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Characteristics of Mudgrovel Crabs Caught Using Trap Fishing Gear in Lambur Luar Village, Muara Sabak Timur District

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ABSTRACT

Mangrove crabs are a type of crustacean that lives in mangrove and estuary ecosystems. one of the freshwater fishery products that have high economic value that are often caught in Lambur Luar Village using trap fishing gear. Purpose of this study was to describe the characteristics of mangrove crabs caught using traps in Lambur Luar Village, Jambi Province. This study was conducted from February 1-16, 2025. The research method used was a census, with data collection techniques using probability sampling. The data observed included the type of mangrove crab, weight, carapace length, carapace width, and sex. Differences in weight, length, and carapace width of mangrove crabs were analyzed using ANOVA followed by Duncan's test at a significance level of 5%. The results showed that there were three species of mangrove crabs caught, namely *Scylla serrata, Scylla olivacea*, and *Scylla tranquebarica*. After ANOVA test and Duncan's further test, it was found that the carapace length between *Scylla serrata, Scylla olivacea*, and *Scylla tranquebarica* was significantly different ($p \leq 0.05$). while the carapace width and weight were not significantly different ($p > 0.05$). Variations sex ratio in the *Scylla serrata* species were (0.78:0.22) and *Scylla tranquebarica* (0.67:0.33), indicating that the male population was more dominant in these two species. While the *Scylla olivacea* species, the sex ratio was almost balanced, namely (0.51:0.49). The conclusion of this study is that the characteristics of mangrove crabs differ between males and females, and there are significant differences in carapace length between mangrove crab species found in Lambur Luar Village.

INTRODUCTION

Jambi Province boasts abundant natural resources, promising fisheries potential, a long coastline, and numerous major rivers, making it one of Indonesia's leading fisheries producing regions. Jambi Province comprises two cities and nine regencies, including East Tanjung Jabung Regency. Tanjung Jabung Timur Regency was inaugurated on October 21, 1999 as a result of the division of Tanjung Jabung Regency, which has an area of approximately 5,087.07 km^2 (BPS Tanjung Jabung Timur, 2024). Tanjung Jabung Timur Regency was inaugurated on October 21, 1999 as a result of the division of Tanjung Jabung Regency, which has an area of approximately 5,087.07 km^2(BPS Tanjung Jabung Timur, 2024). Geographically, East Tanjung Jabung Regency enjoys a strategic position because, to the east, it borders the South China Sea, providing access to maritime trade routes. To the west, it borders Muaro Jambi Regency and West Tanjung Jabung Regency. To the north, it borders Riau Province, and to the south, South Sumatra Province.

Tanjung Jabung Timur Regency consists of 11 sub-districts, one of which is Muara Sabak Timur. Lambur Luar Village, one of the villages in Muara Sabak Timur, has long been known as a fisheries center (Government of East Tanjung Jabung Regency, 2018). The people of Lambur Luar village generally earn their living as fishermen, using a variety of fishing gear. Among the many common fishing gear used in Lambur Luar Village is the bubu (traps). Bubu are a passive fishing gear and come in various shapes, including cages, cylinders, drums, triangles, elongated, cubes, polygons, semicircles, and others (Husni *et al*., 2021; Sa'adah *et al*., 2025).

Mangrove crabs are a type of crustacean that live in mangrove and estuarine ecosystems, particularly in coastal areas of Africa, Asia, and Australia (Pratiwi and Dimenta, 2021). These animals prefer muddy bottoms and shallow waters (around 10-80 cm) (Sulistiono *et al*., 2016).This crab has a body covered by a hard shell or carapace, which functions to protect its internal organs (Koniyo, 2020). One of the main characteristics of mangrove crabs is their varying size and weight. Crab size can be an indicator of population health and the viability of the species. Mangrove crabs also have two sexes, male and female, which can be distinguished by their size and body shape. Generally, males have larger and stronger shells than females, as well as larger claws. These differences are important for reproduction and for males competing for females (Susiana *et al*., 2024)

