

PRESIDENT'S MESSAGE

by
Steve Pinette

Consistent with GSM tradition, we had another excellent round of summer field trips. I want to thank field trip leaders Joe Kelley and Arthur Hussey for their preparation effort and fine presentations during the trips. I also want to thank the field trip coordination duo of Jim Hillier and Bob Johnston for their fine organization and the great overnight accommodations at Sebago Lake State Park. For those of you who did not attend the trips, we have extra field trip guides for sale.

During one of the field trips, someone spoke with me about the possibility of having GSM "adopt" a bedrock outcrop near a shopping mall parking lot to highlight its geologic significance to the general public. The idea proposed would be to create a sign that would describe the rocks and their regional significance for the layman. You've probably seen similar signs describe geologic features in the western U.S. On a statewide scale, I think this idea has merit and the public could learn a great deal about Maine geology by reading about it at rest stops and near scenic vistas. Certainly, each of us has a few favorite geologic locales that Maine citizens should understand in order to better appreciate their physical environment. I have spoken to a few of you about whether this concept could work in Maine and the reaction has been positive. Therefore, I plan to raise this topic (adopt-a-crop??) for discussion at the Fall Business Meeting.

For the Fall Meeting, we will be deviating from our normal meeting format by focusing on a meeting theme that some of you may consider a bit outside the realm of classical geological sciences. Alice Kelley has organized a cast of speakers to talk about Maine archeology and the use of geology as an aid to archeological interpretation. Alice has invited three pairs of speakers to talk about the archeology and geology of three Maine project areas. Please join us for what should be a very interesting Fall Meeting on November 18 at the Holiday Inn in Augusta (near the Augusta Civic Center off the Belgrade Exit). Also, if you want to have dinner with us after the meeting, please complete the cut-out dinner reservation form and mail it in with a check for the indicated amount.

In the last Newsletter, you read invited articles by Steve Kahl (*Sources of High Salinity in Maine Groundwater*) and by Nick Houtman (*Media Relations for Scientists*). In this Newsletter, Norm Kallock and Lindsay Hall Hodgman also present an invited article (*State Soil Geographic Data Base Provides an Inventory of Maine Soils*). These three articles should give you a flavor for the range of short technical and quasi-technical articles that we hope you will be submitting to the Newsletter in the future. I want to thank Steve, Nick, Norm, and Lindsay for their informative articles.

Soon, a new cadre of officers will be guiding GSM. On behalf of the outgoing officers and directors, I want to thank you all for being an appreciative and cooperative bunch. We have learned much about organizing short courses, field trips, and meetings and we have enjoyed the experience. Thank you.

FALL MEETING ANNOUNCEMENT
November 18, 1994

Holiday Inn, York Room
116 Community Drive, Augusta, Maine

Directions: I-95 Belgrade Exit, next to Augusta
Civic Center

Agenda:

Afternoon Session 1:00 - 4:00 PM
Archeology and Geology in Maine

Recent Research at the Seabasticook Lake Fish
Weir (James Peterson, University of Maine,
Farmington)

Geologic Setting of the Seabasticook Lake Fish
Weir from Seismic Reflection Profiling and
Vibracoring (Daniel Belknap, University of
Maine)

Archeological Investigations in the Lower
Penobscot River Valley (David Sanger,
University of Maine)

Using Geoarcheology to Investigate the
Holocene Development of the Penobscot River
Valley (Alice Kelley, University of Maine)

Holocene Landscape and Prehistoric Cultural
Evolution of the New Meadows River Estuary,
Casco Bay (Nathan Hamilton and Matthew
Brampton, University of Southern Maine)

4:00 - 5:00 Business Meeting; Officers Election

5:00 - 6:00 Social Hour in Somerset Room

6:00 - 7:00 Dinner in the Somerset Room

(reservations required)

7:00 - 8:00 Evening speaker in York Room:

David Sanger (University of Maine),

Archeology and Geology in Maine ...

Complimentary Disciplines

please photocopy and mail

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RESERVATIONS MUST BE RECEIVED
BY NOVEMBER 6th TO BE VALID!!!

