stead of Sonoran Gopher Snake. The fact that since 1941, when the *Field Book of Snakes* was published, systematists have reduced *sayi* from a full species to a subspecies does not seem to justify a Bull Snake suddenly becoming a Gopher Snake, at least in common parlance.

Would it not be better, in works intended for the intelligent section of the general public, to list all the subspecies of *P. catenifer* simply as "Bull Snake or Gopher Snake," being content to let each person make his own choice, depending on local usage in his area? The principle is widely applicable.

Smith and Kennedy (*Herpetologica,* 7, [3], 93 [1951]) have recently proposed that *P. catenifer* be merged with *P. melanoleucus,* the Pine Snake. Should this proposed change in nomenclature win acceptance, fresh difficulties in the matter of common names within the genus appear certain to arise just as soon as compilers and revisers of general manuals catch up with the change. This prospective situation further emphasizes the desirability of trying to keep common names truly common, and of refraining from coining them where they do not already exist in actual use. If this recommendation were followed, new, common name difficulties would not arise whenever the systematists revise their schemes of classification.

Nomenclature is fundamental to an orderly knowledge of any faunal group, so let us by all means have recognized names, including standardized common names; but let us also have common sense along with them.

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Problems Involved in a World-Wide Soil Survey

WITH the increasing realization of the important part that certain metallic elements, present in trace concentrations in soils, play in plant, animal, and human nutrition, it is but natural that suggestions should be made for a world-wide soil survey in order to determine the extent and location of deficiencies. This is the subject of a short article by K. Starr Chester entitled "Trace Minerals in Food Production and Health" in this journal (SCIENCE, **115**, 3 [Jan. 11, 1952]). He has discussed the project in general terms, pointing out the advantages of a central laboratory employing spectrographic methods for the chemical analyses. This is unquestionably our most efficient tool for such a survey, but I would like to discuss some of the practical considerations of time, instruments, and personnel involved in such a program.

The nonmetallic minerals of which soils are composed require the carbon arc as the source for spectrochemical analyses. Such considerations as ease of handling and representativeness of sample indicate a sample weight of 10–20 mg. A sample of this size requires an exposure of about 2.5 min, so that about 25 can be exposed in 1 hr. This figure determines the maximum output of the spectrograph. For such a routine a laboratory crew of about 8 is needed, for such operations as preparing the samples and electrodes, attending the spectrograph, measuring, and calculating. For the field work of collecting, quartering down, and dispatching of samples, a unit of 3 should be able to handle about 50 samples/day, or a total of 12 people for the 200 samples required each day. For personnel, therefore, a total of 20 is needed to serve one spectrograph for each 8-hour day. For maximum use of the laboratory, operations should be on a two-shift basis; this will double production to 2,000/week, or 100,000 samples/year, with a working force of 40.

At this point an estimate must be made of the average sampling density, which, as we do not yet know the degree of variability of the trace element concentrations, must be a guess. Too high a density would be wasteful of time and labor; too low would endanger the worth of the whole survey. It would vary with locality, and adjustments will be made as data accumulate. Assuming, therefore, a density of 1 sample/5 acres, the annual output of one spectrograph will then survey half a million acres.

In the continental U. S. there are approximately 350 million acres in crops alone, excluding pasture, woodland, and forest. Working with one spectrograph, therefore, this limited survey will require 700 years! Obviously, we must enlarge our thinking on this problem; what is required is not a small group operating one or two spectrographs but a huge establishment of a thousand people operating a battery of 20 or 30 instruments, with costs running to several million dollars per year.

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An Improved Moist Chamber

BIOLOGISTS make frequent use of moist chambers in the course of their investigations. The usual moist chamber consists of 2 loosely fitting glass dishes superimposed upon each other to form a closed chamber, which is humidified by lining the bottom of the lower dish with wet filter paper, paper toweling, etc. Mycological investigations carried out by the writer have been hampered by the ability of fungi and bacteria to contaminate otherwise isolated test specimens by growing across the dampened surface.

This difficulty has been overcome by using cellulose sponge yarn[1] as the humidifying agent. This material is made up of cellulose sponge molded in a circular cross-sectional pattern around a solid core and extended into various lengths. The yarn has a high water-holding capacity and is easily cut and handled. A piece of yarn can be arranged around the inner wall of the moist chamber bottom clear of free water. Water may be added to the yarn periodically to main-

[1] This yarn was provided for experimental purposes by the Film Division of E. I. du Pont de Nemours & Company, Inc., Wilmington, Del.