

SPSS Data Processing

a). Density of Gastropods

Normality Test of Density of Gastropods

Tests of Normality

Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Density	Muddy	.260	3	.	.959	3	.609
	Sandy	.296	3	.	.918	3	.446
	Sandy-Muddy	.204	3	.	.993	3	.843

a. Lilliefors Significance Correction

Sig > 0.05 for the Shapiro-Wilk test, it can be concluded that the Density of Gastropods in the mangrove forest area is Normal in muddy and muddy sand samples with a value of > 0.05, Normal in sandy samples < 0.05.

Homogeneity Test of Gastropod Density

Tests of Homogeneity of Variances

Density		Levene Statistic	df1	df2	Sig.
		Based on Mean	2.717	2	6
	Based on Median	.677	2	6	.543
	Based on Median and with adjusted df	.677	2	3.886	.560
	Based on trimmed mean	2.498	2	6	.162

Sig : 0,145 , 0,543 , 0,560, 0,162 > alpha 0,05

Conclusion: The value of the data homogeneity test is homogeneous.

ANOVA

ANOVA

Density

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	35.782	2	17.891	82.965	<.001
Within Groups	1.294	6	.216		
Total	37.076	8			

1). Sig < 0,001

2). F count = 82.965 > F table (2, 6; 0,05) = 5,143

H0 is rejected and H1 is accepted

Conclusion:

The ANOVA results on gastropod density between stations with muddy, sandy and muddy sand substrates were significantly different.

b). Diversity of Gastropods

Normality Test of Gastropod Diversity

Tests of Normality

	Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	D f	Sig.
Diversity	Muddy	.253	3	.	.964	3	.637
	Sandy	.361	3	.	.807	3	.132
	Sandy-Muddy	.225	3	.	.984	3	.756

a. Lilliefors Significance Correction

Sig > 0.05 for the Shapiro-Wilk test, it can be concluded that the Gastropod Diversity in the mangrove forest area is Normal at all Stations with a value of > 0.05.

Homogeneity Test of Gastropod Diversity

Tests of Homogeneity of Variances

Diversity		Levene Statistic	df1	df2	Sig.
		Based on Mean	2.767	2	6
Based on Median	.764	2	6	.506	
Based on Median and with adjusted df	.764	2	3.981	.524	
Based on trimmed mean	2.566	2	6	.157	

Sig :0,141 , 0,506 , 0,524, 0,157 > alpa 0,05

Conclusion: The value of the data homogeneity test is homogeneous.

ANOVA

ANOVA

Diversity

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.023	2	.011	2.491	.163
Within Groups	.027	6	.005		
Total	.050	8			

1). Sig = 0,163 > 0,05

2). F count = 2.491 < F table 2, 6; 0,05 = 5.143

H1 is rejected and H0 is accepted

Conclusion:

The value of ANOVA, Sig = 0.163 and F count 2.491 < F 0.05 so it can be concluded that the gastropod diversity index between stations is relatively the same.

Uniformity of Gastropods

Normality Test of Gastropod Uniformity

Tests of Normality

	Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uniformity	Muddy	.253	3	.	.964	3	.637
	Sandy	.337	3	.	.855	3	.253
	Sandy-Muddy	.196	3	.	.996	3	.878

a. Lilliefors Significance Correction

Sig > 0.05 for the Shapiro-Wilk test, it can be concluded that the Number of Gastropod Uniformity in the mangrove forest area is Normal at all stations with values of 0.637, 0.253, 0.878 respectively (>0.05).

Homogeneity Test of Gastropod Uniformity

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Uniformity	Based on Mean	1.333	2	6	.332
	Based on Median	.509	2	6	.625
	Based on Median and with adjusted df	.509	2	4.288	.633
	Based on trimmed mean	1.264	2	6	.348

Sig :0,332 , 0,625 , 0,633, 0,348 > alpha 0,05

Conclusion: The value of the data homogeneity test is homogeneous.

ANOVA

ANOVA

Uniformity

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.006	2	.003	2.604	.153
Within Groups	.007	6	.001		
Total	.014	8			

1). Sig = 0,153 > 0,05

2). F count = 2.604 < F table 2, 6; 0,05 = 5.143

H1 is rejected and H0 is accepted

Conclusion:

The value of ANOVA Sig = 0.153 and F count 2.604 < F table 0.05 means that the uniformity index between stations is the same.

Gastropod Dominance

Normality Test of Gastropod Dominance

Tests of Normality

	Sampel	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Domination	Muddy	.175	3	.	1.000	3	1.000
	Sandy	.292	3	.	.923	3	.463
	Sandy-Muddy	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Sig > 0.05 for the Shapiro-Wilk test, it can be concluded that the number of gastropod dominance in the mangrove forest area is normal at all muddy, sandy and muddy sand stations with all values > 0.05.

Homogenesis Test of Gastropod Dominance

Tests of Homogeneity of Variances

Dominastion		Levene Statistic	df1	df2	Sig.
		Based on Mean	1.171	2	6
Based on Median	.273	2	6	.770	
Based on Median and with adjusted df	.273	2	4.102	.774	
Based on trimmed mean	1.081	2	6	.397	

Sig :0,372 , 0,770 , 0,774, 0,397 > alpha 0,05

Conclusion:

The value of the data homogeneity test is homogeneous towards the Dominance of the substrate type.

ANOVA

ANOVA

Dominance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.001	2	.001	2.478	.164
Within Groups	.002	6	.000		
Total	.003	8			

1). Sig 0,164 > 0,05

2). F count = 2.478 < F table 2, 6; 0,05 = 5,143

H1 is rejected and H0 is accepted

Conclusion:

The value of ANOVA Sig = 0.164 and F count 2.478 < F table 0.05 against Dominance shows that no one dominates.