metasandstone.
- Dsa** Allagash Lake Formation
- DSav** Medium dark gray to grayish black aphyric, fine-grained basalt. Locally pillow structures ranging between 50 cm to 1 m are common. Interpillow and interflow areas are commonly characterized by epidote and early hematite mineralization. Grayish red siltstone, pebble conglomerate, and sandy bionerites or fossiliferous micrites are locally interbedded with the basalt flows.
- Dsas** Mixed sedimentary rocks. The unit variably consists of grayish, fine- to coarse-grained quartz arenite and quartz pebble conglomerate; grayish, fine- to coarse-grained lithic arenite wackes, pebble and cobble lithic conglomerates; grayish red, poorly sorted fine- to coarse-grained, quartz and sublithic arenite and grayish, sandy micrite to sandy fossiliferous micrite. These lithologies are commonly interbedded over relatively short stratigraphic distances, occurring locally as regressive complexes from sandy micrite upwards through grayish quartz and lithic arenite/conglomerate into grayish red sandstone and conglomerate. Sedimentary structures include graded beds, flaser bedding, trough and herringbone cross bedding, ripple bedding, and desiccation marks.

- ODF** Frontenac Formation - Medium gray, very fine- to fine-grained metasandstone. Predominantly medium to thick-bedded (30 cm to 2 m). Sedimentary structures are rare. Coarse-grained lithic metasandstone and pebble conglomerate uncommon. Subordinate rock types include thin-bedded (15 cm), medium dark gray to grayish black, laminated phyllite and slate.
- EOa** Avery Brook Formation - Chlorite-epidote-plagioclase schist, epidote-chlorite-plagioclase schist, and plagioclase-chlorite-epidote schist. (Metabasalt and gneiss). Characterized by concretionary epidote masses, pyritically folded epidote veinlets, and ubiquitous, moderately spaced (2-15 cm), wavy foliation.
- COas** Sedimentary member - Mixed metasedimentary rocks. Pebble to boulder conglomerate (the clasts of this unit consist of phryic and aphyric metabasalt); thin to medium-bedded, greenish gray to dark greenish gray, very fine-grained metasandstone; thin-bedded, medium gray to medium dark gray, fine-grained quartzose metasandstone; thin-bedded, dark gray or greenish gray slate. Sedimentary structures generally uncommon. Graded bedding and ripple cross lamination are local structures.
- EOh** Hurd Mountain Formation
- COhm** Metasilstone melange - Matrix consists of dark gray to grayish black, pervasively sheared slate, phyllite, metasilstone, grayish, pervasively sheared, fine- to coarse-grained quartz arenite, and quartzwacke. Exotics include sheared pebble to railroad boxcar sized fragments of limy metasilstone, quartzwacke, metabasalt, and rarely metaproxenite and metagabbro.
- EOhb** Metabasalt member - Greenish gray, fine-grained, aphyric and phryic metabasalt and metabasalt agglomerate. Metabasalts commonly in pillowed and non-pillowed flows. Variolitic textures common. Agglomerates consist of metabasalt bombs up to 30 cm in a chlorite schist (metasandstone) matrix.
- COhs** Metasedimentary member - Medium dark gray to greenish gray and dark greenish gray, very fine-grained metasandstone interbedded with greenish gray, fine-grained aphyric metabasalts. Metasandstones are medium to thick-bedded and lack sedimentary structures.
- EOc** Caucomgomoc Lake Formation
- EOcb** Basalt member - Metabasalt with subordinate sedimentary rocks. Metabasalts include greenish gray to dark greenish gray, phryic and aphyric flows, tuffs, lapilli tuffs, and agglomerates. Pillow structures are common; flow breccias are rare. Sedimentary rocks include fine- to coarse-grained, grayish and grayish green quartz and feldspathic wackes; reddish weathering metachert; and greenish gray slate and minor conglomerate with metabasalt clasts.
- COcs** Sedimentary rock member - Mixed sedimentary rocks. Grayish to grayish green, fine- to coarse-grained quartz wackes. Commonly medium to thick beds devoid of sedimentary structures. Minor sedimentary melange (olistostrome) and greenish gray to pale green slate and phyllite. Sedimentary melange consists of grayish slate matrix with well developed cleavage. Exotics include rounded cobbles to small boulders of aphyric and phryic metabasalt and quartz metabasalt.
- EOl** Loon Stream Formation - Greenish gray to pale green slate, phyllite, and metasilstone. Grayish red color locally developed; locally characterized by ubiquitous, thin, buff weathering buff or metasilstone laminae. Minor lithologies include greenish gray, fine- to medium-grained quartz metabasalt and greenish gray, phryic aphanitic sills or flows. Phenocrysts include saussuritized feldspar and quartz to 3 mm.
- EOi** Intrusives - Fine- to medium-grained, phaneritic metagabbro, metamonodiorite, and metaproxenite. Intrusions are differentiated bodies and locally show well developed igneous layers of metagabbro alternating with metaproxenite.

Cross-Sections