DINNER RESERVATION FORM
1994 GSM Fall Meeting

Dinner will be served at 6:00 PM in the
Somerset Room

Holiday Inn -- Civic Center
116 Community Drive
Augusta, Maine

cost of complete dinner is \$14.95
BAKED STUFFED CHICKEN

Number of persons for dinner _____

Amount enclosed \$ _____

Names:

Please write check to Geological Society of
Maine; mail to:
Steve Pinette, 3 Heather Lane, Cumberland
Center, ME 04021

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!! ATTENTION !!

All correspondence concerning membership
dues, publication sales, back issue orders, and
financial business must now be sent to the new
GSM Treasurer Martin Yates. His address:

Department of Geological Sciences
5711 Boardman Hall
University of Maine
Orono, Maine 04469

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Geological Society of Maine
Nominated Officers for 1994-1995
(to be voted on at the November 18 meeting)

President - Fred Beck

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Yarmouth, ME 04096
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Department of Environmental Protection
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Maine Geological Survey
State House Station #22
Augusta, ME 04333
207-287-2801; FAX 207-287-2353

1994 Annual NEIGC, Millinocket, Maine

The 86th annual meeting of the New
England Intercollegiate Geological Conference

was hosted by Salem State College, organized by Lindley Hanson, and headquartered at Millinocket, Maine, on Sept. 23-25, 1994. The meeting was well attended by between 200 to 300 registrants, despite forecasts of inclement weather. In fact, weather was seasonably mild, albeit moist on Saturday. However, the rains held off for the annual banquet Saturday night, which was one of the most memorable in recent years. Dee Caldwell graciously offered to host the Chesuncook Lake Boom House (home of the Boston University Geology Summer Field Camp) as the dining facility. The atmosphere and meal were splendid, including dining under a carnival-style tent. Another highlight of the evening was the recognition of Dee's 25th year as Secretary to the Conference, whereupon he was awarded a fine walking stick, embossed with a commemorative plate and a compass on the head of the staff. Of course, Dee immediately utilized the staff to point out recalcitrant potential hosts for upcoming meetings, following the announcement of where NEIGC will be hosted the next two years. In 1995, Bowdoin College under Arthur Hussey's organization will host the meeting, and a trip to New Hampshire's White Mountains in 1996.

GSM Treasurer's Report - 6/1/94 to 10/7/94

Balance on hand June 1, 1994	5439.92
Receipts Subtotal	740.30
Dues	445.00
Publications	136.00
Bank Interest	16.30
Education Fund	23.00
Short Course Registrations	120.00
Expenses Subtotal	1615.70
Bank Charges	19.96
Newsletters	199.00
Summer '94 Field Guide	161.00
Short Course Travel	566.14
Spring Meeting Meals	475.00
Education Fund Expenses	194.60

Balance on hand October 7, 1994 4564.52
Submitted by Marc Loiselle, Treasurer

**Geological Society of Maine Field Trips
July 30 and 31, 1994**

*Coastal Processes and Problems in Saco Bay
and in the Wells Embayment*

by

Joseph T. Kelley & Stephen M. Dickson

The northern New England coast has long been recognized as a "drowned shoreline". Since the early work of Shaler (1878), Davis (1910), and Johnson (1925), many studies of relative sea-level change have focused on the coastal region from Boston to central Maine. On this trip participants reviewed the history of study of sea-level change in New England and visited one of the most-studied coastal sites, the Wells Marsh, where a study had recently been completed on Holocene sea-level change.

Only in recent decades have there been studies of coastal processes in northern New England. Since coastal sediment is relatively scarce in this bedrock-framed region, the field trip focused on the processes responsible for sediment introduction to the coastal zone. In this context, tidal inlets, river mouths and eroding glacial bluffs were considered possible sources of sediment for adjacent beaches and salt marshes. The offshore region as a source or sink for sediment was also considered.

