

## A survey of amphibians and reptiles in Chu Mom Ray National Park, Vietnam, with implications for herpetofaunal conservation

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### ABSTRACT

A herpetological survey was conducted in spring 2012 in the eastern part of Chu Mom Ray National Park, Kon Tum Province, southern Vietnam, to create a first inventory list of amphibians and reptiles and record threats to the local herpetocommunity. We also evaluated the efficiency of two faunistic inventory methods, drift fences and transect visual encounter surveys, in detecting reptiles and amphibians under the given circumstances. Five drift fence arrays with pitfalls and double-ended funnel traps were set up in lowland evergreen forest at elevations from 777 to 846 m a.s.l. and monitored over 40 nights. Additionally, 22 night excursions were conducted along an adjacent forest stream transect. A total of 62 species of amphibians and reptiles were recorded, comprising 24 anurans, one caecilian, 20 lizards, 16 snakes and one freshwater turtle. Because all specimens were released after capture in the field, proper identification and taxonomic revision are required for at least ten recorded amphibian and six reptile species. Four species are listed in the Vietnam Red Data Book (2007) and two species are listed in the Governmental Decree No32/2006/ND-CP (2006). In terms of distribution patterns, old-growth forest habitat harbored the highest number of recorded reptiles and amphibians (41 species), followed by open land (18 species) and secondary forest (14 species). Most species were captured opportunistically (34), followed by the drift fences (29) and transect night surveys (18). Opportunistic encounters provided for most reptiles (22), while most amphibians were recorded at the drift fence arrays (15). Poaching of wildlife proved to be the major threat to the local herpetofauna, in particular large reptiles. In the study area, reptiles and amphibians are also at risk from habitat loss and degradation. Recommendations for reptile and amphibian conservation are provided.

**Keywords:** Herpetofauna, diversity, ecological indicators, threats, conservation.