



## Quackonomics: The Trading Behavior of Bread Among Urban Mallards

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**Abstract:** This study explores the complex economic behaviors observed in urban mallard ducks (*Anas platyrhynchos*) with a focus on the trading and distribution of bread. Through detailed observations and controlled feeding experiments, we aimed to uncover the principles governing this avian economy. Our findings reveal that mallards engage in sophisticated trading practices, with bread acting as a form of currency. This paper delves into the quackonomics of bread trading, highlighting the social and economic implications for mallard communities.

### Introduction

Urban mallards have adapted remarkably well to human environments, often relying on humans for food. Among the various food items provided by humans, bread is a common but controversial choice. While its nutritional value is debated, its role in mallard social interactions is less understood. This study investigates how bread functions as a currency in mallard communities, influencing social dynamics and individual behaviors.

### Methods

#### Observational Study

We conducted our study in Central Duck Park, where mallards are regularly fed by park-goers. Over a period of two months, we observed 30 feeding sessions, focusing on the interactions between ducks during bread distribution.

#### Controlled Feeding Experiments

To further understand the trading behavior, we set up controlled feeding experiments. Ducks were provided with bread pieces of

varying sizes and observed to see how these were traded or hoarded within the group.

## Results

Our observations revealed several key findings:

1. **Bread as Currency:** Ducks frequently traded bread pieces, with larger pieces holding more value.
2. **Social Hierarchy:** Dominant ducks often monopolized the bread supply, using it to assert their status and control over subordinates.
3. **Negotiation Tactics:** Ducks employed various tactics, such as quacking and posturing, to negotiate bread trades.

## Discussion

The results suggest that bread functions as a form of currency in mallard communities, with significant social and economic implications. Dominant ducks use bread to maintain their status, while subordinates engage in strategic trading to improve their standing. This behavior mirrors human economic systems, where resources are traded and hoarded to gain social advantage.

## Conclusion

The trading behavior of bread among urban mallards reveals a complex avian economy, where bread acts as a valuable currency. This quackonomics not only impacts social dynamics but also provides insights into the adaptability and intelligence of mallards. Future research should explore the long-term effects of bread trading on mallard health and social structures.

## References

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## **Disclosure**

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