

Appendix 5~

Figures from Chapter 5 - Goose distinctions

Key to the scatter plots:

Genus	Symbol	Species	Symbol
<i>Anser</i>	●	<i>Anser albifrons</i>	●
		<i>Anser anser</i>	■
		<i>Anser brachyrhynchus</i>	◆
		<i>Anser fabalis</i>	▼
		<i>Branta bernicla</i>	●
		<i>Branta leucopsis</i>	■

Domestic or wild	Symbol
Domestic Goose	●
Greylag Goose	■

Coracoid

Genus

Anser/Branta

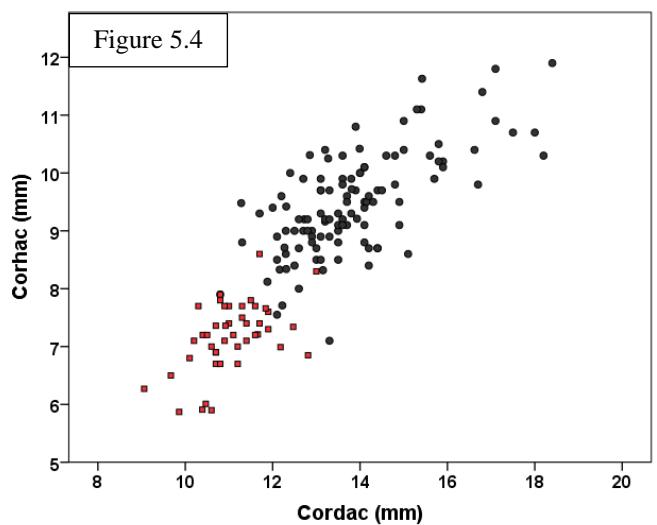
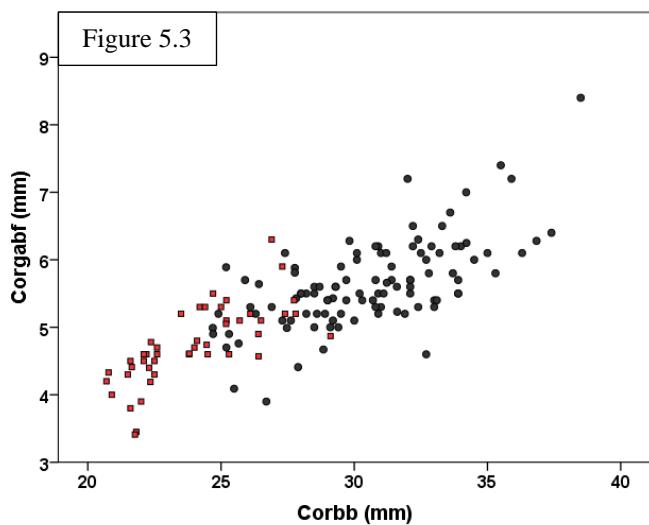
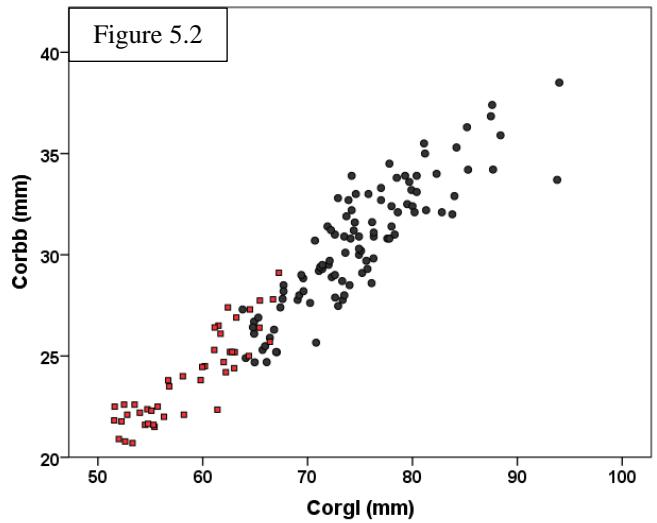
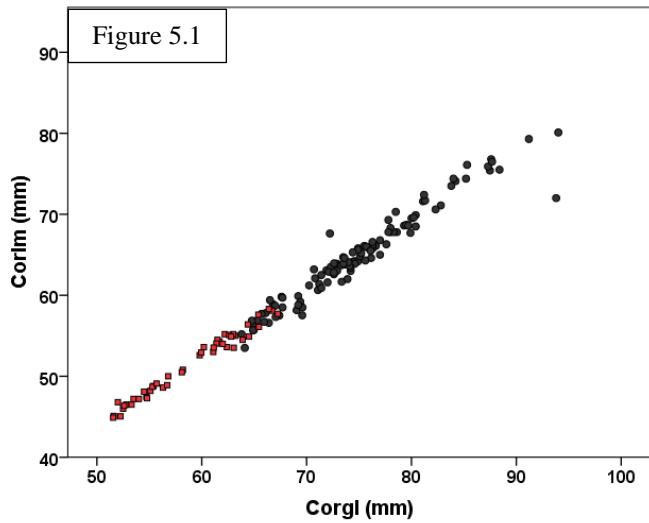
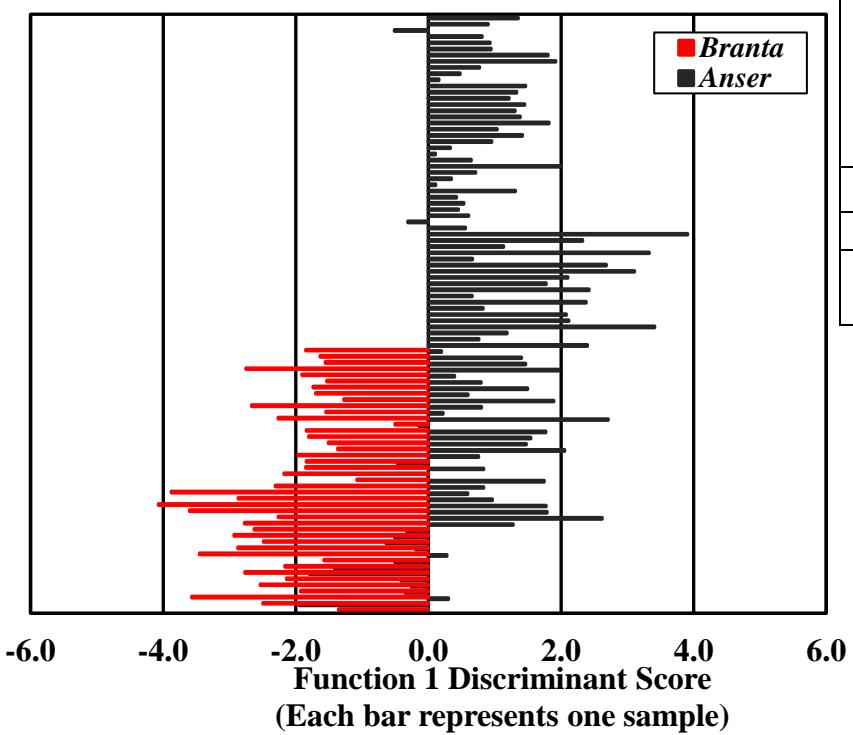


Figure 5.5



Measurements	Corgl Corlm Corbb Corbf Cordac Corhac
Box's M sig.	0.000
Wilks' Lambda sig.	0.000
Function 1 % of Variance	100.0

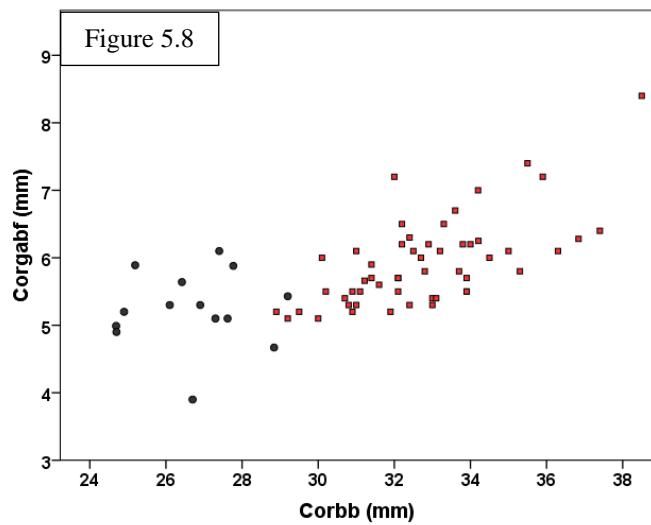
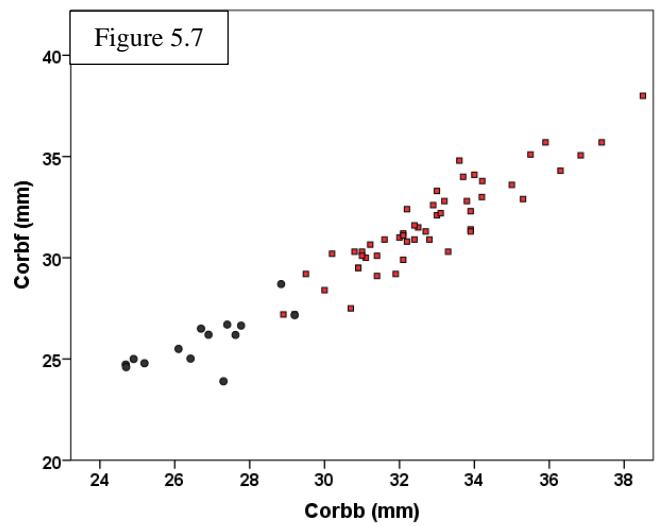
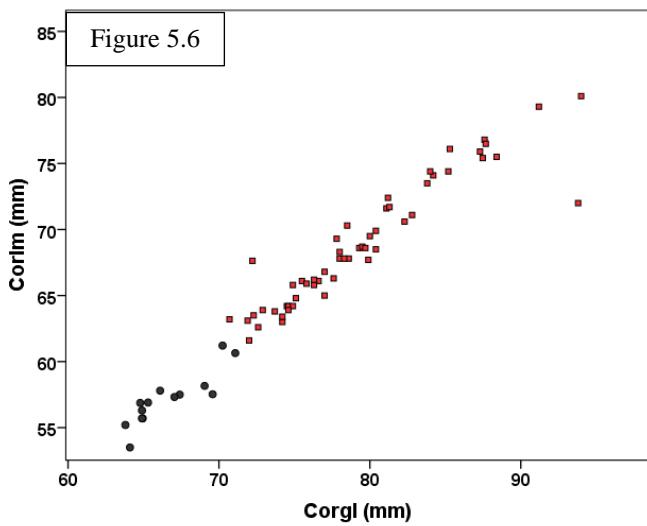
Classification results summary

	Original group	Predicted Group Membership		Total
		Anser	Branta	
Count	Anser	94	3	97
	Branta	1	42	43
%	Anser	96.9	3.1	100
	Branta	2.3	97.7	100

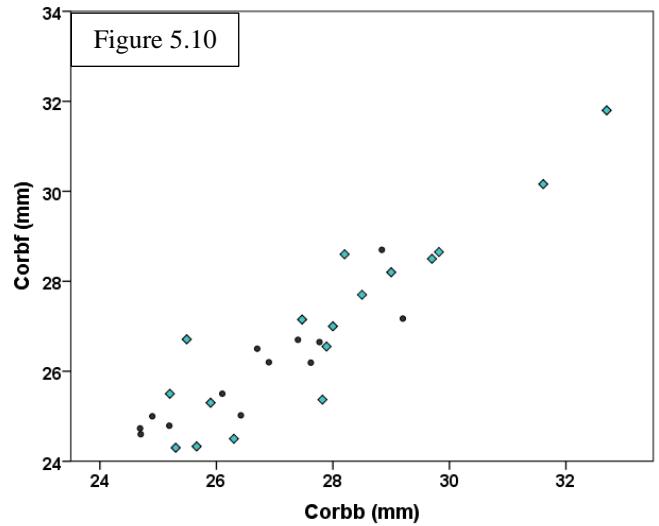
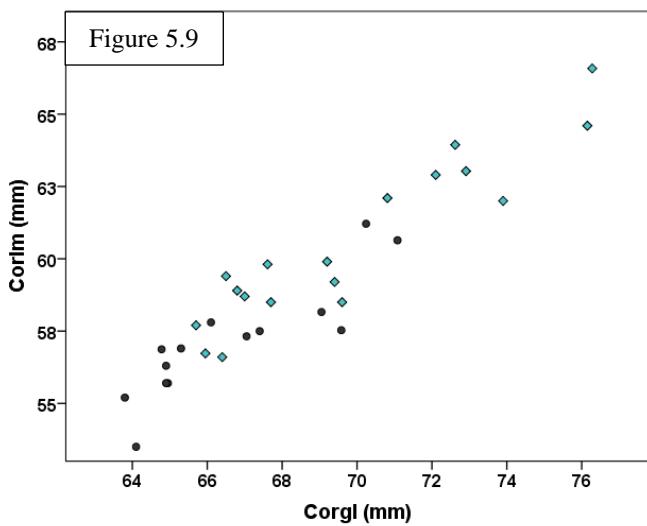
97.1% of original grouped cases correctly classified.

Species

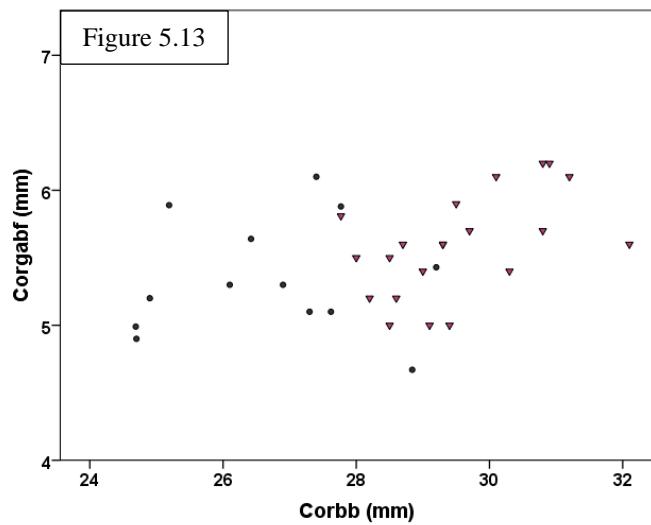
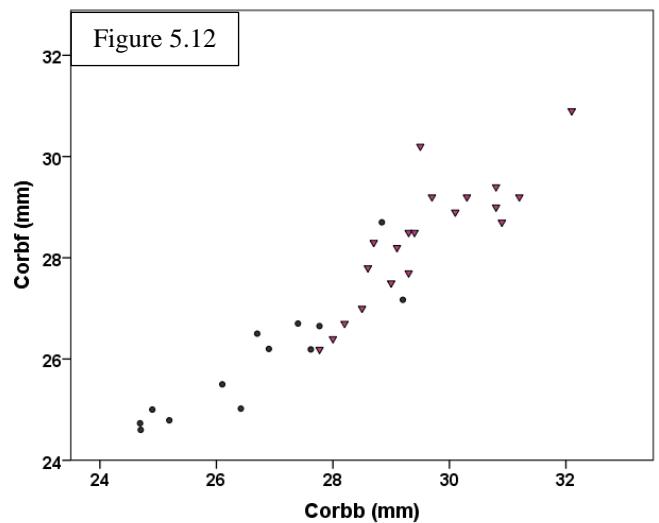
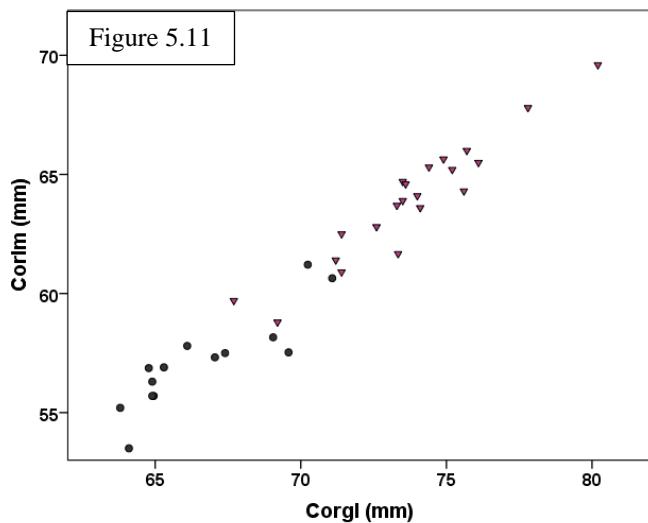
Anser albifrons/Anser anser (wild and domestic form)



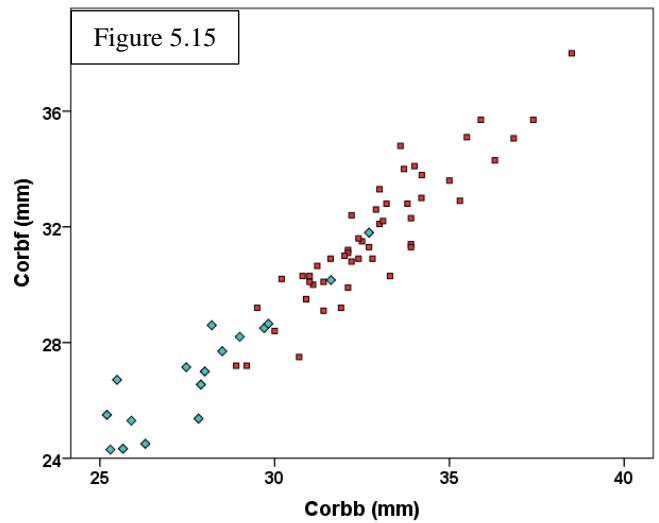
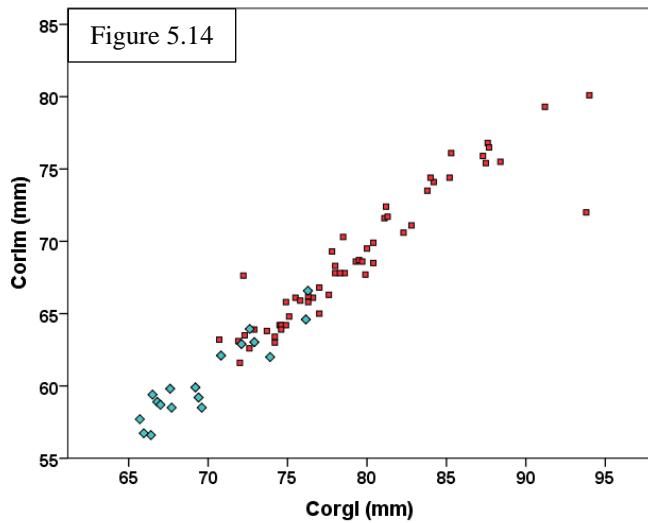
Anser albifrons/Anser brachyrhynchus

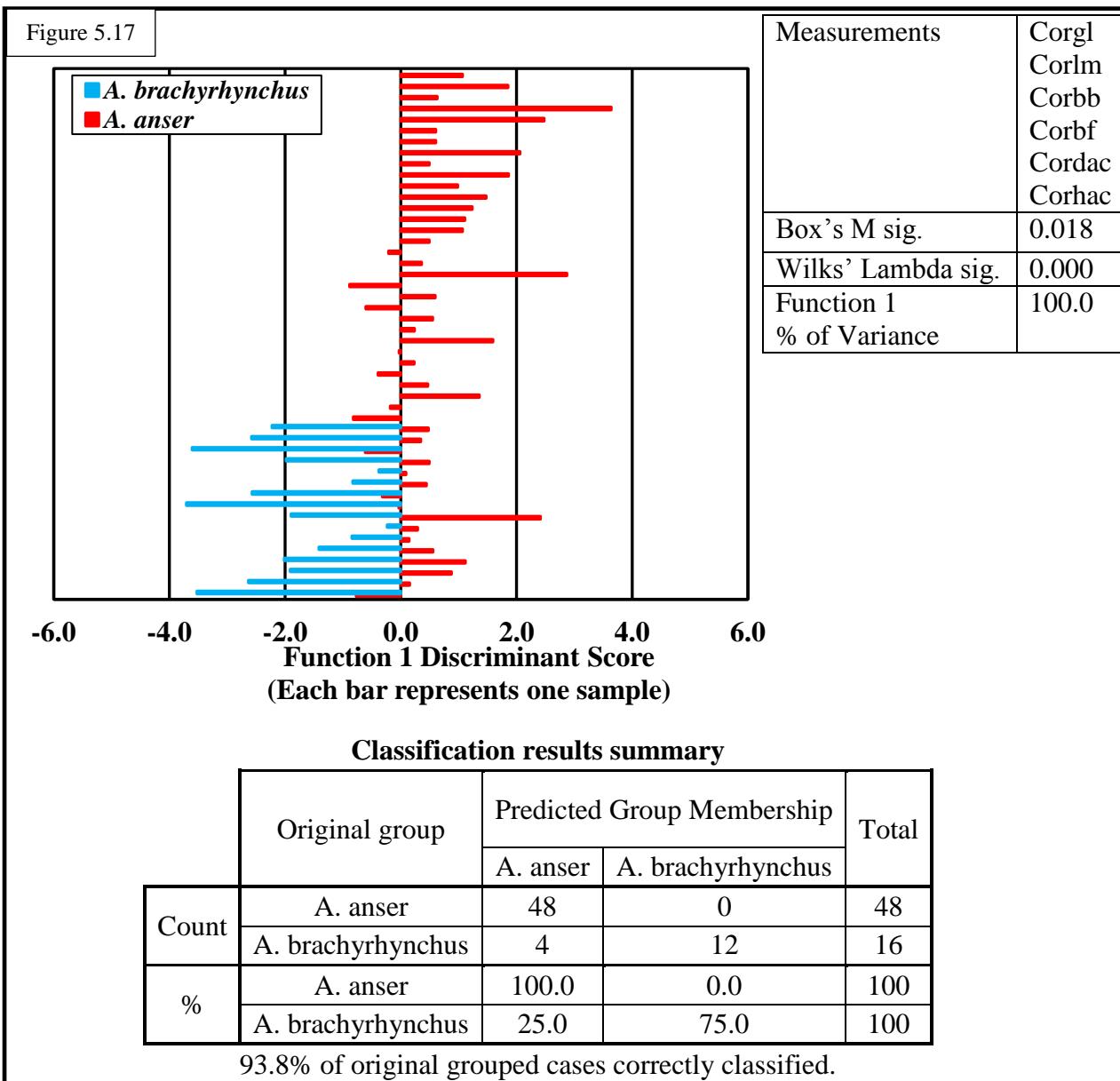
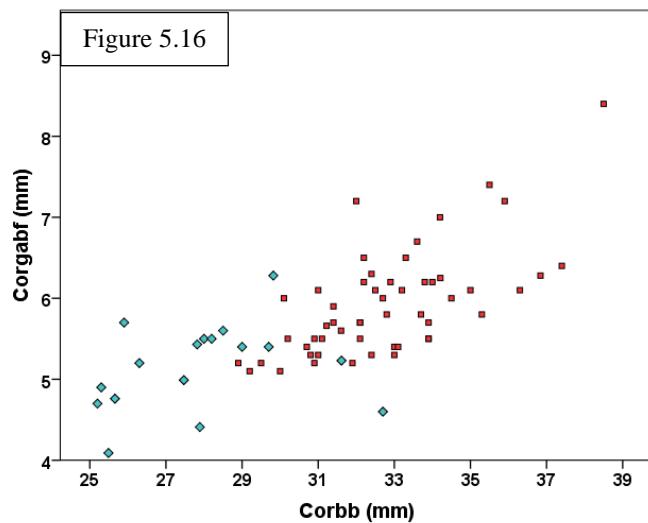


Anser albifrons/Anser fabalis



Anser anser (wild and domestic form)/Anser brachyrhynchus





Anser anser (wild and domestic form)/Anser fabalis

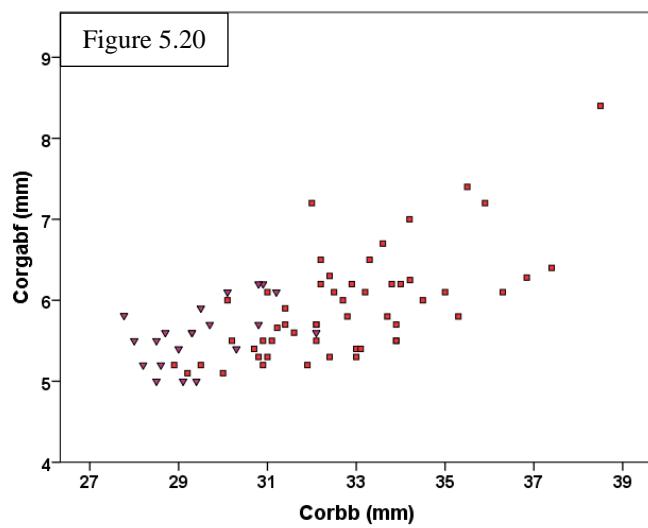
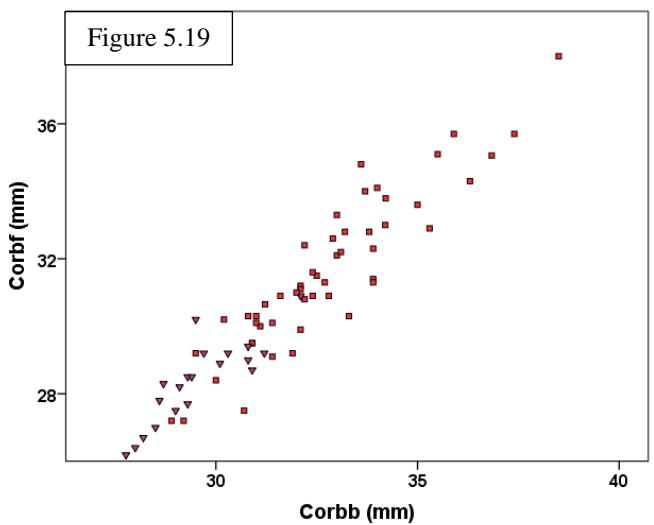
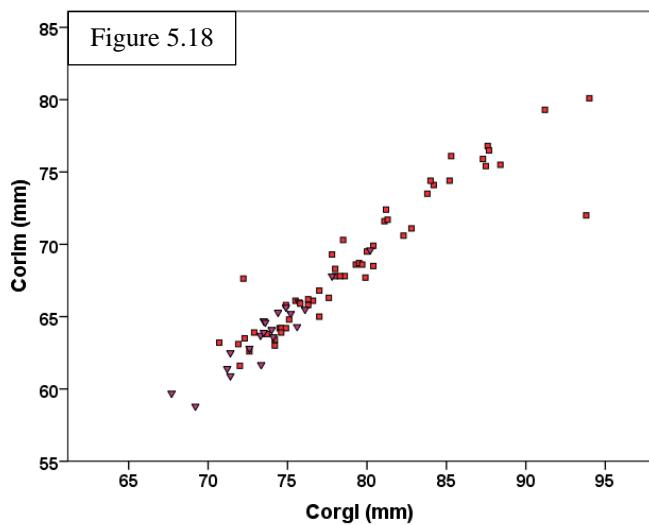
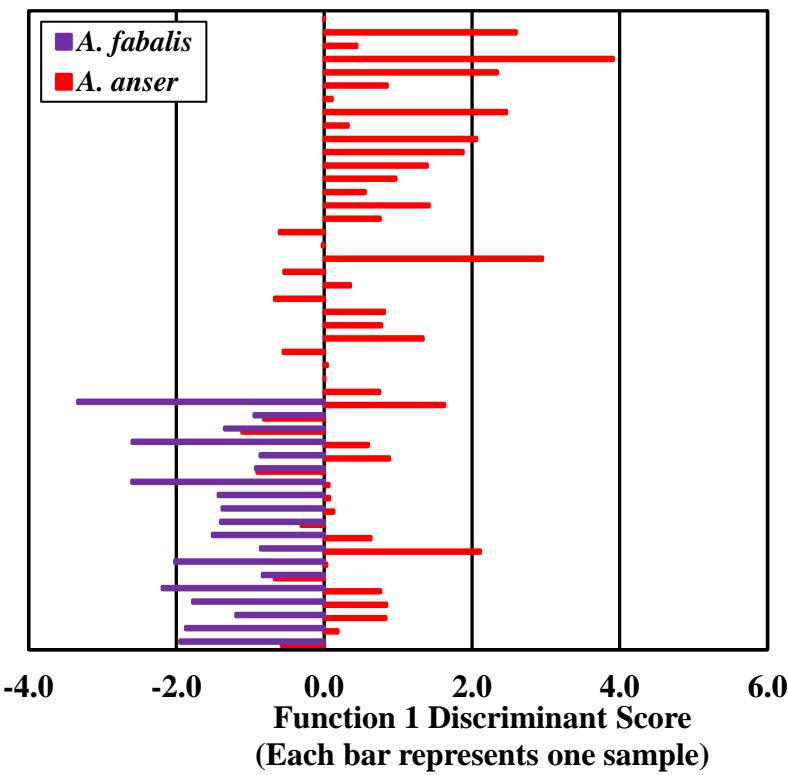