However, to date, the exact species of mangrove crabs caught and their characteristics remain largely unknown. This information could be used as a basis for developing appropriate fishing strategies to prevent overexploitation. Furthermore, the characteristics of mangrove crabs can also provide information about the health of the mangrove crab population in the area. If a decline in the quality of individual mangrove crabs is detected, efforts should be made to improve the environmental conditions of their habitat to ensure their continued sustainability in the future. Based on the description above, it is necessary to conduct research on the "Characteristics of Mangrove Crabs Caught by Bubu Fishing Gear in Lambur Luar Village, Muara Sabak Timur District".

METHODS

Time and Place

This research was conducted on February 1-16, 2025 in Lambur Luar Village, Muara Sabak Timur District, Tanjung Jabung Timur Regency, Jambi Province.

Research Materials and Equipment

The material used in this study was the catch of mangrove crabs obtained from trap fishing gear. The equipment required for this study included writing instruments, a measuring tape, documentation tools (camera), and digital scales (0.1).

Research Methods

The research method used was a census of three fishermen actively catching mangrove crabs using traps in Lambur Luar Village. These three fishermen constitute the entire target population of the study and are considered representative of all mangrove crab fishing activities using traps in the village. Each fisherman who responded to the census was observed during his mangrove crab fishing activities. Generally, fishers using traps in Lambur Luar Village use 40 traps per day with common bait types, including sea eels, malung fish, and stingrays. The three fishermen used probability sampling to sample the mangrove crabs caught by the three fishermen. Probability sampling is a sampling technique that ensures that each member of the population has an equal, non-zero, chance of being randomly selected as part of the research sample (Subhaktiyasa, 2024). The criteria for collecting crab data included: mud crab species, weight, carapace width, carapace length, and sex. Forty-five data sets were collected for each type of mud crab caught.

Data Analysis

The data obtained during the research will be analyzed descriptively and presented in tabular form. Descriptive research is research that attempts to answer existing problems based on data. The analysis process in descriptive research involves presenting, analyzing, and interpreting data (Waruwu, 2024).

Data processing was performed using Microsoft Excel software with calculations including the following parameters:

a. Morphological and Morphometric Parameters

1) Crab Weight

To obtain accurate weight data, each individual mangrove crab will be weighed using a digital scale with an accuracy of 0.1 grams. Prior to weighing, the crabs must be clean of mud or excess dirt to avoid data bias.

2) Length and Width of Mangrove Crab Carapace

The carapace length and width of the mangrove crab were measured using a tape measure with an accuracy of 1 cm. Carapace length was measured from the distance between the edge of the frontal marginal spine to the bottom edge of the carapace. Carapace width was measured horizontally, namely from the distance between the tip of the last marginal spine on the right and the last marginal spine on the left. Carapace length and width measurements can be seen in Figure 1.

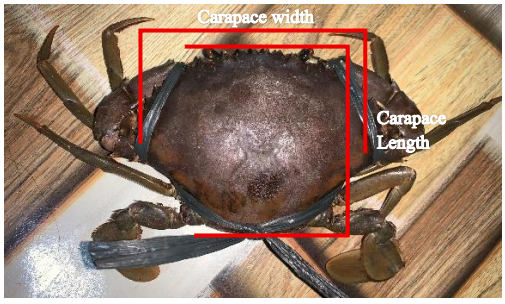


Figure 1. Measurement of Carapace Length and Width

b. Sex Ratio

The sex ratio was determined by identifying the sex of each individual crab (male or female) based on distinctive morphological characteristics, such as the shape of the abdomen or pleopods. After identification, the number of males and females was recorded to calculate the sex ratio. The differences between males and females can be seen in Figure 2.

