

The Estimation of Bird Diversity Loss and Gain as an Impact of Oil Palm Plantation: Study Case in KJNP Estate Riau Province

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Abstract : The rapid growth of oil palm industry in Indonesia raised many negative accusations from various parties, who said that oil palm plantation is damaging the environment and biodiversity, including birds. Since research on oil palm plantation impacts on bird diversity is still limited, this study needs to be developed in order to gain further learning and understanding. Data on bird diversity were collected in March 2018 in KJNP Estate, Riau Province using strip transect method on five different land cover types (young, intermediate, and old growth of oil palm plantation, high conservation value area, and crops field or the baseline). The observations were conducted simultaneously, with three repetitions. The result shows that the baseline has 19 species of birds and land cover after the oil palm plantation has 39 species. HCV (high conservation value) area has the highest increase in diversity value. Oil palm plantation has changed the composition of bird species. The highest similarity index is shown by young growth oil palm land cover with total score 0.65, meanwhile the lowest similarity index with total score 0.43 is shown by HCV area. Overall, the existence of oil palm plantation made a positive impact by increasing bird species diversity, with total 23 species gained and 3 species lost.

Keywords : bird diversity, crops field, impact of oil palm plantation, KJNP estate

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