

Statistical machismo vs common sense: when are new methods worthwhile?

B. Bolker^a

^a Department of Mathematics & Statistics,
McMaster University,
Hamilton, Ontario,
Canada
bolker@mcmaster.ca

Abstract: Statisticians' bread and butter, the work that excites us and brings academic rewards, is developing novel methods. Applying existing methods to new problems and new data sets, no matter how exciting the scientific results or useful the management conclusions, doesn't have the same intellectual thrill. A recent blog post by Brian McGill accused ecologists of "statistical machismo", using unwarrantedly fancy statistical methods for swank; I will explore the costs and benefits of new, complex statistics from the statistician's point of view. When are new methods really useful, and when do they just enable statistical machismo? What are the tradeoffs between robustness, ease of use, transparency, and correctness? Is providing easy-to-use software doing users a favour? How often do our new methods solve problems that ecologists really need solved?