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Inventory of Bird Species in Kedung Kopong and Banyak Angkrem, Kec. Salaman, Kab. Magelang

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Abstract. Kedung Kopong waterfall area which is located in Glagah Village, and the mountain area Banyak Angkrem which have an altitude of 753 meters above sea level are located in Kalirejo Village, Kec. Salaman, Kab. Magelang, Central Java is a tourist area which is an ideal bird habitat. The existence of bird habitat in tourist areas has the potential to experience disruption due to tourist visiting activities. As a result, the vegetation areas, which are the most important bird habitats, are decreasing so that it is feared that many bird species will lose their habitat. The absence of data on the birds in the area, it is necessary to conduct research to obtain information on the variety of bird species in the area along with the mount of bird. This research was conducted on March 1st 2020 - March 15th 2020, every Saturday and Sunday. The data collection time in this study was adjusted to the weather situation in Kalirejo Village, Salaman District, Magelang Regency. Observation of bird species that have diurnal activity is divided into 2 sessions. This research method is to use the exploration method (explore) directly in the field in the area of Kedung Kopong and Banyak Angkrem. Data collection was carried out by tracing the existing footpaths and hiking trails. Inventory of bird species in the tourist area of Curug Kedung Kopong and the hill of Banyak Angkrem found a variety of different species. The Tesia team found around 26 species from 17 families in the two areas, were successfully identified.

Keywords. Kedung Kopong, Banyak Angkrem, Invetory, Bird Species, Explore Method

Abbreviations. m.1 is map the one, m.2 is the second map, m.3 is the third map and etc.

INTRODUCTION

Indonesia is a country with the fourth largest number of birds in the world. The Indonesian Bird Organization has recorded and updated the list of bird species in early 2020. There are 1,794 bird species recorded currently in Indonesia. One of the main priorities of the Indonesian state is efforts to conserve biodiversity. The main threat to biodiversity is habitat destruction or loss. The best way to protect biodiversity is to protect and maintain habitats. At this time, habitat destruction is generally the result of meeting the needs of human life (Alamsyah and Marhento, 2016).

The existence of birds on the island of Java has an influence on the economic conditions of local residents, there are bird species that benefit farmers, foodstuffs and the pet bird trade (MacKinnon, 1993 cited by Wahyuni, 2014). This economic activity will change the area's environment and affect wildlife, especially birds, which are known to be good indicators of environmental change (Suripto, B.S and Fitriana, A, 2017). In principle, birds can coexist with the community as long as the conditions for their living needs are met, such as adequate and safe habitat from various forms of disturbance. The presence of birds is very important in maintaining environmental balance in an area (Hadinoto et al. 2012 referred to by Nainggolan, F.H, 2019). Departing from the things that have been mentioned above, there is a research on bird inventory in the area of Curug Kedung Kopong and Gunung Banyak Angkrem, Kec. Salaman, Magelang Regency needs to be done.

The Kedung Kopong waterfall area which is located in Glagah Village, and the mountain area. Banyak angkrem which have an altitude of 753 meters above sea level are located in Kalirejo Village, Kec. Salaman, Kab. Magelang, Central Java. According to Widiyanto (2018), this area is a tourist area that is used as a tourist attraction in order to strengthen Kalirejo Village to become an inspiring village. The existence of bird habitat in tourist areas has the potential to experience disruption due to tourist visiting activities. As a result, vegetated areas, which are the most important bird habitats, are decreasing so that it is feared that many bird species will lose their habitat (Haryoko, 2014).

Based on the problems the team encountered, the research on bird species inventory in Kedung Kopong and Banyak Angkrem areas, Kec. Salaman, Kab. Magelang needs to be done. This research was conducted in order to determine the number of bird species and to study the description and status of bird species in the area. This research can also provide information data about the number and types of birds along with their status, and add insight and knowledge about birds for the local community.

MATERIALS AND METHODS

The research was carried out on March 1st – 15th, 2020 every Saturday and Sunday. The time to collect the data in the study adjusted the weather situation in Kalirejo Village, Salaman District, Magelang Regency. The research was conducted in two sessions, the first at 05.30 a.m until 11.00 a.m and the second at 14.00 a.m until 17.00 a.m. The tools and materials used were binoculars and the identification book "Birds of Sumatra, Java, Bali and Kalimantan (SKJB) by John Mackinnon." The method used is the roaming method, by tracing the existing footpaths and hiking trails (Figure 1).

