Natural habitat of Bali starling (leucopsar rothschildi) in Bali Barat national park, Indonesia

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Abstrak

Tropical savannas and dry forests in Indonesia are important types of ecosystems which provide habitat to support various endemic wildlife. Several of these endemic species are now seriously threatened and accordingly have high conservation status according to IUCN, including the Bali starling (Leucopsar rotschildi) which is mostly now restricted to the Bali Barat National Park. Given the high extinction risk facing such species, conservation programmes are likely to require multidisciplinary approaches that address both the biological attributes of the species itself, as well as their habitat requirements. Regrettably, for many species, their habitat ecology remains inadequately understood. The objectives of this paper are to: 1) characterise the habitat of the Bali starling in terms of structure and floristic composition; and 2) document evidence of vegetation cover changes in the Bali Barat National Park. Analysis of remote sensing imagery as well as field sampling for vegetation attributes was conducted to address these objectives. Normalized Difference Vegetation Index (NDVI) was calculated from Landsat imageries using red and near infrared bands. Tree cover percentage data were downloaded from Vegetation Continuous Fields (VCF) product from the University of Marylandâ€™s website. Results showed that forest and savanna are the dominant land cover types in the Bali Barat National Park but their distribution is somewhat dynamic with changes in vegetation cover and greenness found across the years in which increasing cover of woody plants is the general trend. In the Bali Barat National Park, the Bali starling is mostly found at or near distinct vegetation boundaries, such as the border between savanna-forest; savanna-cropland; savanna-shrubland; settlement-cropland; and forest-shrubland. Although Cekik area had planted species that has been known to be able to provide shelter and food for Bali Starling (so was Brumbun), the bird has not been observed to be presence in the area since the 1990s. These results further confirm the importance of examining habitat patterns of endemic bird within a landscape that are influenced by multiple factors that interact in space and time. Addressing data shortage in habitat patterns within endemic species distribution is important for conservation managers developing conservation management strategies. Evaluating the remaining habitat of the species is important for conservation of Bali starling and useful for the reintroduction and release program to their natural habitat.