ECOLOGY LETTERS

Checklist for reporting experimental details in manuscripts for *Ecology Letters*

We have added this checklist to the Author Guidelines to encourage authors to check the information reported for each study before submission. Authors should check that their methods adhere to this checklist of reporting standards and that essential details are provided in their Materials and Methods section. The methods in the main body of an Ecology Letters paper should contain sufficient detail for a general reader to understand the study, and for a scientist to successfully repeat the study. Additional details can go into online supplements. The checklist provides categories of relevant information which "must" or "should" be reported. "Must report" applies to the issues of treatments, replication, location, timing, spatial and temporal scale, and "should report" applies to context-specific information on the background of the experiment.

Criterion	Field	Lab
Experimental Design (treatment factors and interactions, design structure [e.g., factorial, nested, hierarchical], nature of replication)	Must	Must
Definition, nature and size of the experimental units	Must	Must
Type of statistical tests used, covariates (explanatory factors) tested, posthoc or planned comparisons carried out, definition of statistical metrics if different from commonly accepted terms	Must	Must
Location of the experiment (latitude, longitude, elevation or depth)	Must	N.A.
Timing of the experiment (start date, end date, duration, justification for duration)	Must	Must
Description of organisms manipulated or analyzed [(1)]	Must	Must
Context-relevant conditions [(2)]	Should	Should
Context-relevant magnitude of treatment [(3)]	Should	Should
Sampling schedule and processing (timing, frequency, storage, measurement)	Must	Must

(1): The organisms must be described in a concise but unambiguous way. It has to be clear whether single-species, natural or artificial communities were used, and whether certain classes (e.g., size or age classes, taxonomic groups, inbred or selected lines) were in- or excluded. For lab experiments, this can include origin of the organisms, pre-experiment cultivation, inoculation protocol, reference to identification literature.

(2): Which conditions are to be reported depends on the context of the study. Some conditions are necessary to report for almost all experimental studies (e.g., temperature). Others depend on the type of organism, for instance light conditions (intensity, light:dark cycle) for studies on autotrophs, depth for aquatic systems, or on the type of treatment, for instance resource concentrations for fertilization studies.

(3): Manipulation of a factor in an experiment can only be interpreted against the background in the experimental control. Thus, the manipulation of resource supply should give control and treatment values for these resources, exclusion treatments should be interpreted in light of the ambient abundance or biomass of the organism group excluded, and so on.