

## INTISARI

Burungnesia sebagai aplikasi *citizen science* mempunyai potensi yang besar untuk konservasi burung di Indonesia, dimana banyak spesies burung di Indonesia menghadapi ancaman perdagangan. Namun kualitas data dari Burungnesia sebagai alat bantu *citizen science* perlu dikaji secara ilmiah. Untuk itu penelitian ini bertujuan (1) mengetahui mekanisme kontrol kualitas data *citizen science* di Indonesia (2) mengetahui prediksi distribusi spasial burung berdasarkan data *citizen science* (3) mengetahui perbandingan prediksi distribusi spasial burung berdasarkan data *citizen science* dengan data repositori. Pulau Jawa dipilih sebagai studi area berdasarkan banyaknya spesies burung yang terancam perdagangan, serta jumlah data terbanyak berdasarkan Burungnesia. Kontrol kualitas data diketahui dari wawancara dengan pengelola Burungnesia. Proses pengambilan data repositori dilakukan di seluruh repositori universitas di Jawa, serta jurnal nasional dan internasional. Prediksi distribusi burung diketahui dengan pemodelan distribusi spesies terhadap 30 spesies burung berdasarkan data Burungnesia dan data repositori.

Hasil penelitian menunjukkan bahwa kontrol kualitas data *citizen science* Burungnesia dilakukan sejak awal dengan cara menyeleksi kontributor. Pengecekan data dilakukan ketika data tersebut akan digunakan. Burungnesia mampu memprediksi 14 spesies. 12 spesies burung menunjukkan AUC (*Area Under ROC Curve*) yang dapat digunakan karena lebih dari 0.75. Repositori mampu memodelkan 5 spesies burung. Empat spesies burung berdasarkan data repositori memiliki nilai AUC (*Area Under ROC Curve*) yang lebih tinggi. Dilihat dari luasan kesesuaian habitat, data Burungnesia mempunyai kesesuaian habitat yang lebih luas dibandingkan data repositori.

Kata kunci: *citizen science*, burung, Burungnesia, pemodelan distribusi spesies

## **ABSTRACT**

Burungnesia has a great potential for bird conservation in Indonesia, where many species of birds in Indonesia face trade threats. But the quality of Burungnesia as an application for citizen science needs to be studied scientifically. This study aims to (1) determine the quality control mechanism of citizen science data in Indonesia (2) determine the prediction of the spatial distribution of birds based on citizen science data (3) determine the comparison of prediction of the spatial distribution of birds based on citizen science data with repositories. Java Island was chosen as a study area based on the number of bird species threatened, as well as the highest number of data based on Burungnesia. Data quality control is known from interviews with the management of birds. The repository data collection process is carried out in all university repositories in Java, as well as national and international journals. Prediction of bird distribution is known by modeling the distribution of species against 30 bird species based on data of Burungnesia and repositories.

The results showed that the quality control of citizen science Burungnesia data at the beginning was registered user selection. checking the data is done only if it will be used. Burungnesia is able to model 14 species. 12 bird species exhibit AUC that can be used because it is more than 0.75. The repository is able to model 5 bird species. Four bird species based on repository data have a higher AUC value than Burungnesia. From the extent of habitat suitability, Burungnesia data has wider habitat suitability than repository data.

**Keywords:** citizen science, bird, Burungnesia, species distribution model