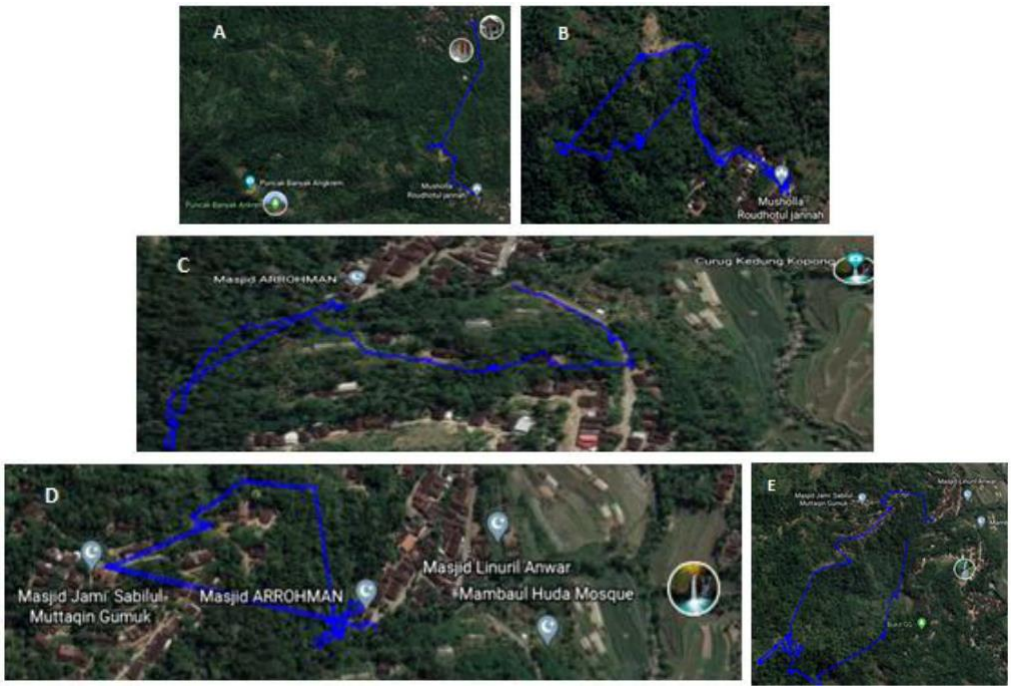

Figure 1. Observation path map a) Banyak Angkrem mountain m-1; b) Banyak Angkrem mountain m-2 and m-3; c) Kedung Kopong waterfall m-1; d) Kedung Kopong waterfall m-2; e) Kedung Kopong waterfall m-3

RESULTS AND DISCUSSION

The results of the observations that have been made will be presented with tables and descriptions of the types of birds found at the research location. The following is a table of bird species found in the Kedung Kopong waterfall area and Mount Banyak Angkrem, among others (Table 1 & Table 2).

Table 1. Bird in Banyak Angkrem

No	Scientific Name	Local Name	Familia	Status	Total
1	*Anthreptes malacensis*	Burung-madu kelapa	Nectariniidae	LC	20
2	*Aethopyga mystacalis*	Burung-madu jawa	Nectariniidae	LC	1
3	*Aegithina tiphia*	Cipoh kacat	Aeghitinidae	LC	1
4	*Pycnonotus aurigaster*	Cucak kutilang	Pycnonotidae	LC	21
5	*Pycnonotus melanicterus*	Cucak kuning	Pycnonotidae	LC	1
6	*Orthotomus sutorius*	Cinenen pisang	Cisticolidae	LC	2
7	*Malacocinia sepiaria*	Pelanduk semak	Pellorneidae	LC	2
8	*Lonchura leucogastroides*	Bondol jawa	Estrildidae	LC	11
9	*Dicaeum trochileum*	Cabai jawa	Dicaeidae	LC	2
10	*Cacomantis merulinus*	Wiwik kelabu	Cuculidae	LC	1
11	*Centropus bengalencis*	Bubut alang-alang	Cuculidae	LC	1
12	*Spilopelia chinensis*	Tekukur biasa	Columbidae	LC	2
13	*Geopelia striata*	Perkutut jawa	Columbidae	LC	2
14	*Collocalia linchi*	Walet linci	Apodidae	LC	24
15	*Halcyon cyanoventris*	Cekakak jawa	Alcedinidae	LC	6
16	*Gallus varius*	Ayam-hutan hijau	Phasianidae	LC	1
17	*Spilornis cheela*	Elang-ular bido	Accipitridae	LC	4

This study obtained results with 26 identifiable bird species belonging to 17 different families. However, in this study, there were several bird species that had not been identified properly due to the team's limited ability and lack of understanding of the knowledge of birds found in the Kedung Kopong and Banyak Angkrem areas.

