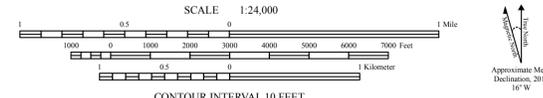


SOURCES OF GEOLOGIC INFORMATION
 Field work by Timothy W. Grover, 2008, and by David P. West, Jr., 2015.
 Published reconnaissance map by Donald W. Newberg, 1992.



Base map features from Maine Office of GIS - 1:24,000 USGS contour lines, E911 roads, 1:24,000 National Hydrography Dataset, USGS GNIS placenames and 1:24,000 political boundaries. Map projection Universal Transverse Mercator, North American Datum, 1927.
 The use of industry, firm, or local government names on this map is for location purposes only and does not impute responsibility for any present or potential effects on the natural resources.

EXPLANATION OF UNITS

- INTRUSIVE ROCKS**
Devonian(?) [D]
 Dg Granite.
 Dgmn Muscovite-biotite granite and pegmatite.
 Wadoboro Pluton.
 Dwgn Foliated granite with garnet. Garnet-bearing, foliated, medium-grained to coarse-grained, grayish orange-pink to greenish gray granite, locally gneissic. Gradational to granodiorite where ferromagnesian mineral segregations and clots are common. Ubiquitous schlieren and abundant boudinaged metasedimentary xenoliths. Abundant pegmatoid dikes, sheets, and irregular bodies.
 Dggb Newcastle Gabbro (Newberg, 1992). Black, fine-grained massive hornblende gabbro, and foliated, layered hornblende amphibolite.
- DEFORMED INTRUSIVE ROCKS**
Devonian(?) [D]
 Dha Haskell Hill Granite Gneiss. Light gray, fine-grained to medium-grained, foliated biotite granite. Encloses thin scattered rafts of foliated Lincoln syenite porphyry.
Devonian-Silurian(?) [DS]
 Lincoln Syenite.
 DSlsf Foliated. Light to dark gray, coarse-grained, biotite- and amphibole-rich foliated syenite with relict blue-gray alkali feldspar megacrysts. Deformed and metamorphosed variety of the Lincoln shonkinitic syenite.
- STRATIFIED ROCKS**
Silurian(?) [S]
 Klugebear Group
 Sb Bucksport Formation. Medium-bedded, medium gray to light gray, quartz-feldspar-biotite granofels with interbedded medium green to greenish-gray, diopside calc-silicate granofels.
 Ordoician [O]
 Ocea Cape Elizabeth Formation. Light silvery gray quartz-biotite-muscovite schist, commonly interbedded with white quartz-feldspar granofels in thin to medium beds.
 Ocem Amphibolite. Dark gray amphibolite and hornblende gneiss, locally with garnet.
 Ocep Mylonite. Quartz-biotite-garnet-muscovite schist, strongly sheared.
 Ocep Porphyroclastic schist. Light gray, moderately rusty-weathering, sillimanite-garnet-mica schist characterized by sheared feldspar porphyroclasts up to 5 centimeters across. Inferred to underlie a small area at the western edge of the map, based on mapping in the Wiscasset quadrangle (West, 2016).
- HIGHLY DEFORMED ROCKS**
Devonian-Ordoician(?) [DO]
 Dyer Dyer Long Pond Complex (Grover, 2007). Strongly foliated and sheared, heterogeneous assemblage of rock types dominated by felsic plutonic gneisses. Biotite-sillimanite schist, and biotite-rich schist with feldspar porphyroclasts are common.

EXPLANATION OF LINES

- Contact between rock units, of stratigraphic or intrusive origin (well located, approximately located, poorly located).
- Structural boundary between more deformed rocks of the Dyer Long Pond Complex and less deformed rocks of the Cape Elizabeth Formation. May represent a fault.
- High-angle fault, interpreted from truncation of units on the map or from minor faults in outcrop (approximately located, poorly located).
- Boothbay thrust, teeth on original upper plate. Interpreted as a major regional thrust fault because it places older rocks above younger rocks over a wide area (Hussey and Berry, 2002). Traced from mapping in the Boothbay area to the south (Hussey and Marvinyne, 2002). This thrust is folded, overprinted by peak metamorphism, and by widespread dextral shear fabrics (well located, approximately located, poorly located).

Reconnaissance Bedrock Geology of the Damariscotta Quadrangle, Maine

Bedrock geologic mapping by Timothy W. Grover and Donald W. Newberg
 Digital cartography by Amber T. H. Whittaker
 Geologic editing by Henry N. Berry IV, Thomas E. Whittaker
 Cartographic design by Christian H. Halsted
 Robert G. Marvinyne, State Geologist

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 2016
 This map supersedes Open-File Map 92-55.

EXPLANATION OF SYMBOLS

- Note: Structural symbols are drawn parallel to strike or trend of measured structural feature. Barb or tick indicates direction of dip, if known. Annotation gives dip or plunge angle, if known. For most planar features, symbol is centered at observation point; for joints, observation point is at end of strike line opposite dip tick. For linear features, tail of symbol is at observation point. Multiple measurements at a site are represented by combined symbols. Symbols on the map are graphical representations of information stored in a bedrock database at the Maine Geological Survey. The database may contain additional information that is not displayed on this map.
- Outcrop of mapped unit.
 - Diabase dike.
 - Bedding, tops direction unknown (inclined, vertical).
 - Compositional layering; might represent relict bedding in some cases (inclined, vertical).
 - Metamorphic foliation (inclined, vertical).
 - Lincation (plunging).
 - Feldspar alignment in deformed pluton.
 - Fold axis (plunging, horizontal).
 - Minor fault with slickensided surface (inclined).
 - Joint (inclined, vertical).

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 West, David P., Jr., 2016 (in press), Bedrock geology of the Wiscasset quadrangle, Maine: Maine Geological Survey, Open-File Map, color map, scale 1:24,000.

GEOLOGIC TIME SCALE

Geologic Age	Absolute Age*
Cenozoic Era (Cz)	0-66
Mesozoic Era (Mz)	66-252
Paleozoic Era (Pz)	252-299
Permian Period (P)	299-359
Carboniferous Period (C)	359-419
Devonian Period (D)	419-444
Silurian Period (S)	444-485
Ordovician Period (O)	485-541
Cambrian Period (C)	Older than 541
Precambrian time (pC)	

* In millions of years before present.
 (Walker, J.D., Geissman, J.W., Bowring, S.A., and Babcock, L.E., compilers, 2012, Geologic Time Scale v. 4.0: Geological Society of America, doi: 10.1130/2012.CTS04043C.)