FEEDING STRATEGY OF THE COMMON PALM CIVET (*Paradoxurus hermaphroditus*) IN RESPONSE TO SEASONAL FOOD AVAILABILITY

MUHAMAD DHAVA ARIANTO

DEPARTEMENT OF BIOLOGY
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
IPB UNIVERSITY
BOGOR
2025

STATEMENT ABOUT UNDERGRADUATE THESIS INFORMATION SOURCES AND ACT OF SPELLING OVER COPYRIGHTS

By this writing, I clarify that the undergraduate thesis "Feeding Strategy of the Common Palm Civet (*Paradoxurus hermaphroditus*) in Response to Seasonal Food Availability" is my own work under of the supervision of the advising committee and has not been proposed for any institution. The copied information source of published and unpublished writing of authors has been mentioned in the text and incorporated in the references in the last part of this undergraduate thesis.

By this writing, I hand over the copyright of my undergraduate thesis to IPB University.

Bogor, June 2025

Muhamad Dhava Arianto
G3401211028

ABSTRACT

MUHAMAD DHAVA ARIANTO. Feeding Strategy of the Common Palm Civet (*Paradoxurus hermaphroditus*) in Response to Seasonal Food Availability. Supervised by KANTHI ARUM WIDAYATI dan YAMATO TSUJI.

The common palm civet (*Paradoxurus hermaphroditus*) is a frugivorous mammal widely distributed from India to Southeast Asia. The present study aims to determine whether the dietary composition of palm civets in the Pangandaran Nature Reserve (PNR), West Java, Indonesia remains constant year-round in relation to seasonal fruit availability. We collected 146 fresh fecal samples between February 2020 to August 2020 and September 2024 to January 2025. Almost all fecal contained fruits and seeds (frequency of occurrence: 98.6%), it terms of the point-frame method the percentage of fruit was much higher (>75%) than that the percentage of mammals and insect (3.3% and 5%). We observed that there are no correlations between fruiting (in terms of phenology score) and percentages of staple diets. In other words, the civets prefer fruits regardless of the availability. Their arboreal nature and the greater fruit productivity enable civets to employ fruit-selecting strategies, similar to those observed at other study sites.

Keywords: Feeding strategy, Frugivory, Pangandaran, *Paradoxurus hermaphroditus*

ABSTRAK

MUHAMAD DHAVA ARIANTO. Strategi Makan Musang Palem (*Paradoxurus hermaphroditus*) dalam Merespons Ketersediaan Pakan Musiman. Dibimbing oleh KANTHI ARUM WIDAYATI dan YAMATO TSUJI.

Musang palem (*Paradoxurus hermaphroditus*) merupakan mamalia frugivor yang tersebar luas dari India hingga Asia Tenggara. Penelitian ini bertujuan untuk mengetahui apakah komposisi makanan musang palem di Cagar Alam Pangandaran (PNR), Jawa Barat, Indonesia, bersifat konstan sepanjang tahun sehubungan dengan ketersediaan buah musiman. Sebanyak 146 sampel feses segar dikumpulkan antara Februari 2020 hingga Agustus 2020 dan September 2024 hingga Januari 2025. Hampir seluruh sampel mengandung buah dan biji (frekuensi kemunculan: 98,6%). Berdasarkan metode point-frame, persentase buah dalam feses jauh lebih tinggi (>75%) dibandingkan dengan mamalia dan serangga (masing-masing 3,3% dan 5%). Hasil menunjukkan tidak terdapat korelasi antara tingkat pembuahan (berdasarkan skor fenologi) dan proporsi makanan utama. Dengan kata lain, musang tetap memilih buah sebagai pakan utama, terlepas dari ketersediaannya. Sifat arboreal serta tingginya produktivitas buah di habitat ini memungkinkan musang untuk menerapkan strategi seleksi buah, serupa dengan yang diamati di lokasi studi lain.

Kata kunci: Frugivori, *Paradoxurus hermaphroditus*, Pangandaran, Strategi Makan

FEEDING STRATEGY OF THE COMMON PALM CIVET (*Paradoxurus hermaphroditus*) IN RESPONSE TO SEASONAL FOOD AVAILABILITY

MUHAMAD DHAVA ARIANTO

An Undergraduate Thesis
Intended to Acquire Bachelor Degree
in Study Program of Bology

DEPARTEMENT OF BIOLOGY
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
IPB UNIVERSITY
BOGOR
2025

Examiner Team on Undergraduate Thesis examination:
1. Dr. Ir. Ibnul Qayim

Thesis title : Feeding Strategy of the Common Palm Civet (*Paradoxurus hermaphroditus*) in Response to Seasonal Food Availability
Name : Muhamad Dhava Arianto
NIM : G3401211028

Approved by

Supervisor 1:
Dr. Kanthi Arum Widayati, S.Si., M.Si.

Supervisor 2:
Prof. Dr. Yamato Tsuji

Acknowledge by

Head of Departement of Biology:
Dr. Ir. Iman Rusmana, M.Si
NIP. 196507201991031002

Exam date: July 4, 2025 Pass date:

FOREWORDS

This scientific endeavour was successfully completed through the divine grace of Allah. The Conservation Biology research was conducted from September 2024 to January 2025, with the title "Feeding Strategy of the Common Palm Civet (*Paradoxurus hermaphroditus*) in Response to Seasonal Food Availability".

The authors would like to express their sincere gratitude to the first supervisor Dr. Kanthi Arum Widayati, S.Si., M.Si. and the second supervisor Prof. Dr. Yamato Tsuji for their invaluable guidance and insightful suggestions throughout the course of this research. Gratitude is also expressed to Dr. Ir. Ibnul Qayim for his role as an examiner on the education commission and for his constructive feedback.

The motivation for this study arose from previous research on *P. hermaphroditus* in Pangandaran Nature Reserve, West Java in 2024 which only focused on palm civet diet composition, but did not discuss the relationship between food availability and diet composition in palm civet faeces. Sample data were collected from September 2024 to January 2025 in Pangandaran Nature Reserve and brought for analysis in the biology laboratory. This research was conducted at the Animal Function and Behaviour Laboratory, Department of Biology, Bogor Agricultural University (IPB University).

While recognizing that this work is not perfect, the authors welcome constructive criticism and suggestions. It is hoped that this research will enhance our knowledge of common palm civet feeding ecology and offer useful implications for viverrid conservation, particularly in regions affected by habitat alteration and seasonal food scarcity.

Hopefully, this scientific work will be useful for knowledge seekers and make a meaningful contribution to the advancement of science.

Bogor, June 2025

Muhamad Dhava Arianto

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURE