

# Epistemic restrictions in population biology

Valenzuela,

Biologists have believed that the application of statistical or mathematical models to population biology has always been a correct and helpful tool to acquire knowledge. The present article demonstrates that the standard interpretation of statistical results yielded by the application of mathematical models to some populational processes, not only hides knowledge, but may lead to wrong knowledge. These epistemic restrictions are completely different from the known statistical restrictions (type I and II errors). A new more versatile conditional interpretation of statistical results is proposed.