

Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ALA.DBF

Variable Name is AREA

N	= 55	Missing or Deleted	= 0
Mean	= 5.98182	St. Dev (n-1)	= 16.79643
Median	= 1.25	St. Dev (n)	= 16.64303
Minimum	= 0.25	S.E.M.	= 2.26483
Maximum	= 106.25	Variance	= 282.12003
Sum	= 329.00	Coef. Var.	= 2.80791

Percentiles:			Tukey Five Number Summary:
0.0%	= 0.25	Minimum	Minimum = 0.25
0.5%	= 0.25		Fourth = 0.50
2.5%	= 0.25		Median = 1.25
10.0%	= 0.40		Fourth = 2.50
25.0%	= 0.50	Quartile	Maximum = 106.25
50.0%	= 1.25	Median	
75.0%	= 2.50	Quartile	
90.0%	= 13.59999		
97.5%	= 89.15005		
99.5%	= 106.25		Test for normality results:
100.0%	= 106.25	Maximum	D = .39 p <= 0.001

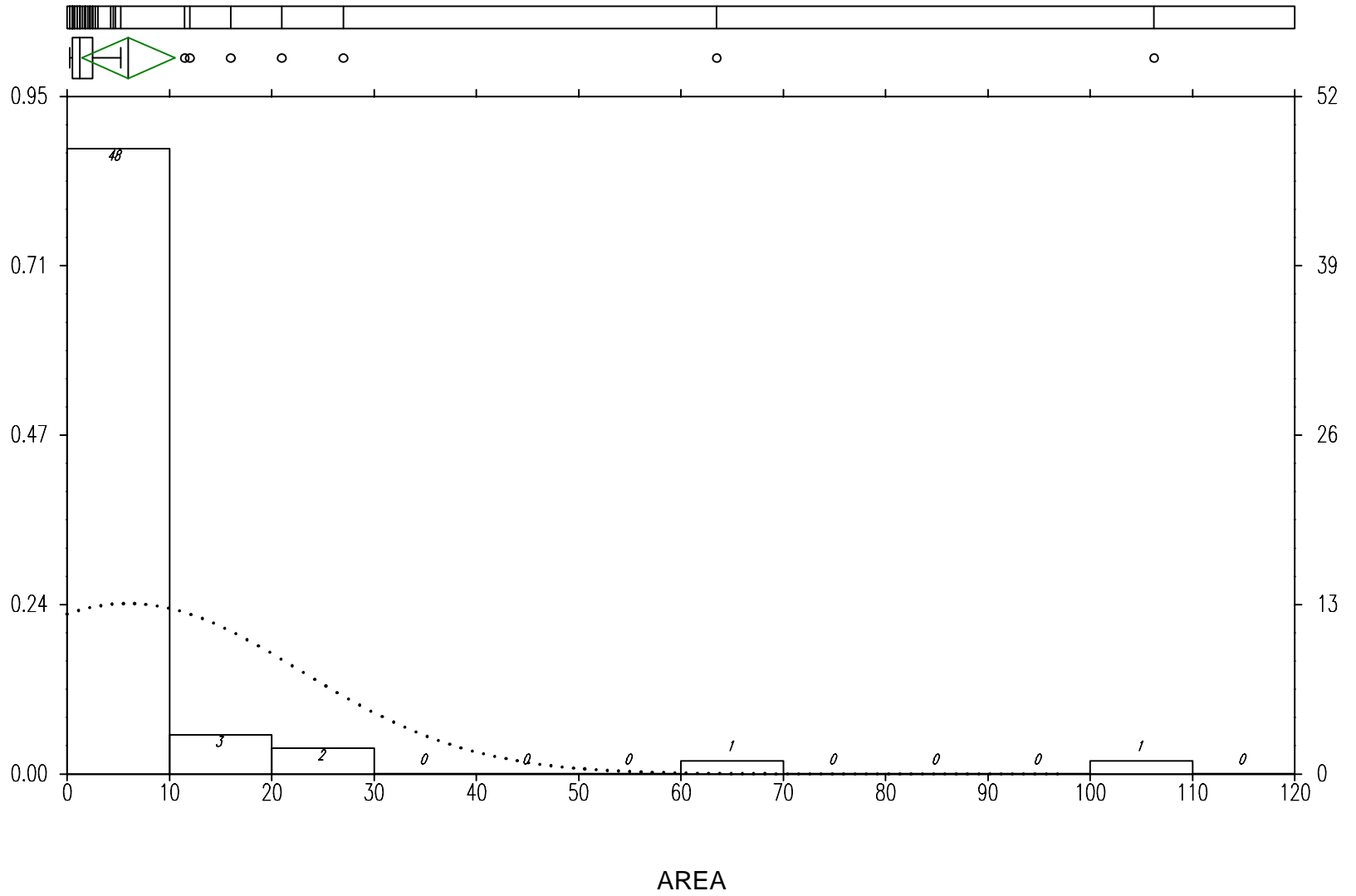
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(54) critical value of 1.3 is (3.03754, 8.9261)
 90 % C.I. based on a t(54) critical value of 1.68 is (2.1769, 9.78673)
 95 % C.I. based on a t(54) critical value of 2.01 is (1.42951, 10.53413)
 98 % C.I. based on a t(54) critical value of 2.4 is (0.54623, 11.41741)
 99 % C.I. based on a t(54) critical value of 2.67 is (-0.06528, 12.02891)