Even as the Maine shoreline has responded to natural changes in sea level and variations in sediment supply, it has also been influenced by human activities for more than 300 years. Major beaches and marshes of Maine were visited to review the case histories of their cultural development. Maine has taken strong legal measures in the past decade to prevent unsound coastal development along its shores. Visited were some sites of past conflict between public and private rights, and between environmentalists

and developers who have each used geological reasoning to make their respective cases.

The warm summer weather, along with a keen interest in chemistry, caused a number of field trip participants to visit a Kennebunkport brew pub late in the afternoon. The annual cookout held back at Sebago Lake State Park, where many members camped, was interrupted by a couple of downpours but the food and lake swimming were enjoyed by all. No summer business meeting was conducted.

*Geology of the Coastal Lithotectonic Belt-
Southwestern Maine*

by

Arthur M. Hussey, II

The Sunday portion of the annual field trip of the Geological Society of Maine was along the coast of southwestern Maine. Participants examined selected exposures of Ordovician-age metasedimentary and metavolcanic rocks of the Casco Bay and Merrimack sequences, and plutonic rocks of Devonian to Cretaceous age. The field guide for this trip was originally prepared for a two day excursion sponsored jointly by the Geological Society of America for the Boston 1993 meeting and the 85th Annual New England Intercollegiate Geologic Conference. GSM used the guide prepared for that trip with the kind permission of the field trip guidebook editors and copyright holders, John Cheney and Christopher Hepburn. Because of the one day limit of the GSM bedrock trip, we made only a few of the stops described therein, with the selection depending on tidal phase, amount of summer tourist traffic, and parking space availability.

Education Fund Update

The Society wishes to thank Mark Cenci, Jon D. Inners, Edward Bradley, and Steve Dickson for their contributions to the Education Fund.

METEP Risk Assessment Course and Dr. Jay Lehr Seminar

by
Olivier Muff

Robert G. Gerber, Inc. is coordinating a four-week course in risk assessment and its application to environmental management for the Maine Education and Training Export Partnership (METEP). The course participants include 22 senior and junior researchers and heads of departments from the Newly Independent States (NIS - parts of the former Soviet Union). Most of the participants are from the Moscow Region. The course is part of the USAID funded NIS Education and Training Program developed by the Academy for Educational Development. The training providers include METEP partners Gerber, College of the Atlantic, Medical Care Development, and University of New England. Other trainers include Maine state scientists and officials, lawyers, non-governmental organizations, and other experts. A full technical and cultural exchange program is scheduled to provide in-depth instruction as well as immersion into American and Maine life as we know it. The course will take place from mid-October through mid-November.

As part of this course, METEP is sponsoring a one day seminar on Wednesday, November 9, 1994 featuring Dr. Jay Lehr. Dr. Lehr will speak on *The Risks in Risk Assessment* and *Risk Assessment Applications in Hydrogeology*. The seminar will cost under \$100 for professional attendees and even less for government employees. The seminar will be held at the Sonesta Hotel in Portland, Maine. For more information, contact Ollie Muff or Tyrrell Hunter at 207-865-6138.

DEP Task Force Update

by
Carolyn Lepage

Until recently, new faces appeared only intermittently at Task Force meetings. However, DEP Division Directors are now taking a more active interest in Task Force activities and at their September 1994 meeting, appointed a new roster of DEP representatives to the Task Force. The DEP representatives now include two (soon to be three?) Division Directors in addition to technical and project management staff. While the Division Directors have voiced their support of Task Force projects and recommendations (especially with regard to training opportunities), they also feel that the Task Force should remain an autonomous entity. We will be brainstorming new topics and issues at upcoming meetings. We are also likely to revisit some "old" issues, such as the development, use, and communication of technical guidelines.

The Task Force is assisting with the upcoming *"Ethics and Professional Practice in the Environmental Arena"* course to be offered in October 1994. As expected, the course was over-subscribed (space was limited to 28 to facilitate small group discussions). We anticipate it will be given again in January 1995, and a third time later in 1995 if there is sufficient interest. If you did not receive a course announcement and would like to have your name added to the mailing list for the next course(s?), please give me a call. The Task Force has also discussed other possible course or workshop offerings, such as training on TR55 or a session on "What's new at the DEP".

