

Inventory of Birds Species in Rubber Plantations Marang Kayu Sub-District, Kutai Karta Negara District

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Abstract:- The purpose of this study was to determine the species of birds in a rubber plantation, Marang Kayu sub-district, Kutai Kartanegara district.

The experiment was conducted for approximately one month, since February to March 2023. The method used is roming method. Observations were made in the morning at 05.30-10.00 WITA 15 times, 8 times and 3 times, while in the afternoon at 16.30-18.30 WITA 8 times, 5 times and 3 times.

The result of experiment and calculations showed that at the experiment site found 9 species of birds from 8 families. The dominant species of birds during the experiment was the Gereja Erasia (*Passer montanus*) and Cucak Kutilang (*Pynonotus aurigaster*).

Keywords:- Ruber Plantation, Inventory, Birds, Marang Kayu.

I. INTRODUCTION

Indonesia occupies an important position in the world's biodiversity map, so it is known as one of the countries dubbed as the country of great diversity.

The existence of bird species is highly dependent on vegetation as a food provider. This ecosystem will form a more or less stable unit, but this situation is often disturbed by human activities that result in a reduction in the diversity of flora and fauna that occupy natural ecosystems. Forest destruction in the current era is still ongoing. (Boer, C, 1989).

A certain area may have a high diversity of bird species, but there is a low population of other areas, for example in forest areas the diversity of species will be greater than in urban areas. Similarly, forest areas that are still minimal have more diverse bird species than forest

areas that have changed due to several causes such as tree felling and forest fires, (Kuspriyanti, E, 1990).

Currently, bird populations are declining due to various factors such as habitat destruction, poaching, and lack of public awareness of the importance of preserving nature and the environment. As a result of these disturbances, birds will move to find suitable habitats (Boer, C, 1994).

Rubber plantations in Marang Kayu, Kutai Kartanegara Regency with an area of 2,527 hectares in 2019 and bird inventory research, especially in rubber plantation sites, is still relatively small.

The purpose of this study was to determine the species of birds in rubber plantations in Marang Kayu Subdistrict, Kutai Kartanegara District.

II. METHOD

A. Place and Time of Research

This research was conducted in the rubber plantation of Marang Kayu Subdistrict, Kutai Kartanegara District and for more details can be seen in Figure 1.



Fig 1 Plan of the Research Site

The research was conducted from February 1 to March 31, 2023, field observations were carried out in the morning from 05.30 to 10.00 WITA and in the afternoon from 16.30 to 18.30 WITA.

B. Materials and Tools

The materials used as the object of research were birds seen in the area research location. While the tools used in the research are:

- Binoculars.
- Camera.
- Stationery (Notebook, pen).
- MacKinnon et al (2010) book.
- Bird traps.

C. Research Methods

This research method includes literature study, field orientation, and research procedures.

• Literature Study

Literature study is an initial activity to obtain information related to the research to be carried out. The information is in the form of secondary data related to the research title.

• Field Orientation

This activity aims to see directly and get an overview of the research location.

• Research Procedure

The procedure in this study is that roaming is done in the morning 15 times, 8 times and 3 times, while in the afternoon 8 times, 5 times and 3 times.

D. Research Implementation and Data Collection

The method used is roaming method. If the object is not clear observed then use binoculars.

Determination was carried out in the field by comparing with the literature (Mackinnon et al. 2010) and if there were unknown species, the characteristics were recorded and brought to the Conservation Laboratory of Samarinda State Agricultural Polytechnic for determination.

III. RESULTS AND DISCUSSION

The results of observations of bird species in the field in rubber plantations in Marang Kayu Subdistrict, Kutai Kartanegara, which were obtained and for species that had not been identified were brought to the Conservation Laboratory for identification, can be seen as shown in Table 1 below:

Table 1 Bird Species found in Rubber Plantations in Marang Kayu Sub-District, Kutai Kartanegara.

No.	Species	Family
1.	Pipit Bondol (<i>Lonchura atricapilla</i>)	Estrildidae
2.	Gereja Erasia (<i>Passer montanus</i>)	Ploceidae
3.	Terkukur Biasa (<i>Streptopelia chinensis</i>)	Colombidae
4.	Murai Batu Tarung (<i>Monticola solitarius</i>)	Muscicapidae
5.	Cucak Kutilang (<i>Pynonotus aurigaster</i>)	Pycnonotudae
6.	Punai Gading (<i>Treron vernans</i>)	Cuculidae
7.	Ruak-ruak (<i>Amaurornis phoenicurus</i>)	Rallidae

8.	Jalak Kebo (<i>Acridotheres javanicus</i>)	<u>Sturnidae</u>
9.	Perkutut Lokal (<i>Geopelia striata</i>).	Columbidae

➤ *Pipit Bondol (Lonchura Atricapilla)*

According to Mackinnon et al. (2010) and the results of observations this bird has a small body size (\pm 10-12 cm), the top of the front head and throat are black. The roof of the head behind the back and wings are brownish gray. While other information, as follows:

• *Special Signs*

The brownish-brown body is black in color.