Figure 5.21



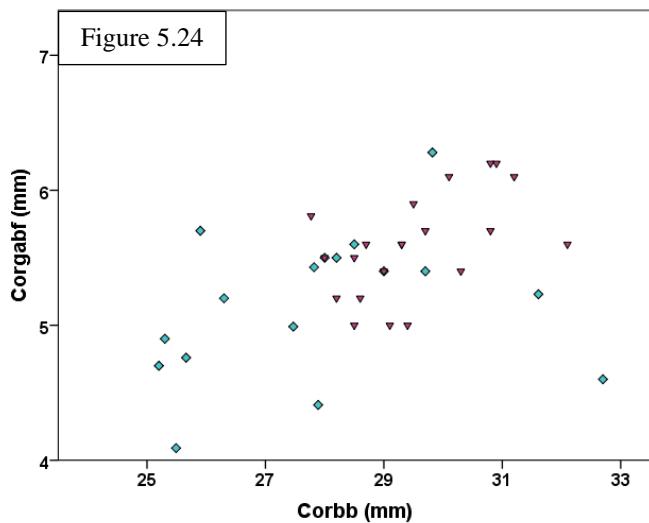
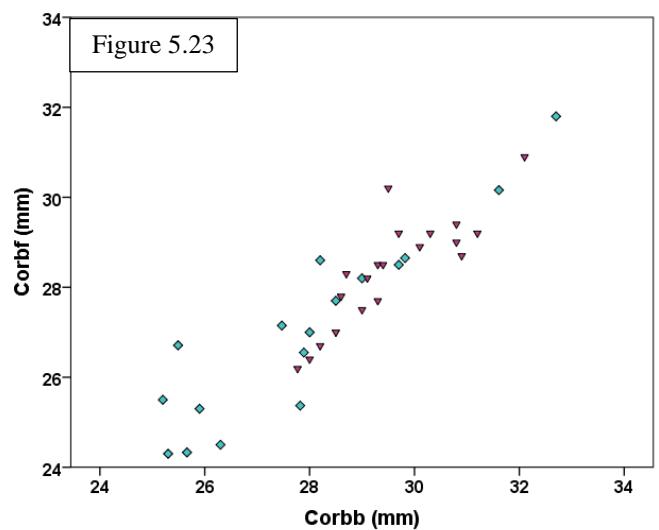
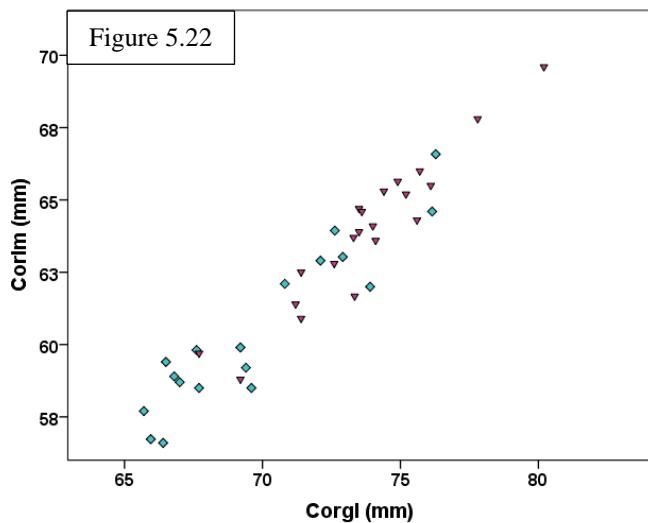
Measurements	Corgl Corlm Corbb Corbf Cordac Corhac
Box's M sig.	0.010
Wilks' Lambda sig.	0.000
Function 1	100.0
% of Variance	

Classification results summary

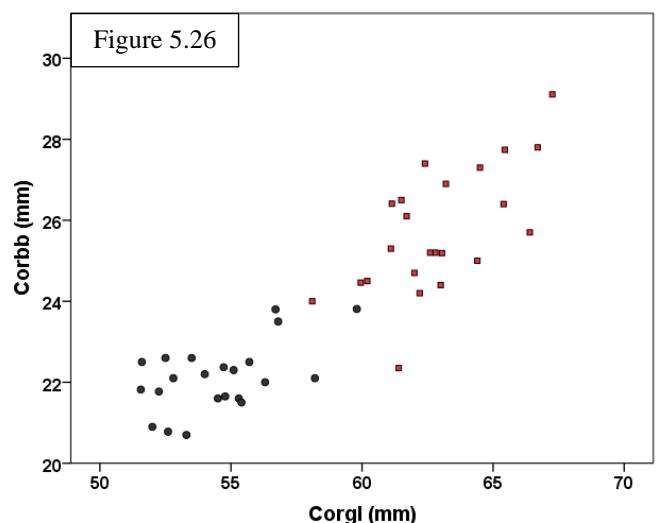
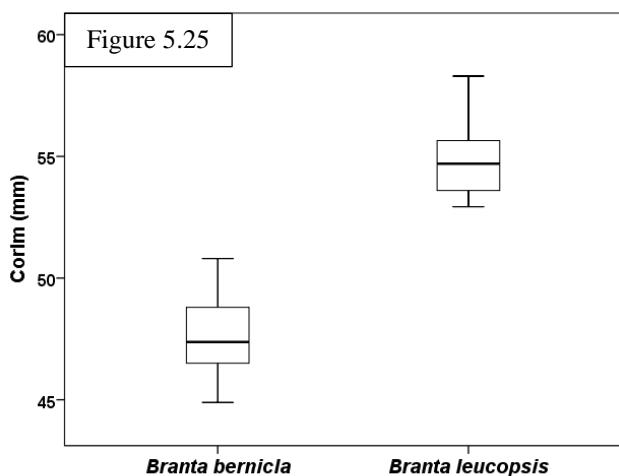
	Original group	Predicted Group Membership		Total
		A. anser	A. fabalis	
Count	A. anser	46	2	48
	A. fabalis	3	16	19
%	A. anser	95.8	4.2	100
	A. fabalis	15.8	84.2	100

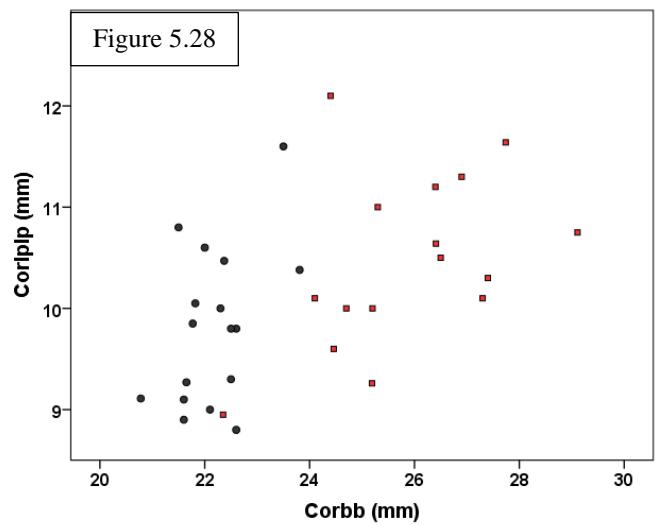
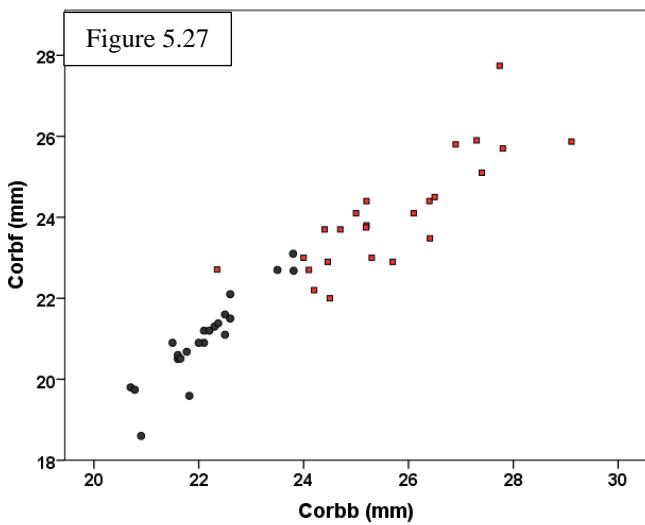
92.5% of original grouped cases correctly classified.

Anser brachyrhynchus/Anser fabalis



Branta bernicla/Branta leucopsis





Wild compared to domestic (*Anser anser*)

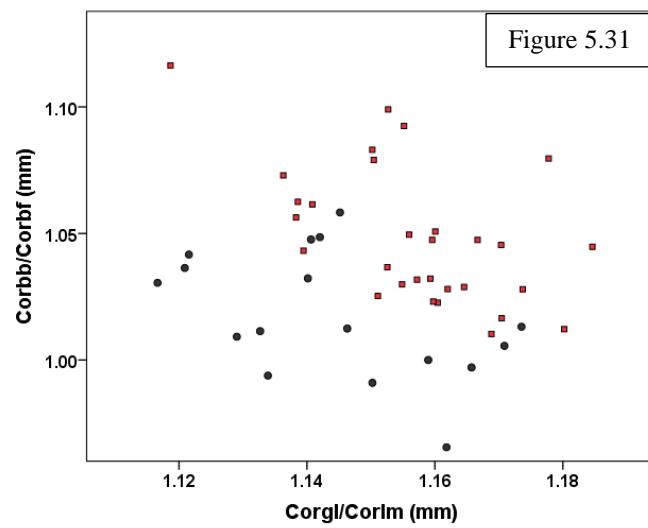
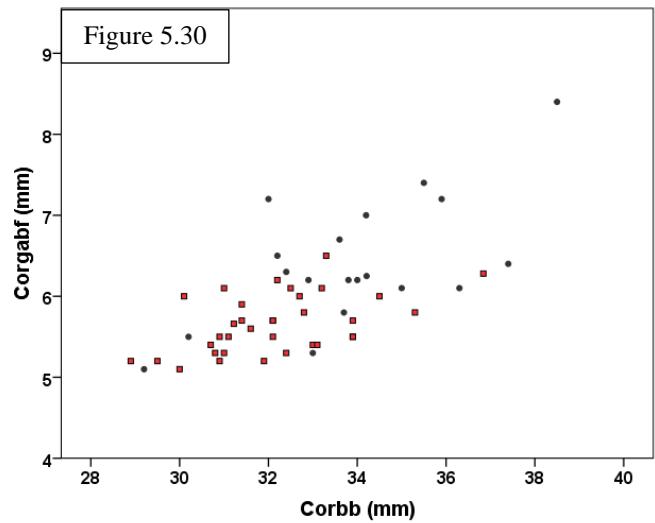
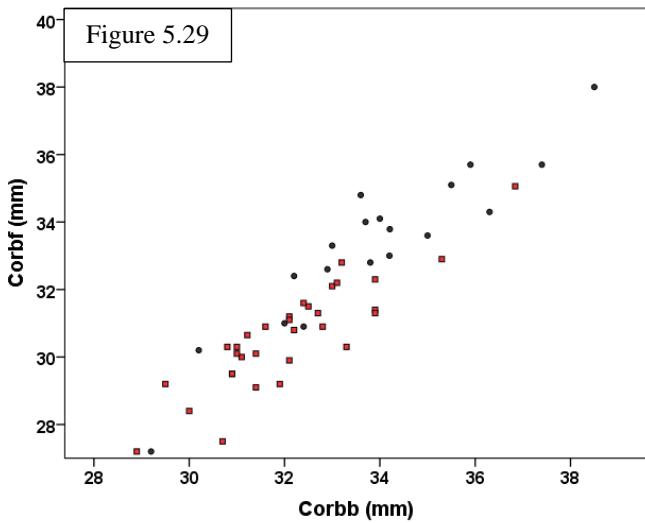
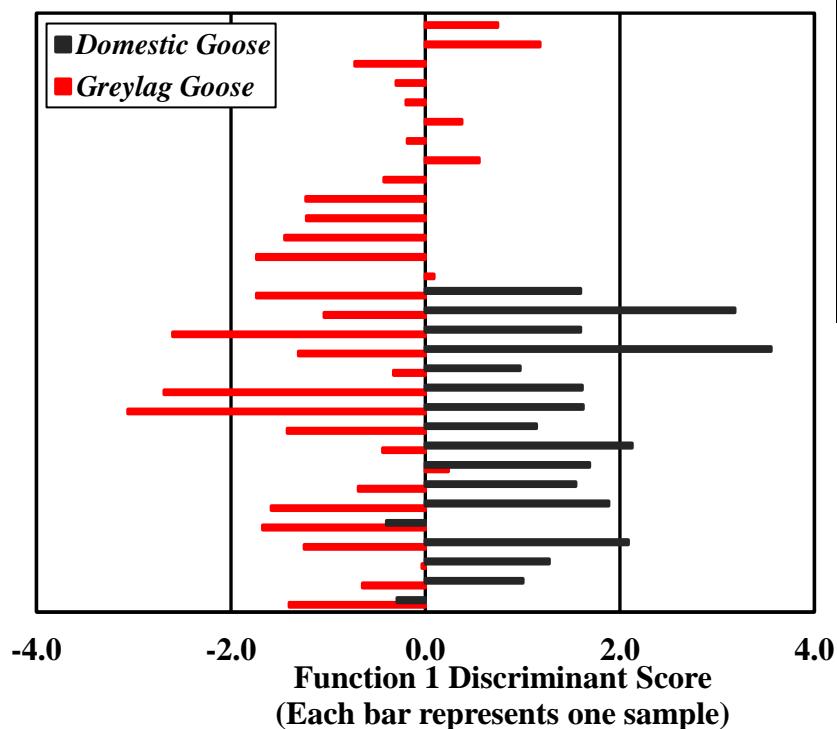


Figure 5.32



Measurements	Corgl Corlm Corbb Corbf Cordac Corhac
Box's M sig.	0.046
Wilks' Lambda sig.	0.000
Function 1 % of Variance	100.0

Classification results summary

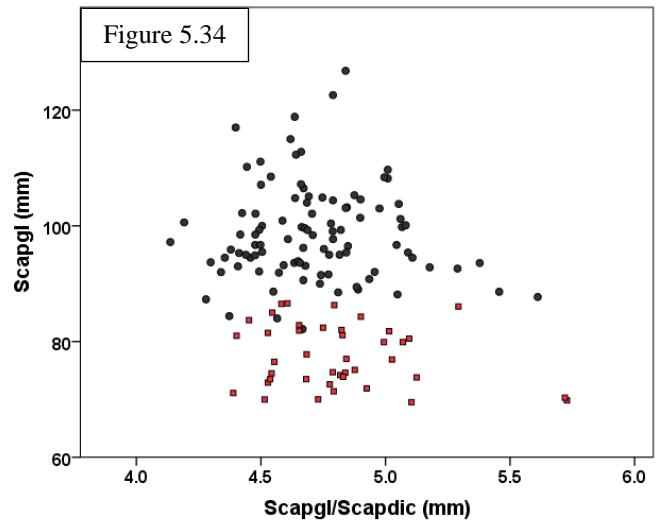
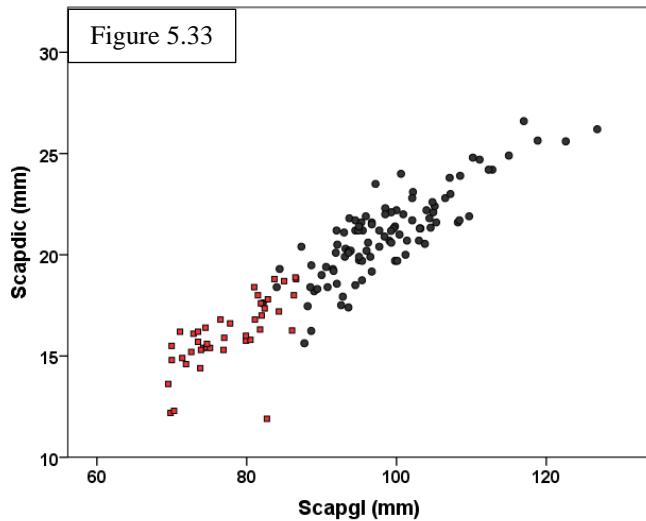
	Original group	Predicted Group Membership		Total
		Domestic Goose	Greylag Goose	
Count	Domestic Goose	15	2	17
	Greylag Goose	2	29	31
%	Domestic Goose	88.2	11.8	100
	Greylag Goose	6.5	93.5	100

91.7% of original grouped cases correctly classified.

Scapula

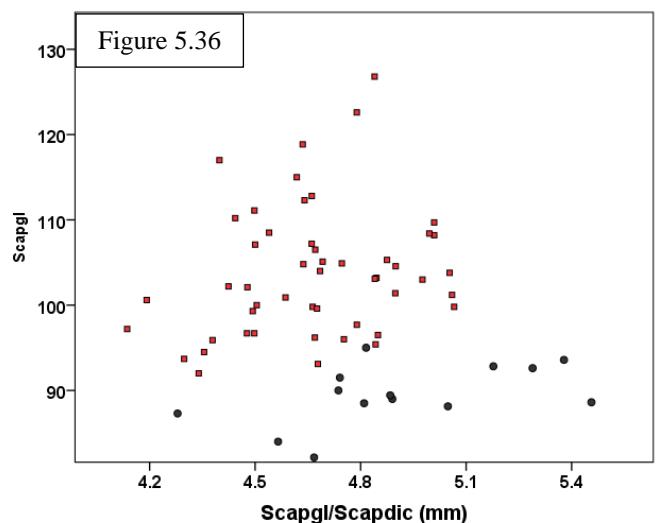
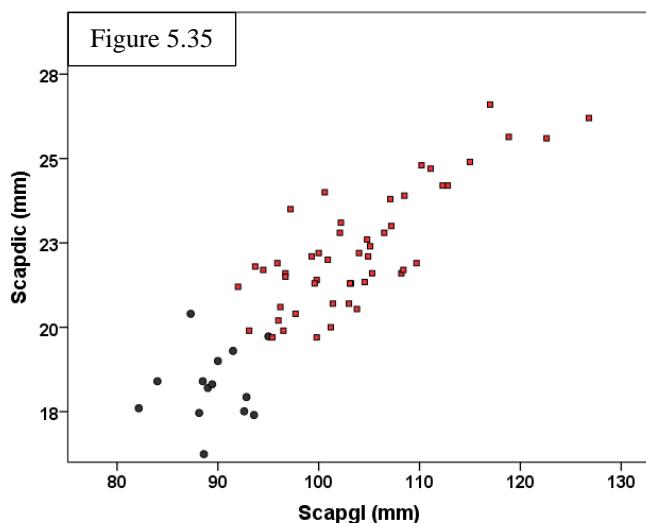
Genus

Anser/Branta

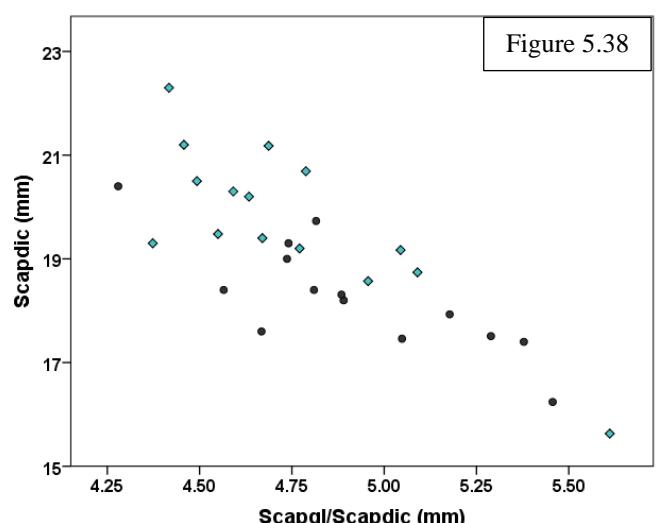
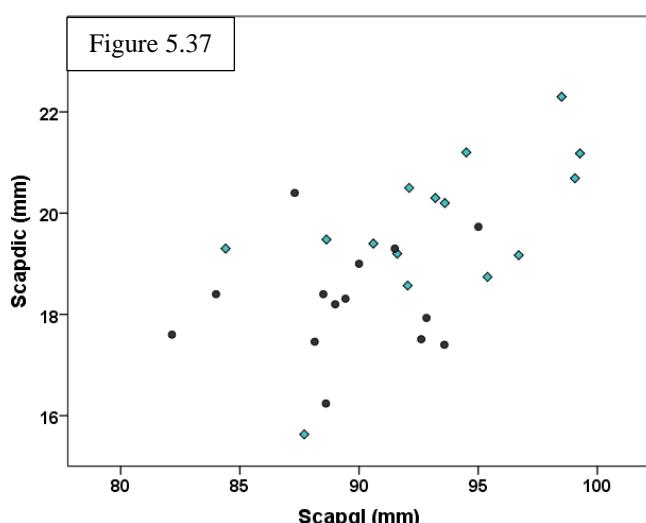


Species

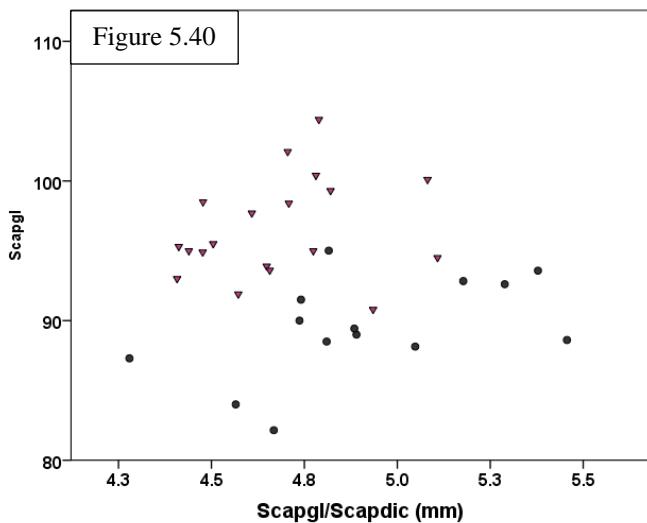
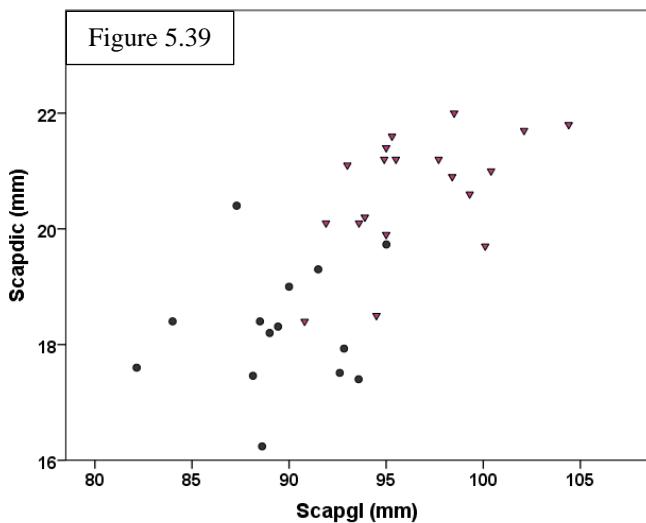
Anser albifrons/Anser anser (wild and domestic form)



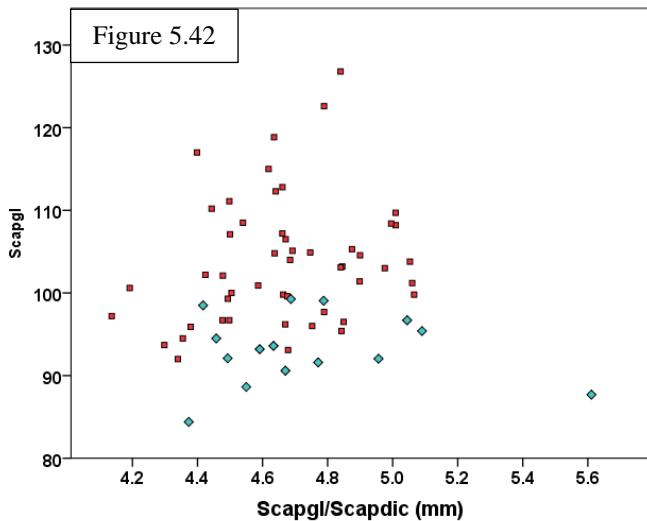
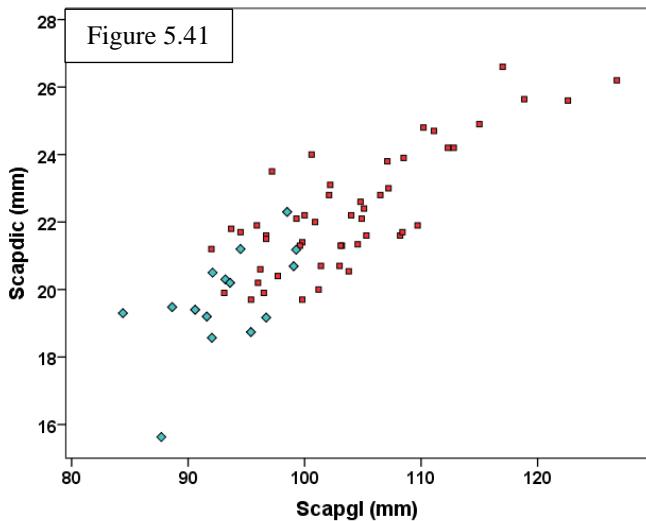
Anser albifrons/Anser brachyrhynchus



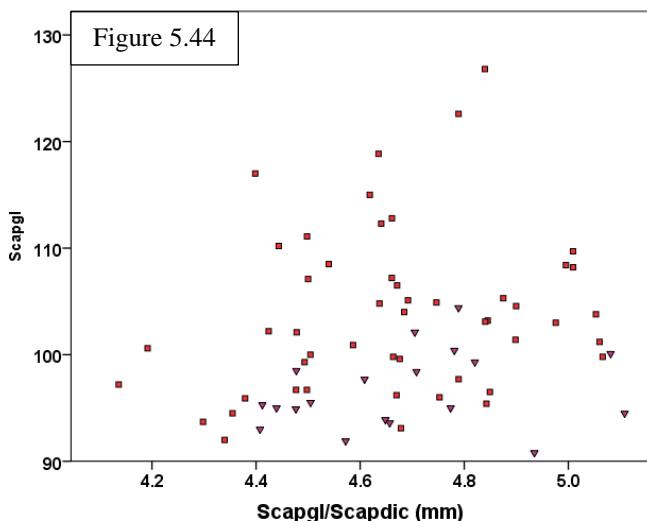
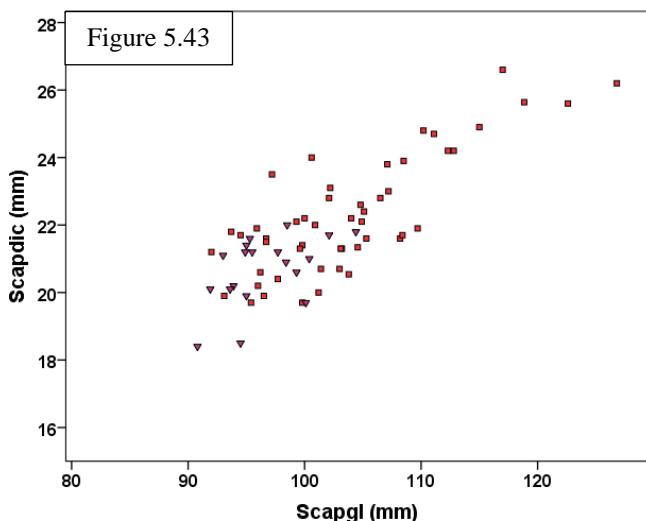
Anser albifrons/Anser fabalis



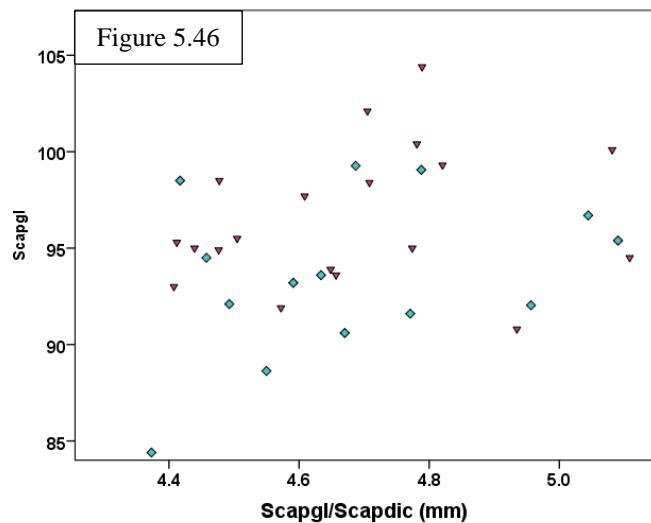
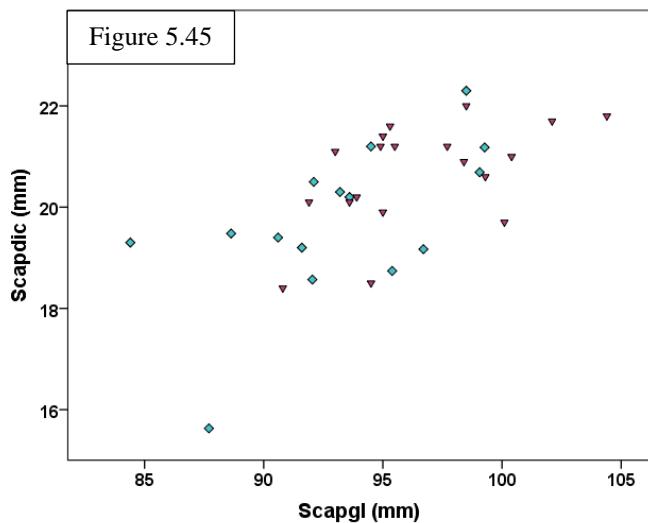
Anser anser (wild and domestic form)/*Anser brachyrhynchus*