The Task Force will continue to meet on a more-or-less monthly basis. I would welcome any questions or suggestions you might have; please give me a call at 207-865-6138.

**State Soil Geographic Data Base
(STATSGO)
Provides an Inventory of Maine Soils**

by
Norman R. Kalloch and Lindsay Hall
Hodgman
Soil Conservation Service
5 Godfrey Drive, Orono, ME 04473

Introduction

The U.S. Department of Agriculture Soil Conservation Service (SCS) has federal responsibility for the National Cooperative Soil Survey and the federal leadership for collecting, storing, maintaining and distributing soils information on privately owned lands in the United States. SCS or its predecessors has been making soil maps throughout the United States for nearly 100 years. In Maine, approximately 73 percent of the state has been mapped. Most of the land remaining to be mapped is in the unorganized towns of northern and eastern Maine. In mapping, soil scientists observe steepness and length of slope, general patterns of drainage and stoniness. They record characteristics of the soil profiles noting soil color, texture and other morphological features in order to delineate like soils on aerial photographs. Eventually this information becomes published as an area-wide soil survey report. Future soil surveys will be digitized as well as published in hard copy. The advent of Geographical Information Systems (GIS) allows soils data to be analyzed, manipulated, displayed and integrated with other resource data to make informed natural resource management decisions in Maine.

Three Geographic Data Bases

SCS has established three digitized geographic data bases representing kinds of soil maps. From the most detailed to the broadest they are: Soil Survey Geographic Data Base

(SSURGO), the State Soil Geographic Data Base (STATSGO) and the National Soil Geographic Data Base (NATSGO). SSURGO data are digital versions of area published soil surveys. New surveys will be digitized as they are completed. Generally, these are at a scale of 1:24,000. To date, only the Hancock County Soil Survey is digitized. In addition, soil data for about 60 quads scattered across the state have been digitized as part of special projects. SSURGO information is used for township, regional or watershed planning. NATSGO is a digital soil map of the United States. Digitized at a scale of 1:7,500,000 it is used primarily for national or regional resource appraisal. The remainder of this article will discuss only STATSGO, currently the only statewide digital soil data base that is complete and available for use.

The STATSGO Data Base

STATSGO is similar to a general soil map for a state. It is used primarily for river basin, state and multi-county resource planning and management. Soil maps for STATSGO were made by generalizing the detailed soil survey maps. Where these maps were not available, field notes and descriptions as well as data on geology, vegetation and climate were evaluated to predict soil conditions in unmapped areas of Maine. There are 69 map units covering the state. Each map unit is comprised of 2 to 4 named components with up to 19 components of soils of lesser extent (inclusions). Map units are named for the soils of greatest extent with the most predominant soil named first, i.e., ME001, Adams-Croghan-Naumburg; ME019, Dixfield-Brayton-Colonel. Attribute data are given for all map unit components in a relational data base. For each component there are 60 soil properties and interpretations in 84 different data elements (Figure 1).

STATSGO was compiled on U.S. Geological Survey 1:250,000 scale quadrangle series maps.

The minimum size delineation is about 1,000 acres. STATSGO data are archived and distributed as complete coverage for the State of Maine. The attribute data for each soil component are part of the STATSGO product available.

Examples of Interpretations Made From STATSGO Data

Following are several examples of queries using STATSGO. In a GIS interpretative plots could be made for each query to readily show the spatial reference of each category or class. The queries chosen for this article revolve around parent material, soil wetness, and depth to bedrock. In a GIS very sophisticated queries can be made of the attribute data. Acreages presented are not absolute but reflect the level of detail that can be shown on a base map of 1:250,000 and the methods used to design the STATSGO map units.

Use of STATSGO to Project Potential of Maine Soils for Subsurface Waste Disposal

Soil characteristics can be evaluated in terms of the requirements of the State of Maine Plumbing Code for subsurface wastewater disposal. Not all series conform to the minimum limitations to restrictive layer defined in the plumbing code. However, a reasonable approximation can be made by evaluating the depth to: water table, bedrock and impervious layer for each Maine soil series and placing the series in the profile and condition class in Table 6.1 of the Plumbing Code. At the time this article was written the Plumbing Code was undergoing revision which may affect the criteria used for this query. Table 1 shows the projected acreage by profile and condition based on the current Maine Plumbing Code criteria for subsurface waste disposal. Acreages will change as new soils are identified and composition of map units are refined.

Use of STATSGO to Project Acreage of Parent Material

Glacial till is the predominant parent material from which soils are developed in Maine (Table 2). Some soils such as Marlow and Dixfield are developed from basal till whereas other soils, such as Hermon, are developed from ablation till. Buxton, Scantic, Boothbay and Swanville are examples of soils developed from lacustrine/marine deposits. Soils developed from glacial-fluvial deposits are Adams and Colton. A representative area of parent material using STATSGO is shown in Figure 2.

Soil Depth

Soil series are separated based on the depth of the soil to bedrock. Soil depth classes and the projected acreage of each class based on STATSGO data are in Table 3. Soil depth has some obvious limitations for most land uses including home construction, subsurface waste disposal and road construction. Soil depth also impacts non-urban uses including agriculture and forestry. Nearly all soils mapped that are less than 40 inches to bedrock are developed from glacial till.

Depth to Seasonal High Water Table

Seasonal high water table can have a significant impact on urban and non-urban uses. In particular, depth to seasonal high water table affects the suitability and design of subsurface waste disposal systems. Soil wetness (hydric soils) also is used as a parameter in identifying wetlands.

The presence of certain soil morphological features provides a method for identifying the presence of a seasonal high water table. Depth to seasonal high water table is estimated for each soil series used in Maine (Table 4). Water table monitoring studies have been conducted on

selected Maine soils in order to correlate water tables to morphological features.

Summary

STATSGO is one of three geographic data bases developed or being developed by SCS. It is a digitized inventory of Maine soils based on detailed soil survey maps and projections. STATSGO can be used to display soil interpretations consistent with the level of detail on the 1:250,000 scale base map. Examples of STATSGO queries, including depth to water table, parent material and depth to bedrock, have been presented. An acreage projection of soils based on plumbing code criteria for subsurface waste disposal also was presented.

A STATSGO Users Guide is available. The users guide details the structure of the spatial and attribute data and defines the various data elements. The STATSGO data base for Maine is available at a reasonable cost and can be provided in several common exchange formats. Interested persons can contact Norman R. Kalloch, State Soil Scientist, Soil Conservation Service, 5 Godfrey Drive, Orono, ME 04473.

Generalized Explanation

Maine Plumbing Code Soil Profiles and Conditions

Soil Profile

- 1 *Glacial till* -- Silt loam; may have restrictive layer.
- 2 *Glacial till* -- Loam to sandy loam; no restrictive layer.
- 3 *Glacial till* -- Loam, sandy loam to loamy sand; has restrictive layer.
- 4 *Glacial till* -- Sandy loam to loamy sand overlying loamy sand derived from ablation till; no restrictive layer.

5 *Stratified drift* -- Loam to sandy loam overlying stratified fine to medium sands.

6 *Stratified drift* -- Loamy sand overlying stratified coarse sands and gravel.

7 *Mixed origin* -- Loamy sand overlying restrictive layer of silty clay which occurs at 15 inches.

8 *Marine lacustrine* -- Loam to fine sand overlying firmer silt loam to silt; restrictive layer may be present.

9 *Marine lacustrine* -- Silt loam overlying firm silt loams to silty clays; restrictive layer usually absent.

10 *Organic* -- soil composed of organic material in various stages of decomposition.

11 *Alluvial, dune, beach* -- Variable texture. Deposited in flood plain, sand dune, or beach environment.

