

should pay particular attention to the identity and distribution of as yet unrecognized organisms capable of fixation as well as to the distribution of nitrogen fixers in adequately described habitats.

- e. To investigate the nitrogen budget and nitrogen cycle, with particular emphasis on nitrogen gains and losses, as related to primary production.
- f. To study the systematics of nitrogen-fixing organisms, encouraging the introduction of modern taxonomic methods to the investigations.
- g. To encourage further work to define the biochemical mechanism of nitrogen fixation and the physiological processes associated with the reaction.

To accomplish the foregoing aims, certain immediate actions are necessary:

1. Encouraging the development of culture collections of the asymbiotic nitrogen fixers and making arrangements for the maintenance of a permanent collection of root-nodule bacteria.
2. Supporting the preparation and publication of
  - a. a compilation of methods currently in use for the study and evaluation of nitrogen fixation, and
  - b. a critical analysis of the limitations of those methods.

Attention will be given to methods for nitrogen analysis and for isotope ratio determination as well as to microbiological procedures and the methods of systematics.

3. Providing means for the use of available specialized instruments (e.g., mass spectrometers) in the accomplishment of routine analytical determinations through support of custom analyses on a modest charge basis.