The normality test suggests that the data are not normally distributed. The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

Alapah - Closure areas



Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ALA.DBF

Variable Name is HEIGHT

N	= 55	Missing or Deleted	= 0
Mean	= 60.61636	St. Dev (n-1)	= 52.7326
Median	= 42.80	St. Dev (n)	= 52.25101
Minimum	= 5.20	S.E.M.	= 7.11046
Maximum	= 186.20	Variance	= 2780.72698
Sum	= 3333.90003	Coef. Var.	= 0.86994

Percentiles:

0.0%	= 5.20	Minimum
0.5%	= 5.20	
2.5%	= 5.80	
10.0%	= 10.94	
25.0%	= 22.50	Quartile
50.0%	= 42.80	Median
75.0%	= 76.80	Quartile
90.0%	= 160.22	
97.5%	= 183.84	
99.5%	= 186.20	
100.0%	= 186.20	Maximum

Tukey Five Number Summary:

Minimum	= 5.20
Fourth	= 22.90
Median	= 42.80
Fourth	= 69.85001
Maximum	= 186.20

Test for normality results:
D = .228 p <= 0.001

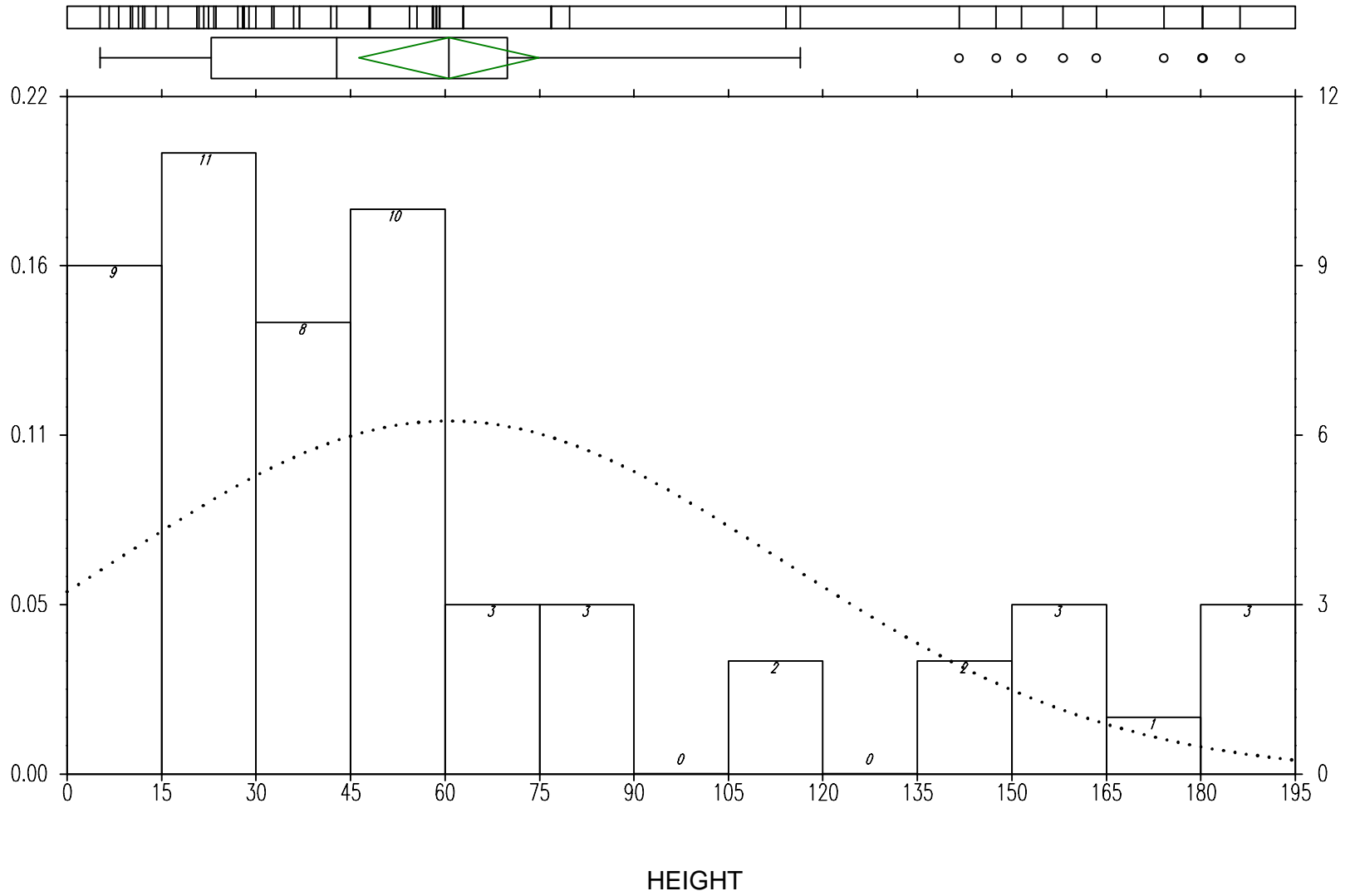
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(54) critical value of 1.3 is	(51.37276, 69.85996)
90 % C.I. based on a t(54) critical value of 1.68 is	(48.67079, 72.56194)
95 % C.I. based on a t(54) critical value of 2.01 is	(46.32434, 74.90839)
98 % C.I. based on a t(54) critical value of 2.4 is	(43.55125, 77.68147)
99 % C.I. based on a t(54) critical value of 2.67 is	(41.63143, 79.6013)

The normality test suggests that the data are not normally distributed. The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

Alaph - Closure heights



 Linear Regression and Correlation

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Dependent variable is HEIGHT, 1 independent variables, 53 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	36.761583	5.7038484	6.4450491	<.001
AREA	6.6143555	.9573922	6.9087212	<.001

R-Square = 0.4834 Adjusted R-Square = 0.4733

Analysis of Variance to Test Regression Relation

Source	Sum of Sqs	df	Mean Sq	F	p-value
Regression	61367.103	1	61367.103	47.730429	<.001
Error	65570.798	51	1285.7019		
Total	126937.9	52			

A low p-value suggests that the dependent variable HEIGHT may be linearly related to independent variable(s).

MEAN X =	3.005	S.D. X =	5.194	CORR XSS =	1402.686
MEAN Y =	56.636	S.D. Y =	49.408	CORR YSS =	126937.9
REGRESSION MS=	61367.103	RESIDUAL MS=	1285.702		

Pearson's r (Correlation Coefficient)= 0.6953

The linear regression equation is:

$$\text{HEIGHT} = 36.76158 + 6.614356 * \text{AREA}$$

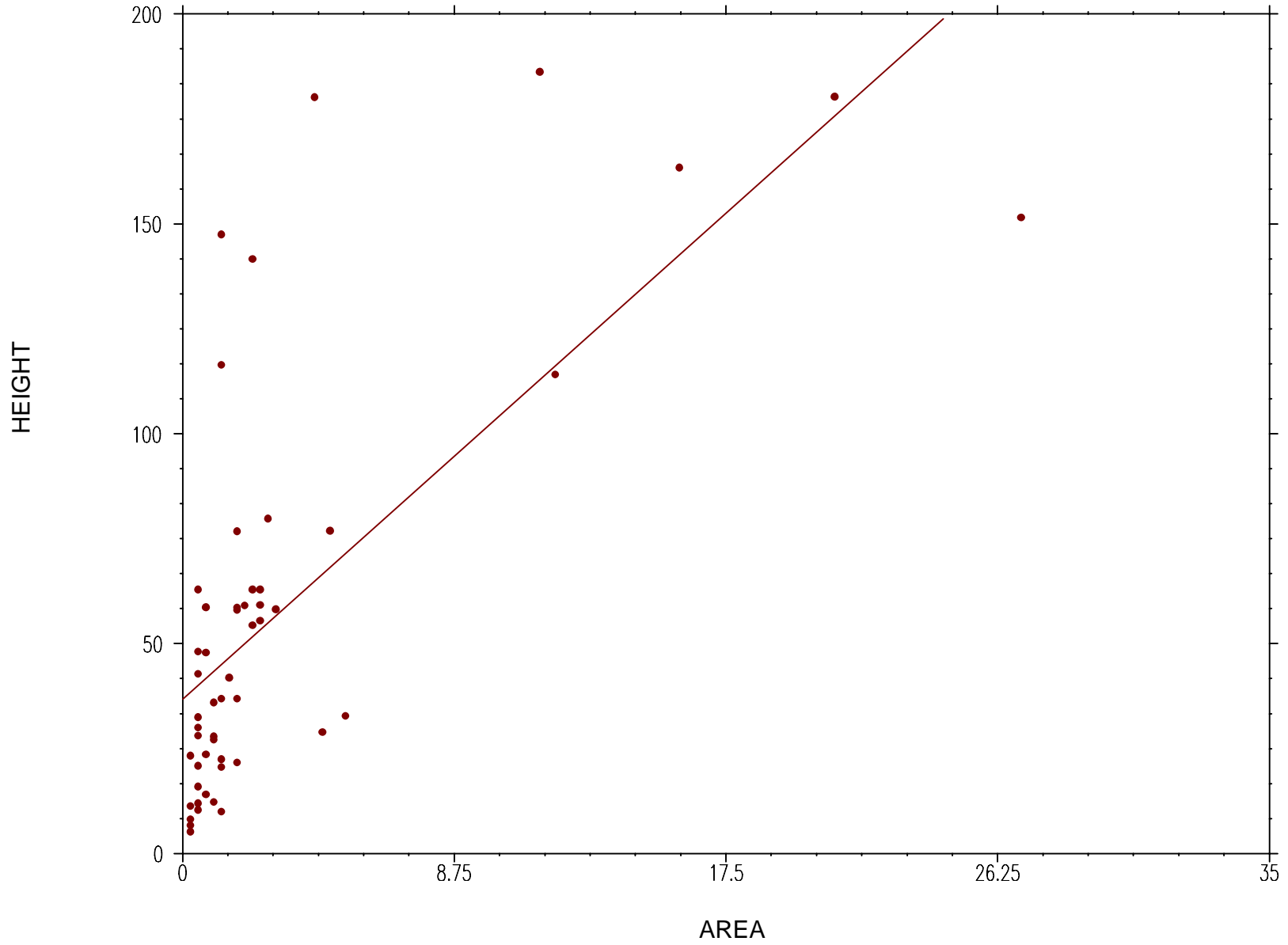
Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)

t = 6.91 with 51 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

Alaph – Area vs Height – two points removed



 Linear Regression and Correlation

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\ALA.DBF

Dependent variable is LOGHEIGHT, 1 independent variables, 55 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	3.4765451	.0880997	39.461464	<.001
LOGAREA	.5107352	.0615752	8.2945005	<.001

R-Square = 0.5649 Adjusted R-Square = 0.5566

Analysis of Variance to Test Regression Relation

Source	Sum of Sqs	df	Mean Sq	F	p-value
Regression	26.02606	1	26.02606	68.798738	<.001
Error	20.049513	53	.3782927		
Total	46.075573	54			

A low p-value suggests that the dependent variable LOGHEIGHT may be linearly related to independent variable(s).

MEAN X =	.483	S.D. X =	1.359	CORR XSS =	99.774
MEAN Y =	3.723	S.D. Y =	.924	CORR YSS =	46.076
REGRESSION MS=	26.026	RESIDUAL MS=	.378		

Pearson's r (Correlation Coefficient)= 0.7516

The linear regression equation is:

$$\text{LOGHEIGHT} = 3.476545 + .5107352 * \text{LOGAREA}$$

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)

t = 8.29 with 53 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

Alapah – log area vs log height

