

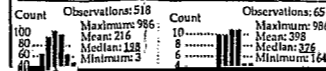
**NUTRIENT INPUT BY THE PHOTOSYNTHETIC AQUATIC BIOMASS IN A RICEFIELD  
AND ITS CONTRIBUTION TO THE MAINTENANCE OF SOIL MICROBIAL BIOMASS**  
P.A. Roger, R. Jimenez, S. Ardales, I. Watanabe. International Rice Research Institute/ORSTOM. Philippines

**1. Introduction, purpose of the study**

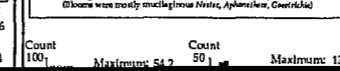
The photosynthetic aquatic biomass (PAB) that develops in ricefield floodwater is composed of planktonic, filamentous, and macrophytic algae, and vascular macrophytes. These primary producers are one of the sources of organic nutrients that allow the replenishment of the microbial biomass and available nitrogen in wetland rice soils. A conceptual scheme of the

**3a. Standing crops of PAB components\***

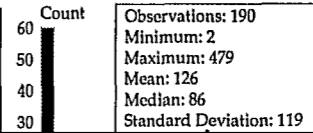
Distribution of estimates of the standing biomass of algae and small floating macrophytes at 7-15 day intervals (dry season, DS) 87



Distribution of 400 estimates of the biomass of N-fixing blue-green algae when growth was visible to the naked eye (DS 87) (Blocks were mostly monotypic: *Nostoc*, *Aphanizomenon*, *Crotonchloa*)



**3c. Photodependent N<sub>2</sub>-fixation**



Each value is the average of 9 to 13 ARA measurements during a crop cycle. The bimodal histogram results from BNF inhibition in plots