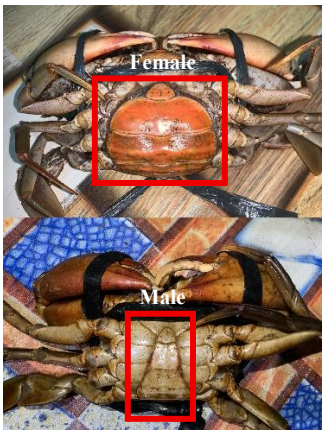


Figure 2. Gender Differences in Mangrove Crabs

The equation used to calculate the sex ratio is as follows (Saputra et al., 2009):

$$\mathbf{NK} = \frac{\mathbf{N_{bi}}}{\mathbf{N_{ji}}}$$

Where:

NK : Sex Ratio
Nbi : Number of female crabs
Nji : Number of male crabs

c. ANOVA and Duncan Test

Further statistical analysis was conducted using One-Way ANOVA (ANOVA) followed by Duncan's Test. The ANOVA was applied to compare the average differences in mangrove crab characteristics (such as weight, carapace width, and carapace length) obtained from the catches from the traps in Lambur Luar Village. Duncan's follow-up test is used as a follow-up to the ANOVA test to specifically identify which crab groups have significantly different characteristics from each other.

This test was conducted at a 95% confidence level with a significance level of 5% ($\alpha = 0.05$).

- **H_o (null hypothesis):** There were no significant differences in the characteristics of mangrove crabs (weight, carapace width, and carapace length) among the compared groups.
- **H_1 (alternative hypothesis):** There were significant differences in the characteristics of mangrove crabs (weight, carapace width, and carapace length) between the groups compared.

Decision making is based on probability values (p-value)

- If $p>0.05$: H_o is accepted and H_1 is rejected. This means there is no significant difference in the characteristics of mangrove crabs.

If $p\leq0.05$: H_o is rejected and H_1 is accepted. This means that there are significant differences in the characteristics of mangrove crabs.

RESULTS

Types of Catch in Lambur Luar Village

The types of mangrove crabs caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District, during the research are presented in Table 1.

Table 1. Types of Mud Crab Catches Using Bubu Fishing Gear in Lambur Luar Village

No.	Types of Crabs	Number of Crabs (tails)
1	*Scylla serrata*	45
2	*Scylla olivacea*	45
3	*Scylla tranquebaria*	45
	Total	135

Morphological Differences of Three Species of the Genus Scylla

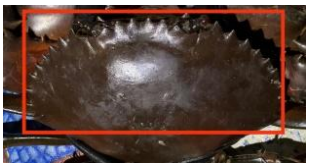
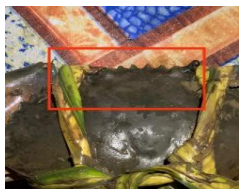
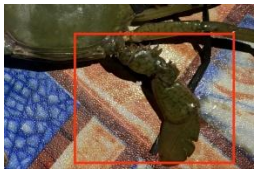
Scylla serrata, Scylla olivacea, and *Scylla tranquebarica* are three species of mangrove crab that can be distinguished by their distinctive morphological characteristics. These differences include the color and surface of the carapace, as well as the shape and size of the chelipeds and spines, reflecting their adaptation to the mangrove ecosystem. The specific characteristics of the three types of mangrove crab are presented in Table 2 and the visualization can be seen in Figure 3.

A B C

Figure 3. Differences in Mangrove Crab Types (a) *Scylla serrata* (b) *Scylla tranquebarica* and (c) *Scylla olivacea*

Table 2. Morphological Differences Between Mangrove Crab Species

Parameter	Characteristics by Species		
	Types of Crabs		
	Scylla serata	***Scylla olivacea***	***Scylla tranquebaria***
Characteristics of carapace	 The carapace is oval in shape across	 Carapace narrow, rough, lateral spines short and blunt	 The carapace is wide and flat, looks more angular and the carapace surface is smooth.

