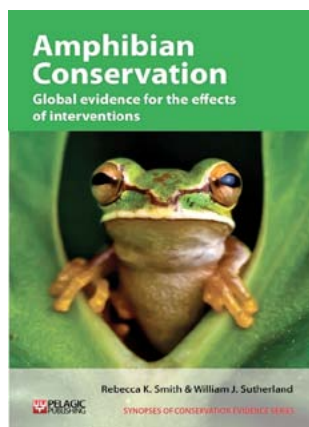


# Amphibian Conservation: Global Evidence for the Effects of Conservation

Rebecca Smith and William Sutherland (2014)

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This book attempts to summarize all of the published evidence relating to conservation interventions aimed at amphibians and specifically, where interventions have been quantitatively monitored. This ranges from very small specific interventions such as the introduction of artificial hibernacula to wide ranging interventions such

as the Million Ponds Project in the UK. No attempt is made to make recommendations, merely to lay out the evidence in an easy to read and easy to find format in a way that can help decision makers at a local, national or international scale make more informed judgements as to the most effective measures to implement. The first half of the book is arranged into chapters that each relate to a specific threat such as climate change, transport networks, agriculture and pollution whilst the second half examines the impact of habitat management, species management (captive breeding and translocations) and education and awareness raising.

One of the big plus points of this book is that it is very easy to establish if there is evidence available about a particular subject and where to find the source material. In this respect it serves its purpose well. However, it is intriguing to examine whether the book can actually be applied by land managers or those giving advice to land managers to fine tune the management of sites for their amphibian populations. The Kent Reptile and Amphibian Group regularly gives advice to a wide range of organisations and individuals about managing ponds and terrestrial habitat for amphibians and most of the advice is based around generally accepted best practice guidance. At least 90% of advice is covered by just a few basic principles. In other words, creating ponds is good, and almost always more cost effective than managing existing ponds, discouraging birds and fish is useful, maintaining structurally complex terrestrial habitat will help and not moving the widespread amphibians around except under exceptional circumstances is the best option. So, could this book confirm that this is sound advice based on well established, published literature or just the ramblings of well meaning amateurs that is at best ineffective or in a worst case scenario, counterproductive?

Things started well, pond creation gets a resounding thumbs up though the success of specific species depends upon the kind of ponds created and some studies have expressed doubt that the creation of ponds specifically for translocated species leads to self-sustaining populations. In contrast, evidence suggests that pond restoration can have mixed effects on existing amphibian populations. Fish control similarly has good evidence to back up its effectiveness although the use of piscicides can also kill off amphibian populations. The evidence to support other interventions is less conclusive as the example of excluding waterfowl shows. The book simply states that 'We captured no evidence for the effects of preventing heavy usage or excluding wildfowl from aquatic habitat on amphibian populations.' Herein lays the challenge of writing a book such as this. The complexities of amphibian habitat management and the impact of interventions on a range of species mean that there simply isn't enough published information to fully inform a land manager. Other examples, particularly broad ranging interventions such as introducing a grazing regime or the management of terrestrial habitat have evidence of both success and failure. This simply illustrates that for most interventions it is the fine-tuning of management techniques and regimes that yield success rather than simply the type of intervention itself. In short, this book provides a useful starting point for justifying specific interventions (or not intervening) and can help direct the reader to further information.

One of the conclusions it is impossible not to draw from reading this text is that there are still significant areas of amphibian conservation that are not covered by scientific literature. This is exemplified by the lack of evidence for either protecting brownfield sites or habitat connectivity having a positive impact on amphibian populations. It is a challenge to summarize so much information into one relatively small book and even more of a challenge to make sense of what all the data means. This book is a useful tool and perhaps an ideal first step for identifying or rejecting potential interventions for amphibian conservation but does not provide all of the answers to making the most of the limited resources available for amphibian conservation. That would just be too simple wouldn't it?

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