Soil Condition

AI *Shallow to bedrock* -- less than 10"

AII *Shallow to bedrock* -- 10" to 14"

AIII *Shallow to bedrock* -- 15" to 58"

B *Well drained* -- ground water table greater than 48"

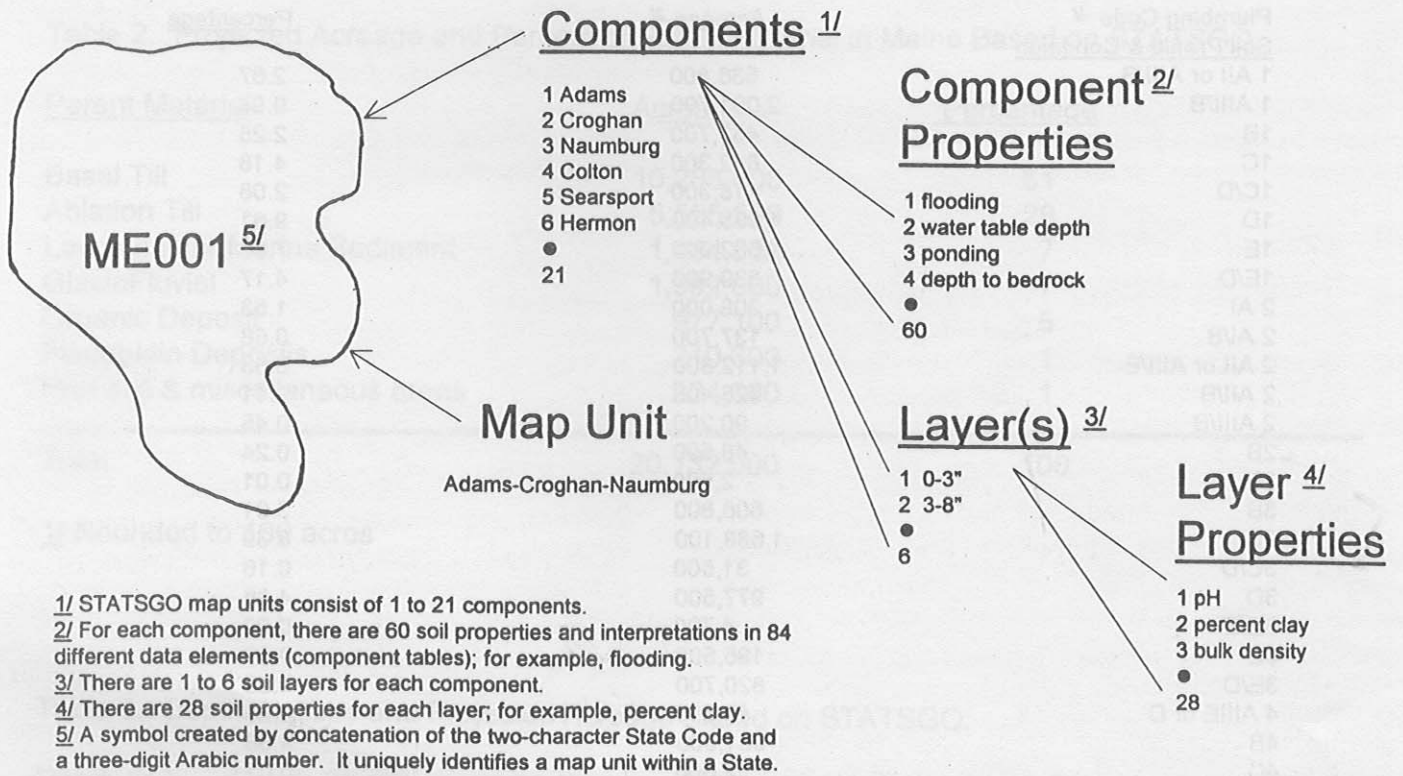
C *Moderately well drained* -- ground water table between 15" to 48"

D *Somewhat poorly drained* -- ground water table between 6" to 15"

E *Very poorly drained* -- ground water table less than 6"