Parameter	Characteristics by Species Types of Crabs		
	Scylla serata	***Scylla olivacea***	***Scylla tranquebaria***
Body color	 dark green to bluish green.	 Green or grayish green	 Tends to brownish purple to reddish brown
Claw characteristics	 Has two strong claws and has sharp spines on the carpus.	 Small claws, smooth surface, bright orange claw color	 Slender claws, purplish or blackish in color
The shape of the front teeth on the carapace	 Regular, sharp and symmetrical	 Long and protruding like a thorn	 The teeth are sharp and regular, with the front side being slightly curved and having small, quite clear teeth.
Number of anterolateral teeth	 There are 9 in number with sharp serrations	 Totaling 9 with sharp features	 There are 9 of them with a row of small, sharp teeth that curve slightly backwards.
Hair / seta	 Slightly hairless	 There are many setae on the walking legs, claws and lateral carapace.	 Scattered mainly around the carapace margin and foot area.

Morphological and Morphometric Parameters of Crabs

Mud Crab Weight Between Species

The weight of a mangrove crab is a measure of its body weight, which is usually used to describe its actual physical size. This weight is influenced by various factors such as gender, carapace length and width, and the size of its claws. Male mangrove crabs typically weigh more than females because their larger claws add to their body weight. A crab's weight is also usually associated with its carapace width; the larger the width, the heavier the crab (Syahputra *et al*., 2021). The weight of mangrove crabs caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District during the observation period is presented in Table 3.

Table 3. Weight of Mangrove Crabs Caught Using Bubu Fishing Gear in Lambur Luar Village

No.	Types of Crabs	Weight (gr) (Min-Max)	Average Weight (gr)
1	*Scylla serrata*	135 - 760	414.22
2	*Scylla olivacea*	220 - 660	412.78
3	*Scylla tranquebaria*	225 - 625	424.11

Table 4. Results of the ANOVA Analysis of Duncan's Further Test on the Weight of Mangrove Crabs Caught Using Trap Fishing Gear in Lambur Luar Village

Sources of Diversity	Sum of Squares	df	Mean Square	F	Sig.	Species	Average Weight (g)	Duncan's Subset (α=0.05)
Between Groups	3,424,815	2	1,712,407	0.120	0.887	*Scylla olivacea*	412.78	1
Within Groups	1,887,488,000	132	14,299,152			*Scylla serrata*	414.22	1
Total	1,890,912,815	134				*Scylla tranquebarica*	424.11	1
						Sig. Duncan		0.675

Mangrove Crab Carapace Length

The carapace length of a mangrove crab is a linear measurement from the front to the rearmost part of the carapace surface (back shell) of the crab, measured parallel to the crab's body axis dorsoventrally, generally from the edge of the eye to the rear edge of the carapace (Adriyani *et al*., 2023). The carapace length of mangrove crabs caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District during the observation period is presented in Table 5.

Table 5. Carapace Length of Mangrove Crabs Between Species

No.	Types of Crabs	Carapace Length (cm) (Min-Max)	Average Length (cm)
1	*Scylla serrata*	7 - 12	9.55
2	*Scylla olivacea*	8.90 - 15	10.02
3	*Scylla tranquebaria*	7.90 - 12	9.59

Table 6. Results of ANOVA Test Analysis and Duncan's Further Test on Mangrove Crab Carapace Length

Sources of Diversity	Sum of Squares	df	Mean Square	F	Sig.	Species	Average Length (cm)	Duncan's Subset (α=0.05)
Between Groups	6,141	2	3,071	3,127	0.047	*Scylla serrata*	9.55	1
Within Groups	129,610	132	0.982			*Scylla tranquebarica*	9.59	1
Total	135,751	134				*Scylla olivacea*	10.02	2
						Sig. Duncan		0.848 (sub 1), 1.000 (sub 2)

Mud Crab Carapace Width

The carapace width is the largest width of the upper shell of the mangrove crab, measured from the left side to the right side of the carapace and is used as the main measurement to determine the physical size of the crab (Musfira *et al*., 2024). The weight of mangrove crabs caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District is presented in Table 7.