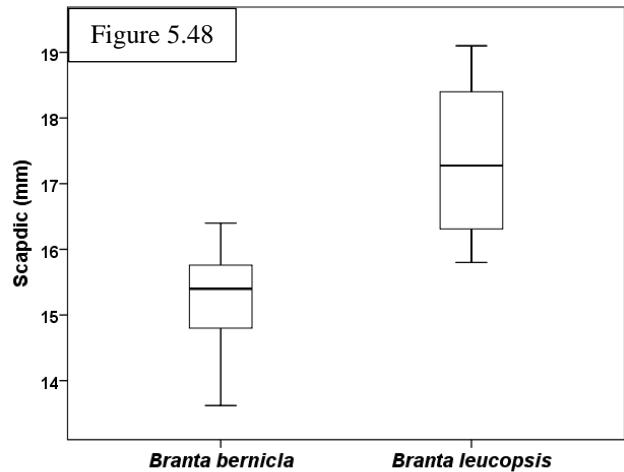
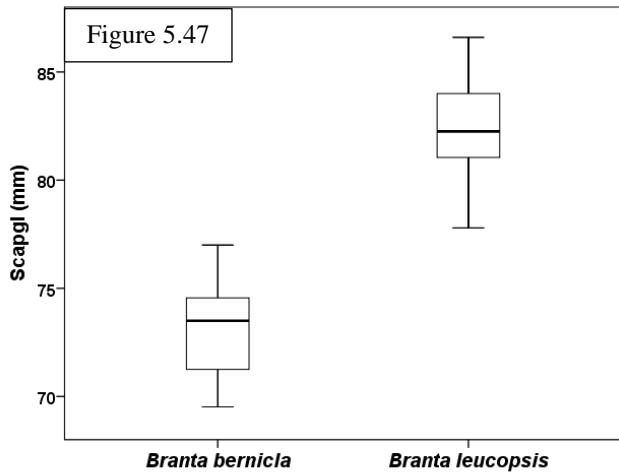
Anser anser (wild and domestic form)/*Anser fabalis*



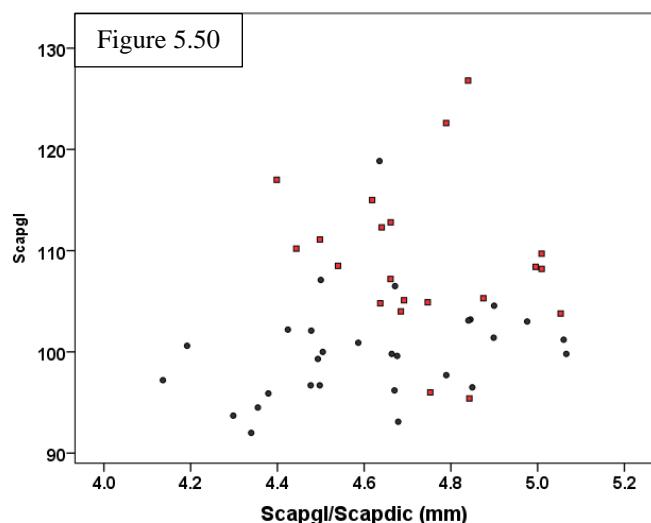
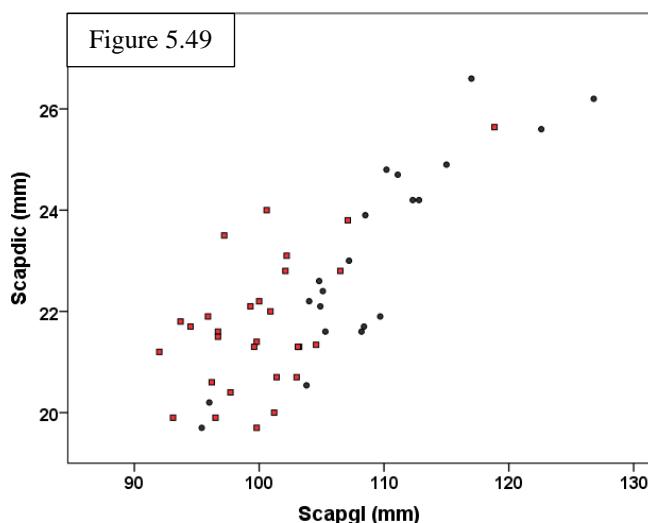
Anser brachyrhynchus/Anser fabalis



Branta bernicla/Branta leucopsis



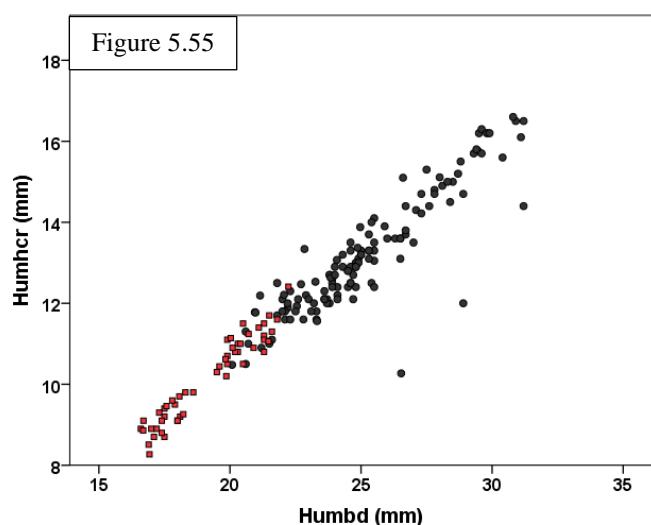
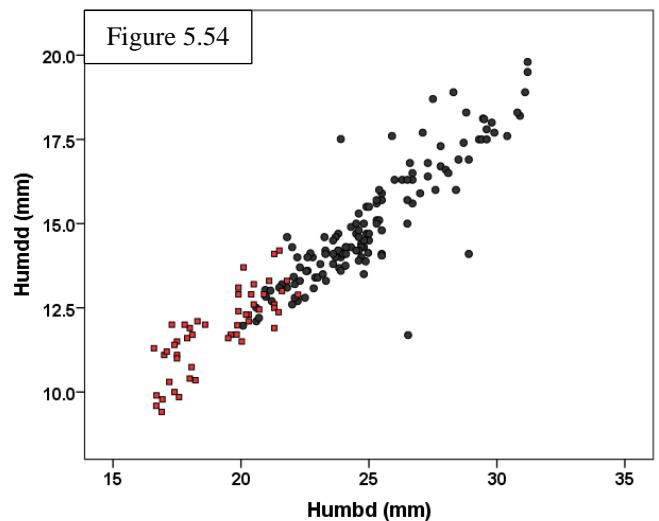
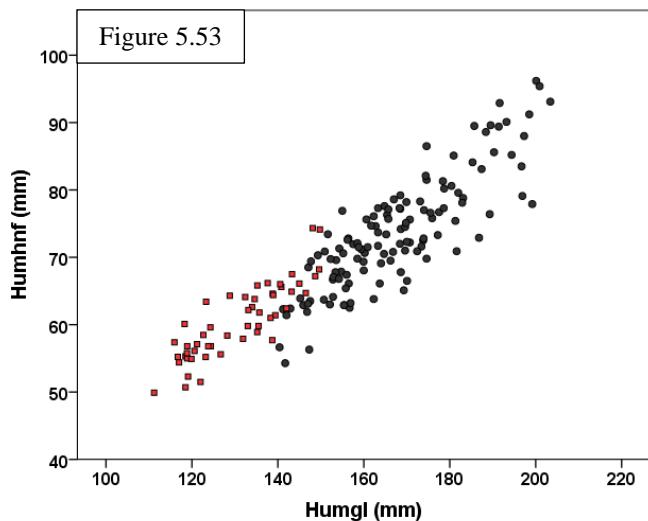
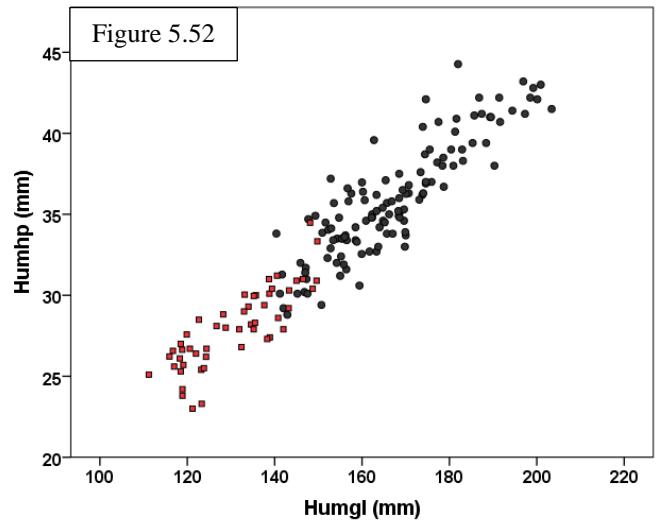
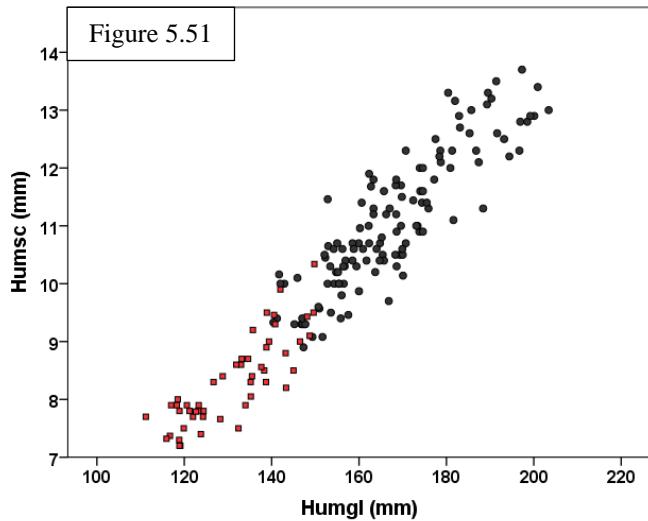
Wild compared to domestic (*Anser anser*)



Humerus

Genus

Anser/Branta



Species

Anser albifrons/Anser anser (wild and domestic form)

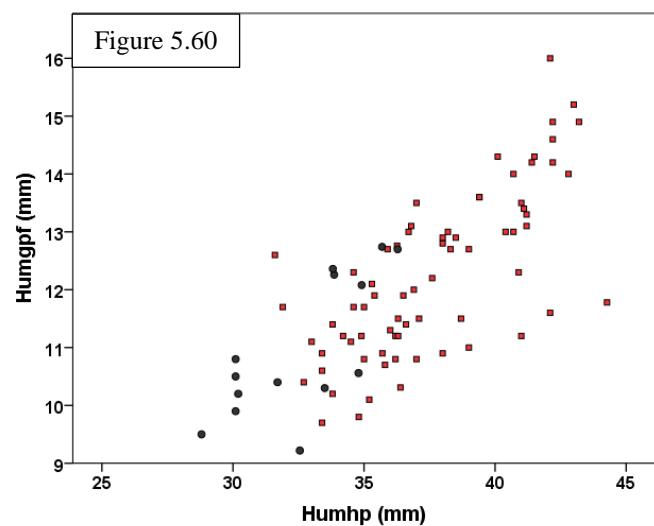
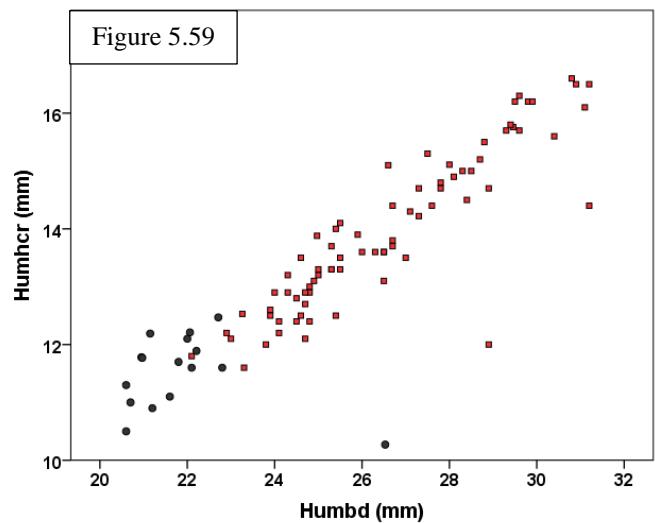
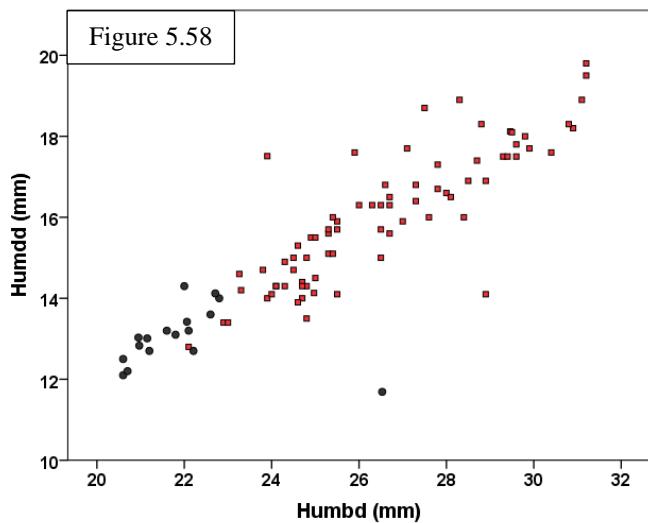
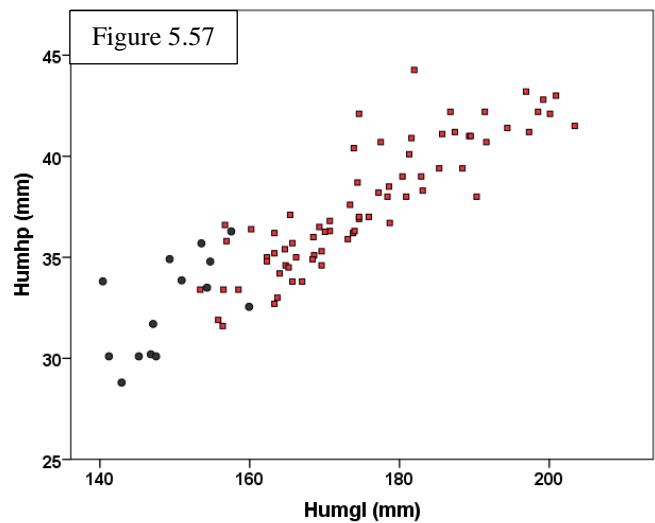
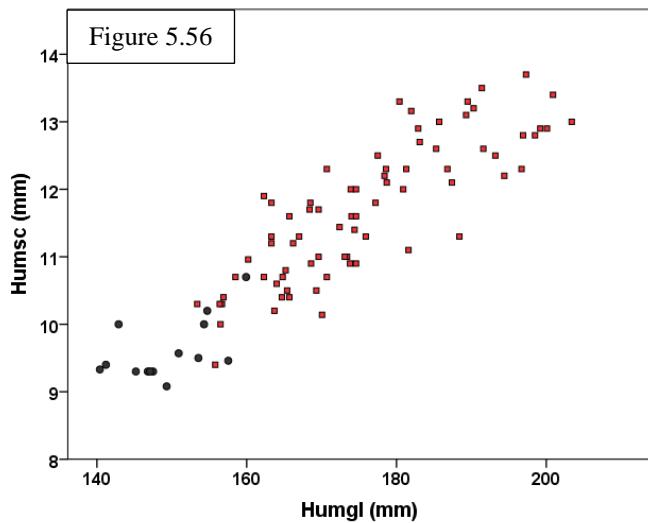
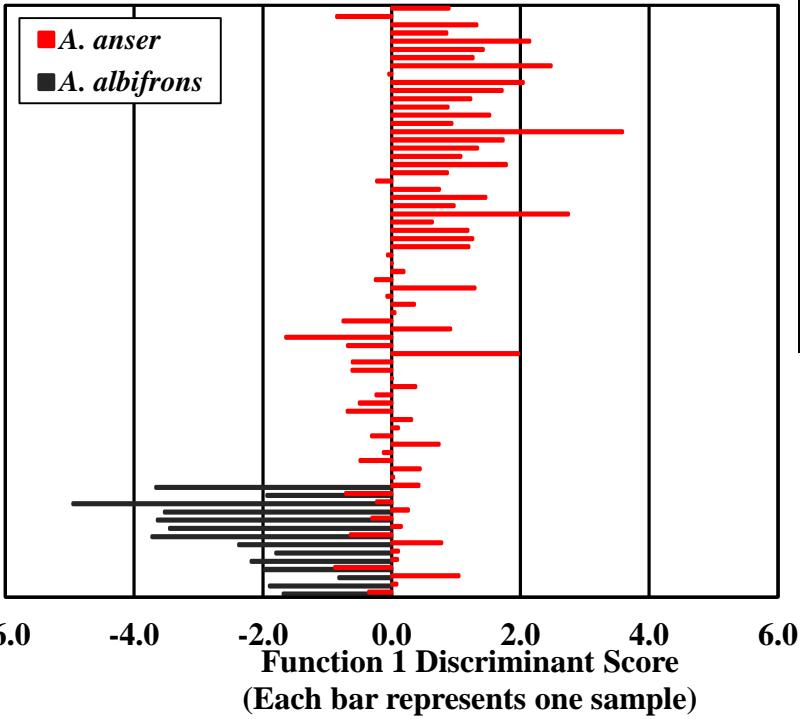


Figure 5.61



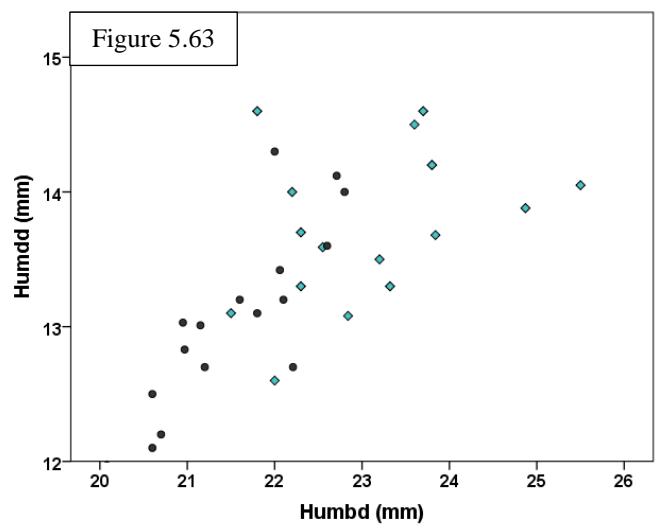
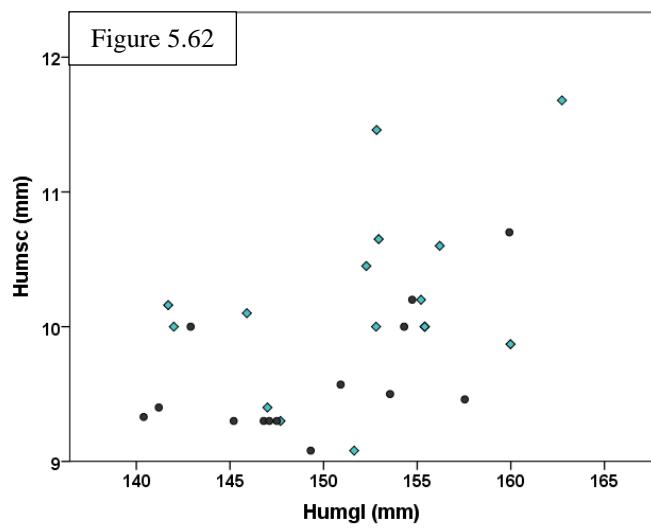
Measurements	Humgl Humsc Humhp Humdch Humbd Humdd
Box's M sig.	0.000
Wilks' Lambda sig.	0.000
Function 1	100.0
% of Variance	

Classification results summary

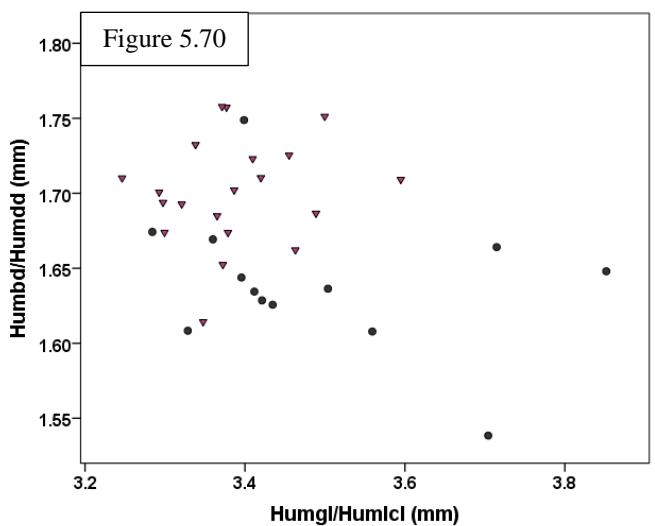
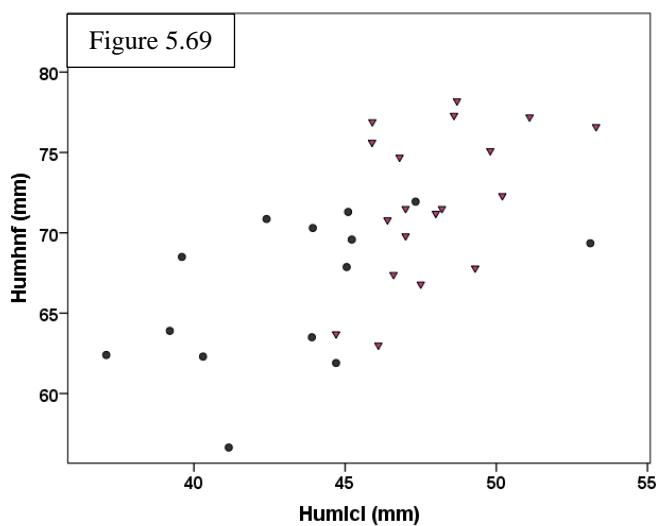
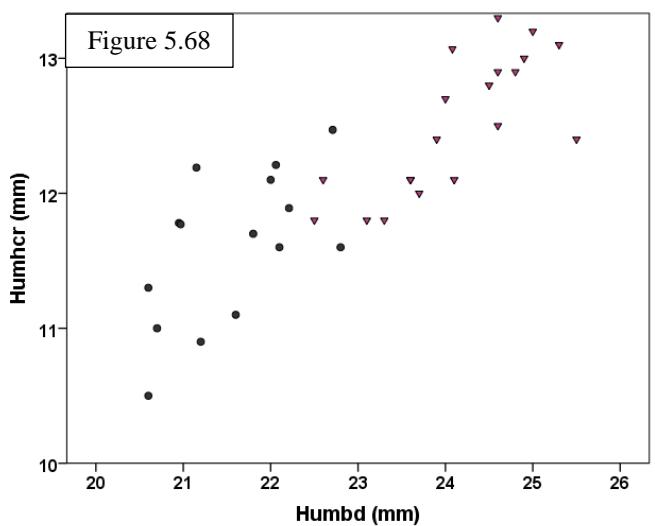
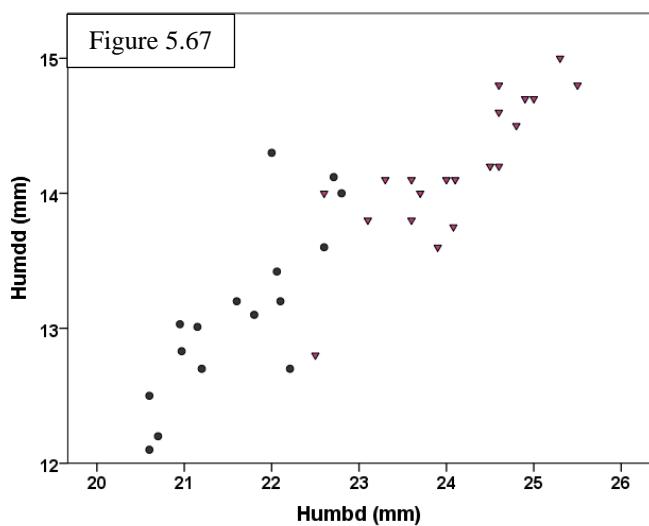
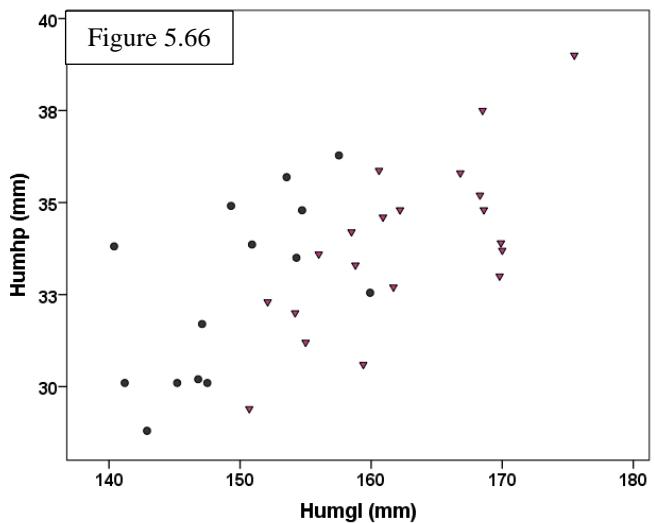
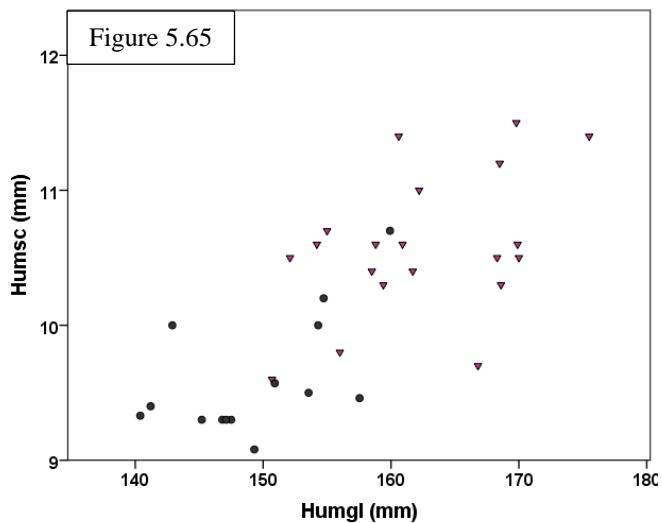
	Original group	Predicted Group Membership		Total
		A. albifrons	A. anser	
Count	A. albifrons	13	1	14
	A. anser	1	71	72
%	A. albifrons	92.9	7.1	100
	A. anser	1.4	98.6	100

97.7% of original grouped cases correctly classified.

Anser albifrons/*Anser brachyrhynchus*



Anser albifrons/*Anser fabalis*



Anser anser (wild and domestic form)/Anser brachyrhynchus

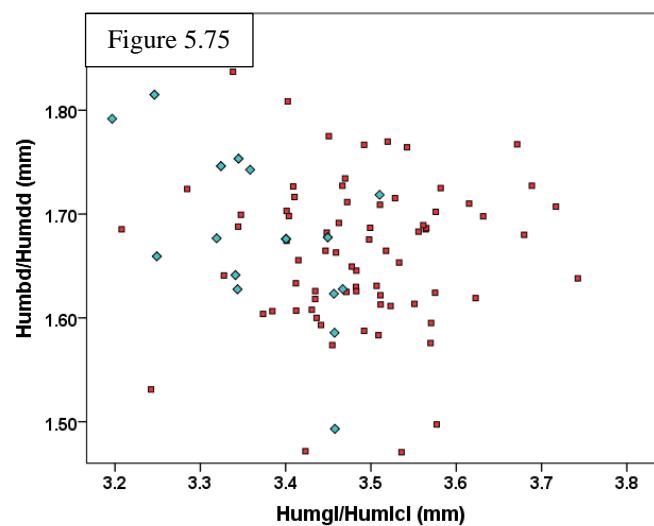
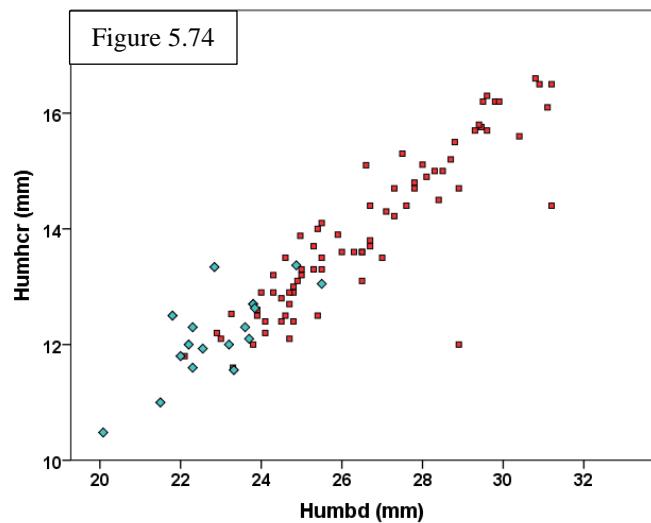
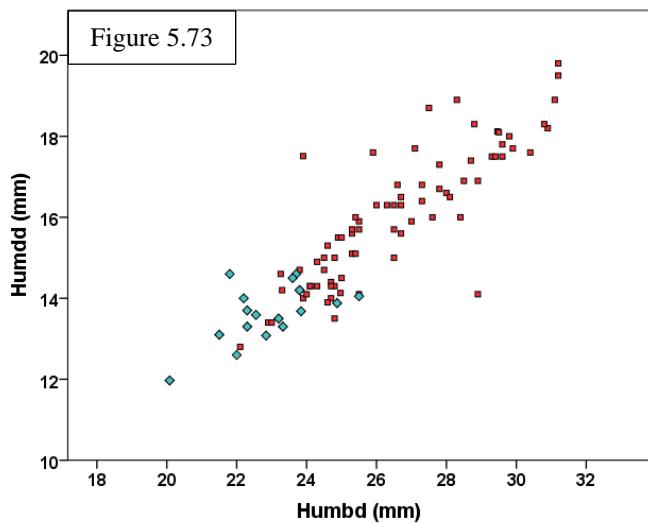
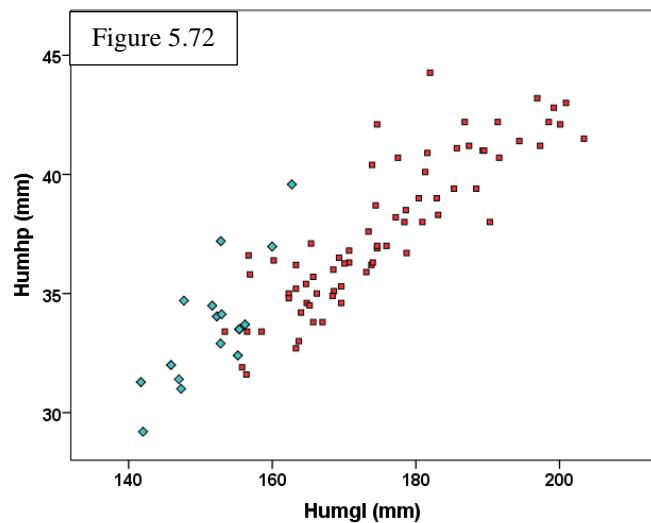
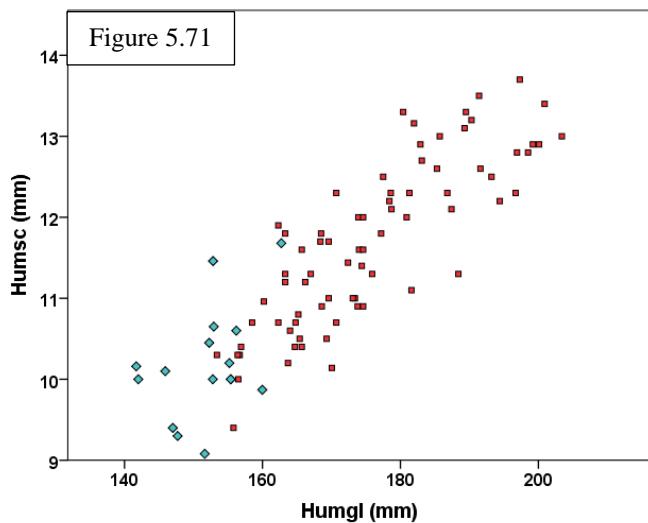
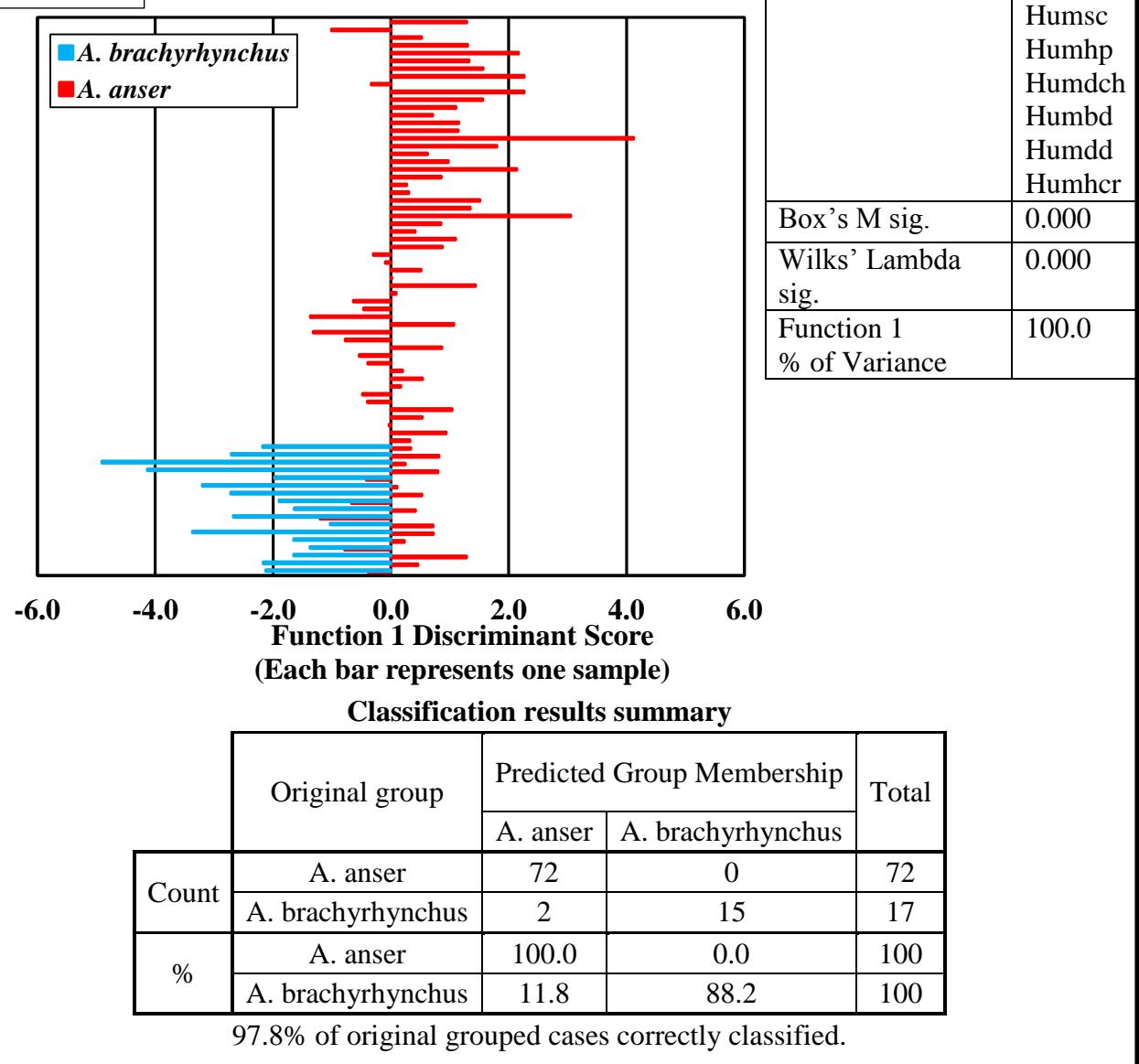


Figure 5.76



Anser anser (wild and domestic form)/Anser fabalis

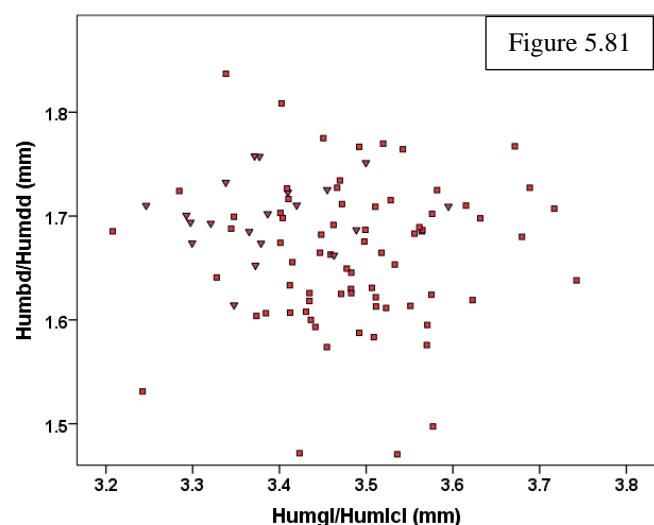
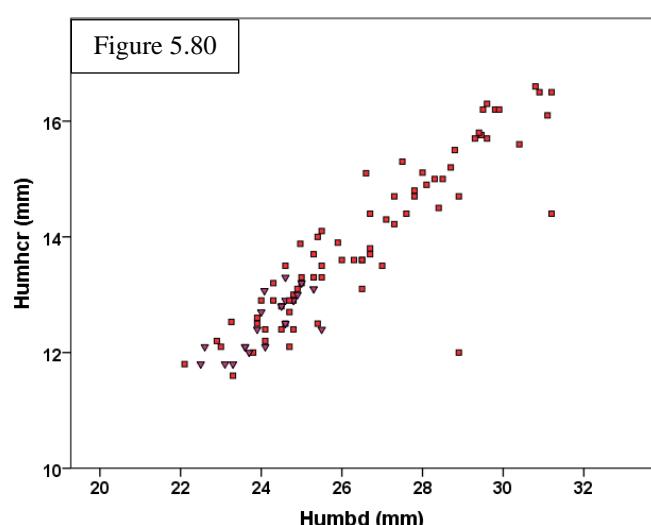
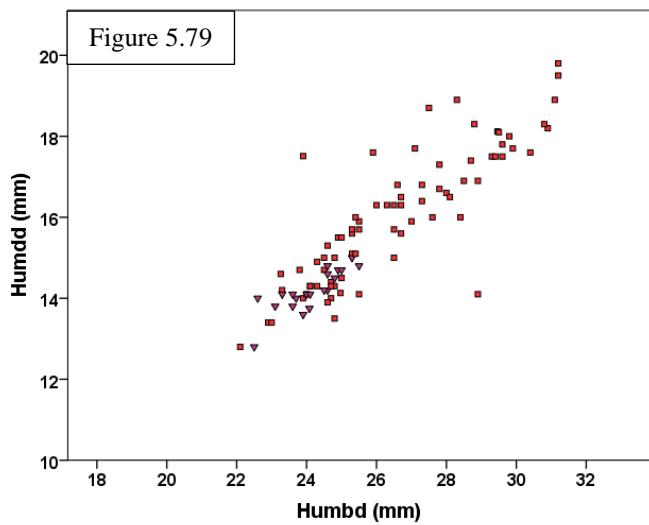
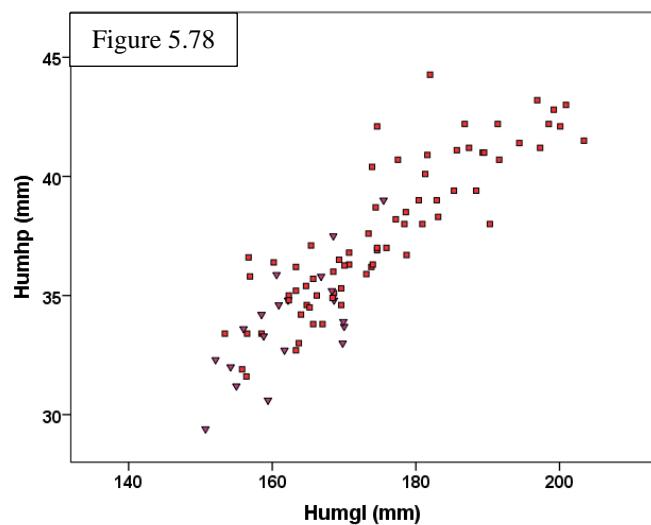
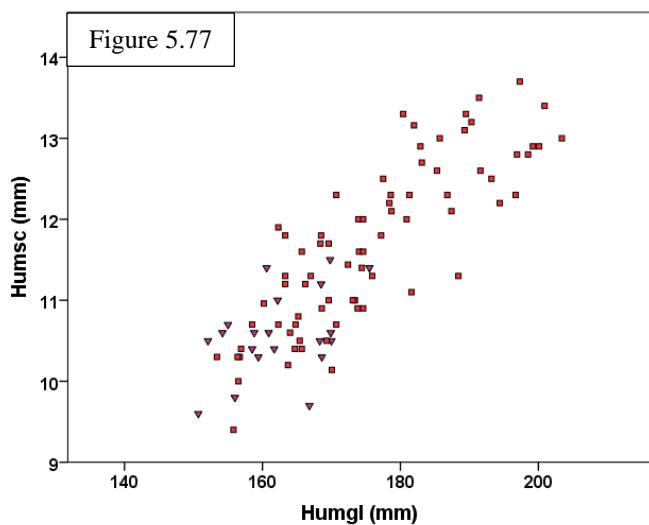
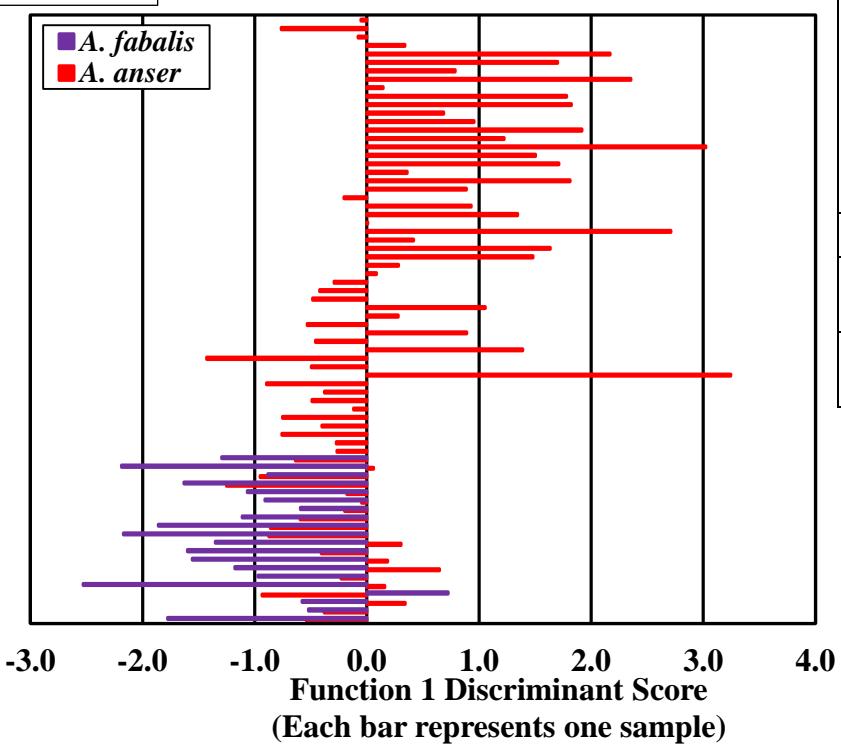


Figure 5.82



Measurements	Humgl Humsc Humhp Humdch Humbd Humdd Humhcr
Box's M sig.	0.000
Wilks' Lambda sig.	0.000
Function 1 % of Variance	100.0

Classification results summary

Count	Original group	Predicted Group Membership		Total
		A. anser	A. fabalis	
Count	A. anser	71	1	72
	A. fabalis	10	10	20
%	A. anser	98.6	1.4	100
	A. fabalis	50.0	50.0	100

88.0% of original grouped cases correctly classified.

Anser brachyrhynchus/Anser fabalis

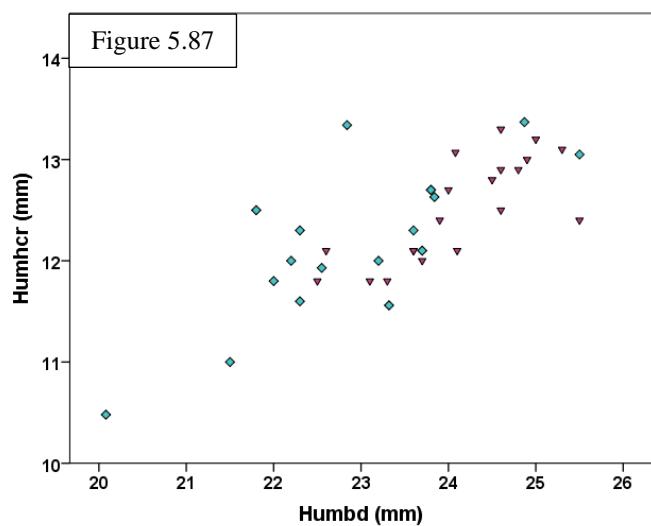
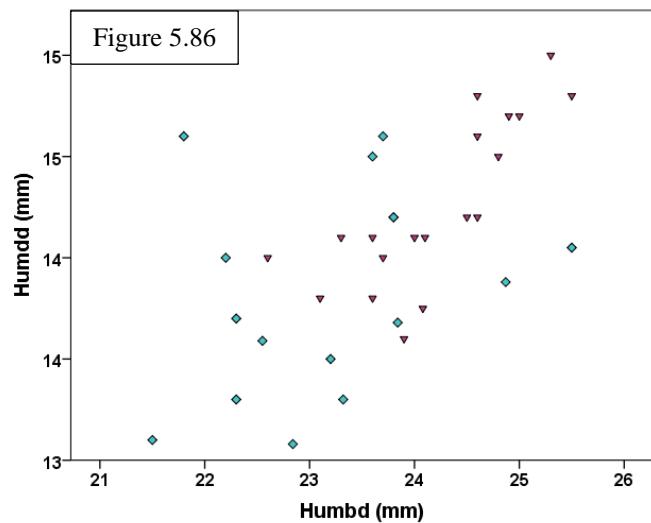
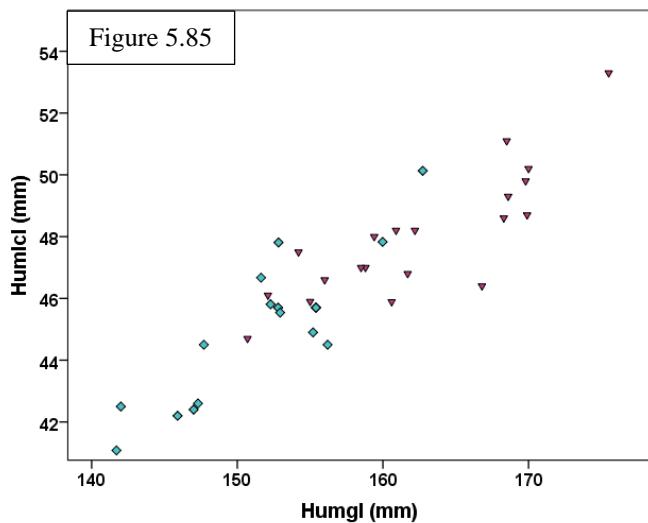
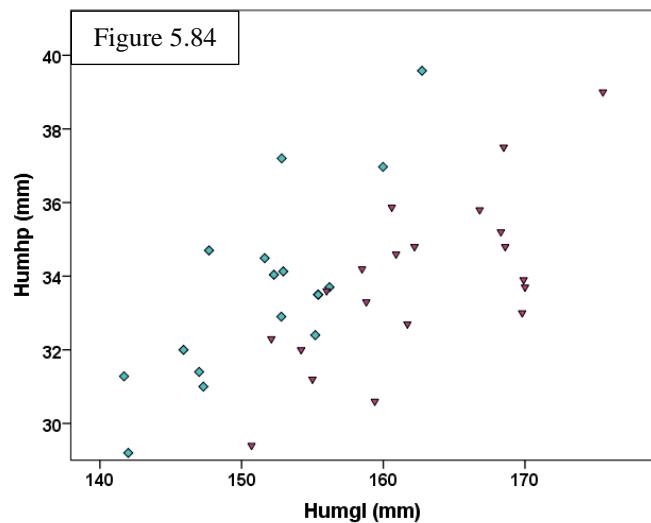
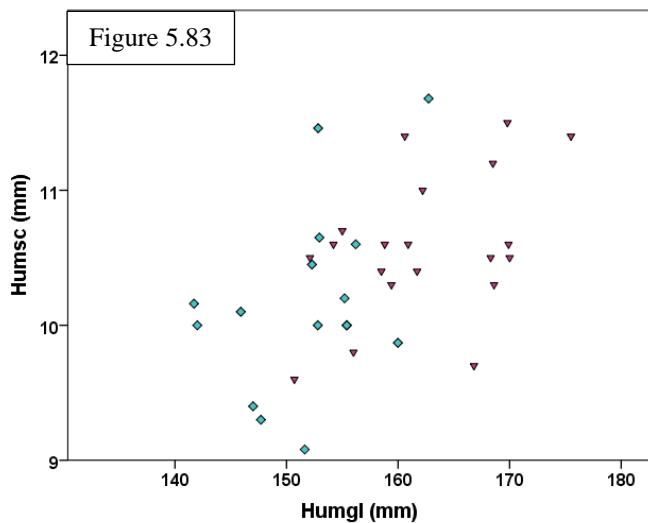
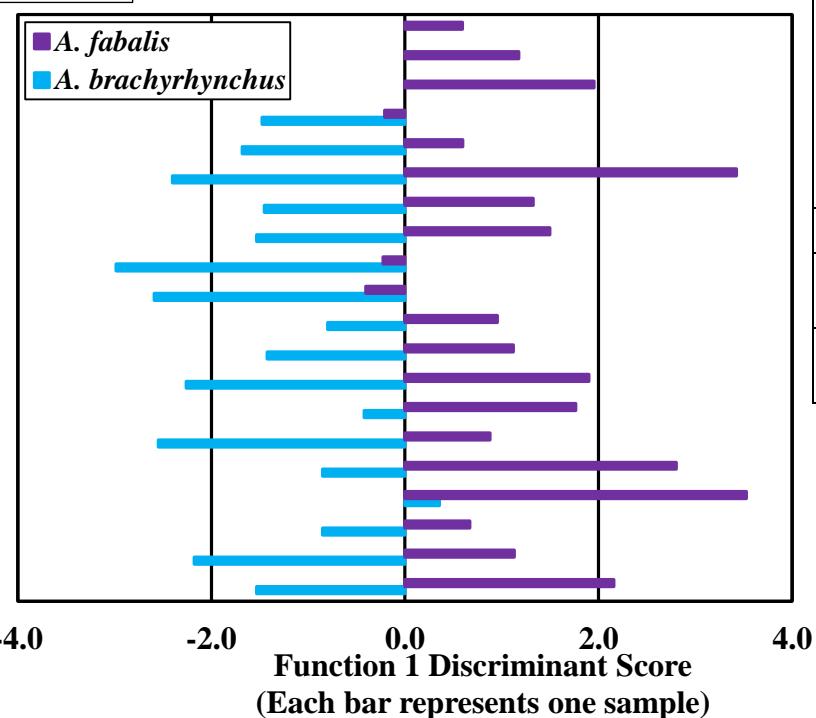


Figure 5.88



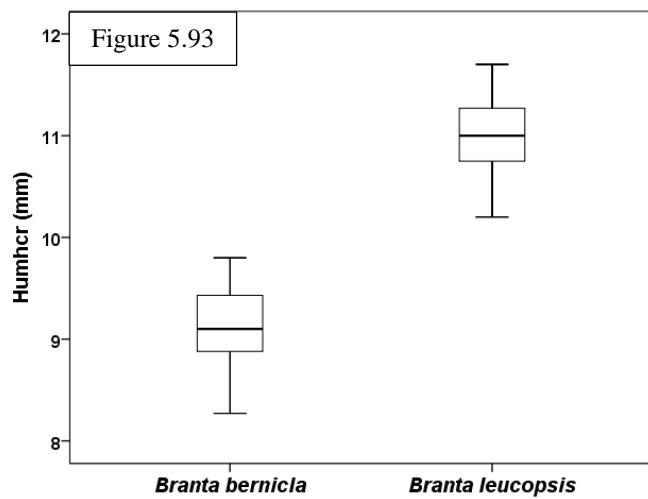
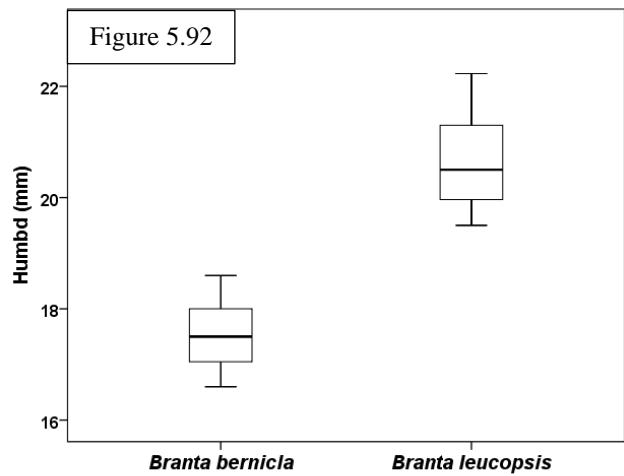
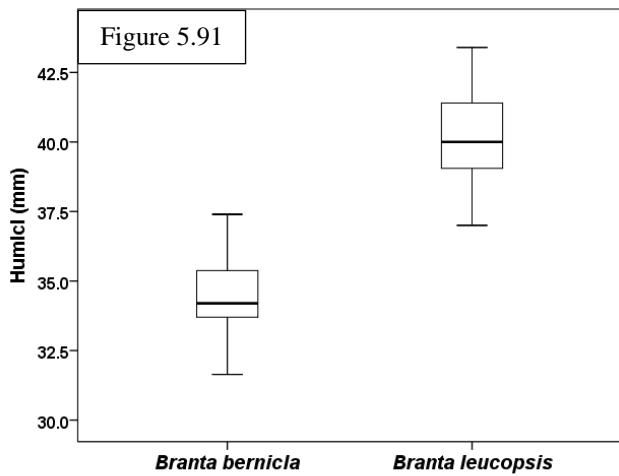
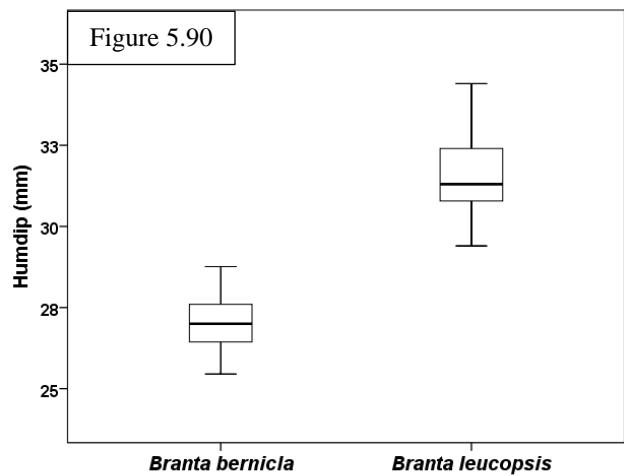
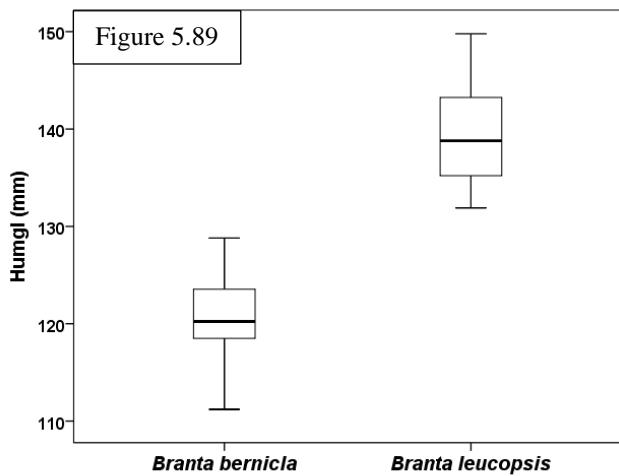
Measurements	Humgl Humsc Humhp Humdch Humbd Humdd Humhcr
Box's M sig.	0.036
Wilks' Lambda sig.	0.000
Function 1	100.0
% of Variance	

Classification results summary

	Original group	Predicted Group Membership		Total
		A. brachyrhynchus	A. fabalis	
Count	A. brachyrhynchus	16	1	17
	A. fabalis	3	17	20
%	A. brachyrhynchus	94.1	5.9	100
	A. fabalis	15.0	85.0	100

89.2% of original grouped cases correctly classified.