• *Sound*

Priieet-priieet-priieet.

• *Deployment*

- ✓ Java, Lombok, Bali, Sumatra and
- ✓ Borneo.

• *Habitat and Habits*

Commonly found in the countryside, homesteads, gardens, moorlands, taluns, forests and rice fields. In cities in park areas, and in lush trees along roads. Live in pairs or groups. The shape of the nest is round, rather large, made of grass or dry leaves. The number of eggs is usually 5.

• *The Position of this Bird in the Taxonomic Hierarchy is as follows:*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Order : Passeriformes
- ✓ Family : Estrildidae
- ✓ Genius : *Lonchura*
- ✓ Species : *Lonchura atricapilla*

➤ *Gereja Erasia (Passer Montanus)*

The results of observations and according to Mackinnon et al. (2010) this bird is brown, medium sized (14 cm). throat and patches on the side of the neck black, dark yellow slightly gray underparts, upper body spotted brown with interspersed white and black striations. Young birds are faster with less obvious spots and other details, as follows:

• *Special Signs*

Brown iris, gray beak and brown legs.

• *Sound*

Crip furiously and tweet quickly.

• *Deployment*

Eurasia, India, China, Sulawesi, and Philippines, Kalimantan, Sumatra, Java, Bali.

• *Habitat And Habits*

Very closely related to humans, living in groups around houses, sheds, etc. Forages in gardens and cultivated areas on the ground by pecking at small seeds and rice grains. This group of birds invades rice fields at harvest time.

• *The Position of this Bird in the Taxonomic Hierarchy is as follows:*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Family : Ploceidae
- ✓ Genius : *Passer*
- ✓ Species : *Passer montanus*

➤ *Tekukur Biasa (Streptopelia Chinensis)*

According to Mackinnon et al. (2010) and observations, the Tekukur Biasa is a tapered pigeon with a long tail. They are between 28 and 32 cm (11.2-12.8 inches) long. This bird eats seeds. The back, wings and tail are pale war colored, with many pale yellow spots, and the other characteristics are as follows:

• *Special Signs*

In flight, this bird features black feathers bordered by a pale gray inner edge.

• *Sound*

Knock-knock-knock.

• *Deployment*

- ✓ In the Sunda islands, Kalimantan,
- ✓ Sumatra, Java, Bali and Sulawesi.

• *Habitat and Habits*

It lives with humans around villages and rice fields, foraging on the ground and often sitting in pairs on open roads. When disturbed, it flies low above the ground with its distinctive slow wing beats.

• *The Position of this Bird in the Taxonomic Hierarchy.*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Order : Colombiformes
- ✓ Family : Columbidae
- ✓ Genius : *Streptopelia*
- ✓ Species : *Streptopelia chinensis*

➤ *Murai Batu Tarung (Monticola Solitarius)*

Observations and according to Mackinnon et al. (1992), the bird is about 10 to 12 cm long. Males are shiny black birds with *chestnuts* and white feathers on the tail and tail tip. Females are usually shorter than males. Both animals have black beaks and pink feet, and for other characteristics as follows:

• *Special Signs*

The male bird has a silvery or gray coloration, resembling that of the female, with a clustered breast.

• *Sound*

The kuakan's voice is calm, the screech of its beak shrinks and the chirp of its short whistle is melodious.

• *Distribution of Peninsular Malaysia, Sumatra and Borneo.*

• *Habitat and Distribution*

Habitually uses conspicuous perches such as rocks, houses, poles, and dead trees to pounce on insect prey on the ground.

• *This Bird is in the Taxonomic Hierarchy, as follows:*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class: Aves
- ✓ Order : Passeriformes
- ✓ Family : Muscicapidae
- ✓ Genius : *Monticola*
- ✓ Species : *Monticola solitarius*

➤ *Cucak Kutilang (Pynonotus Aurigaster)*

According to Mackinnon et al. (2010) and observations that Cucak kutilang or Kutilang is a type of songbird from the pycnonotidae tribe. Size from beak to tip of tail 20 cm, back and tail are grayish brown. The throat, neck, chest and belly are grayish white, the top of the head starting from the forehead, hat and crest are black.