Table 7. Results of ANOVA Test Analysis and Duncan's Further Test on Mangrove Crab Carapace Weight

No.	Types of Crabs	Carapace Width (cm) (Min-Max)	Average Width (cm)
1	*Scylla serrata*	9.10 - 16	12.56
2	*Scylla olivacea*	10 - 15	12.36
3	*Scylla tranquebaria*	9.70 - 16	12.10

Table 8. Results of ANOVA Test Analysis and Duncan's Further Test on Mangrove Crab Carapace Length

Sources of Diversity	Sum of Squares	df	Mean Square	F	Sig.	Species	Average Width (cm)	Duncan's Subset (α=0.05)
Between Groups	4,825	2	2,413	0.969	0.382	*Scylla tranquebarica*	12.10	1
Within Groups	328,517	132	2,489			*Scylla olivacea*	12.36	1
Total	333,342	134				*Scylla serrata*	12.56	1
						Sig. Duncan		0.193

Sex Ratio

Sex ratio is the ratio between the number of males and females in a population. In research, sex ratios are generally calculated from samples and used for statistical analysis to test whether the ratio between males and females is statistically significant (Robisalmi *et al*., 2017). The sex ratio of mangrove crabs caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District during the observation period is presented in Table 9.

Table 9. Sex Ratio of Mangrove Crabs Caught using Trap Fishing Gear in Lambur Luar Village

No.	Types of Crabs	Gender		Sex Ratio	
		Male	Female	Male	Female
1	*Scylla serrata*	35	10	0.78	0.22
2	*Scylla olivacea*	23	22	0.51	0.49
3	*Scylla tranquebaria*	30	15	0.67	0.33

DISCUSSION

Types of Catch in Lambur Luar Village

Based on the data presented in Table 1, this study successfully identified three species of mangrove crab (Scylla) caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District. The three species found during the observation period were *Scylla serrata, Scylla olivacea*, and *Scylla tranquebarica.* The same number of samples were observed for each species, namely 45 individuals, resulting in a total of 135 mangrove crab samples collected.

Morphological Differences of Three Species of the Genus Scylla

Descriptions of three species of mangrove crabs in the genus Scylla are as follows:

1. *Scylla serrata*

This species is known as the green mangrove crab. It is characterized by a wide, smooth carapace that is dark green to bluish green in color. It has a pair of large claws, which in adults are generally lighter in color, such as green, yellow, reddish, or orange (Iromo *et al*., 2021). This color variation functions as camouflage in mangrove forests, and has the potential to be a social signal or marker for mate selection (Putri *et al*., 2024).

2. *Scylla olivacea*

This species is characterized by a greenish-brown to reddish-brown carapace. The surface of the carapace is covered with numerous hairs (seta). *Scylla olivacea* has blunt head spines but sharp corpus spines, with red to orange claws and legs (Berliani *et al*., 2024).

3. *Scylla tranquebarica*

This species is also known as the purple mangrove crab. Its carapace is purple-brown to reddish-brown, with a sub-hexagonal shape and a smooth surface. It is relatively small. *Scylla ranquebarica* has medium-sized claws with serrations on the propodus and is adapted to both muddy and sandy habitats in mangrove ecosystems (Berliani *et al*., 2024).

Morphological and Morphometric Parameters of Crabs

Mud Crab Weight Between Species

Based on the data presented in table 3, the weight of mangrove crabs caught using traps in Lambur Luar Village shows variation between species. *Scylla serrata* has the widest weight range, between 135 and 760 grams, with an average weight of 414.22 grams. *Scylla olivacea* has a weight range of 220 and 660 grams, with the lowest average weight of 412.77 grams. *Scylla tranquebarica* shows a weight range of 225 and 625 grams and recorded the highest average weight of the three, at 424.11 grams. Overall, although the weight range varies, the average weight of the three species is relatively close. The observed differences in range and average weight between species indicate variations in growth patterns and the maximum size that can be achieved by each species. This variation can be influenced by factors such as environmental conditions, food availability, and life cycle (Hoek *et al*., 2015).

