## RESEARCH ARTICLE





# Sacred groves and serpent-gods moderate human-snake relations

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## Abstract

- Serpent-god worship is an ancient tradition still practiced in many sacred groves across the Western Ghats of India. Although sacred groves there hold ecological conservation value, few studies have focused on arguably the most iconic taxon in the region, snakes.
- We thus investigated the impact of sacred groves and snake deity worshipping on attitudes towards snakes by conducting surveys with people who had entered sacred groves in the past.
- 3. We found that very few participants who had encountered snakes inside sacred groves in the past harmed them during these encounters. However, nearly a quarter of all participants do harm snakes if encountered outside sacred groves.
- 4. We also found that a larger proportion of participants who do not harm snakes outside sacred groves worship snake deities, relative to those that do harm them.
- 5. Our work thus highlights the influence of sacred groves and snake deity worshipping on pacifistic human-snake relations in Southwestern India.

#### KEYWORDS

biocultural landscape, environmental perception, human-snake relation, religion, sacred grove, snakebite, The Western Ghats

# 1 | INTRODUCTION

Overshadowed by growing concerns over contemporary human-induced threats to ecosystems associated with global urbanization, numerous cultures throughout the world have upheld the preservation of natural sites for generations by valuing their sanctity (Dudley, Higgins-Zogib, & Mansourian, 2009; Verschuuren, Wild, McNeely, & Oviedo, 2010). By preventing the development or extensive degradation of sacred natural sites, such beliefs and traditions have helped maintain local biodiversity despite ongoing nearby urban growth and land-use changes (Verschuuren et al., 2010). There has consequently been a sharpening focus on their value in current

conservation biology (Mcleod & Palmer, 2015; Waylen, Fischer, Mcgowan, Thirgood, & Milner-Gulland, 2010), perhaps as an ideal for the prosperity of both nature and society (Pardo-de-Santayana & Macía, 2015). Although found throughout the world (Verschuuren et al., 2010), the potential role for sacred natural sites in modern conservation practices has garnered significant attention in places such as Ethiopia (Aerts et al., 2016; Teketay et al., 2010), Ghana (Decher, 1997; Sarfo-Mensah, Oduro, Antoh Fredua, & Amisah, 2010), Tanzania (Kideghesho, 2008; Mgumia & Oba, 2003), and Southwestern China (Salick et al., 2007; Shen, Lu, Li, & Chen, 2012), where studies have exemplified their efficacy in safeguarding native flora and fauna.

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