Global invasion of Lantana camara: Has the climatic niche been conserved across continents?

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©2014 Goncalves et al.Lantana camara, a native plant from tropical America, is considered one of the most harmful invasive species worldwide. Several studies have identified potentially invasible areas under scenarios of global change, on the assumption that niche is conserved during the invasion process. Recent studies, however, suggest that many invasive plants do not conserve their niches. Using Principal Components Analyses (PCA), we tested the hypothesis of niche conservatism for L. camara by comparing its native niche in South America with its expressed niche in Africa, Australia and India. Using MaxEnt, the estimated niche for the native region was projected onto each invaded region to generate potential distributions there. Our results demonstrate that while L. camara occupied subsets of its original native niche in Africa and Australia, in India its niche shifted significantly. There, 34% of the occurrences were detected in warmer habitats nonexistent in its native range. The