Introduction.

Phytosociology in relation to Biology.

The place of Plant Sociology in the System of Biology. When some ten years ago on both sides of the Atlantic the term Phytosociology emerged and made entrance into science—the name was coined much earlier by Krylow and by Paczoski (1896)—the ground plan and framework of the new branch of knowledge had already been laid out in broad outlines. Based upon Warming's "Oecology" and Schroeter's "Synecology", strengthened by increments from neighboring sciences, vitalized by the suggestive power of new and fruitful ideas, far-seeing problems, Phytosociology has made in a short time an astounding progress.

The term Plant Sociology has been much criticized, especially on etymological grounds. Nevertheless it has quickly become internationally accepted because it is so extremely expressive and understandable. Of course there is no close parallelism between Plant Sociology and the sociology of August Comte. The two have one important point of contact: they are concerned, not with the life expression of the individual organism as such, but with groups or societies of organisms with more or less equivalent reactions, and bound together in mutual dependence. The communal values resulting from the mutual relations of organisms are the social phenomena; the cooperation of organisms is the social process. Contrary to the case of the individual, the society has an altogether independent existence.

Starting from this philosophic foundation, we may divide all
biology into:

Idiobiology, the science of individual organisms, and
Sociology: the science of organic societies.

The latter is divided into the social science of man (Sociology
in the usual sense), Zoosociology, and Phytosociology or Plant Sociolo-

gy.

Plant sociology, the science of plant societies, or the knowl-
edge of vegetation in the widest sense includes all phenomena which
touch upon the life of plants in social units.

Primary problems of Plant sociology. The present extent of
plant sociological investigation covers 5 primary problems:

1. Organization or Structure of the Society aims to inves-
tigate the composition of plant societies.

2. Synecology aims to study the dependence of plant societies
upon one another and upon the environment.

3. Syngenetics (development of societies), closely related
to synecology, seeks to discover the laws of the rise and decline
of plant societies.

4. Synchrology (geographic distribution of societies) takes
up the arrangement of societies in space, their occurrence and
distribution.

5. Classification of societies (systematics), the delimita-
tion of the social units, their grouping into higher units and
their systematic arrangement, grows out of the preceding as a
synthesis of the first four problems.

At the focus of phytosociologic effort at the present time
stands the first problem, the investigation of the composition
of societies. It furnishes the indispensable foundation for an
unbiased treatment of all the other partial problems.

On the other hand, this classification, like every natural systematization, has as a prerequisite the most accurate knowledge of all the partial problems. From the nature of the case therefore this part of the science of societies, lacking as yet the necessary broad basis, is still the least developed.