• *Special Signs*

The back is white, the rump cover is orange, the iris is red, and the beak and legs are black.

• *Sound : Cuk-Cuk*

• *Deployment*

Java, Sumatra, South Sulawesi and Java.

• *Habitat and Habits*

Habits live in active and scrappy groups, often mingling with other species, preferring open trees or bushy habitats on the edge of forests, secondary vegetation, parks and gardens and even large cities.

• *The Position of Cucak Kutilang in the Taxonomic Hierarchy*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Odro : Passeriformes
- ✓ Family : Pycnonotidae
- ✓ Genius : *Phynonotus*
- ✓ Species : *Pynonotus aurigaster*

➤ *Punai Gading (Treron Vernans)*

The Punai Gading has a gray head, orange breast, olive green back, green wings, yellowish or reddish belly and pinkish or reddish legs. The bird has a white, pale blue or gray bill and a gray tail with a black tip. The bird is considered medium-sized, with a length of 25 to 30 cm and a weight of about 100 to 160 grams.

• *The Position of the Punai Gading in the Taxonomic Hierarchy.*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Order : Cuculiformes
- ✓ Family : Cuculidae
- ✓ Genius : *Treron*
- ✓ Species : *Treron vernans*

➤ *Ruak-Ruak (Amaurornis Phoenicurus)*

This bird has a height of ± 20 cm, a slender body shape with a relatively long beak and legs, a short tail. The plumage color is grayish brown, the color of the face, throat and chest is predominantly white. Adults have striking black and white colors. The tail is ivory yellow, and the legs are yellow.

• *The Position of Ruak-Ruak Birds in the Taxonomic Hierarchy.*

- ✓ Kingdomq : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Order : Gruiformes
- ✓ Family : Rallidae
- ✓ Genius : *Amaurornis*
- ✓ Species : *Amaurornis phoenicurus*

➤ *Jalak Kebo (Acridotheres Javanicus)*

Medium size of approximately 25 cm. Covered with dark gray (almost black)/blackish bronze (almost black) feathers on the head, wings, and tail, except for white patches on the primary feathers (which stand out when flying) and white stumps and tail tip. The crest is short. similar to the crest crust, the difference lies in the width of the white color at the tip of the tail, which in the case of black starlings has a wider white color than the crest crust, Yellow beak color and white stump, juvenile birds are more brown. Orange iris, yellow bill and legs.

The body posture of male black starlings is longer than that of females. His gaze is also sharper. Females can chirp just like males.

• *The Position of the Starling in the Taxonomic Hierarchy.*

- ✓ Kingdom : Animal
- ✓ Filum : Cordata
- ✓ Subfilum : Vertebrates
- ✓ Class : Aves
- ✓ Order : Passeriformes
- ✓ Family : Sturnidae
- ✓ Genus : Acridotheres
- ✓ Species : Acridotheres javanicus

➤ *Perkutut Lokal (Geopelia Striata).*

According to Mackinnon et al. (2010) and observations, it has a small body (\pm 21 cm). This bird is slender and long-tailed. The head is gray, with a finely striped neck and sides, and a brown back with black edges. The outer tail feathers are blackish with white tips. The iris and bill are gray-blue.

• *The Position of this Bird in the Taxonomic Hierarchy.*

- ✓ Kingdom : Animalia
- ✓ Filum : Chordata
- ✓ Subphylum : Vertebrates
- ✓ Class : Aves
- ✓ Order : Colombiformes
- ✓ Family : Columbidae
- ✓ Genius : *Geopelia*
- ✓ Species : *Geopelia striata*

IV. CONCLUSION SUGGESTION

➤ *Based on the Discussion above, the Author Draws Conclusions, as follows:*

- Birds are more active in the morning (07.00 - 09.00 a.m.) compared to the afternoon (16.00-18.00 p.m.).
- The bird species found during the study were Pipit Bondol (*Lonchura atricapilla*), Gereja Erisa (*Passer montanus*), Tekukur Biasa (*Streptopelia chinensis*), Murai Batu Tarung (*Monticola solitarius*), Cucak Kutilang (*Pynonotus aurigaster*), Punai Gading (*Treron vernans*), Ruak-ruak (*Amaurornis phoenicurus*), Jalak Kebo (*Acridotheres javanicus*) and Perkutut Lokal (*Geopelia striata*).

ADVICE

Given the short research time, it is necessary to conduct further research with a longer time to determine the diversity of bird species more accurately.

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