#### Universidade Estadual de Campinas Métodos em Análise Multivariada

## Trabalho ME731

Parte 1

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Professor: Caio Lucidius Naberezny Azevedo Dezembro/2017

#### Sumário

1 INTRODUÇÃO 1

# 1 INTRODUÇÃO

#### Medidas Resumo

Variável	Especie	Média	DP	Var	CV	Mínimo	Mediana	Máximo	n
C.Asa	Carteri	99,34	5,59	31,29	5,63	82	99,00	112	35
	Torrens	96,46	6,38	40,73	6,62	85	95,00	109	35
L.Asa	Carteri	43,74	5,08	25,78	11,61	19	45,00	50	35
	Torrens	42,91	2,74	7,49	6,38	38	44,00	49	35
C3p	Carteri	39,31	2,84	8,05	7,21	33	39,00	44	35
	Torrens	35,37	2,20	4,83	6,21	31	36,00	39	35
L3p	Carteri	14,66	1,64	2,70	11,22	11	15,00	19	35
	Torrens	14,51	1,84	3,37	12,66	11	14,00	18	35
C4p	Carteri	30,00	4,61	21,29	15,38	20	31,00	38	35
	Torrens	25,63	2,50	6,24	9,75	21	26,00	31	35
C12a	Carteri	9,66	1,26	1,58	13,04	6	10,00	12	35
	Torrens	9,57	0,92	0,84	9,58	8	9,00	13	35
C13a	Carteri	9,37	1,09	1,18	11,60	7	9,00	11	35
	Torrens	9,71	0,89	0,80	9,20	8	10,00	13	35

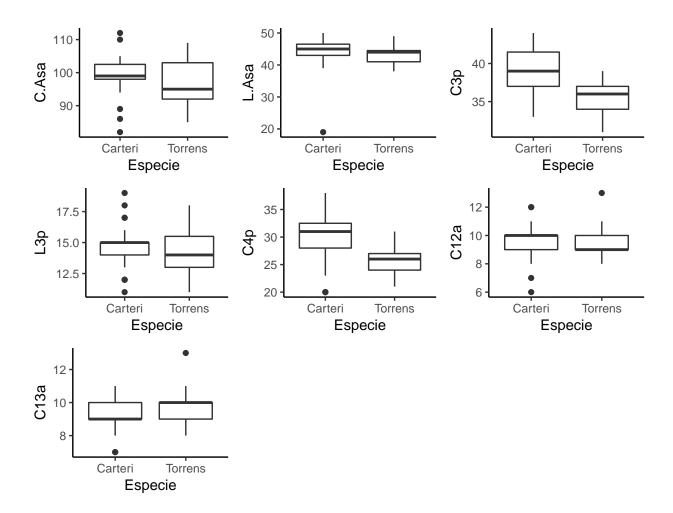
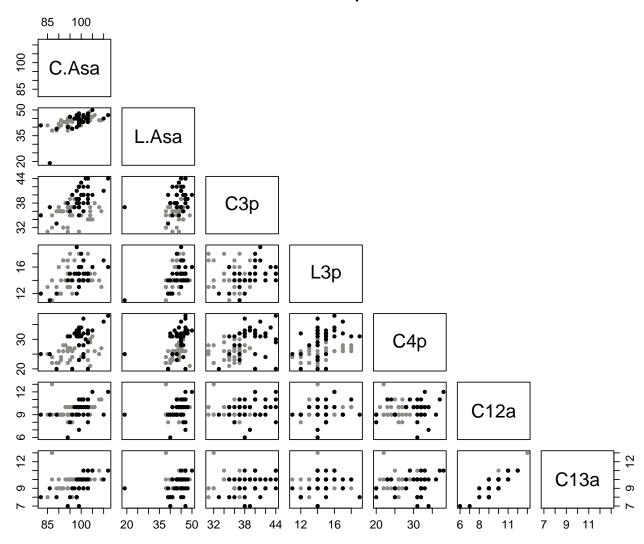


Figure 1: BoxPlots

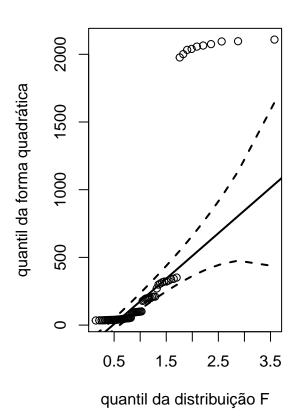
#### Gráfico de Dispersão

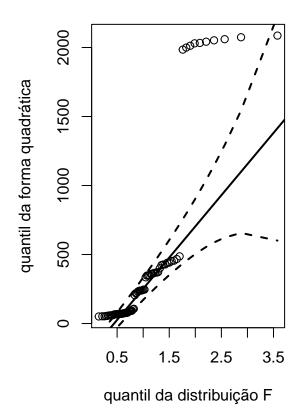


	C.Asa	L.Asa	C3p	L3p	C4p	C12a	C13a
TORRENS							
C.Asa	40,73	0,67	0,17	0,19	0,39	0,32	0,29
L.Asa	11,72	7,49	0,30	0,37	0,48	0,13	0,12
C3p	2,33	1,83	4,83	-0,19	0,11	-0,18	0,09
L3p	2,20	1,84	-0,78	3,38	0,37	0,10	0,00
C4p	6,26	3,26	0,61	1,70	6,24	-0,01	-0,02
C12a	1,88	0,32	-0,37	0,17	-0,02	0,84	0,78
C13a	1,66	0,30	0,17	0,00	-0,05	0,64	0,80
	CARTERI						
	C.Asa	L.Asa	C3p	L3p	C4p	C12a	C13a
C.Asa	31,29	0,61	0,62	0,56	0,50	0,42	0,60
L.Asa	17,47	25,79	0,26	0,50	0,38	0,28	0,28
C3p	9,83	3,70	8,04	0,46	0,20	0,22	0,38
L3p	5,15	4,14	2,17	2,70	0,41	0,18	0,25
C4p	12,88	8,94	2,62	3,12	21,29	0,20	0,26
C12a	2,97	1,79	0,79	0,38	1,15	1,58	0,87
C13a	3,63	1,57	1,17	0,46	1,32	1,19	1,18



## **Especie Carteri**

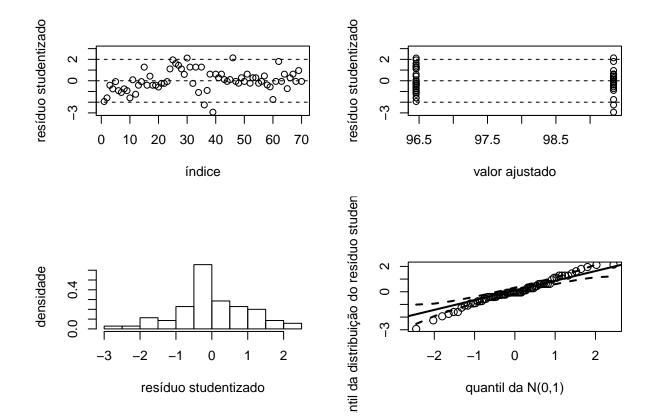


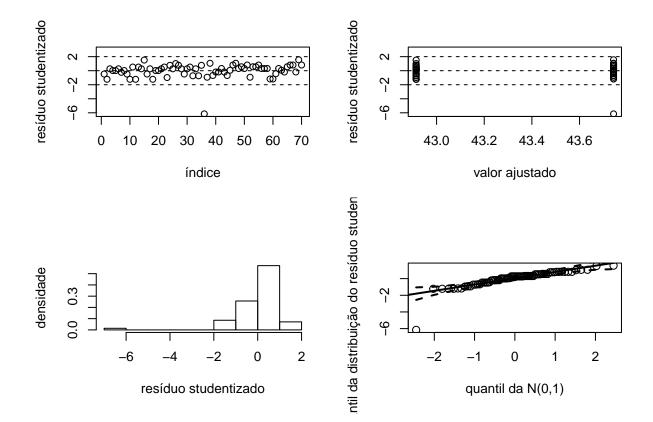


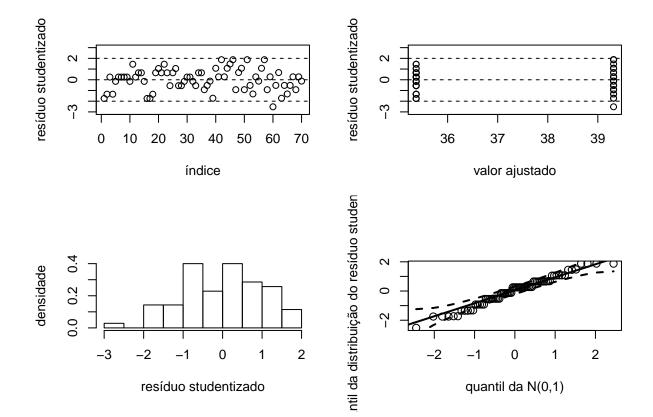
Estatística	Valor	Aprox. Dist. F	P-Valor
Wilks	0,39	13,82	<0,01
Pillai	0,61	13,82	< 0,01
Hotteling-Lawley	1,56	13,82	< 0,01
Roy	1,56	13,82	<0,01

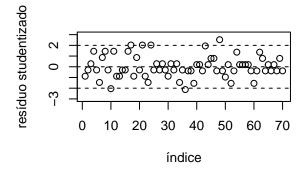
Variável	Parâmetro	Estimativa	Erro Padrão	Valor t	p-valor
C.Asa	$\mu_1$	96,46	1,01	95,10	<0,01
	$\alpha_1$	2,89	1,43	2,01	0,05
L.Asa	$\mu_1$	42,91	0,69	62,24	< 0,01
	$\alpha_1$	0,83	0,98	0,85	0,40
C3p	$\mu_1$	35,37	0,43	82,48	< 0,01
	$\alpha_1$	3,94	0,61	6,50	< 0,01
L3p	$\mu_1$	14,51	0,29	49,26	< 0,01
	$\alpha_1$	0,14	0,42	0,34	0,73
C4p	$\mu_1$	25,63	0,63	40,86	< 0,01
	$\alpha_1$	4,37	0,89	4,93	< 0,01
C12a	$\mu_1$	9,57	0,19	51,42	< 0,01
	$\alpha_1$	0,09	0,26	0,33	0,75
C13a	$\mu_1$	9,71	0,17	57,76	< 0,01
	$\alpha_1$	-0,34	0,24	-1,44	0,15

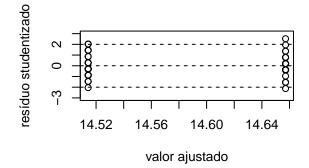
Variável	Estatística	p-valor
C.Asa	4,05	0,00
L.Asa	0,72	0,40
C3p	42,26	0,00
L3P	0,12	0,73
C4p	24,29	0,00
C12a	0,11	0,75
C13a	2,08	0,15



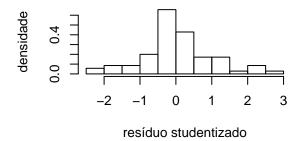


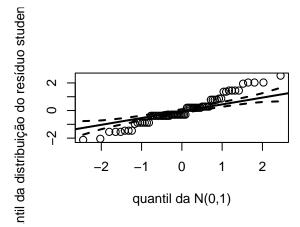


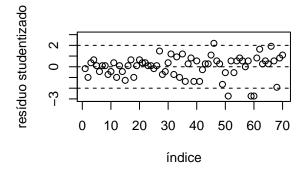


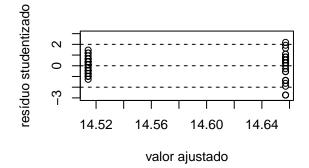


#### Histograma dos resíduos

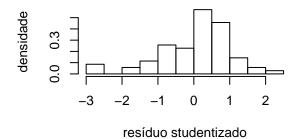


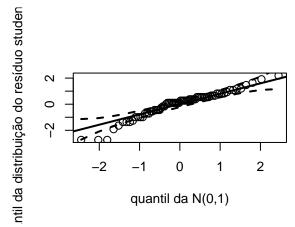


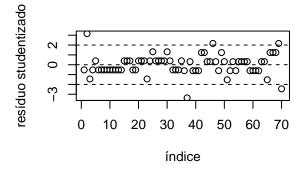


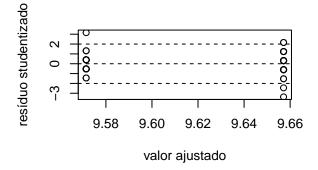


#### Histograma dos resíduos

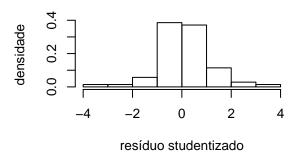


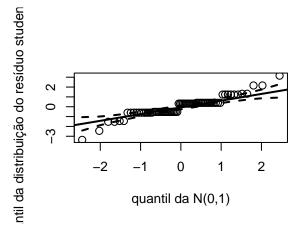


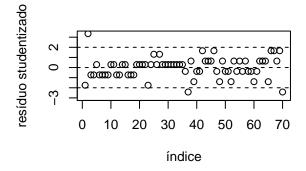


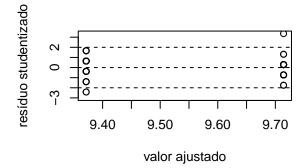












#### Histograma dos Residuos

