

Application of bioacoustics for Pelung rooster (*Gallus gallus domesticus* Linn. 1758) as local genetics conservation

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Pelung is a local chicken in Cianjur, West Java, Indonesia. In that area, Pelung rooster has a unique sound or crow which is usually participated in the crow contest competition. However, there is some weakness in marking for that competition. The weakness is no any standard marking for deciding the winner of all competitors. This research was aimed to study and explain inheritance of crow trend in Pelung rooster and some factors which influence that inheritance. This research used laptop recording method towards three main Pelung roosters in KP4 UGM and a control Pelung rooster in Sambiroto village, Sleman. Sound analysis was used by *adobe audition* CS5.5. software. The weight measurement was used by *Five Goats* scale with 5 kg maximum capacity. Data analysis were duration, spectrogram, intensity, frequency and crow amplitude in Pelung rooster. The result showed that more increasingly the age, crow duration was longer too but if Pelung rooster had been too old, there was the decreasing of crow duration. More increasingly the weight of Pelung rooster increased crow duration potency. According to spectrogram analysis, Pelung crow was divided into three parts namely early, mid and last phase. There were other factors which influenced inheritance of crow trend in Pelung rooster. Application of bioacoustics in Pelung rooster was done as an effort to conserve genetics sources according to the local wisdom. The conservation was done by recording a crow of Pelung rooster because of the existence of Pelung rooster was seldom in society. The result of conservation contributed an avian vocal database mainly in Indonesian local chicken species which were categorized as a song chicken. This research used sound analysis technology approach thus could be yielded avian vocal database which was useful to one of identification key for avian species diversity in Indonesia on bioacoustics discipline.

Biography

Rocky Putra is a final year undergraduate research student in biological sciences from Universitas Gadjah Mada, Special Region of Yogyakarta Province, Indonesia. He is an outstanding student with a high cumulative of GPA 3.87 (out of 4.00). He got a third winner of young researcher competition by Indonesian Institute of Science. He got an academic achievement scholarship from DIKTI since 2010 until 2012. He is also a highly competence staff in research division of Entomology Study Club in his faculty. He loves all about biodiversity and always respect all a form of life.

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