

From R. Gerald Wright at the NPS CPSU in Moscow, Idaho, comes the following summary of an article by Stuart H. Hurlbert in *Ecological Monographs*, 54:187-211 (1984), entitled "Pseudoreplication and the Design of Ecological Field Experiments."

"This recently published paper should be required reading for all researchers. It deals with the importance of the proper design of field experiments. The author defines pseudoreplication as the use of inferential statistics to test for treatment effects using data from experiments where either treatments were not replicated or the replicates were not statistically independent. In such cases, the statistical tests are inappropriate. In an extensive survey of the ecological literature, the author found that 42 percent of recent statistically analyzed field experiments suffered from this problem.

"The article discusses case examples of several experimental situations in which this can happen. It also attempts to establish some common terminology and clear up some of the semantic confusion that abounds in literature on experimental design.

"It also raises several important philosophical points. It recognizes that it is often impossible to replicate large field experiments such as those that typically take place in parks. It points out that the problem is not necessarily with the design, but rather with the fact that when tentative conclusions are derived from such unreplicated treatments, they are given the unmerited veneer of rigor by the erroneous application of inferential statistics."