Branta bernicla/Branta leucopsis



Wild compared to domestic (*Anser anser*)

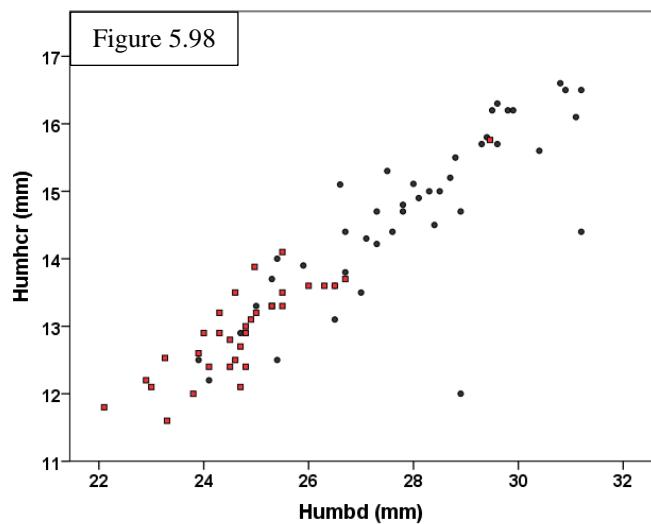
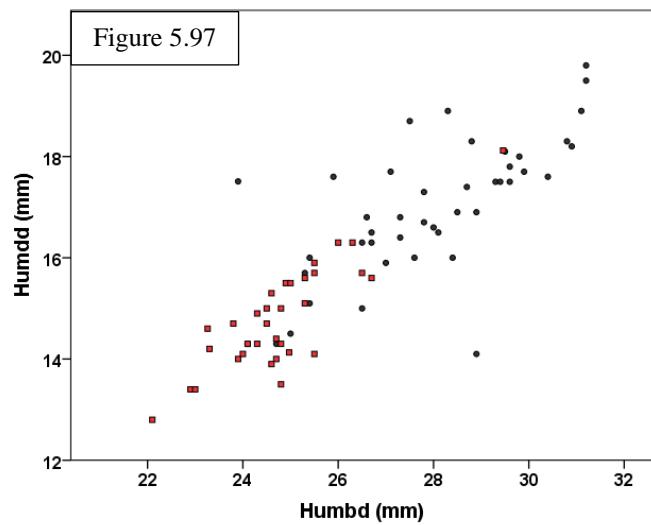
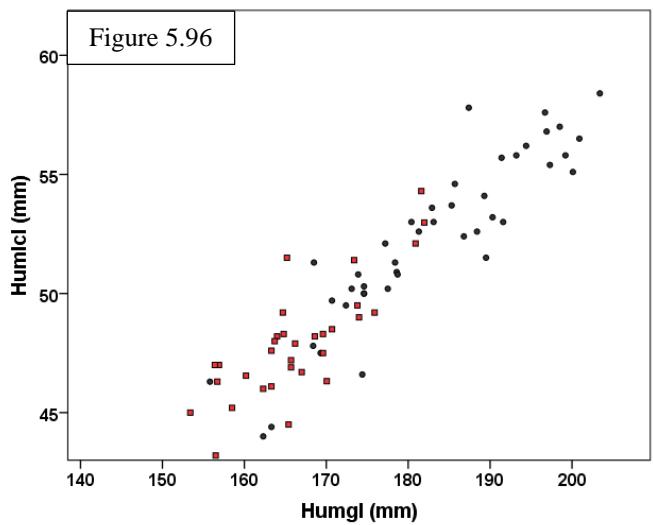
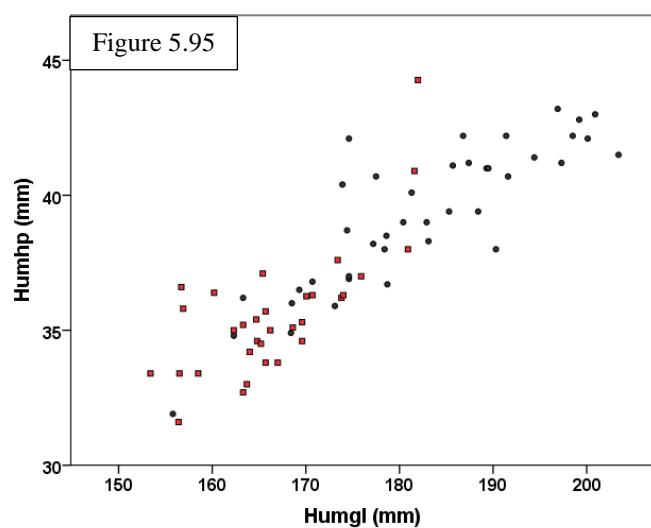
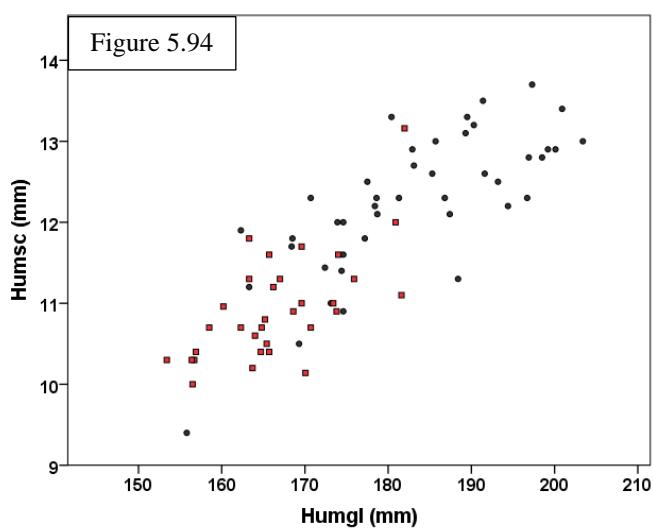
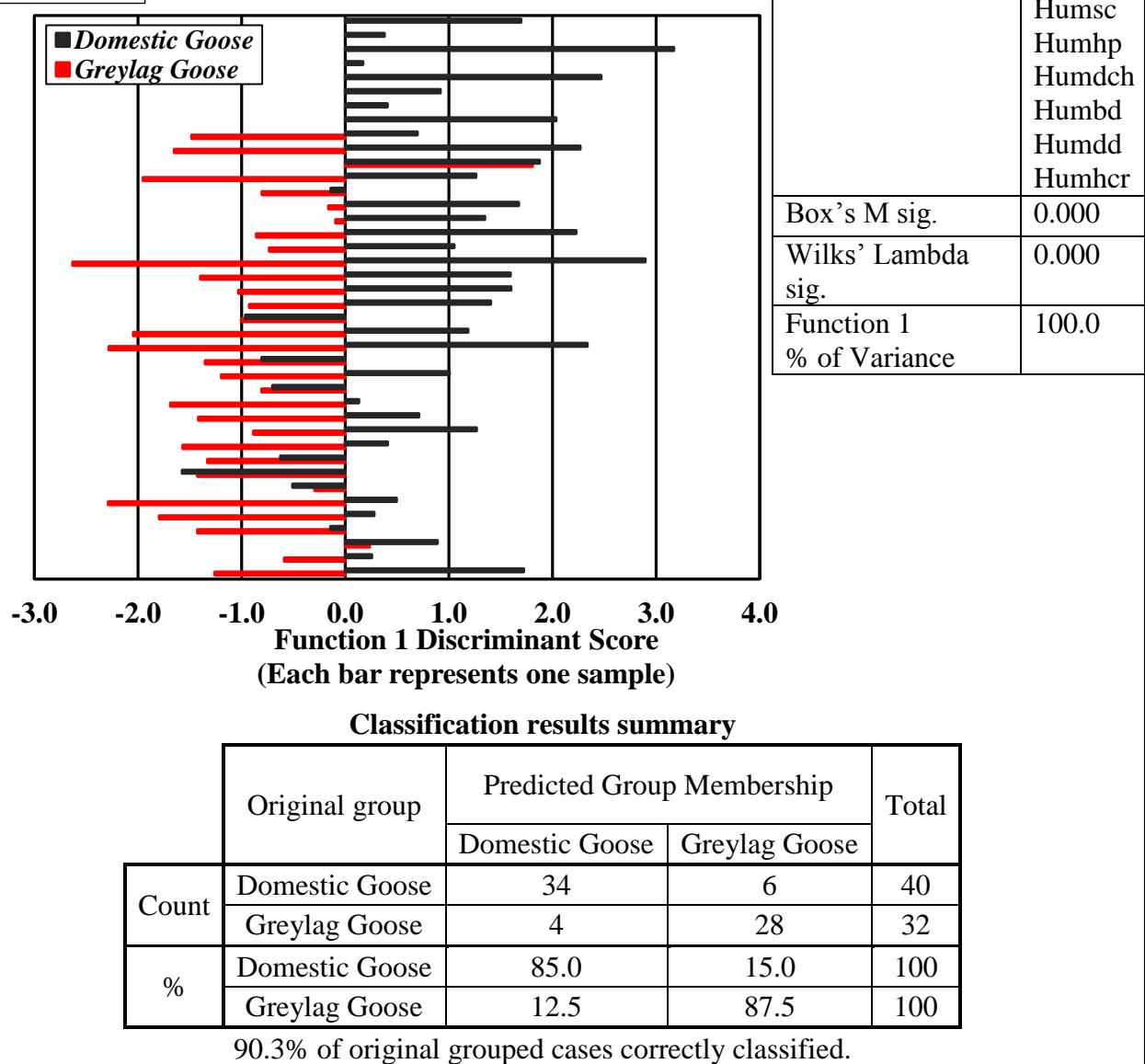


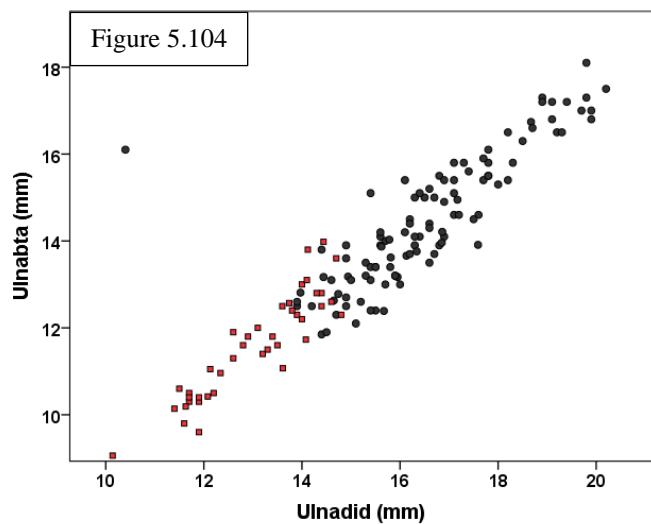
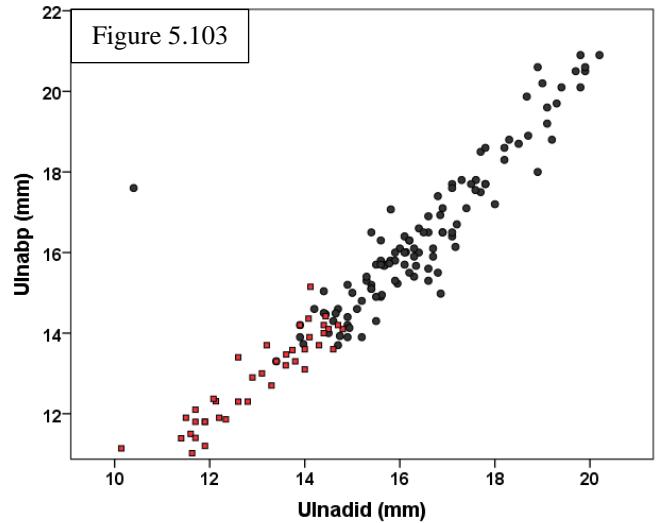
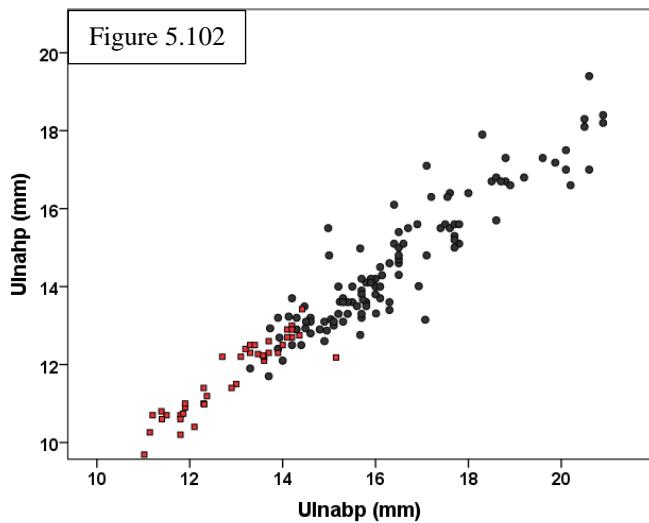
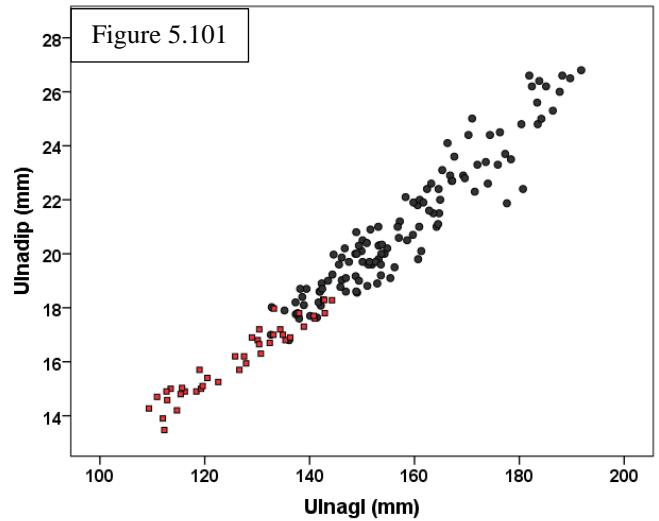
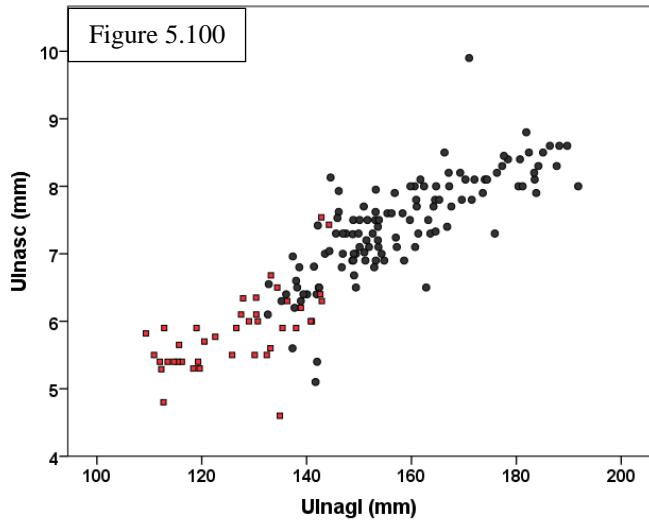
Figure 5.99



Ulna

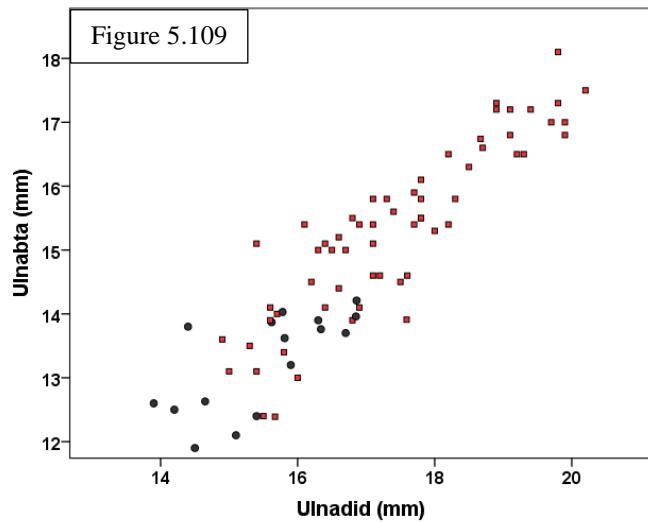
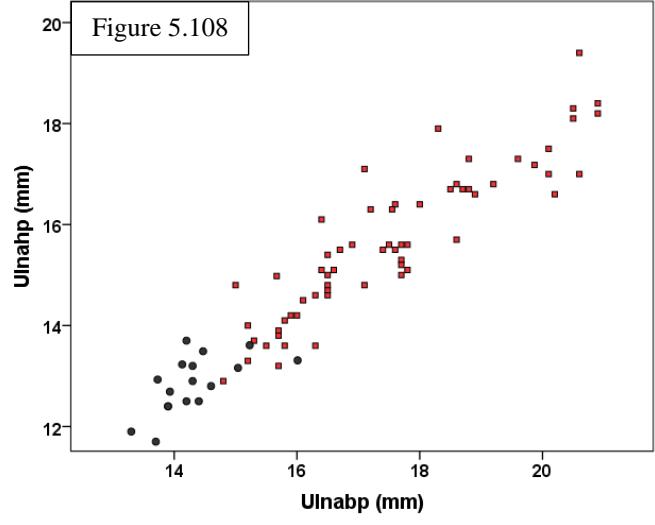
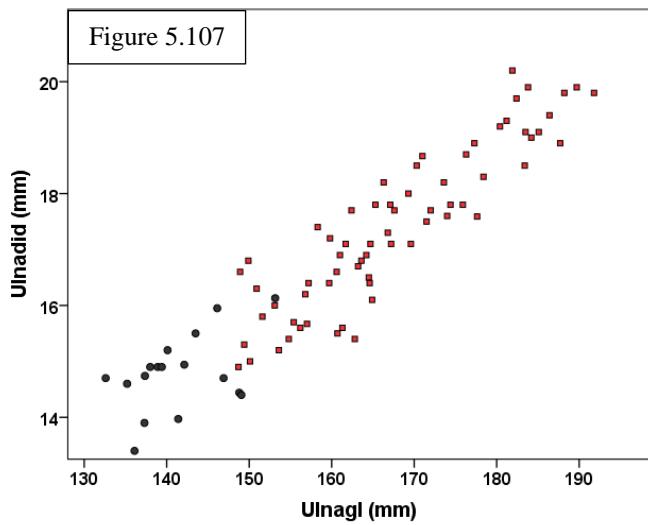
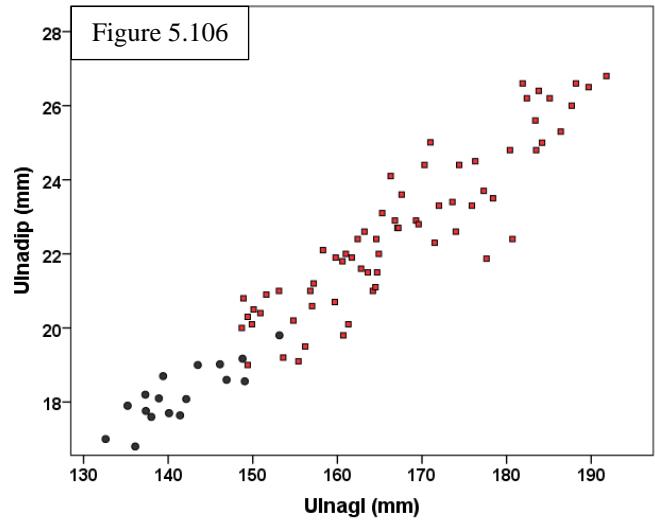
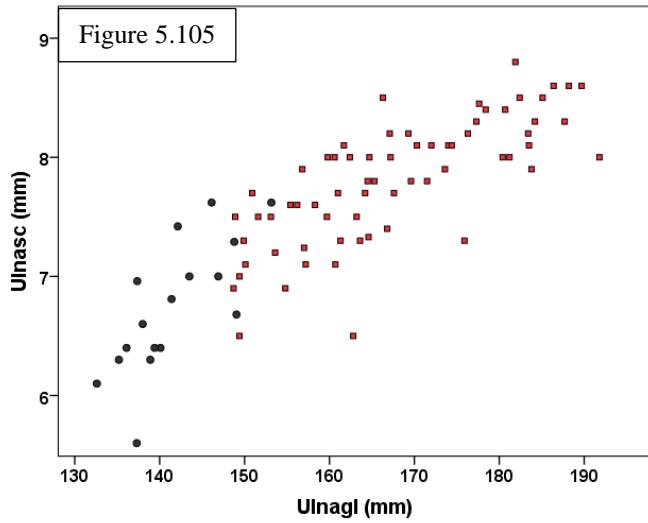
Genus

Anser/Branta

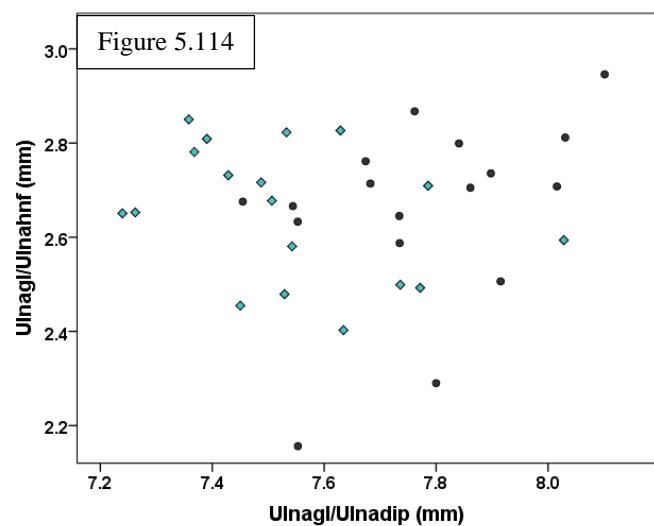
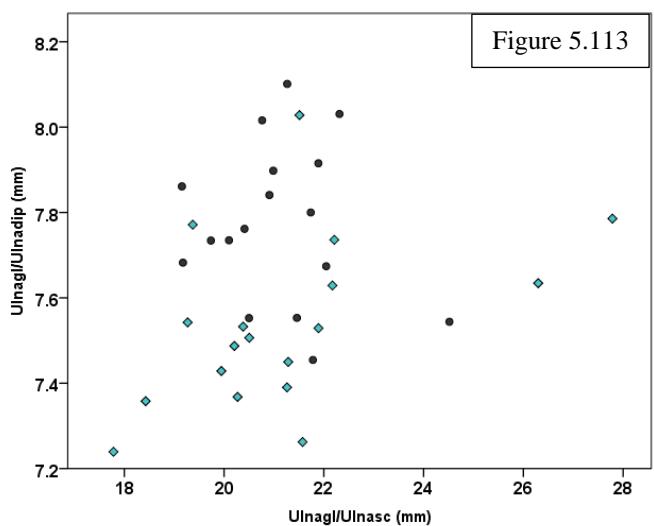
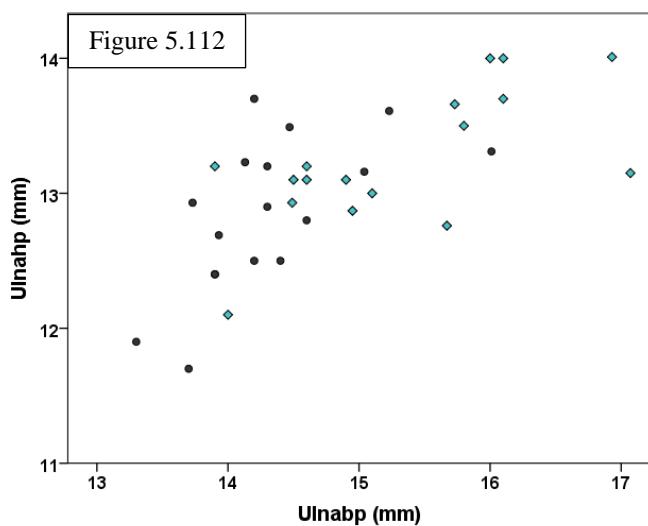
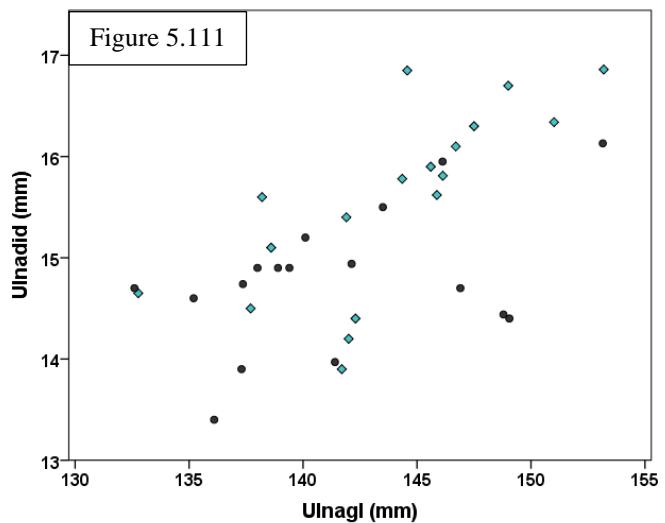
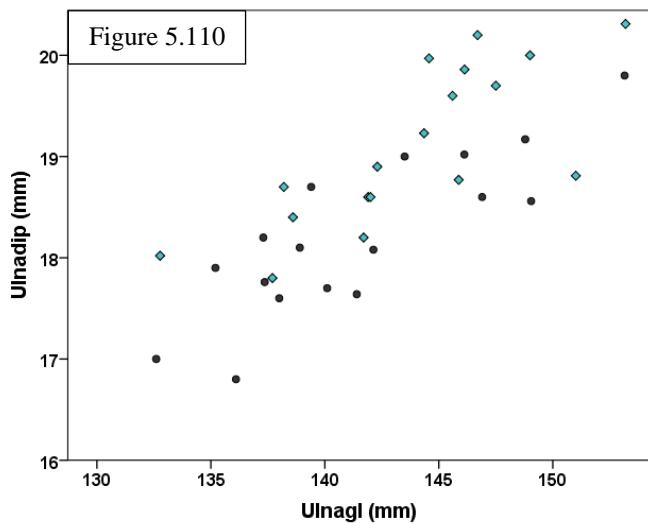


Species

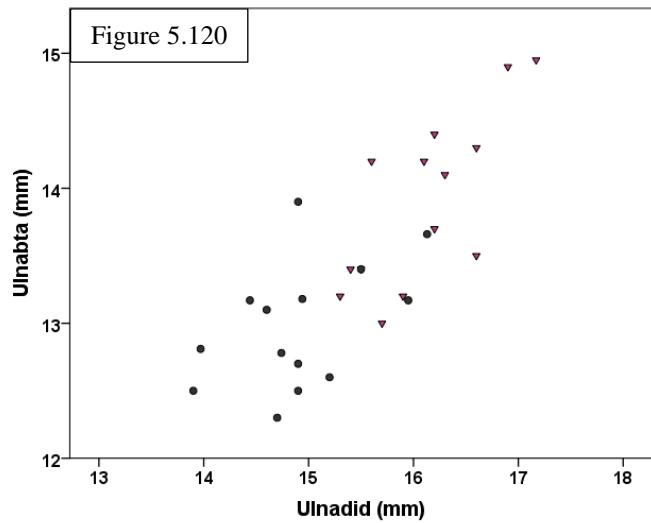
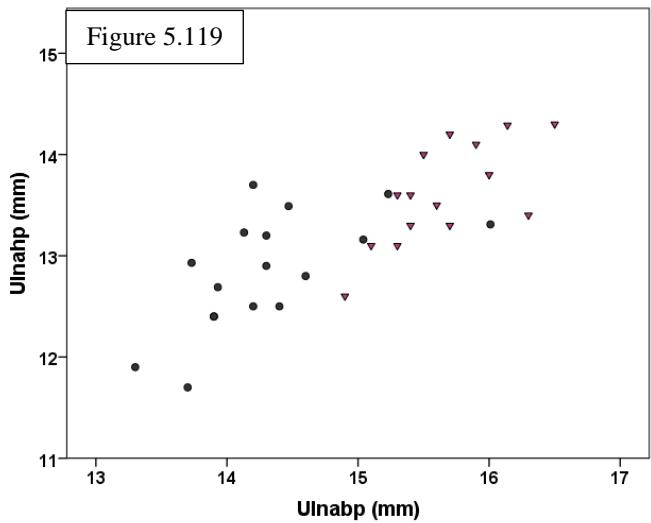
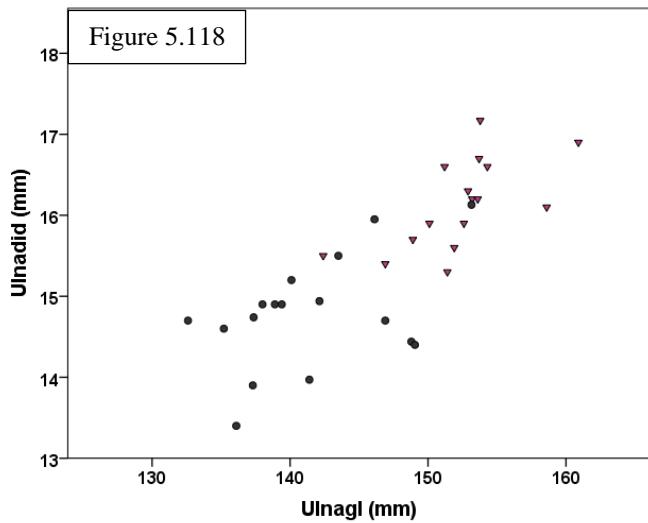
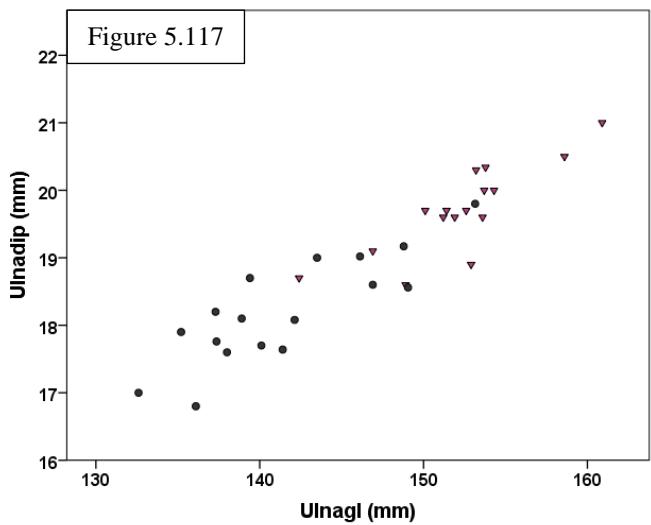
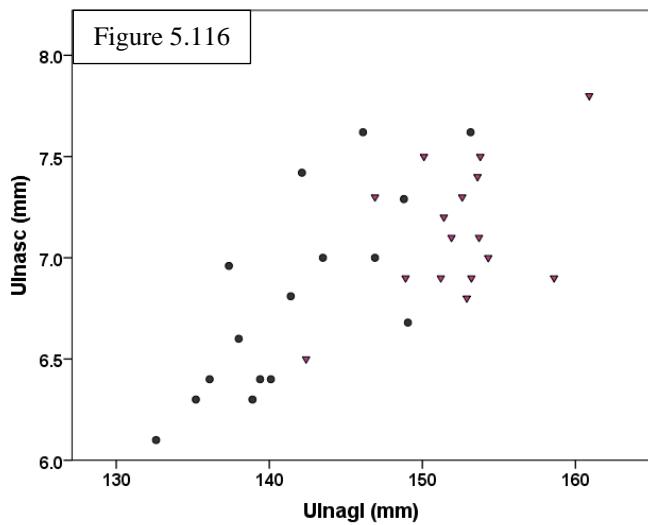
Anser albifrons/Anser anser (wild and domestic form)



