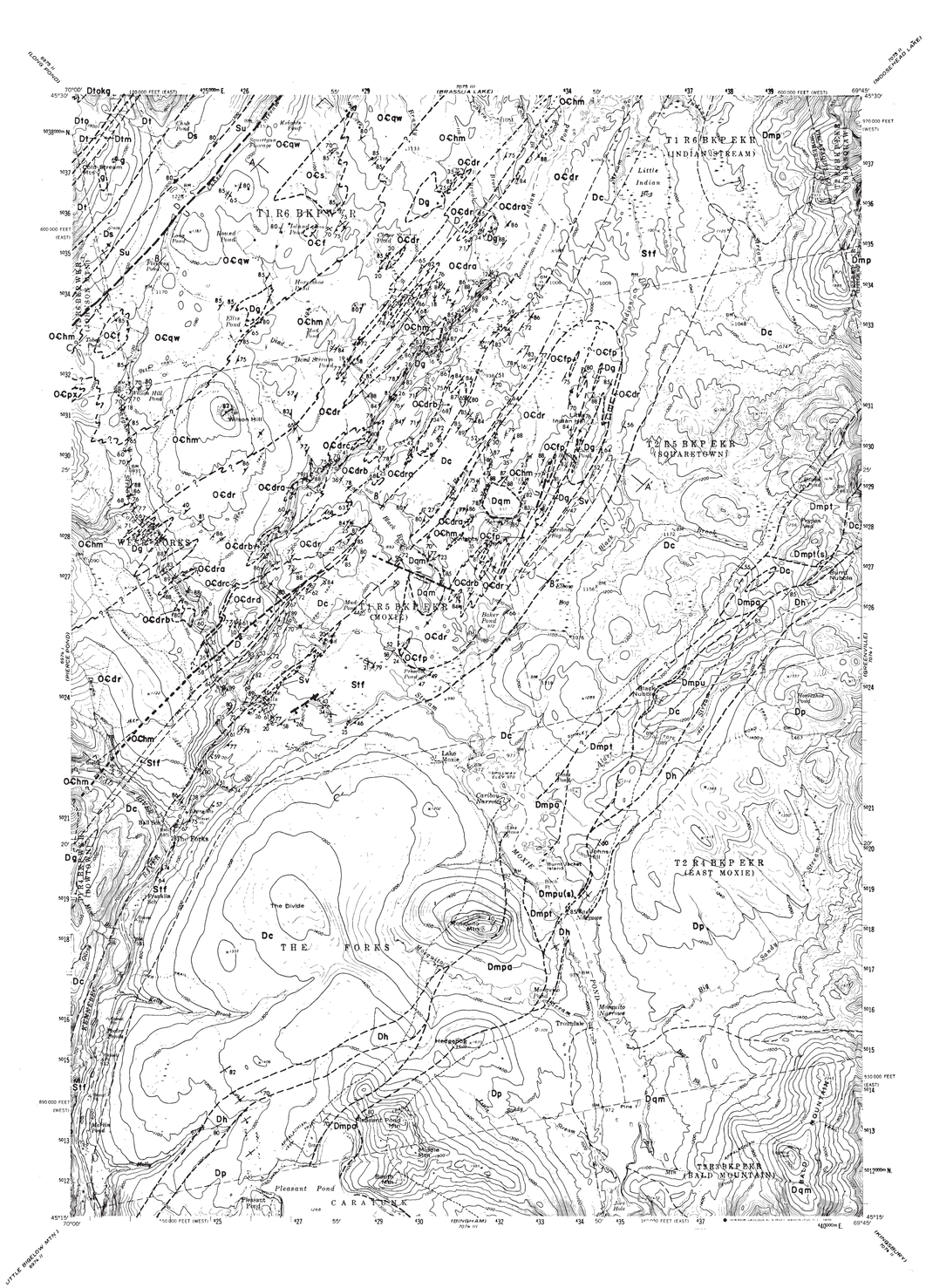


LOWER DEVONIAN

SILURIAN

CAMBRIAN (?) AND ORDOVICIAN (?)

EXPLANATION

STRATIFIED ROCKS

Dto / Dtokg

TOMHEGAN FORMATION (Dto)

Gray-weathering and rusty-weathering dark sandstone.

Xineo Volcanic Member (Dtokm)

Massive felsite.

UNCONFORMITY ?

Dtm / Dt

TARRATINE FORMATION (Dt)

Dark Sandstone.

Misery Quartzite Member (Dtm)

Gray quartzite and dark sandstone.

Ds

SEBOOMOOK FORMATION (Ds)

Cyclically-banded argillite.

Dp

DEVONIAN PELLITE, UNDIFFERENTIATED (Dp)

Dark-gray slate with thin beds of siltstone and fine sandstone.

UNCONFORMITY ?

Dh

HILDRETHS FORMATION (Dh)

Rusty-weathering, thinly bedded, calcareous, sulfidic slate, locally graphitic; sulfidic, laminated, calc-silicate and pelitic schist where contact metamorphosed.

Dc

CARRABASSETT FORMATION (Dc)

Massive, dark-gray slate, locally containing at its base graded sections of alternating thin beds of graywacke and pelite.