Based on the ANOVA analysis of the weight of mangrove crabs caught from traps in Lambur Luar Village in table 4, the F count value was obtained = 0.120 with a significance value

(p) = 0.887. Because the significance value (p = 0.887) is greater than 0.05 (p>0.05), it is concluded that there is no significant difference in weight between mangrove crab species (*Scylla serrata, Scylla olivacea*, and *Scylla tranquebarica*). Duncan's further test results in Table 4 reinforce this finding by showing that the three crab species belong to the same subset. The average weight of *Scylla olivacea* (412.77 g), *Scylla serrata* (414.22 g), and *Scylla tranquebarica* (424.11 g) shows that the difference in average weight is not statistically significant. This means that the weight of the mud crabs at the study site is relatively similar among the three species.

According to Larosa *et al*. (2013), showed a similar pattern, that the average weight of mud crabs from various Scylla species did not show statistically significant differences. The species *Scylla serrata, Scylla olivacea,* and *Scylla tranquebarica* had a wide range of sizes, but in general the weight differences between these species were not significant. This strengthens the conclusion that in many locations, despite individual variation, the relative weights of mud crabs from different species tend to be similar.

Mud Crab Length Between Species

Based on the data presented in table 5, *Scylla serrata* has a carapace length between 7 to 12 cm, with an average carapace length of 9.54 cm. *Scylla olivacea* has a slightly larger carapace length, namely 8.90 to 15 cm, with an average length of 10.01 cm. *Scylla tranquebaria* has a carapace length between 7.90 to 12 cm, with an average carapace length of 9.58 cm. Overall, the highest average carapace length was found in the *Scylla olivacea* species, while *Scylla serrata* and *Scylla tranquebaria*, had relatively similar average lengths.

According to research Larosa *et al*. (2013), showed a similar pattern, with *Scylla olivacea* tending to have larger carapaces than *Scylla serrata* and *Scylla tranquebaria*. This difference is influenced by environmental factors such as mangrove habitat, food availability, and water conditions that support growth, as well as biological factors such as sex and the specific growth patterns of each species. This variation in carapace size also depends heavily on the location and time of capture, with crabs originating from more ideal habitats with optimal environmental conditions exhibiting larger sizes and higher body weights.

Based on the results of the ANOVA analysis in table 6 on the carapace length of mangrove crabs between species caught using traps in Lambur Luar Village, the F count value was obtained = 3.127 with significance (p = 0.047). The p value ≤ 0.05 so it can be concluded that there is a real (significant) difference in the carapace length of the three mangrove crab species.

Duncan's further test results in Table 6 show that the crabs *Scylla serrata* with an average carapace length of 9.54 cm and Scylla tranquebarica with an average of 9.58 cm are in a homogeneous subset, so that they are not significantly different from each other. Meanwhile, *Scylla olivacea* with an average carapace length of 10.01 cm forms its own subset, which means it has a significantly greater length compared to the other two species. The significant difference in carapace length in *Scylla olivacea* compared to *Scylla serrata* and *Scylla tranquebarica* can be explained by environmental factors that influence growth, such as air temperature, salinity, pH, and the quality of mangrove habitat that differ between locations, as well as biology such as moulting frequency and the unique allometric growth pattern of each species (Damayanti *et al*., 2024).

Carapace Width of Mud Crabs Between Species

Based on the data presented in Table 7, the results of observations of the carapace width of mangrove crabs in Lambur Luar Village, show variations in size in three different species. From these data, it was found that the *Scylla serrata* species has a carapace width range

between 9.10 to 16 cm, with the highest average carapace width of 12.56 cm. The *Scylla olivacea* species has a carapace width ranging from 10 to 15 cm, with an average carapace width of 12.35 cm. The *Scylla tranquebarica* species was recorded to have a fairly wide carapace width range of 9.70 to 16 cm with the smallest average carapace width among the three, namely 12.10 cm. Overall, these data indicate that of the crabs caught, *Scylla serrata* tends to have a larger average carapace width than the other two species.