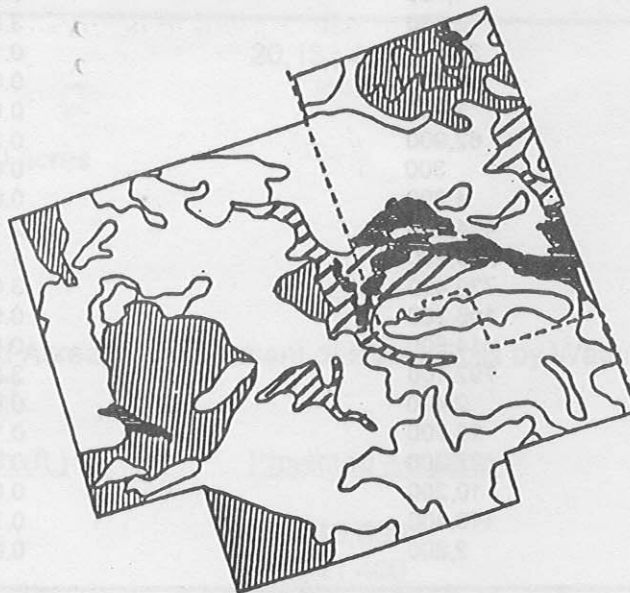
Editor's note: The typeface of the figures and tables do not match the newsletter due to incompatible format. Future submissions should be formatted to newsletter specifications.

Figure 1. --- STATSGO MAP UNIT



Source: STATSGO users guide

FIG.2 SOIL PARENT MATERIAL FOR THE FLAGSTAFF LAKE REGION, FRANKLIN AND SOMERSET COUNTY, MAINE BASED ON STATSGO.



- Ablation Till
- Basal Till
- GlacioFluvial
- Water
- County Boundary

Table 1. Projected Acreage Using STATSGO of Maine Soils Relative to Soil Profile and Condition Based on State of Maine Plumbing Code, Table 6-1.

<u>Plumbing Code ^{1/}</u> <u>Soil Profile & Condition</u>	<u>Acreage ^{2/}</u>	<u>Percentage</u>
1 All or AIII/B	536,800	2.67
1 AIII/B	2,001,700	9.94
1B	453,700	2.25
1C	842,300	4.18
1C/D	418,300	2.08
1D	1,935,400	9.61
1E	1,602,900	7.96
1E/D	839,900	4.17
2 AI	308,000	1.53
2 AI/B	137,700	0.68
2 All or AIII/B	1,112,800	5.53
2 AII/B	425,400	2.11
2 AIII/B	90,200	0.45
2B	48,500	0.24
2E	2,600	0.01
3B	606,800	3.01
3C	1,688,100	8.39
3C/D	31,500	0.16
3D	977,500	4.86
3D/E	4,700	0.02
3E	195,500	0.97
3E/D	820,700	4.08
4 AIIIE or D	40,500	0.20
4B	981,900	4.88
4C	2,600	0.01
4D/C	72,000	0.36
5B	111,100	0.55
5C	67,600	0.34
5C/D	5,500	0.03
5D/E	106,000	0.53
5E	27,400	0.14
5E/D	1,700	0.01
6B	772,500	3.84
6C	33,100	0.16
6C/D	124,100	0.62
8B	3,900	0.02
8C	62,900	0.31
8D/E	300	0.00
8E/D	4,300	0.02
9C/D	434,400	2.16
9D	239,200	1.19
9E	739,400	3.67
10 AI/B	196,200	0.97
10B	14,500	0.07
10E	792,100	3.93
11	2,400	0.01
11B	28,700	0.14
11C	27,300	0.14
11D	10,200	0.05
11E	146,400	0.73
Other	2,800	0.01
Total	20,132,000	100

^{1/} Soils that have properties that span two soil conditions have been given a dual designation (example: 1 All or AIII/B)
The predominant condition is given first (example: 5D/E)

^{2/} Rounded to 100 acres

Table 2. Projected Acreage and Percent of Parent Material in Maine Based on STATSGO.