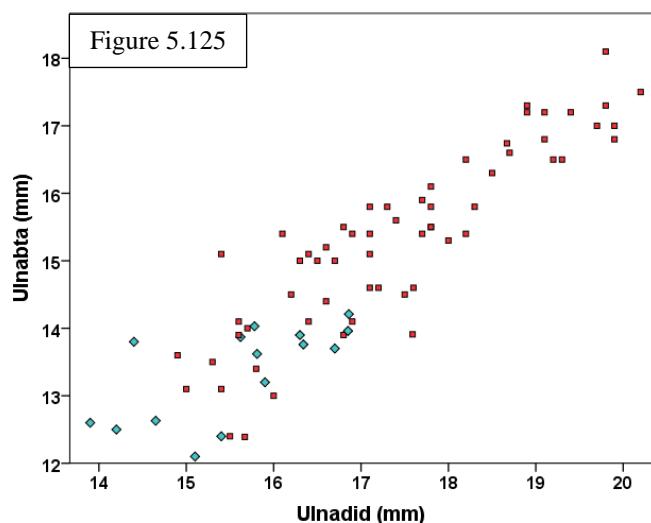
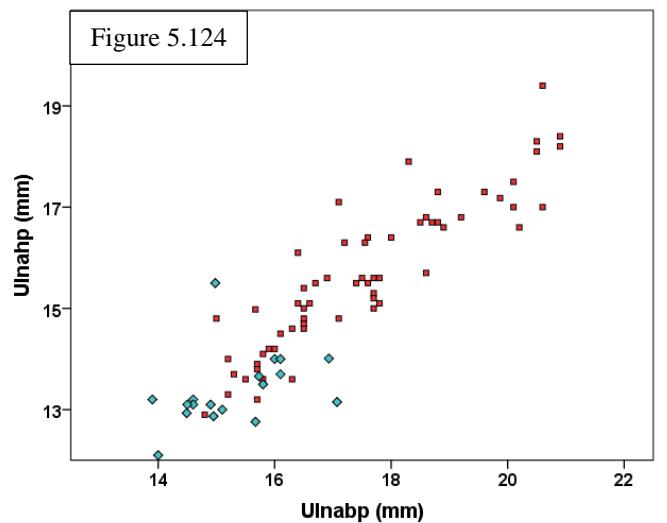
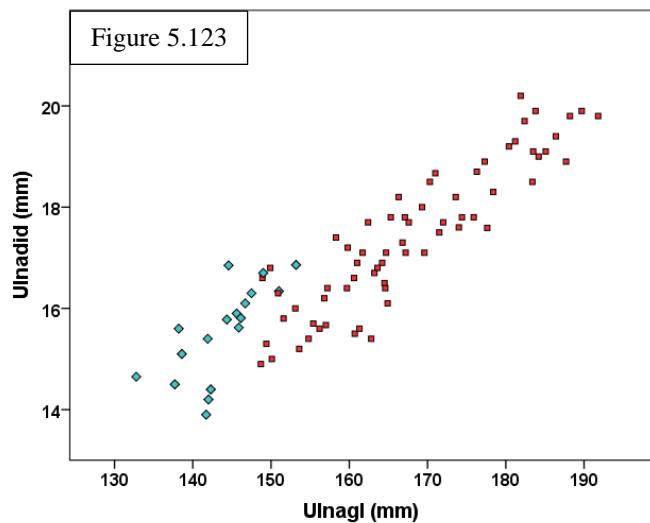
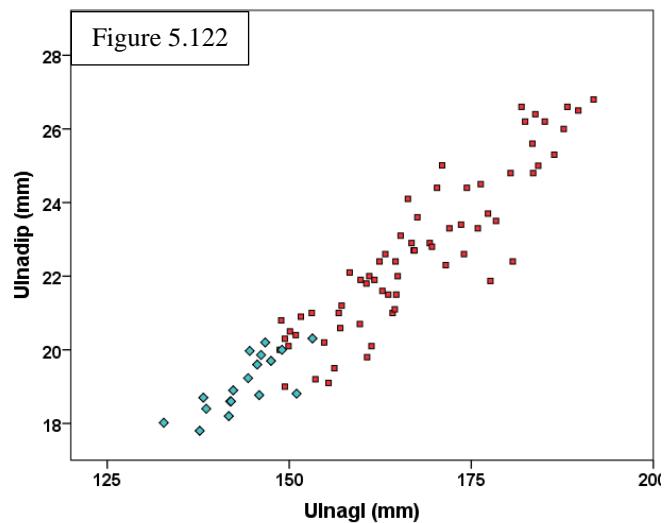
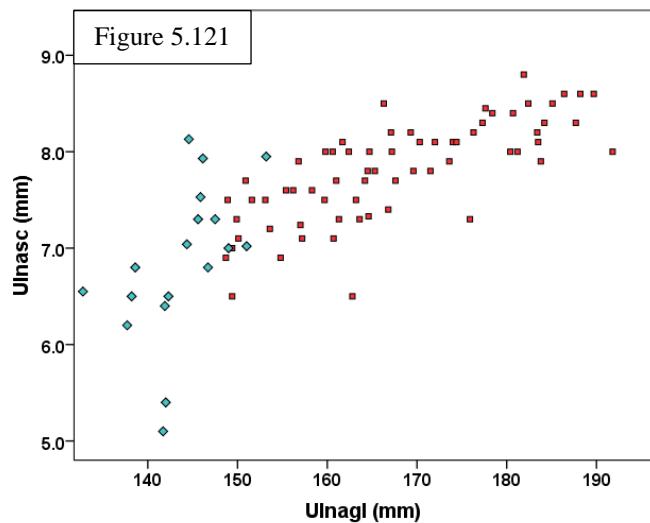
Anser albifrons/*Anser brachyrhynchus*



Anser albifrons/Anser fabalis



Anser anser (wild and domestic form)/*Anser brachyrhynchus*



Anser anser (wild and domestic form)/*Anser fabalis*

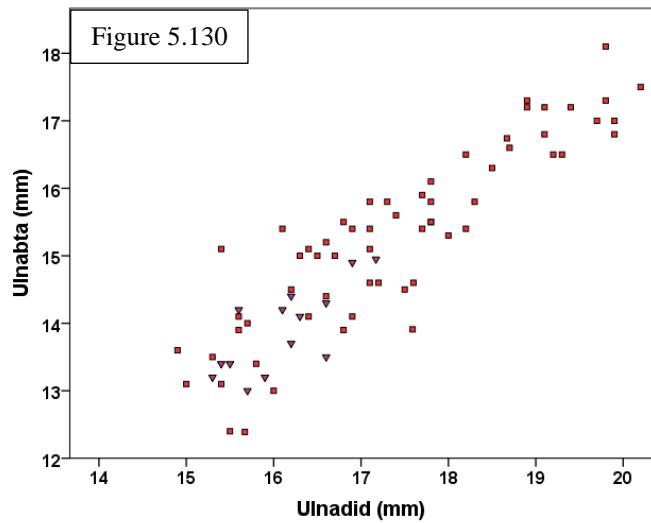
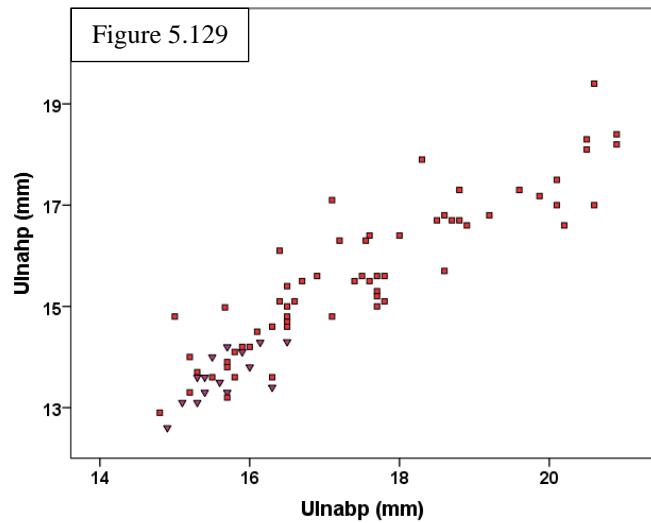
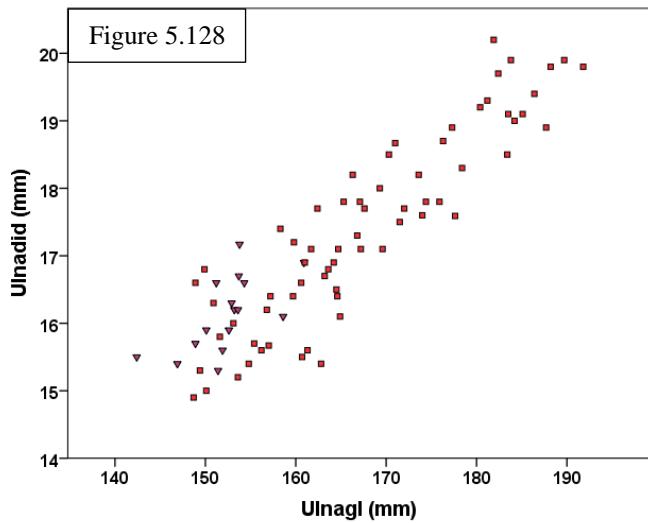
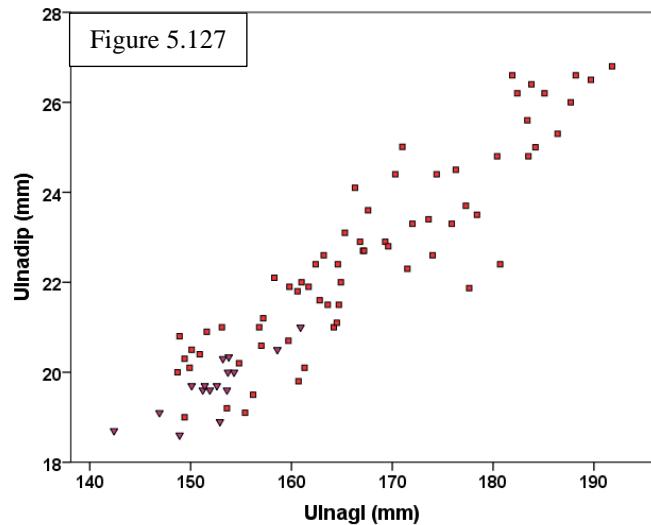
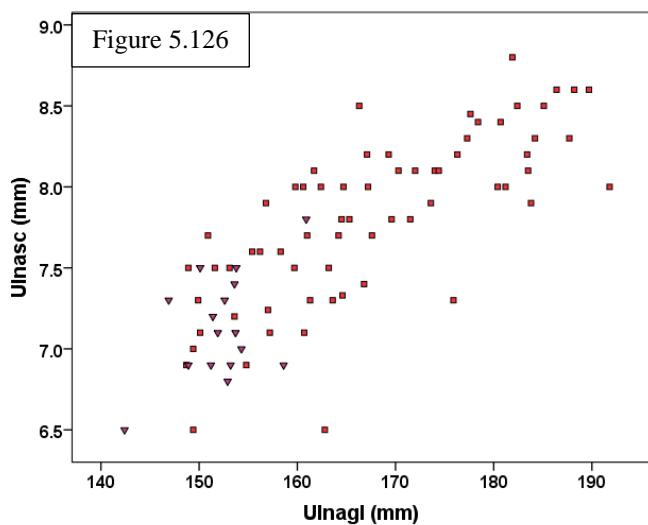
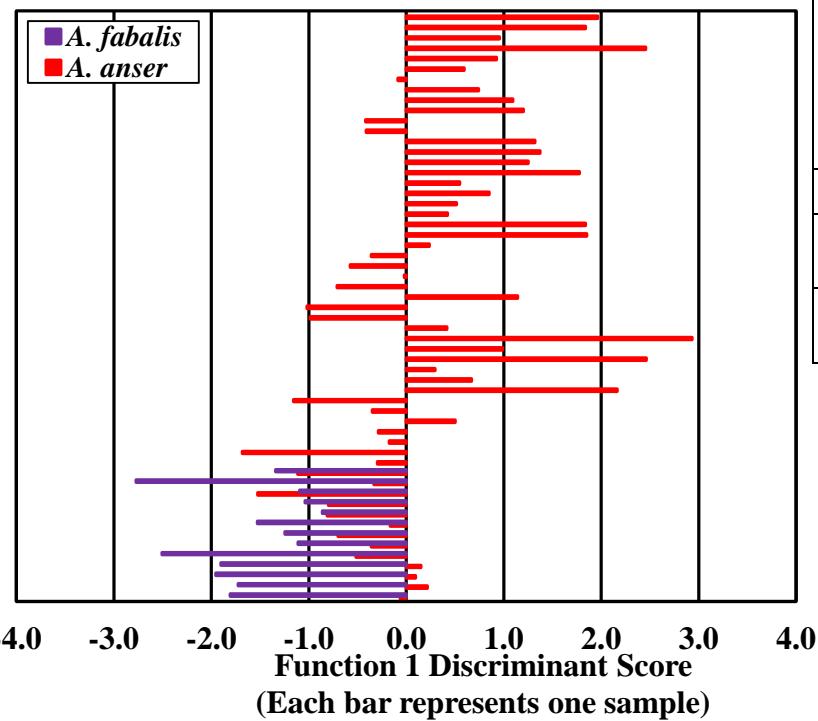


Figure 5.131



Measurements	Ulnagl Ulnasc Ulnabp Ulnahp Ulnadid Ulnabta
Box's M sig.	0.000
Wilks' Lambda sig.	0.000
Function 1	100.0
% of Variance	

Classification results summary

	Original group	Predicted Group Membership		Total
		A. anser	A. fabalis	
Count	A. anser	55	2	57
	A. fabalis	6	7	13
%	A. anser	96.5	3.5	100
	A. fabalis	46.2	53.8	100

88.6% of original grouped cases correctly classified.

Anser brachyrhynchus/Anser fabalis

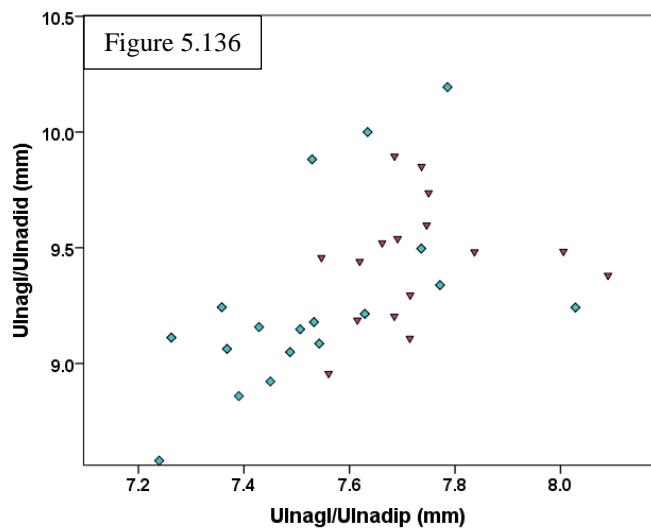
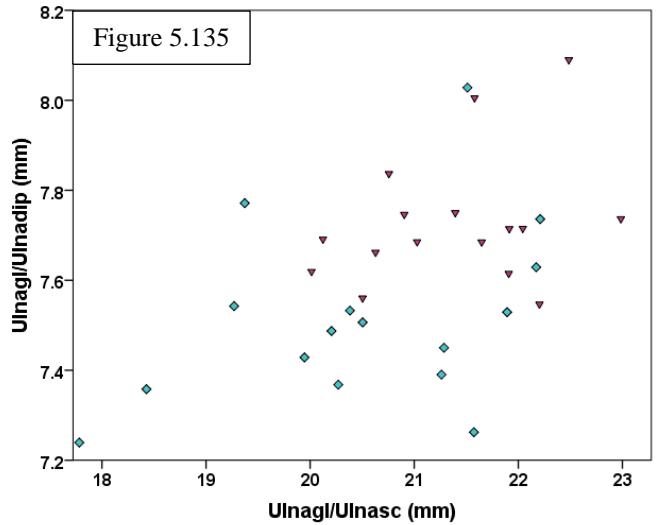
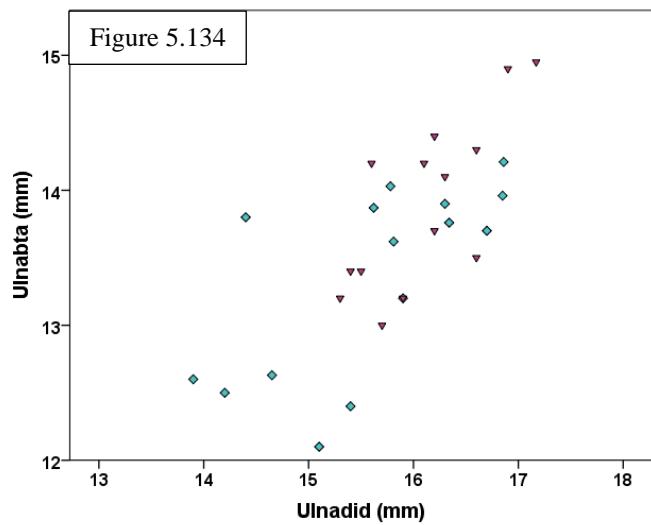
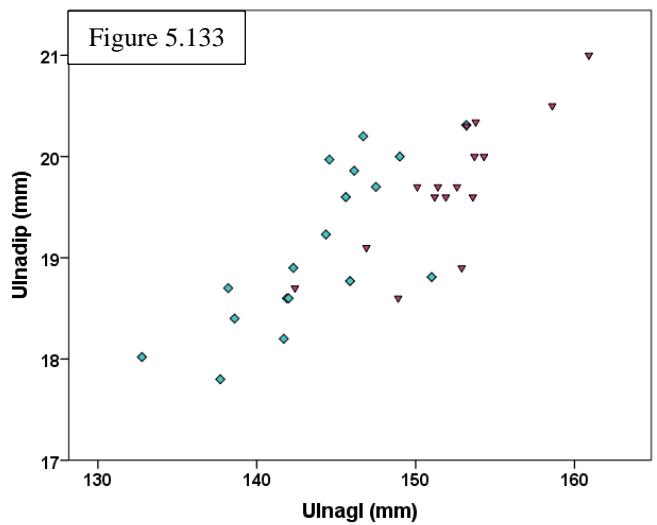
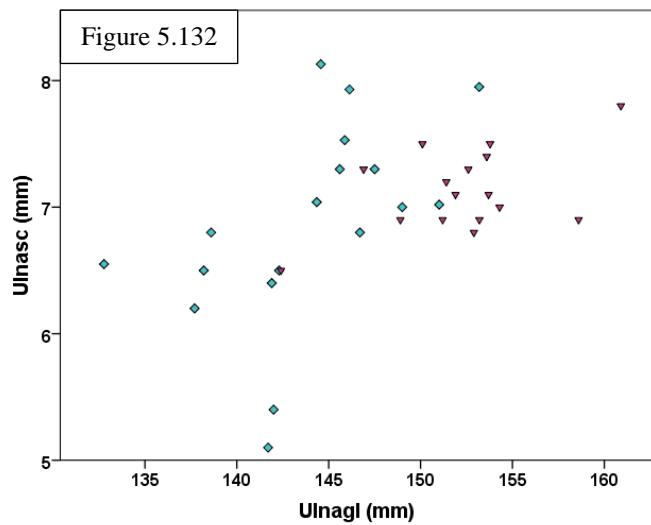
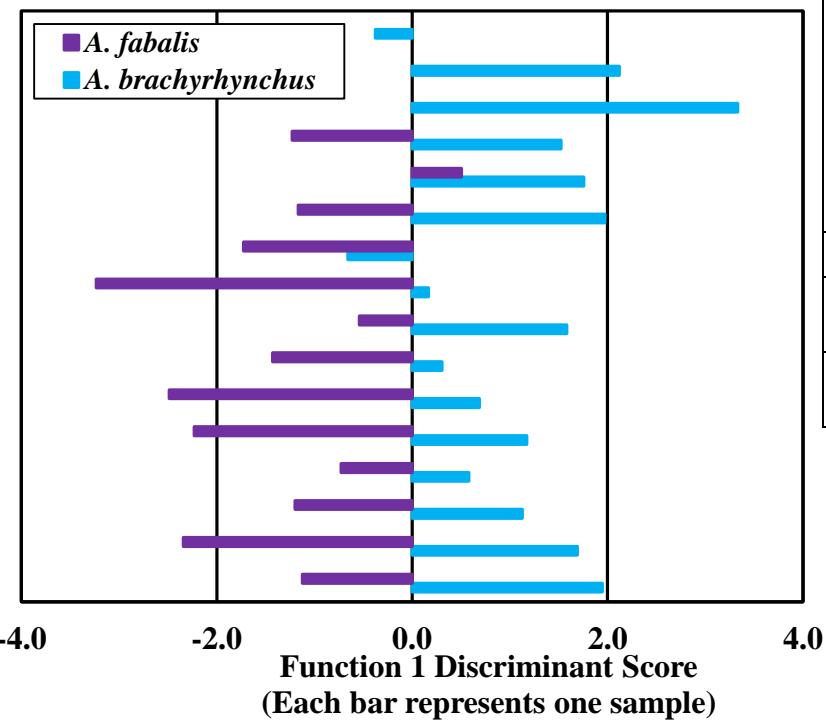


Figure 5.137



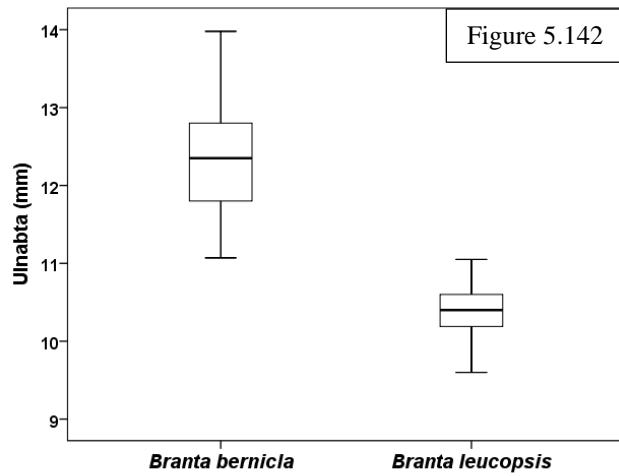
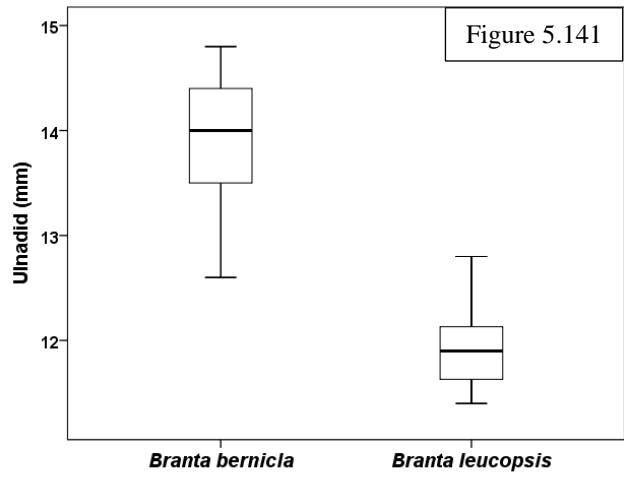
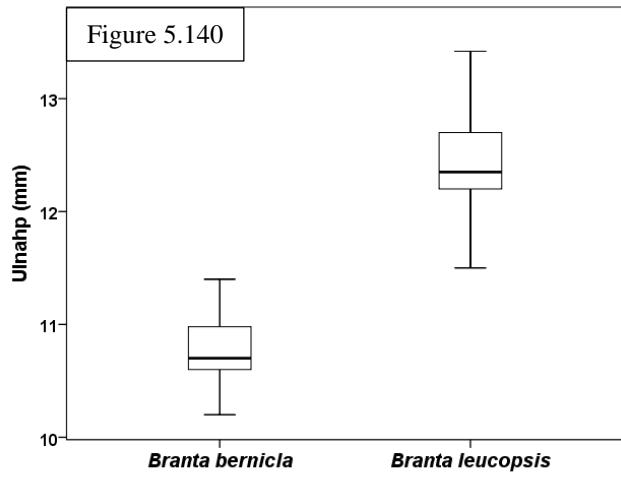
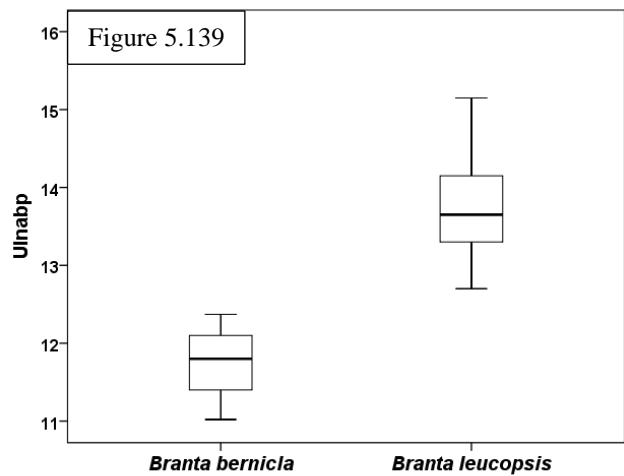
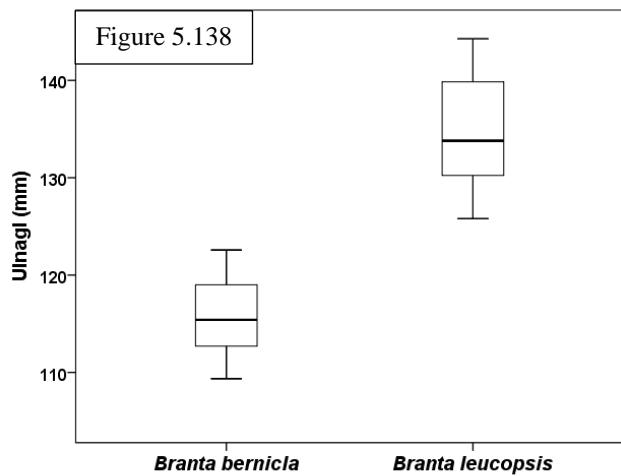
Measurements	Ulnagl Ulnasc Ulnabp Ulnahp Ulnadip Ulnadid Ulnabta Ulnabp/Ulnahp
Box's M sig.	0.000
Wilks'	0.002
Lambda sig.	
Function 1	100.0
% of Variance	

Classification results summary

	Original group	Predicted Group Membership		Total
		<i>A. brachyrhynchus</i>	<i>A. fabalis</i>	
Count	<i>A. brachyrhynchus</i>	14	2	16
	<i>A. fabalis</i>	1	12	13
%	<i>A. brachyrhynchus</i>	87.5	12.5	100
	<i>A. fabalis</i>	7.7	92.3	100

89.7% of original grouped cases correctly classified.

Branta bernicla/Branta leucopsis



Wild compared to domestic (*Anser anser*)

