

**IMPROVING EFFECTIVENESS OF PESTICIDE RISK ASSESSMENT FOR
AMPHIBIANS AND REPTILES**

MANUEL E. ORTIZ-SANTALIESTRA

Spanish Institute of Game and Wildlife Research (IREC) UCLM-CSIC-JCCM, Ciudad Real, Spain

Prospective risk assessment of pesticides is meant to guarantee that no unacceptable risks to wildlife are associated with the environmental release of these substances. Because amphibians and reptiles have been traditionally neglected in pesticide risk assessment, the extent at which this procedure is useful to protect herpetofauna from pesticide impacts is uncertain. Several research actions and evaluations of the state of the science have been conducted over recent years in order to elucidate the degree of protection conferred by current risk assessment procedures to herpetofauna and propose possible solutions. The leading action was the Scientific Opinion published by the European Food Safety Authority (EFSA), proposing a risk assessment scheme for amphibians and reptiles and suggesting knowledge gaps that need to be addressed at the short or medium term. Available information reflects a general lack of protection provided by current pesticide risk assessment scheme to amphibians and reptiles, but information retrieved from other vertebrates relative to specific substances or exposure routes can be used in order to avoid an unnecessary use of animals for regulatory purposes. Solutions are proposed to address knowledge gaps using alternative methods, like individual-based models, that help improving ecological relevance of pesticide risk assessment for amphibians and reptiles without necessarily adding animal testing to the regulated procedures. This presentation will summarize those proposed solutions, enhancing the multidisciplinary aspects of the actions that will have to be taken in upcoming years, and focusing in the key role that herpetologists' community should play in this challenge.