

Abstract

Islands are important to many bird species. They are fragile and vulnerable to anthropogenic and natural disturbances. Therefore, it is necessary to identify conservation strategies. However, Thailand has many islands distributed in the Andaman sea and the Gulf of Thailand. They have different characters to conserve bird populations. Moreover, there is no spatial database of islands in Thailand that can be used to support conservation planning for the long term. Therefore, this study aims to create a spatial database of the birds found in the islands under the RSPG project and prioritize them for effective conservation. The main sources of bird data were Meckvichai (2011) and Meckvichai and Harnyuttanakorn (2011). Scoring and weighting technique was used based on six criteria, including i) number of bird species found in each island, ii) conservation status from IUCN (International Union for Conservation of Nature) Red List of Threatened Species, CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), and Thailand Red Data: Birds, iii) Important Bird Areas, iv) size of island, v) distance from mainland, and vi) human activity inside and surrounding the island. Before construction of the spatial database, 84 cases of birds' name from the former researches were corrected. Most of them were incorrect spelling. Then, a shapefile presenting the island boundaries, sizes and distances from mainland was created. Two related files were then created for additional data, including bird species found in the islands and birds' status based on international and Thai conservation organizations. Finally, ten islands having high priority for bird diversity conservation were Tarutao and Ko Ka Beng islands in Satun province, Yao Yai, Yao Noi, Ra, Phra Thong Similan-Miang and Huyong – Payang islands in Phang Nga province, Kra in Nakhon Si Thammarat provinc, and Samea San island in Chonburi province. These islands have different characters to support different groups of birds. Therefore, species-based or ecosystem-based approaches, or both are needed to implement differently in each island.

Keywords: bird, island, conservation, priority