<u>Parent Material</u>	<u>Acreage</u> ^{1/}	<u>Percentage</u>
Basal Till	10,288,600	51
Ablation Till	5,555,500	28
Lacustrine or Marine Sediment	1,484,500	7
GlacioFluvial	1,392,000	7
Organic Deposit	977,100	5
Floodplain Deposits	210,300	1
Non-soil & miscellaneous areas	224,000	1
Total	20,132,000	100

^{1/} Rounded to 100 acres

Table 3. Depth Classes and Projected Acreage Based on STATSGO.

<u>Depth (in.)</u>	<u>Depth Class</u>	<u>Acreage</u> ^{1/}	<u>Percentage</u>
0 - 10	very shallow	641,800	3
10 - 20	shallow	2,578,600	13
20 - 40	moderately deep	1,539,000	8
> 40	deep & very deep	15,372,600	76
Total		20,132,000	100

^{1/} Rounded to 100 acres

Table 4. Projected Acreage and Percent of Maine Soils by Water Table Depth Based on STATSGO.

<u>Water Table Depth (ft.)</u>	<u>Projected Acreage</u> ^{1/}	<u>Percentage</u>
<0.5	5,316,800	26
0.5-1.5	3,811,400	19
1.5-3.5	3,961,800	20
>3.5	7,042,000	35
Total	20,132,000	100

^{1/} Rounded to 100 acres

MEMBERSHIP DUES STATEMENT

The **GEOLOGICAL SOCIETY OF MAINE, INC.** is a non-profit corporation established as an educational Society to advance the professional improvement of its members; to inform its members and others of current and planned geological programs in Maine; to encourage continuing social contact and dialogue among geologists working in Maine; and to further public awareness and understanding of the geology of the State of Maine; and of the modern geological processes which affect the Maine landscape and the human environment.

The Society holds three meetings each year, in the late fall (Annual Meeting), early spring, and mid-summer (usually field trips). A newsletter, *The Maine Geologist*, is published for all members three times a year. The Society year runs from August 1st to July 31st. Annual dues and gift contributions to the Society are tax deductible. There are three classes of memberships:

- \$7.00 REGULAR MEMBER Graduate geologists, or equivalent, with one year of practice in geology, or with an advanced degree.
- \$6.00 ASSOCIATE MEMBER Any person or organization desirous of association with the Society.
- \$4.00 STUDENT MEMBER Persons currently enrolled as college students.

A \$2.00 APPLICATION FEE is a one-time fee for all new members, payable when applying for membership.

THE GEOLOGICAL SOCIETY OF MAINE ANNUAL RENEWAL / APPLICATION FOR MEMBERSHIP

Application Fee	\$2.00	\$ _____	Name _____
Regular Member	\$7.00	\$ _____	Address _____
Associate Member	\$6.00	\$ _____	
Student Member	\$4.00	\$ _____	
Education Fund Contribution		\$ _____	
TOTAL ENCLOSED		\$ _____	

Checks payable to:
 The Geological Society of Maine
 Martin Yates, Treasurer
 c/o Dept. of Geological Sciences
 5711 Boardman Hall
 University of Maine
 Orono, Maine 04469

1994/95 SOCIETY YEAR BEGINS AUGUST 1 - PLEASE SEND DUES TO TREASURER

THE GEOLOGICAL SOCIETY OF MAINE

c/o Arthur M. Hussey, II, Postal Chairman
 Department of Geology
 Bowdoin College
 Brunswick, ME 04011

THE MAINE GEOLOGIST is published three times a year, in early fall, mid-winter, and summer, for members of the Geological Society of Maine.

Correspondence about membership in the Society should be mailed to Martin Yates, Department of Geological Sciences, 5711 Boardman Hall, University of Maine, Orono, Maine 04469.

Items for inclusion in the newsletter may be directed to Susan Weddle, 11 Beech Drive, Brunswick, ME 04011.

- President Steve Pinette
- Vice President James Hillier
- Secretary Marita Bryant
- Treasurer Marc Loiselle
- Newsletter Editor Susan Weddle
- Postal Chairman Arthur Hussey
- Directors Carolyn Lepage (91-94)
 Olcott Gates (92-95)
 Robert Johnston (93-96)

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