UNCONFORMITY ?

Stf

THE FORKS FORMATION (Stf)

Thinly bedded gray-brown dolostone, limestone, and calcareous siltstone grading upward into variegated, medium-bedded, brown and light-gray calcareous sandstone and phyllite.

Su

SILURIAN UNDIFFERENTIATED (Su)

Calcareous slate, limestone conglomerate, and limestone.

UNCONFORMITY ?

OEdrd / OEdrc / OEdr / OEdrb / OEdra

DEAD RIVER FORMATION, UNDIFFERENTIATED (OEdr)

Predominantly greenish-gray slate and phyllite with minor thin- to medium-bedded, discontinuous layers of metasiltstone to very fine subarkosewacke.

"Middle" Member (OEdrd)

Light-green, mica-pinstriped, medium-bedded metasiltstone layers and and zones of thinly bedded metasiltstone laminae and quartzofelspathic veins in greenish-gray phyllite.

Charcoal-gray Slate Lithotype (OEdrc)

Non-rusty, dark charcoal-gray slate and phyllite.

Gray Slate Lithotype (OEdrb)

Silvery gray slate and phyllite.

Interlayered Blue and Green Slate Lithotype (OEdra)

Interlayered green, blue, and maroon slate and phyllite.

OEhm / OEpx

HURRICANE MOUNTAIN FORMATION (OEhm)

Rusty-weathering, black sulfidic slate and medium-bedded, dark-gray metasiltstone, in places containing exotic blocks of meta-quartzite, amphibolite, and orthopyroxenite (OEpx).

OEqw / OEs

QUARTZWACKE (OEqw)

Poorly sorted, light-gray, feldspathic metaquartzwacke, metasiltstone, and granule metaconglomerate containing clasts of dark quartz; generally massively bedded with some graded horizons and small lenses of interlayered black and green slate.

Slate (OEs)

Exceptionally well-cleaved, silvery-gray and rare, reddish slate.

IGNEOUS ROCKS

g

GARNET RHYOLITE (g)

Dmp / Dmpu / Dmpt / Dmpa / Dmpt(s) / Dmpu(s)

MOXIE PLUTON, UNDIFFERENTIATED (Dmp)

Troctolite, norite, and gabbro.

Ultramafic Rock (Dmpu)

Olivine cumulate locally containing bronzite cumulate layers.

Troctolite (Dmpt)

Olivine plagioclase cumulate.

Olivine gabbro (Dmpa)

Olivine gabbro altered to amphibole-plagioclase; locally foliated.

Sulfidic Rocks (Dmpu (s)/Dmpt(s))

Cumulate rocks containing 5-20% interstitial sulfide.

Dg

DIORITE AND GABBRO, UNDIFFERENTIATED (Dg)

Dqm

Quartz Monzonite (Dqm)

Sv

Silurian volcanics

OEfp

Felsite porphyry

OEf

Felsite

SYMBOLS

Contact. Dashed where approximately located; queried where probable. Heavy line where located by field mapping, this survey; light line where compiled from previous maps.

Fault. Dashed where approximately located; queried where probable. U, upthrown; D, downthrown side. Balls on upper plate of reverse fault. Arrows show sense of apparent offset along strike-slip fault.

Outcrop control. Other outcrops where no structural data are reported.

Contact metamorphic aureole.

Approximate position of andalusite isograd in Moxie Pluton contact aureole.

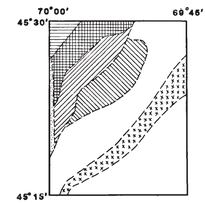
Dip and Strike

(Inclined)	(Vertical)	
35		of beds
76		of beds, facing known (ball indicates tops)
53		of overturned beds
11		of early foliation, origin unknown
85		of cleavage
16		of late shears

20

Minor fold plunge (angle where known) and form.

SOURCES OF DATA



Field survey, 1980 by W. Burroughs.

Field survey, 1979-1980, by R. Marvinney.

Field survey, 1978-1980, by J.F.H. Thompson.

Compiled from G.M. Boone, unpublished map of the Pierce Pond quadrangle.

Compiled from E. Post, unpublished map of The Forks quadrangle.

Compiled from Boucot, A.J., and Heath, A.W., 1969, Geology of the Moose River and Roach River Synclinoria, northwestern Maine: Maine Geol. Survey Bull. 21. Limited field checking, 1980.

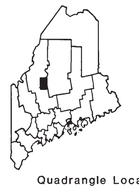
Compiled from Burroughs, W., 1979, Structure of the Dead River Formation in The Forks quadrangle, west-central Maine: unpub. MS thesis, Syracuse Univ.

SCALE 1: 62,500

1 1½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS



Quadrangle Location

RECONNAISSANCE

BEDROCK GEOLOGY OF THE THE FORKS QUADRANGLE, MAINE

BY

WILLIAM BURROUGHS & ROBERT G. MARVINNEY

1981

Maine Geological Survey
DEPARTMENT OF CONSERVATION
Augusta, Maine 04333

Walter A. Anderson, State Geologist

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