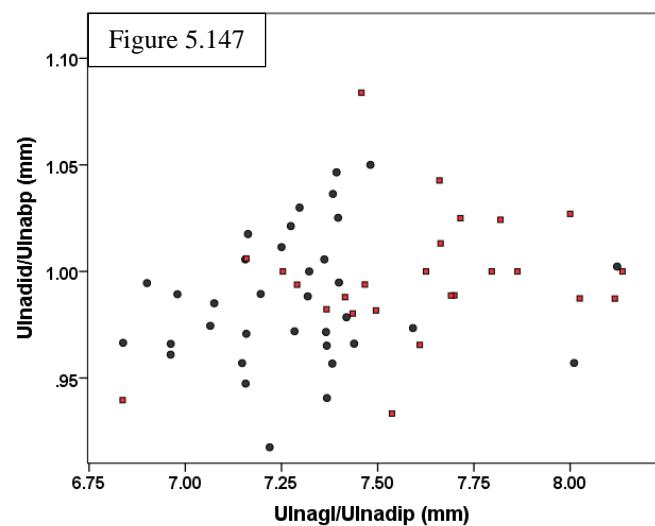
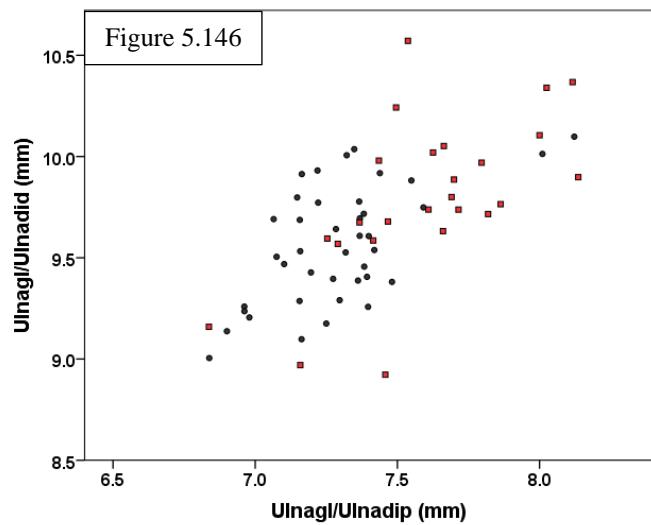
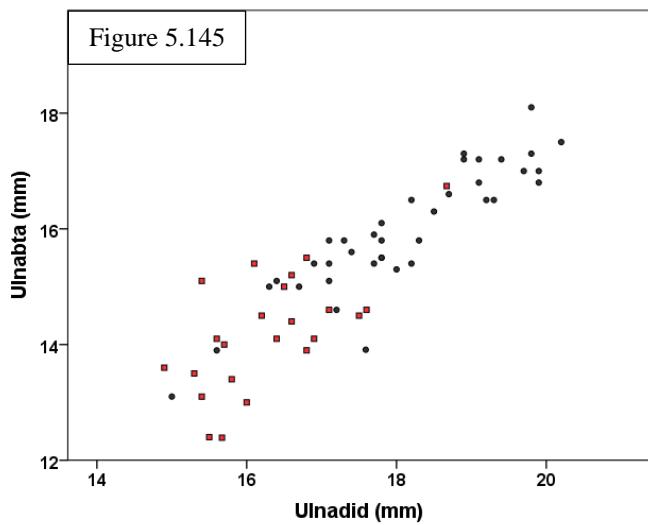
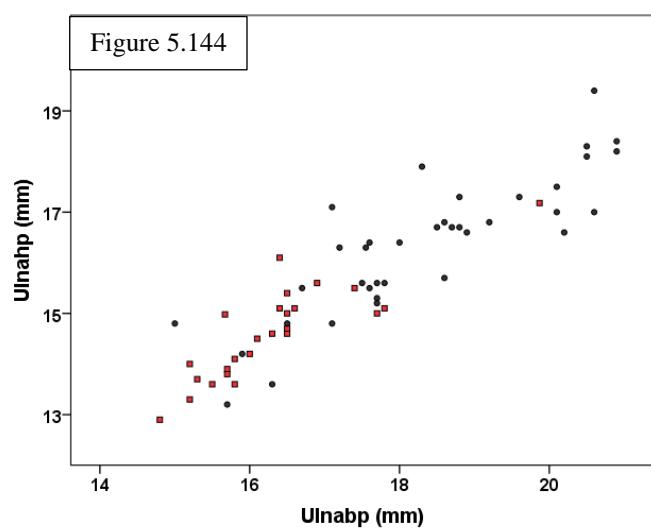
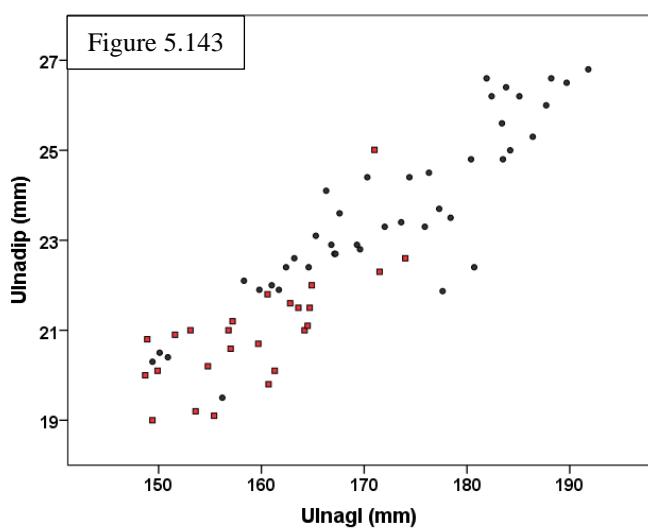
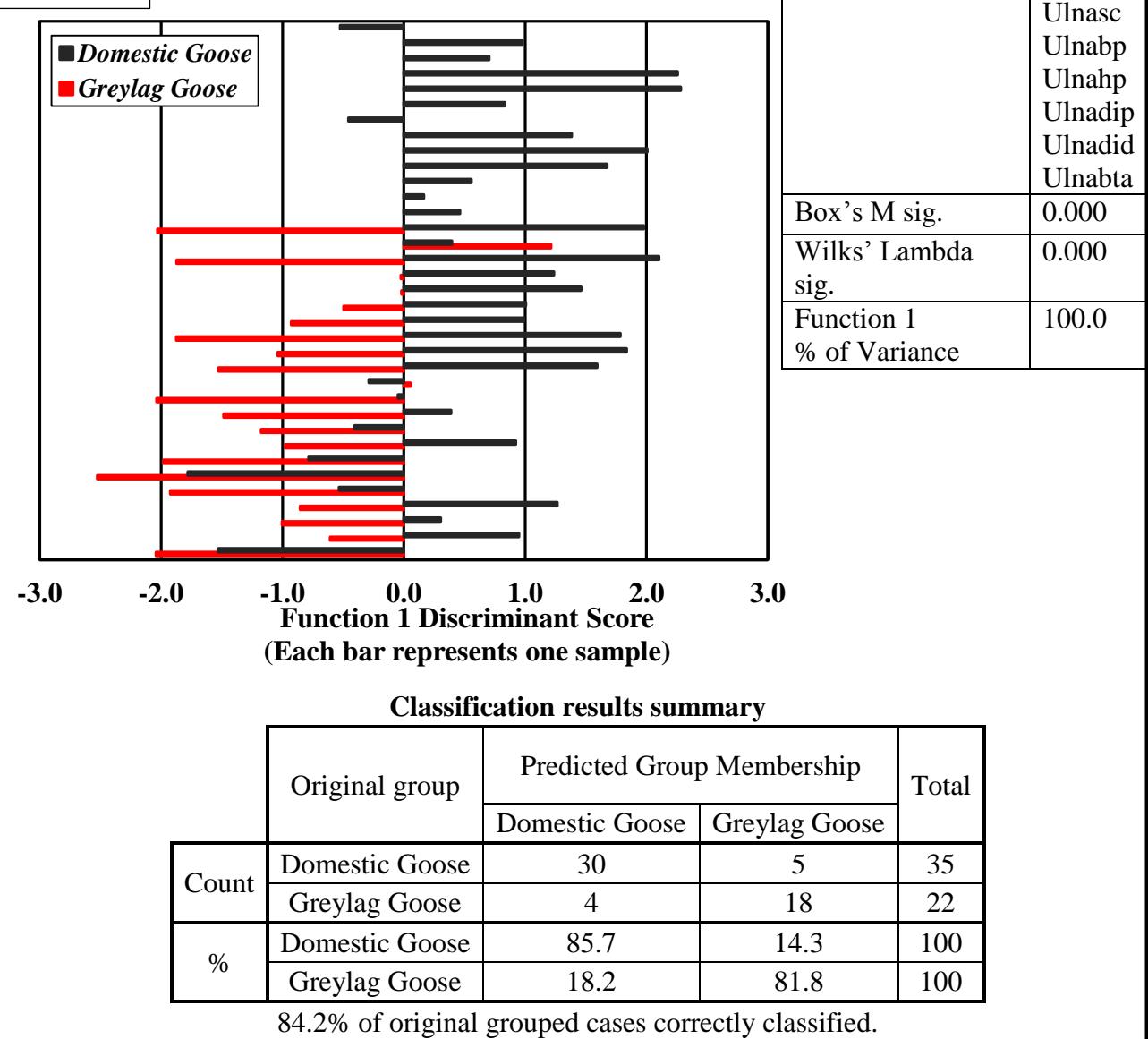


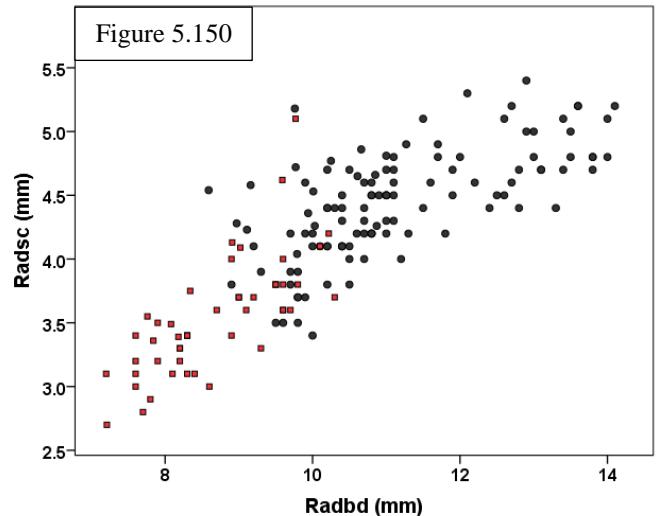
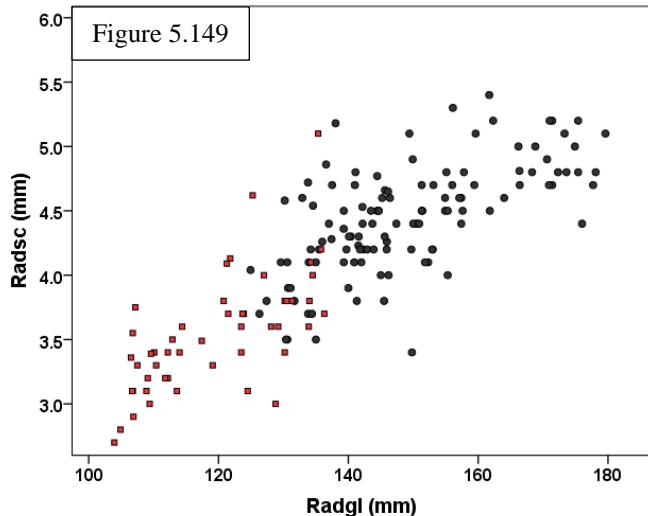
Figure 5.148



Radius

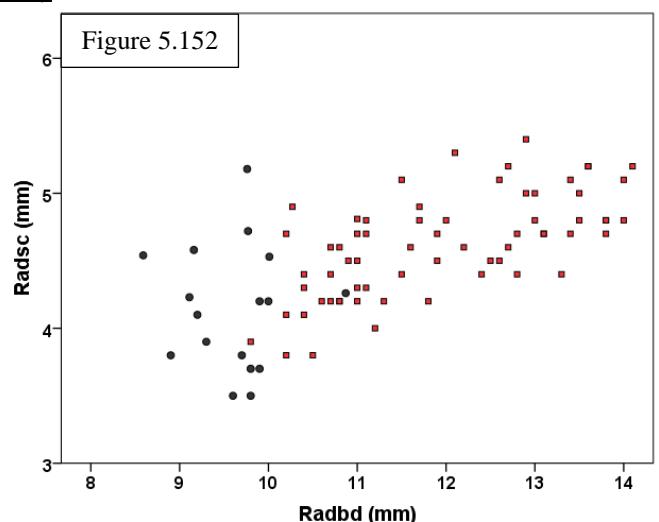
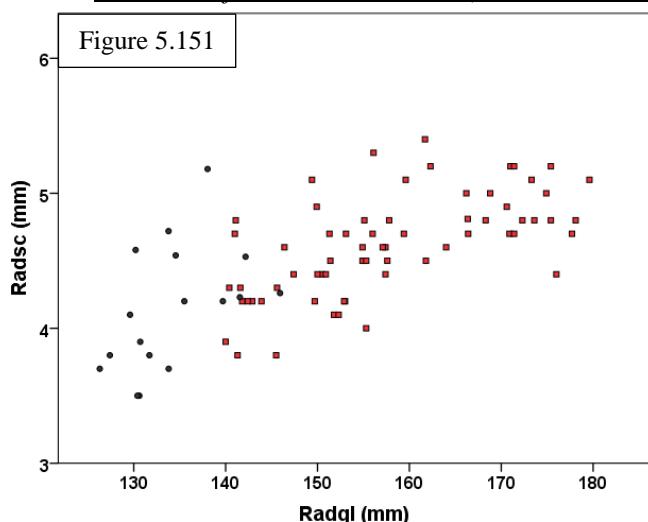
Genus

Anser/Branta

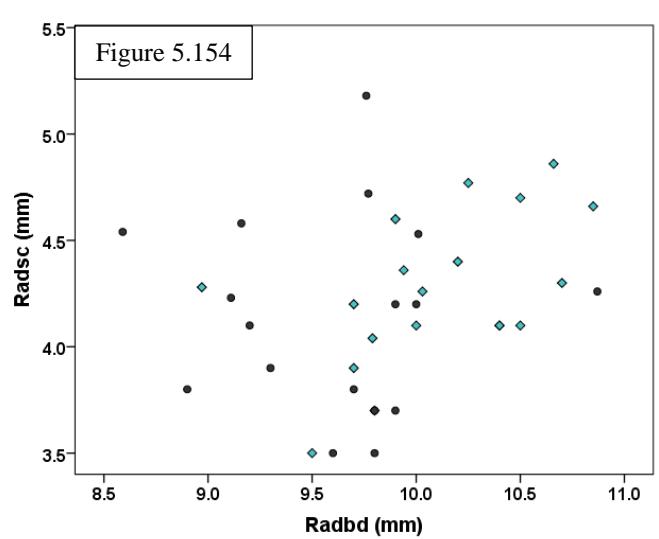
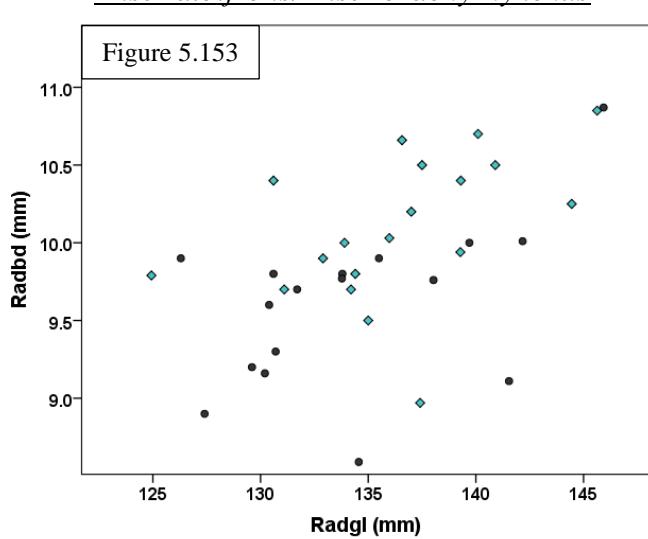


Species

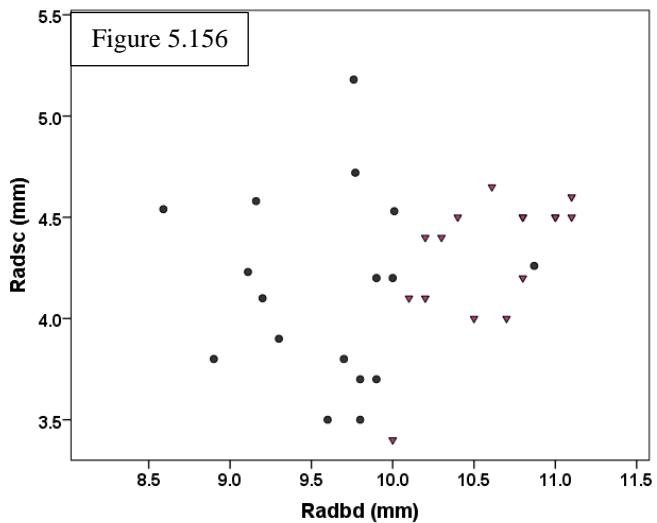
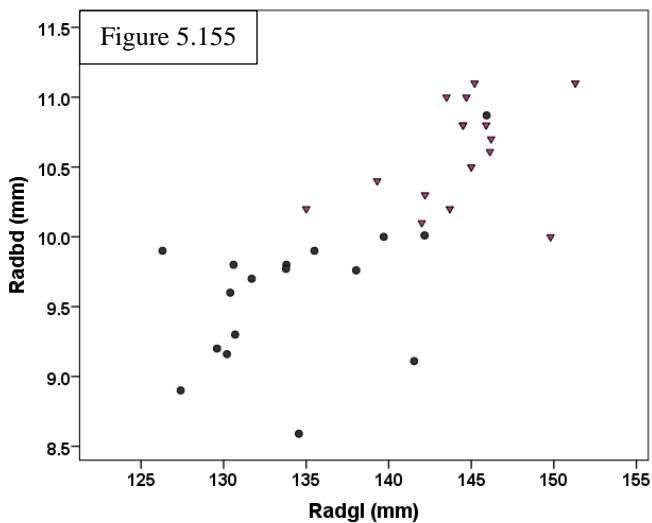
Anser albifrons/Anser anser (wild and domestic form)



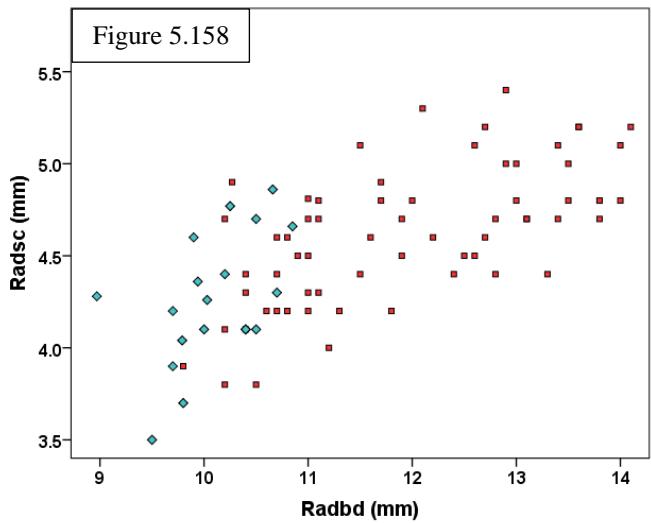
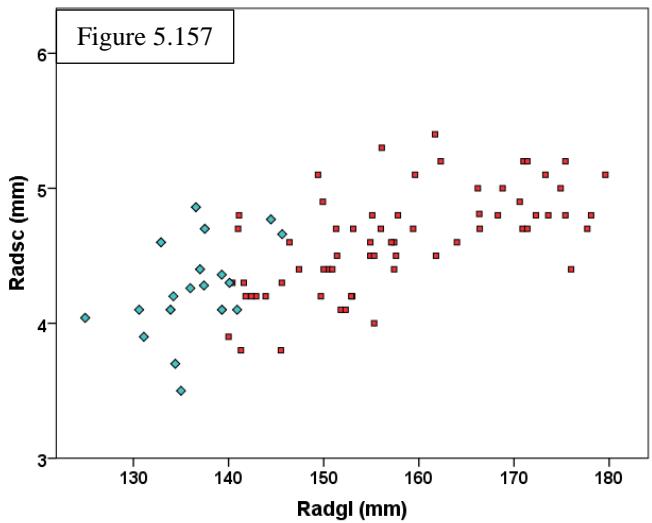
Anser albifrons/Anser brachyrhynchus



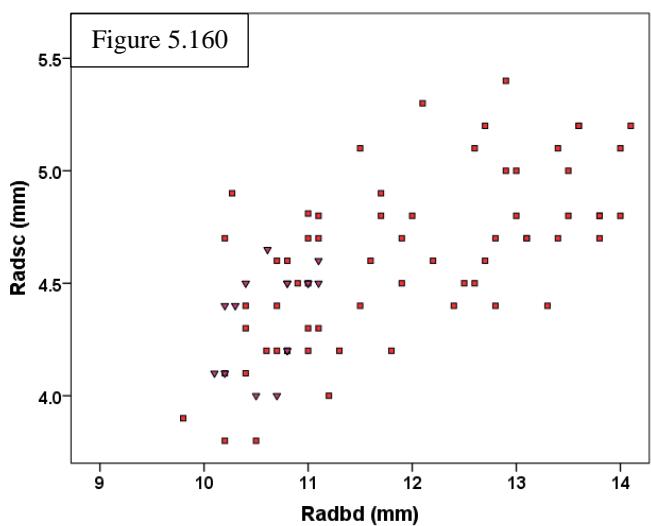
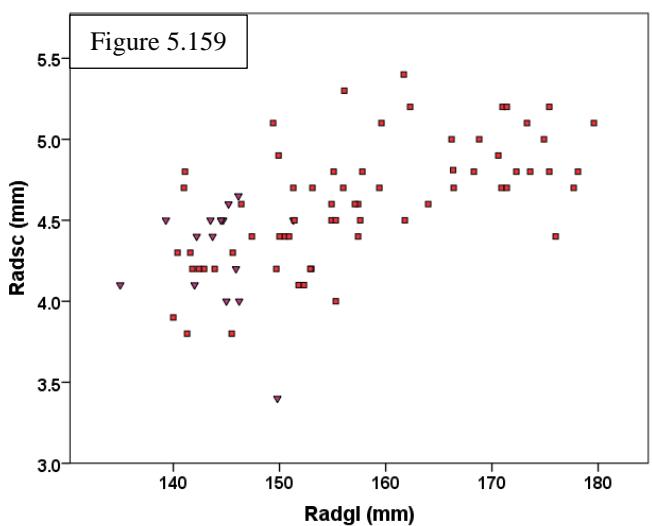
Anser albifrons/Anser fabalis

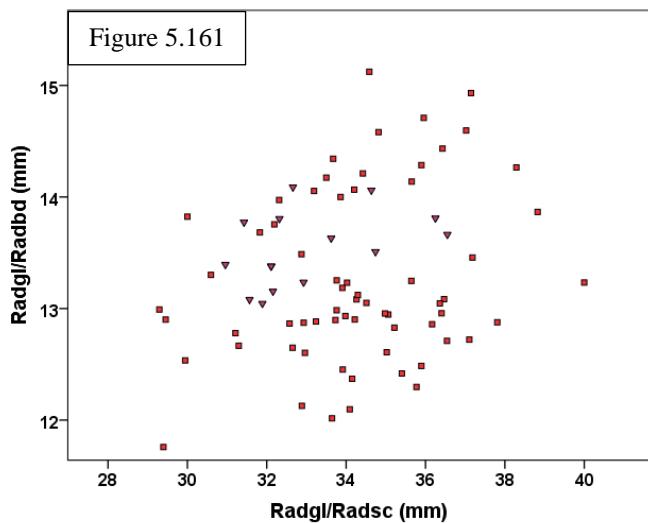


Anser anser (wild and domestic form)/*Anser brachyrhynchus*

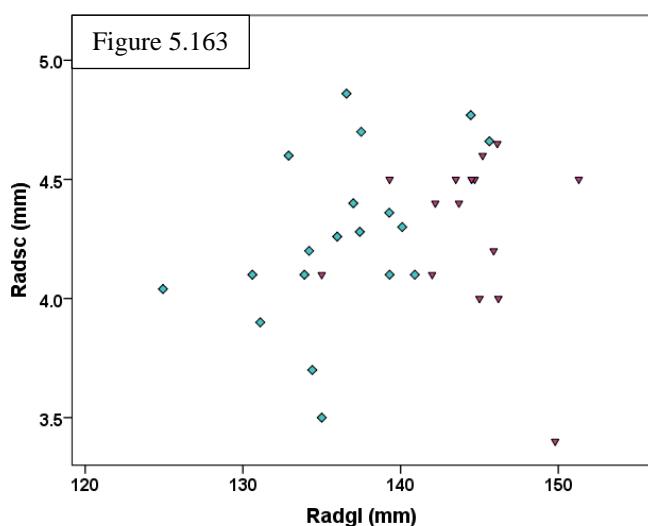
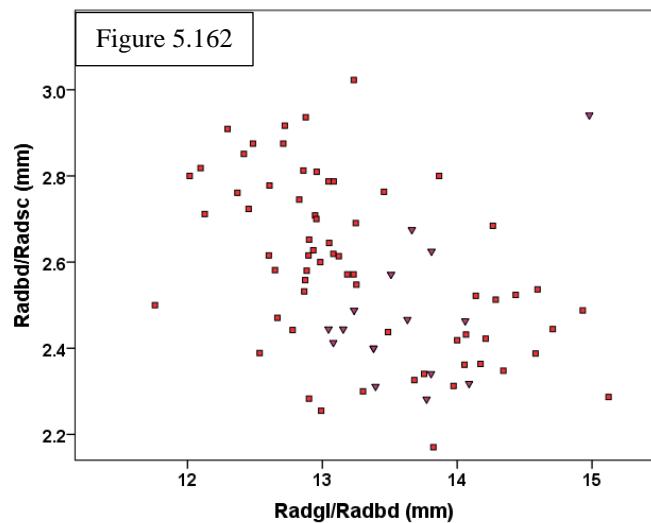


Anser anser (wild and domestic form)/*Anser fabalis*

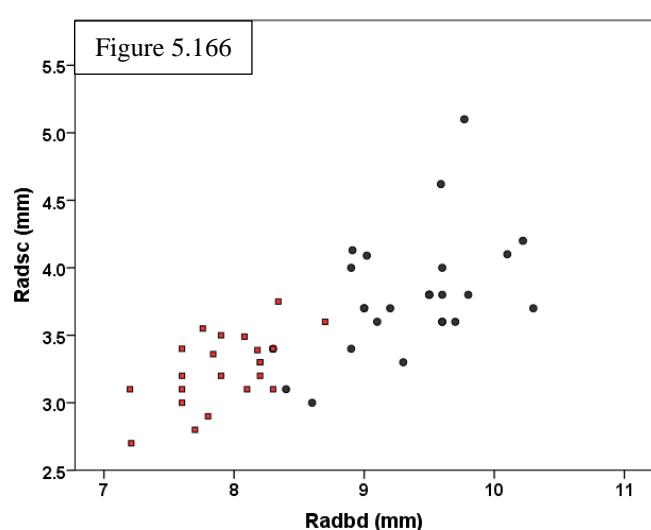
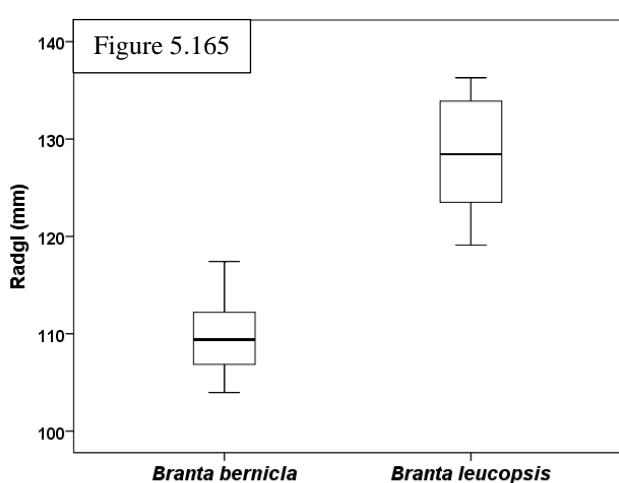
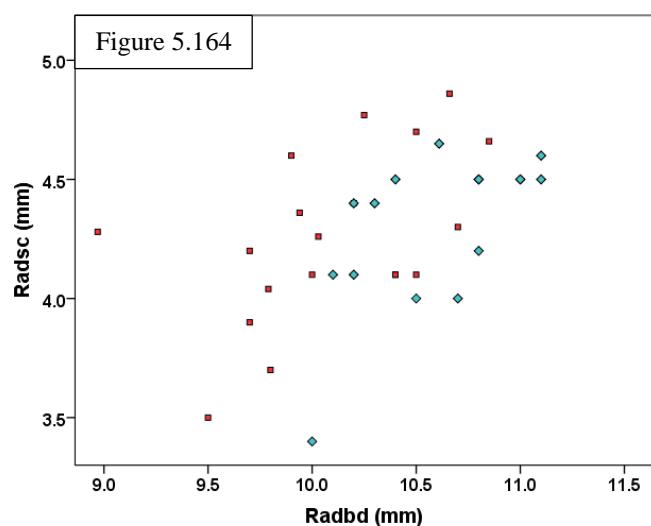




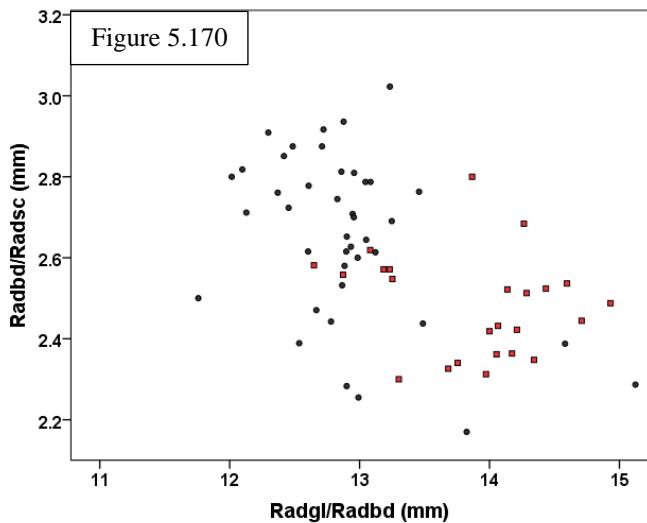
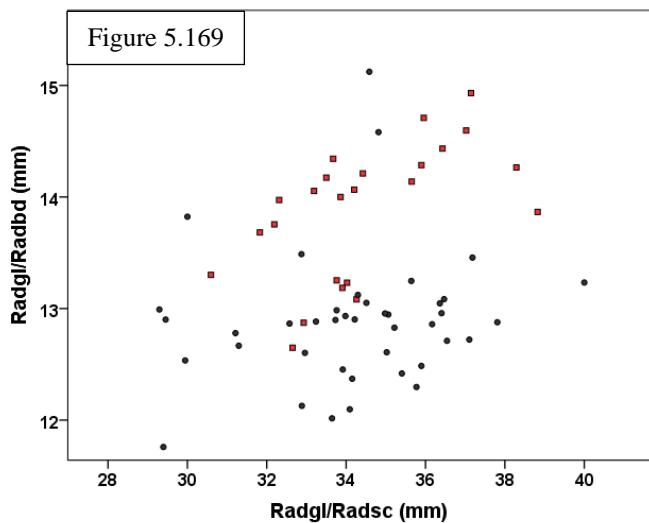
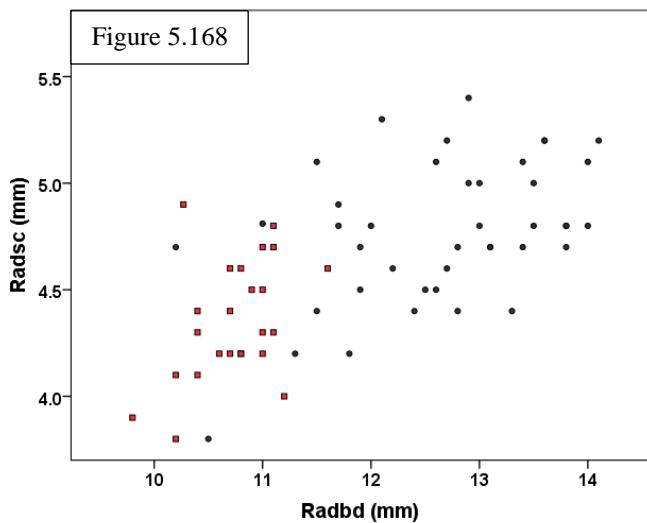
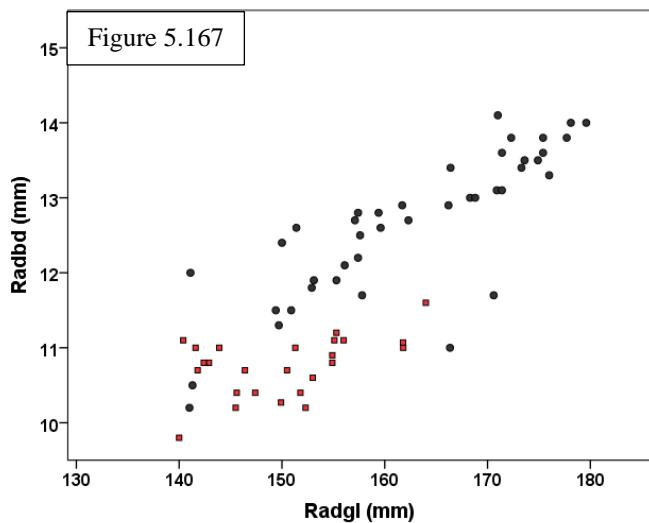
Anser brachyrhynchus/Anser fabalis



