GEOLOGICAL SURVEY
UNIVERSITY OF MINNESOTA

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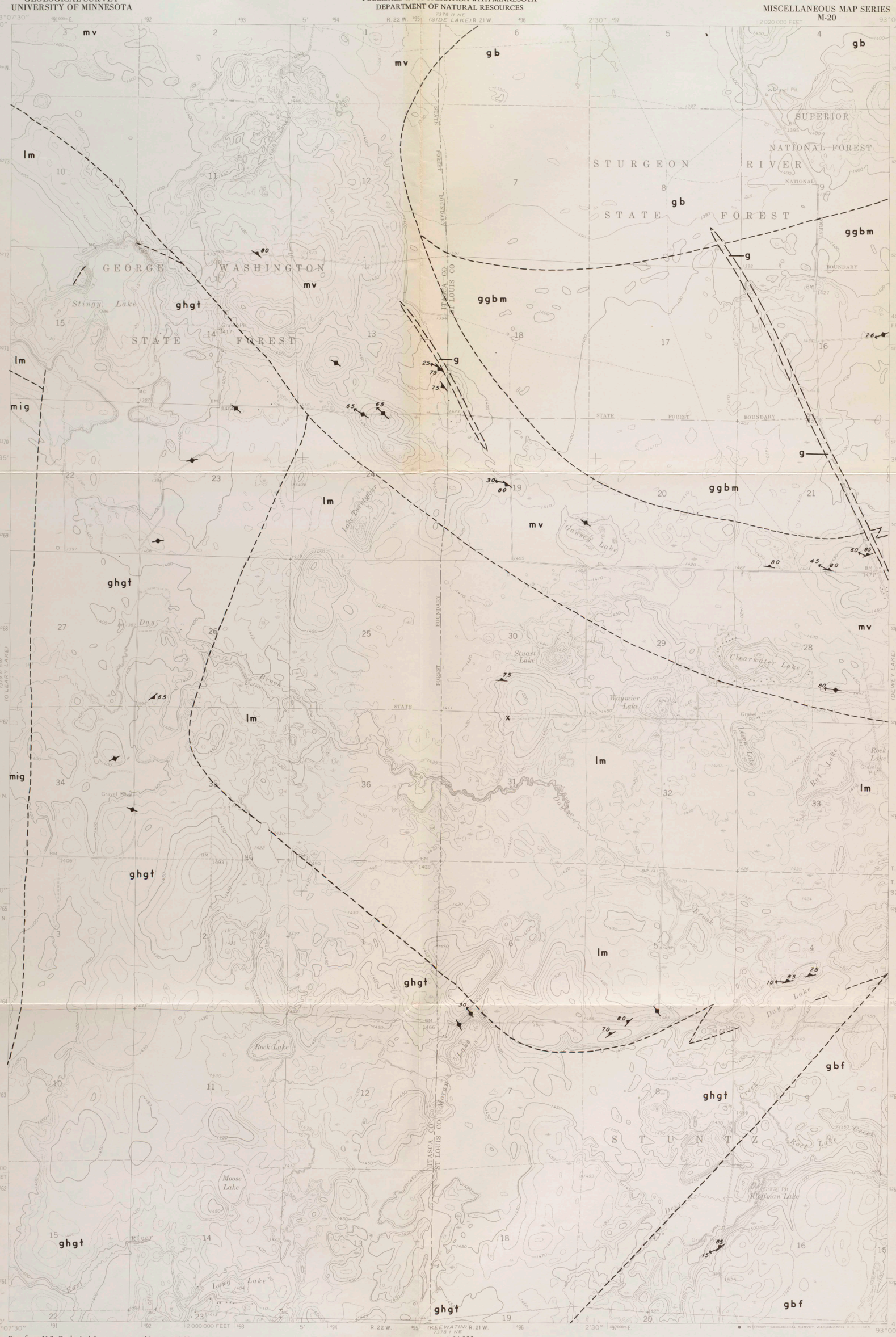
DEPARTMENT OF NATURAL RESOURCES

MISCELLANEOUS MAP SERIES
M-20



Base from U.S. Geological Survey topographic map, 1964

Geology mapped 1966 and 1968-69

EXPLANATION

MIDDLE PRECAMBRIAN

g

Diabase
Dominantly gabbro; dikes have fine-grained margins

ghgt | gb | ggbm | gbf

Giants Range Granite
ghgt, *pink medium-grained, foliated biotite-hornblende granodiorite, tonalite, and diorite*
gb, *pink, moderately foliated, medium-grained biotite granite*
ggbm, *gray, gneissic, medium-to fine-grained biotite-muscovite granite; locally garnetiferous*
gbf, *pink, porphyritic, foliated, coarse-grained biotite granite*

LOWER PRECAMBRIAN

Age relations among these rocks uncertain

mv

Mafic metavolcanic rocks
Dominantly metabasalt and metadiabase

lm

Layered mafic rocks
Gray, thin-bedded metasedimentary rocks; contain abundant epidote; intruded locally by granitic rocks; possibly reworked tuff

mig

Migmatitic biotite and hornblende gneisses
Interlayered biotitic and hornblendic quartzofeldspathic gneisses, amphibolite, and generally concordant granitic veins; strongly foliated

x

Small outcrop

Contact
Long dash where approximately located; short dash where inferred

70

Strike and dip of foliation

Strike of vertical foliation

RECONNAISSANCE GEOLOGIC MAP OF STINGY LAKE QUADRANGLE, ITASCA AND ST. LOUIS COUNTIES, MINNESOTA

By
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1974