

## CHAPTER 5

**Environmental Change in Ancient Wetland Zones,  
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South and south western Madagascar in common with other parts of this large island has undergone environmental change as a result of natural and anthropic factors in the past. This has resulted in the degradation and destruction of the natural habitat. According to data from different studies Madagascar originally had a cooler climate than it has today. During the Holocene, different factors, particularly the onset of drier conditions caused ecological changes which resulted in the extinction of many faunal and floral species. This process appears to have been accelerated by the arrival of humans and the establishment of settlements on the island. Different scholars have investigated and tried to explain the role played by humans in environmental degradation and the disappearance of certain fauna and flora. Using different kinds of data, this chapter seeks to contribute to previous and current discussions on this important but very complex subject.

**Introduction**

The available biological and chronological data show that the island of Madagascar experienced the onset of drier climatic conditions just before the arrival of humans some 1200 years ago. This natural development appears to have been closely linked to the extinction of a number of faunal communities on the island (Burney, 1997; Mahé & Sourdat, 1972). Subsequently, the arrival of humans towards the end of the 1<sup>st</sup> millennium AD combined with natural factors to introduce further environmental change and degradation. (Battistini, 1965; Goodman & Rakotozafy 1997; Wells & Andriamihaja, 1997) It is thus now generally accepted that the combination of the natural factors and anthropic actions seriously impacted on the environment of Madagascar.

The current research was mainly been target towards the recovery and analysis of data that reflect human activities and the contribution of these activities directly or indirectly towards environment and ecological change in the southern and south-western part of Madagascar (Fig. 1). Further, the research seeks to relate the human induced changes to natural factors such as the well documented aridification that affected the wetland zones and the faunal species south and south-west of Madagascar where the climate was originally wetter but became drier (Goodman & Rakotozafy, 1997). In order to understand how the human activities interfered with animal species, it is vital that we consider ecological change and the dynamic of fauna diversity.