Table 2. Bird in Kedung Kopong

No	Scientific Name	Local Name	Familia	Status	Total
1	*Anthreptes malacensis*	Burung-madu kelapa	Nectariniidae	LC	26
2	*Aethopyga mystacalis*	Burung-madu jawa	Nectariniidae	LC	2
3	*Nectarinia jugularis*	Burung-madu sriganti	Nectariniidae	LC	2
4	*Aegithina tiphia*	Cipoh kacat	Aeghitinidae	LC	5
5	*Pycnonotus aurigaster*	Cucak kutilang	Pycnonotidae	LC	9
7	*Orthotomus sutorius*	Cinenen pisang	Cisticolidae	LC	4
8	*Malacocinia sepiaria*	Pelanduk semak	Pellorneidae	LC	1
9	*Lonchura leucogastroides*	Bondol jawa	Estrildidae	LC	12
10	*Passer montanus*	Burung-gereja erasia	Passeridae	LC	4
11	*Dicaeum trigonostigma*	Cabai bunga-api	Dicaeidae	LC	1
12	*Prinia polychroa*	Perenjak coklat	Cisticolidae	LC	3
13	*Pericrocotus cinnamomeus*	Sepah kecil	Campephagidae	LC	6
14	*Cacomantis merulinus*	Wiwik kelabu	Cuculidae	LC	2
15	*Centropus bengalensis*	Bubut alang-alang	Cuculidae	LC	1
16	*Phaenicophaeus curvirostris*	Kadalan birah	Cuculidae	LC	3
17	*Spilopelia chinensis*	Tekukur biasa	Columbidae	LC	3
18	*Collocalia linchi*	Walet linci	Apodidae	LC	47
19	*Halcyon cyanoventris*	Cekakak jawa	Alcedinidae	LC	4
20	*Todiramphus chloris*	Cekakak sungai	Alcedinidae	LC	1
21	*Gallus varius*	Ayam-hutan hijau	Phasianidae	LC	1
22	*Spilornis cheela*	Elang-ular bido	Accipitridae	LC	1
23	*Pernis ptilorhynchus*	Sikep-madu asia	Accipitridae	LC	1
24	*Egretta garzetta*	Kuntul kecil	Ardeidae	LC	2

In the Banyak Angkrem and Kedung Kopong areas, 26 bird species can be identified and belong to 17 different families. There are differences in the time of encounter and species that are often found. However, in this area there are protected birds according to Number P.106/MENLHK/SETJEN/KUM.1/12/2018, there is *Pernis ptilorhynchus*, *Spilornis cheela*, dan *Aethopyga mystacalis*.

In the observational data that has been obtained, there are three species that are often found in the two regions (dominant species), there is *Pycnonotus aurigaster*, *Collocalia linci*, and *Anthreptes malacensis*. *Pycnonotus aurigaster* is the dominant species in Banyak Angkrem. These birds live in groups with a noisy chirp. *Pycnonotus aurigaster* is more common in Banyak Angkrem because this area is a secondary forest with thickets and grass. This is in line with the research of Dahlan et al., (2009), where the *Pycnonotus aurigaster* habitat is an area with less dense vegetation and provides its function in terms of providing food, nests, breeding and shelter. On the other hand, in the Kedung Kopong area the vegetation is dense.

Figure 2. Sooty-headed Bulbul was perched. *Source* : (Kuncoro 2017, unpublished data)

Collocalia linchi is a type of swallow that has a wide distribution and has a fast flying habit. High percentage of encounters with detailed swallow during the observation was also due to the environmental conditions in the area of Banyak Angkrem and Kedung Kopong which were very supportive for the life of swallow. These environmental conditions include tropical climate, diversity of habitat types, namely the forest areas, river flows and lowlands to a maximum height of 1,000 mdpl (Budiman, 2002). Swallow birds are sensitive birds and will choose quiet and pollution-free areas (Mulia, 2009).

Figure 3. Cave Swiftlet is flying

Anthreptes malacensis is a species from the Nectariniidae family. This species can be found in almost all habitat types. In the Kedung Kopong area, there are many coconut-honey birds found because of the many flowering trees. Coconut honey birds are flower nectar eaters, so they are commonly seen in flowering trees so that they have an ecological role in helping to pollinate plants (Arini et al., 2011). Honey-birds are a species that are often in small groups, their chirping activity after hearing other individuals sing as well as being heard. such as muttering, and. often noisy and move between trees and shrubs. Coconut honeybirds are territorial and aggressively drive other honeybirds from their food source trees (Arini et al., 2011).

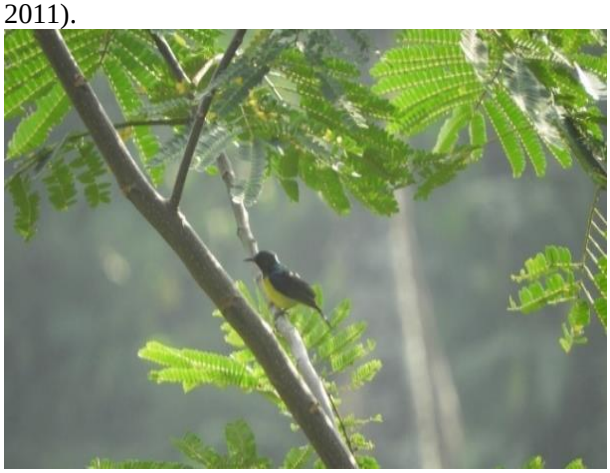

Figure 4. Brown-throated Sunbird was perched

CONCLUSIONS

The results of the research on bird species inventory in Banyak Angkrem and Kedung Kopong found 26 species. In the Banyak Angkrem area there are 17 species and the Kedung Kopong area as many as 24 species. The species most commonly found in the two regions are *Anthreptes malacensis* (Burung-madu kelapa), *Collocalia linchi* (Walet linchi), and *Pycnonotus aurigaster* (Cucak kutilang).

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