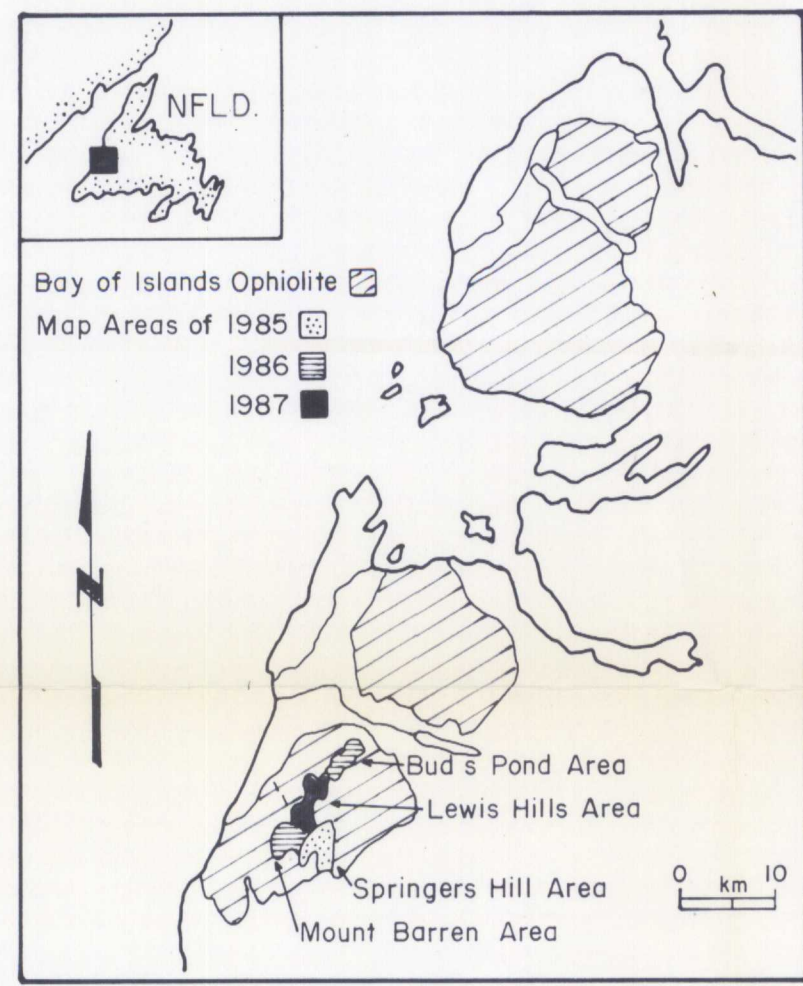


GEOLOGICAL MAP OF CENTRAL LEWIS HILLS MASSIF

SPRINGERS HILL, MOUNT BARREN, LEWIS HILLS AND BUD'S POND AREAS
BAY OF ISLANDS OPHIOLITE, WESTERN NEWFOUNDLAND

GEOLOGY BY S.M. DUNSWORTH

Scale
1:10,000
0 1 Km



LEGEND

YOUNGER INTRUSIVES

- 7 Diabase dykes; aphyric to fine-medium grained, some plagioclase phenocrysts; variably tectonized ($L_2 \pm S_2$).
- 6 Clinopyroxene - chromitiferous dunite;
 - (a) chromitiferous to massive dunite with minor clinopyroxene-dunite, heterogeneously tectonized ($S_2 \pm L_2$), commonly bearing chromite bands/layers and disseminated chromite (2-15%);
 - (b) clinopyroxene-dunite with disseminated chromite \pm minor wehrlite, feldspathic-wehrlite, and troctolite; heterogeneously tectonized ($S_2 - L_2$) with cumulate-schistose textures preserved in occasional rare low strain zones.
- 5 Wehrlite to clinopyroxene-dunite;
 - (a) isotropic, commonly poikilitic and variably feldspathic wehrlite with gradations to dunite, clinopyroxene-dunite \pm plagioclase, and rare troctolite to olivine-gabbro dykes;
 - (b) tectonically banded to massive wehrlite; structurally interbanded with minor clinopyroxene-dunite, clinopyroxenite \pm troctolite, penetrative-heterogeneously tectonized ($S_2 \pm L_2, L_2 \pm S_2$) with primary igneous textures preserved within low strain domains;
 - (c) clinopyroxenite - wehrlite and minor clinopyroxene-dunite, medium to coarse and megacrystic, and heterogeneously tectonized ($L_2 \pm S_2$);
 - (d) massive dunite and minor, occasionally poikilitic clinopyroxene-dunite.

OLDER SUITE(S)

- 4 Mafic metacumulates;
 - (a) layered/foliated hypersthene and minor olivine gabbro, fine to medium grained, penetratively tectonized ($S_2 \pm L_2$) with layering transposed parallel/subparallel to foliation, variably amphibolized with minor diabase dykes;
 - (b) strongly amphibolized layered gabbro tectonite ($S_2 \pm L_2$) with variably deformed diabase dykes;
 - (c) massive to weakly layered and sporadically foliated pyroxene \pm hornblende gabbro; fine to medium coarse grained with few gradations to plagiogranite.
- 3 Ultramafic - mafic metacumulate, penetratively tectonized ($S_2 - L_2$), layered/banded wehrlite, pyroxenite, troctolite and olivine-pyroxene flosser gabbro.
- 2 Dunite; massive, deformed (S_1) with rare chromite bands and disseminated chromite (2-5%).
- 1 Harzburgite tectonite; coarse to fine grained with abundant chromitiferous-dunite dykes, orthopyroxene veins/dykes and minor pods of dunite, clinopyroxene and orthopyroxenite; strongly serpentinized and penetratively tectonized with $S_1 - L_1$ fabric variably overprinted by $S_2 \pm L_2$.

Note: Unit 3 may represent an intensely structural interbedded equivalent of units 4a and 5b along the western Springers Hill area.

SYMBOLS

- | | | |
|--|-------------------------------------|--|
| Geological boundary | defined | |
| | approximate | |
| | assumed | |
| | transitional | |
| Igneous banding / layering | inclined | |
| | vertical | |
| Foliation | S_1 - inclined | |
| | S_2 - vertical | |
| | S_2 - inclined | |
| | S_3 - vertical | |
| | S_3 - inclined | |
| Lineation | L_1 - plunge | |
| | L_2 - horizontal | |
| | L_2 - plunge | |
| | L_3 - horizontal | |
| Minor fold | F_2 | |
| | F_3 | |
| Major synform | | |
| Dyke / banding | inclined | |
| | vertical | |
| | dip unknown | |
| | folded band | |
| Chromite band / layer | banded | |
| | folded band | |
| Joint | inclined | |
| | vertical | |
| Fault | defined | |
| | approximate | |
| | (arrows indicate relative movement) | |
| Small scale brittle / ductile shearing | | |
| Xenolith-bearing intrusive margins (marking relatively older unit) | | |
| Chromite showing | | |
| Rock trench (chromite showing) | | |
| Limit of mapping | | |
| Grass and bog overburden area | | |
| Steep scree slope | | |
| Pond | | |
| Stream | | |
| Elevation in metres above sea level | | |
| | Flight lines | |

ABBREVIATIONS

- Du - dunite
Cpx - clinopyroxenite
Opx - orthopyroxenite
W - wehrlite
G - gabbro
D - diabase dyke

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