Based on the results of the ANOVA analysis in Table 8 regarding the carapace width of the three mangrove crab species caught using traps in Lambur Luar Village, the F-value is 0.969 with a significance level of 0.382. A p-value >0.05 indicates that there is no significant difference in carapace width between mangrove crab species. Duncan's further test results in Table 8 show that the *Scylla tranquebarica* species with an average carapace width of 12.10 cm, *Scylla olivacea* 12.35 cm, and *Scylla serrata* 12.56 cm are in the same subset.

Thus, despite slight numerical variations in the average carapace width, statistically, the widths of the three species were still relatively homogeneous and showed no significant differences. This concludes that the carapace widths of the mangrove crabs caught in Lambur Luar Village were relatively similar across the three species. The relatively similar carapace width of the three mud crab species is due to several factors that influence their growth. Carapace width is strongly influenced by body weight, with a very strong correlation, with approximately 89-91% of the variation in carapace width being influenced by their body weight. The growth pattern of mud crabs is negatively allometric, where carapace width grows faster than body weight (Afrianti *et al*., 2025).

Similar ecological conditions, such as mangrove habitat quality, food availability, and pressure at the same location, also contribute to the relatively uniform growth and size of crabs among these species. Therefore, this relatively similar carapace width indicates that the three species grew under relatively similar conditions and environments (Nurqadri *et al*., 2023).

Sex Ratio

Based on the sex ratio data presented in Table 9, variations in the ratio of male to female individuals are visible in the three crab species observed. In detail, the table shows that each species has distinct sex ratio characteristics. The Scylla serrata species contained 35 males and 10 females. This significant difference in numbers was seen in the sex ratio, where males had a ratio of 0.78 while females only had 0.22. This indicates a very strong dominance of the male population in the catch. A similar condition was also seen in the *Scylla tranquebaria* species, of a total of 45 mangrove crabs, 30 of which were males and the remaining 15 were females. The sex ratio for this species showed a similar pattern to Scylla serrata, where males were more dominant with a ratio of 0.67, while females had a ratio of 0.33. The Scylla olivacea species showed the most balanced sex ratio pattern. The number of male and female crabs was almost equal, namely 23 males and 22 females. This balance was seen by the very close sex ratio values, namely 0.51 for males and 0.49 for females.

According to Tiurlan *et al*. (2019), the difference in sex ratio between male and female mangrove crabs is thought to be related to food availability and the life cycle of mangrove crabs, especially during the reproductive period. Variations in sex ratios can be influenced by the crab's life cycle, such as female migration to the sea during the spawning season, which leads to male dominance in catches at certain locations.

CONCLUSION

Based on the results of research on the characteristics of mangrove crabs caught using trap fishing gear in Lambur Luar Village, Muara Sabak Timur District, it was found that there were three species of mangrove crabs caught, namely Scylla serrata, Scylla olivacea, and Scylla tranquebarica.The results of the study showed that there were three species of mangrove crabs caught, namely Scylla serrata, Scylla olivacea, and Scylla tranquebarica.After the Anova and Duncan tests, it was found that the carapace length between Scylla serrata, Scylla olivacea, and Scylla tranquebarica was significantly different.($p \leq 0.05$).while the width and weight of the carapace do not differ significantly($p > 0.05$). Sex ratio variations in the Scylla serrata species are (0.78:0.22) and Scylla tranquebarica (0.67:0.33), indicating that the male population is more dominant in these two species. While the Scylla olivacea species, the sex ratio is almost balanced, namely (0.51:0.49). The conclusion of this study is that the characteristics of mangrove crabs differ between males and females, and there are significant differences in carapace length between mangrove crab species found in Lambur Luar Village.

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