

nitrate; (4) by-product ammonium sulfate; (5) calcium cyanamid; (6) urea; (7) potassium nitrate; (8) potassium chloride; (9) sodium chloride. These materials were applied to an area infested with *Polypodium commune* at the rate of 30 and 60 pounds of nitrogen per acre in case of the nitrogen carriers, and the chlorides were used in chemically equivalent amounts. Application was in the spring. Observations made at the close of the season showed the highest degree of toxicity from sodium and potassium nitrates used in the higher amounts, followed by the sodium and potassium chlorides in chemically equivalent amounts and by sodium and potassium nitrates at the smaller rates. The other nitrogen carriers, including calcium nitrate, showed no toxic effects.

From observations thus far made it appears that toxicity of certain nitrates for this species of moss seems to be due primarily to the sodium and potassium ions. However, the cationic effect seems to be linked somewhat with the anionic effect, for, with one exception the nitrates were more toxic than the corresponding chlorides. This observed toxicity is not an indirect effect, that is, a crowding out of moss by other vegetation, as was first supposed, but is an actual killing of the moss. The effect is immediate and in proportion to the amount of sodium nitrate applied. It is also cumulative, so that after several smaller applications the effect is similar to that of a single larger application.

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## PREHISTORIC MOUNDS IN SOUTH FLORIDA

SEVERAL professors connected with the University of Miami have been working on a mound recently discovered on Key Largo which is suspiciously Mayan in character. It is a stone structure carefully constructed by aboriginal masons and is strikingly like several structures in British Honduras. The character of the pottery found in the neighborhood indicates a foreign origin, since there is no pottery clay in Southern Florida. It is black and hard like the pottery of Yucatan. Obsidian knives and other remains discovered in the vicinity of the mound are also indicative of foreign influences. Various canals and small harbors dug in this region indicate that Southwestern Florida was once inhabited by a numerous and enterprising population. The Mayans were great seamen and traders and it is more than likely that they settled in Florida. The abundance of game, especially fish and shell-fish, would have been a great attraction. There is reason for believing that the Calusas were of Mayan stock and that even the Seminole may have Calusa blood in his veins. This region will be included in the proposed National Everglades Park and it is hoped the Seminoles may be used for guards and guides.

The University of Miami, under whose auspices the preliminary researches have been made, will continue its investigations in this region and will later publish fully the results of its studies.

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## SCIENTIFIC BOOKS

*Comité national français de Géodésie et Géophysique. Assemblée générale du 9 mai 1931. Au Secrétariat général du Comité. Rue d'Anjou, 78, Paris 8e.*

THIS publication gives the proceedings of the 1931 annual meeting of the French National Committee on Geodesy and Geophysics. These proceedings cover only some nine pages. The remainder of the volume of over 90 pages is occupied with reports of the sections dealing with the various special branches of geophysics and with membership lists. The reports themselves are summaries, or sometimes summaries of summaries, so it would be rather absurd to carry the process of summarization still farther in this review. The reviewer will therefore confine himself to making a few general remarks, based on this publication as a text, and to mentioning a few of the items found merely because they happen to be connected with fields of work in which he is especially interested or to

strike his fancy as odd or noteworthy. A different reviewer would no doubt find texts for different sermons and would single out different items for special mention.

It is instructive to read publications of this sort. They bring before the reader the great diversity and the wide ramifications of geophysics and, in spite of these, its essential unity. The subjects treated in the different sectional reports vary greatly, but the membership of the sections overlaps extensively (just as it does in the case of the American Geophysical Union), and everywhere problems are encountered that concern more than one section. Geophysics extends on one side into geology and geography, on the other sides into technical physics and astronomy. If any one is to be immune from the dangers of too narrow specialization, the geophysicist ought to be.

The meeting of the French National Committee looked both to the immediate past and the near future.