Branta bernicla/Branta leucopsis



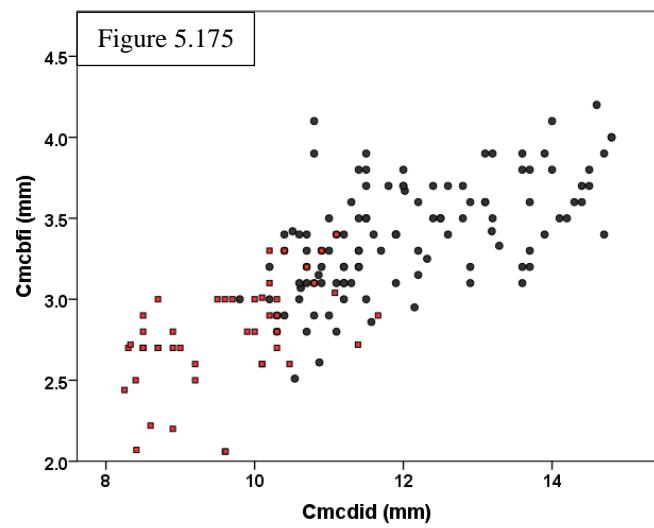
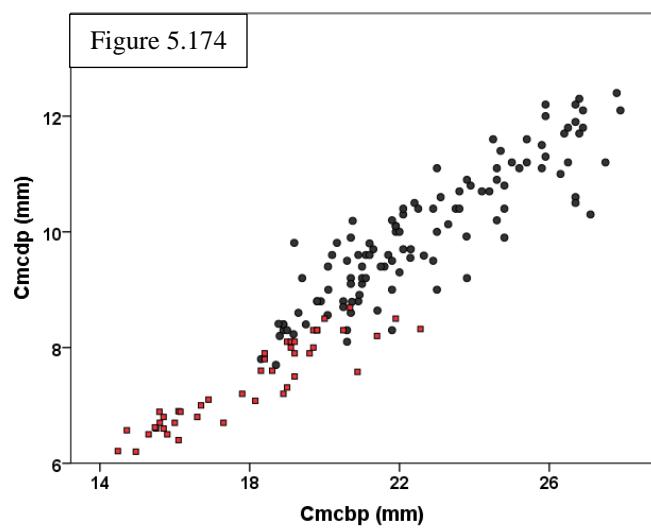
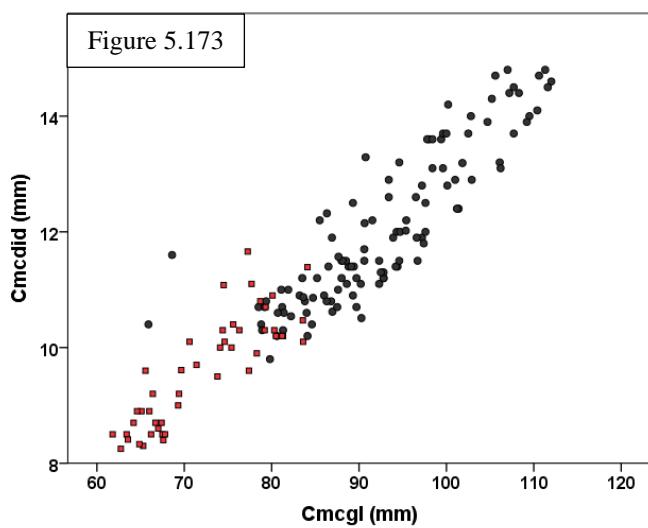
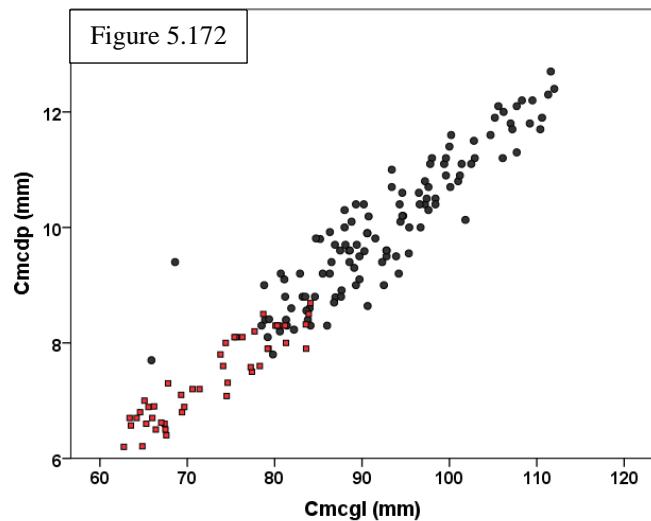
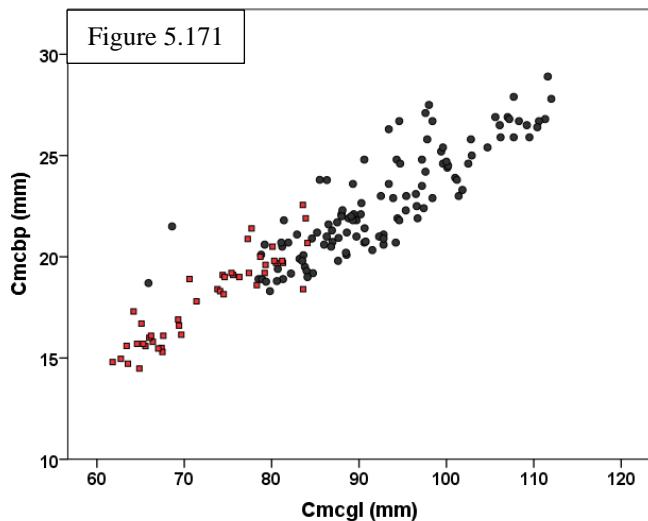
Wild compared to domestic (*Anser anser*)



Carpometacarpus

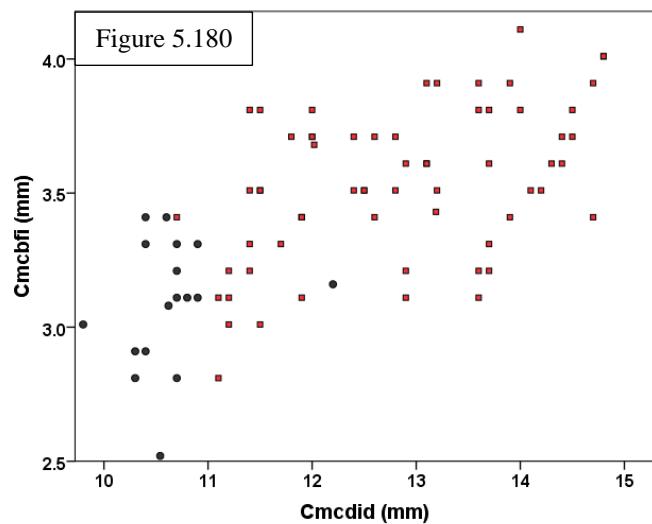
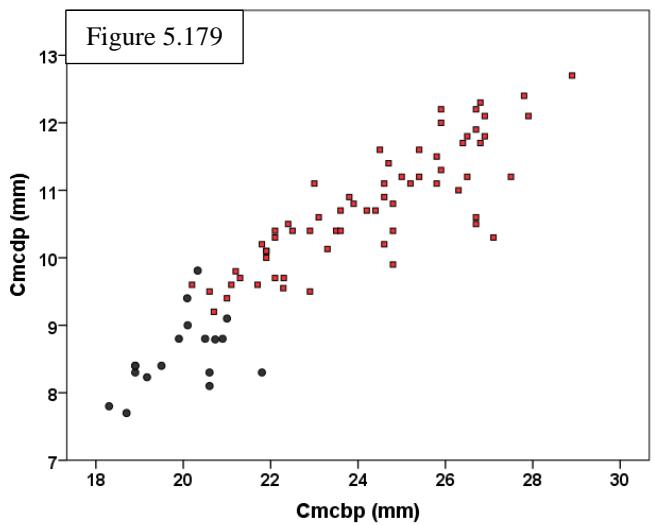
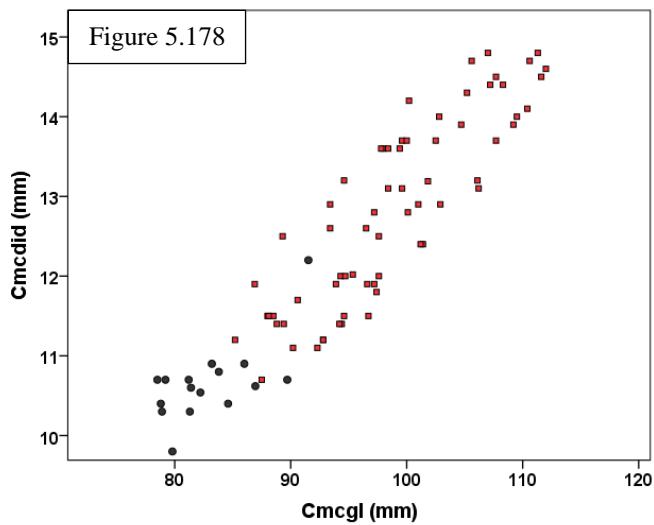
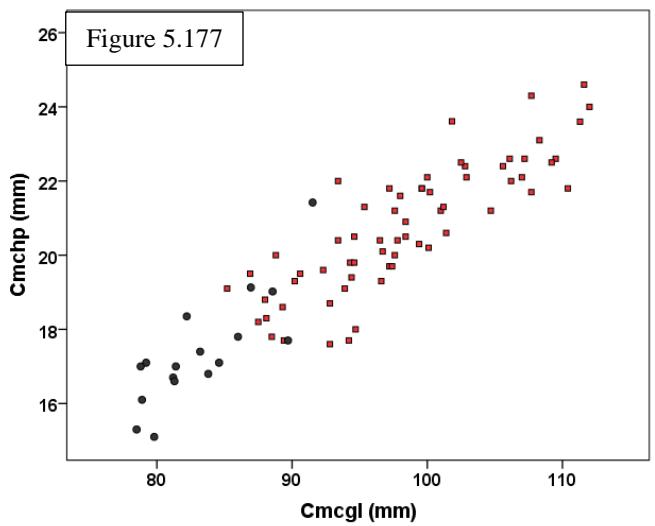
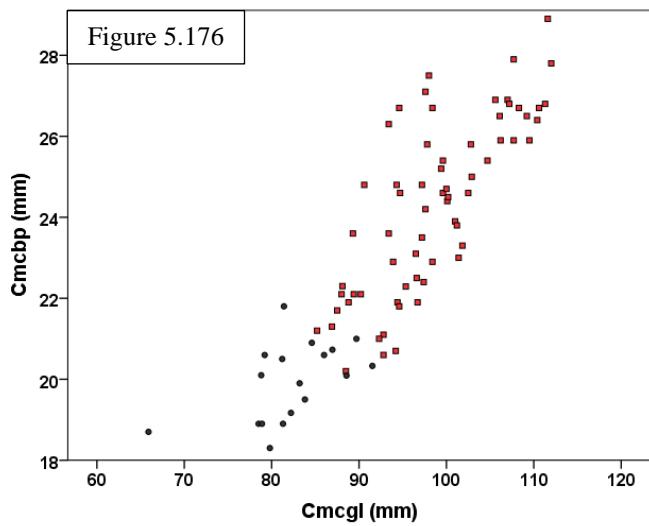
Genus

Anser/Branta

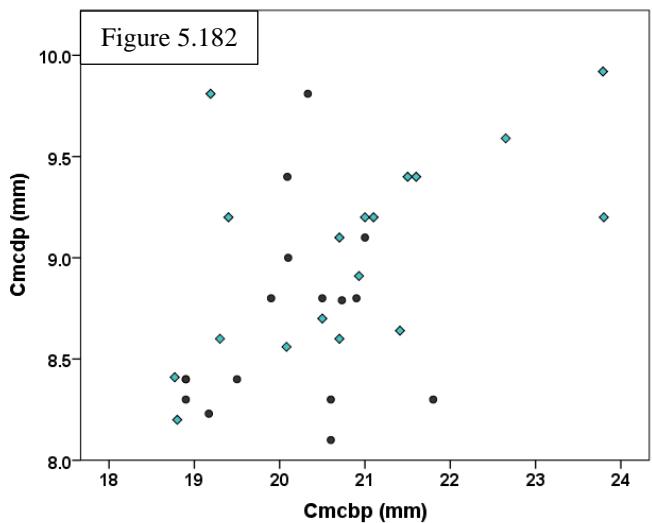
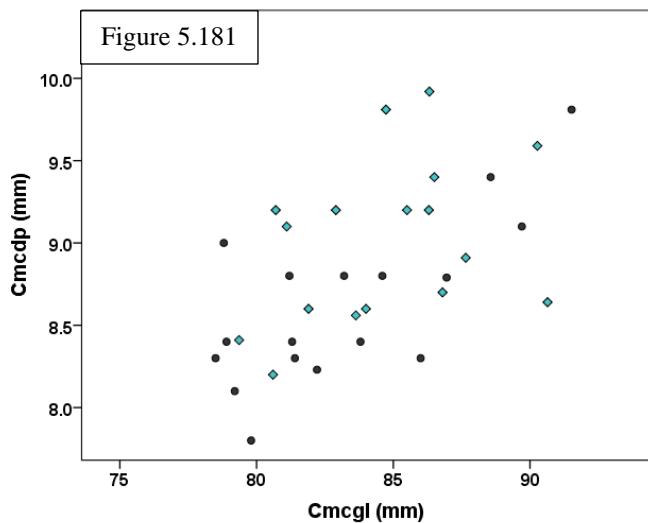


Species

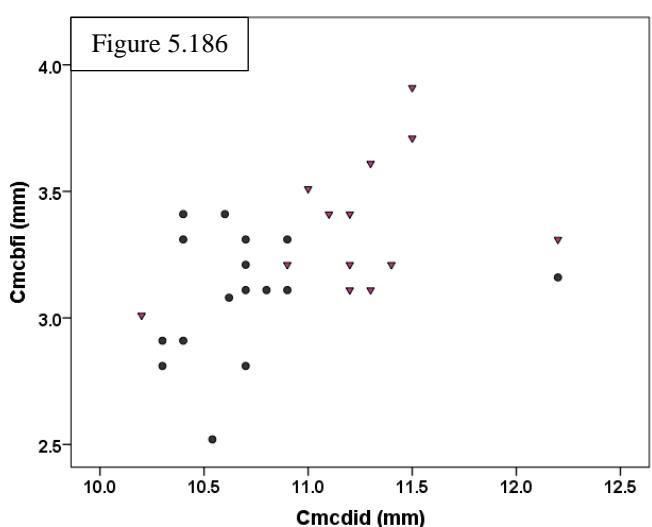
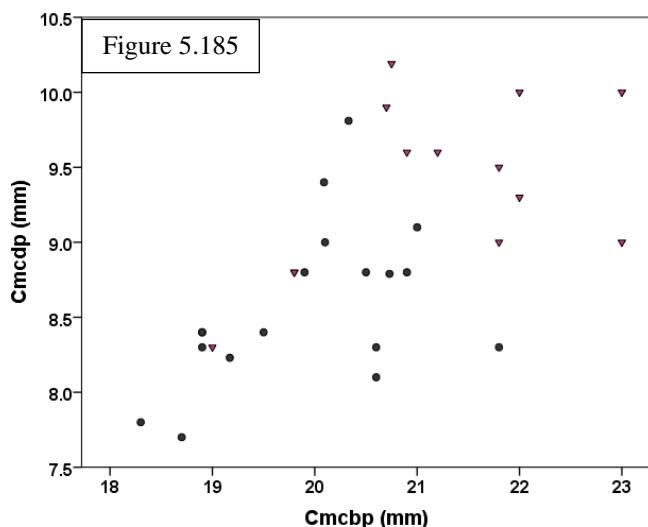
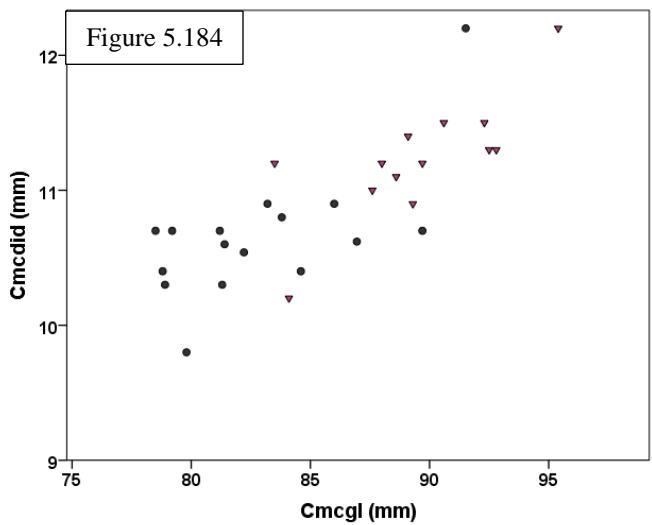
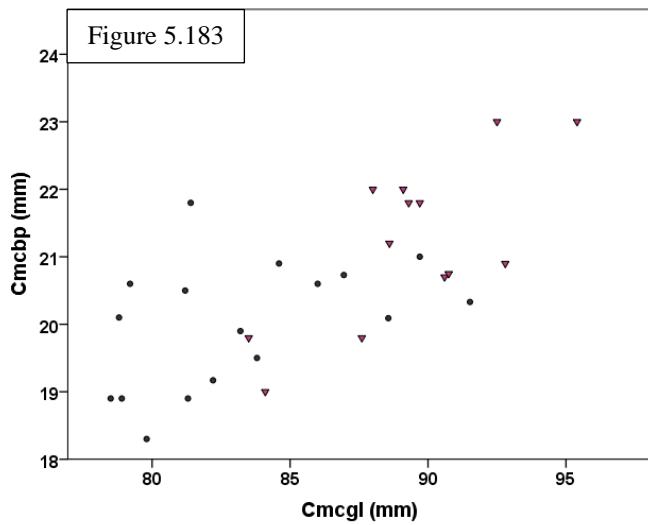
Anser albifrons/Anser anser (wild and domestic form)



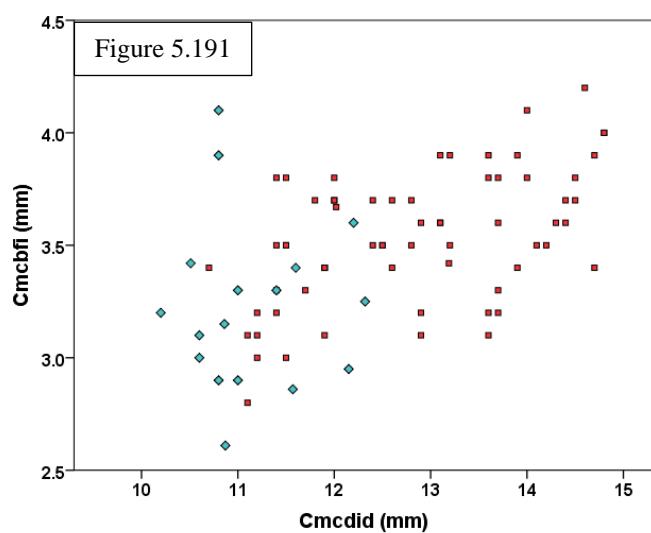
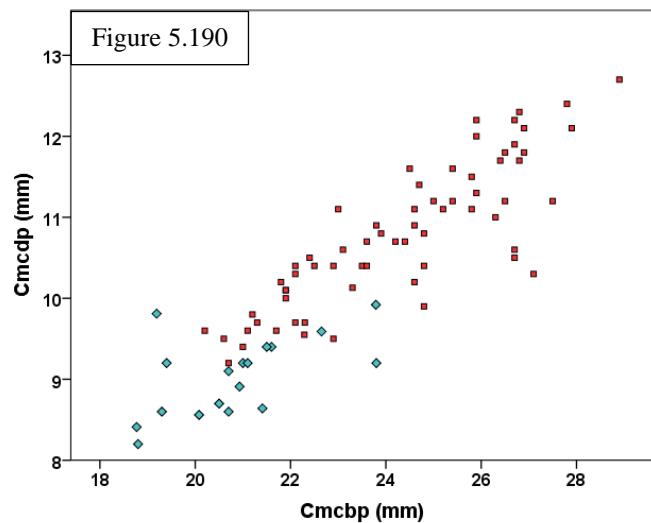
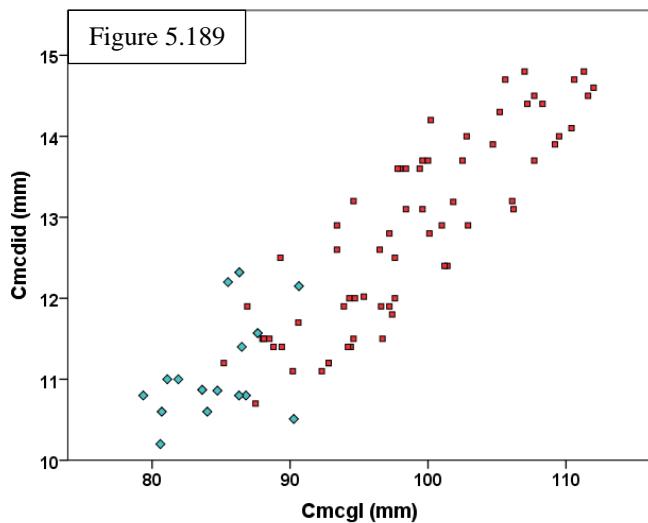
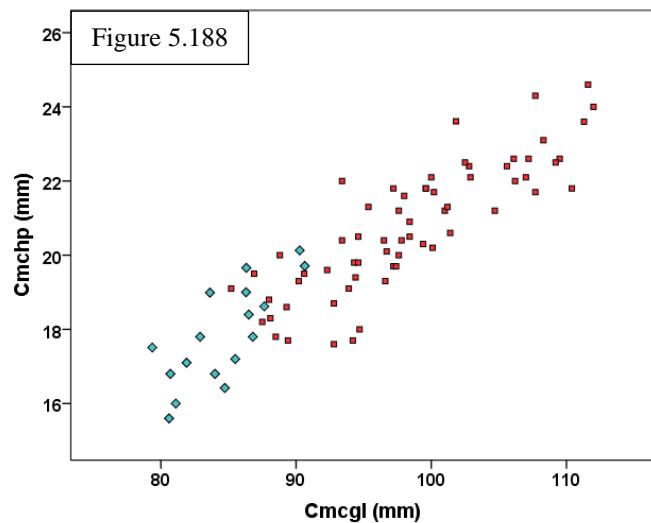
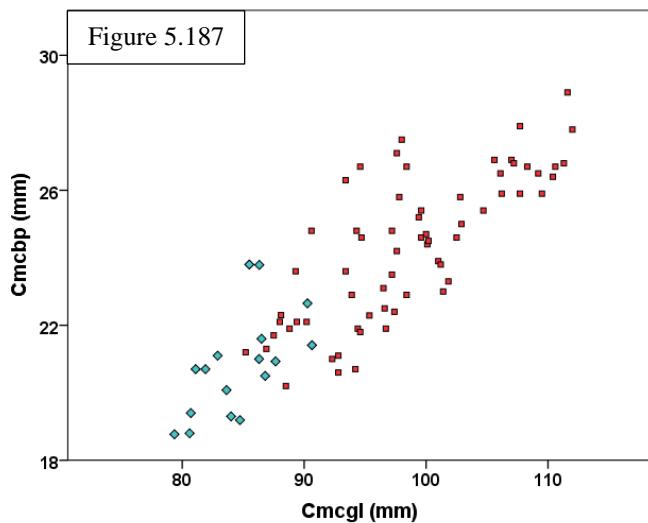
Anser albifrons/Anser brachyrhynchus



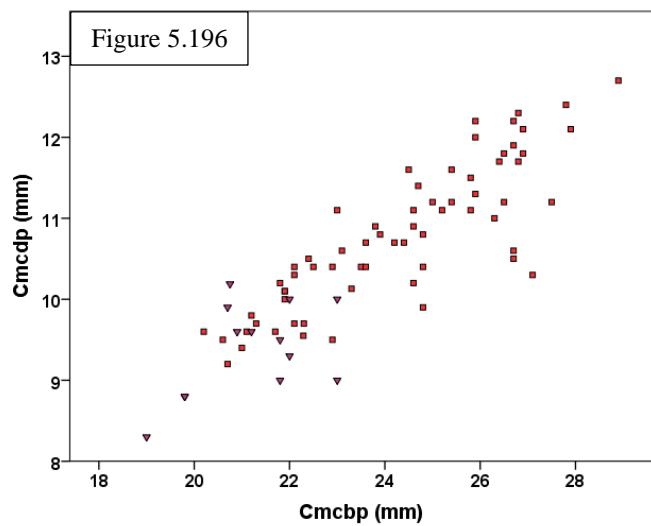
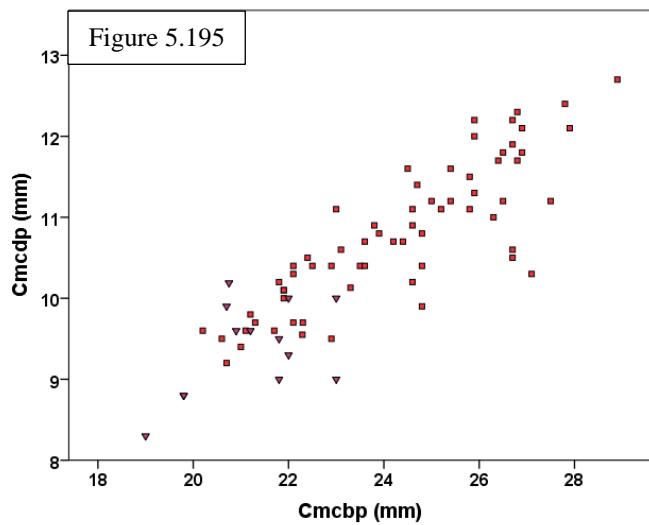
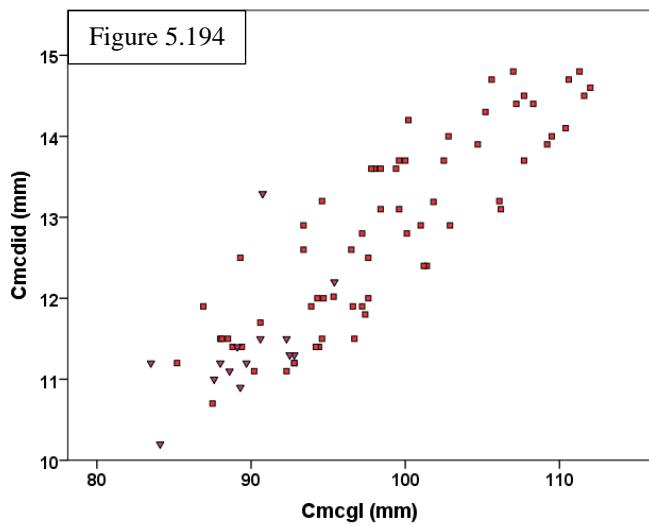
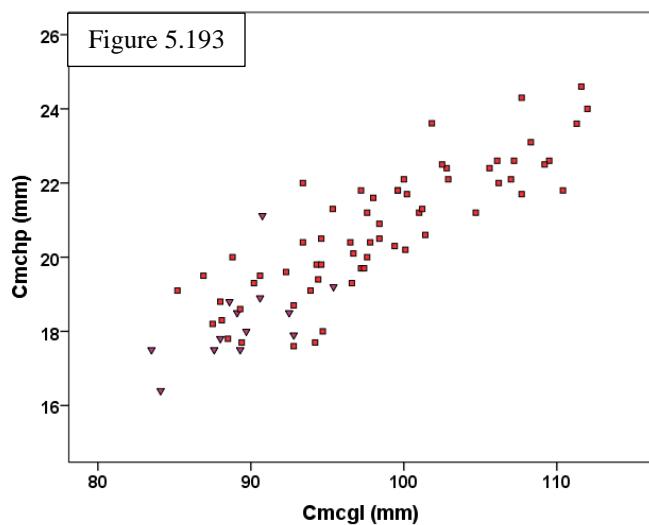
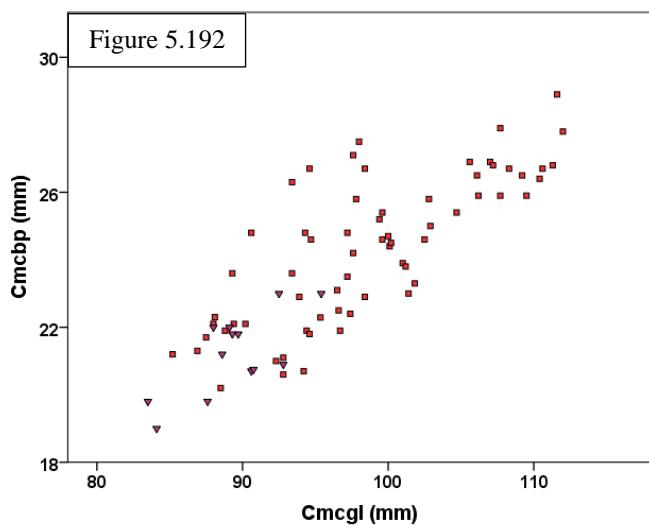
Anser albifrons/Anser fabalis



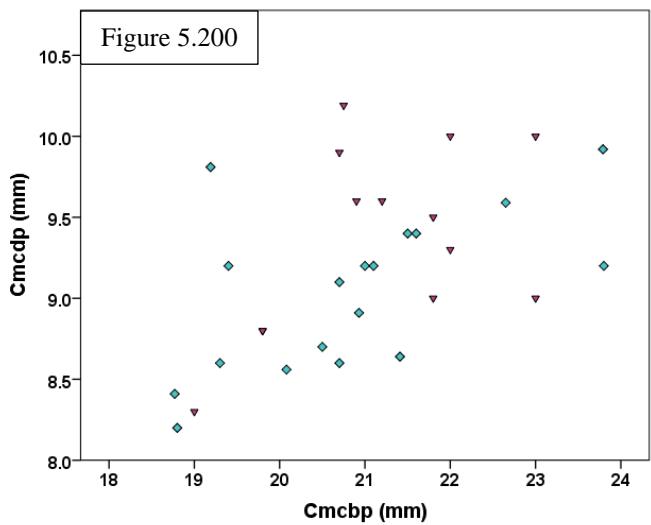
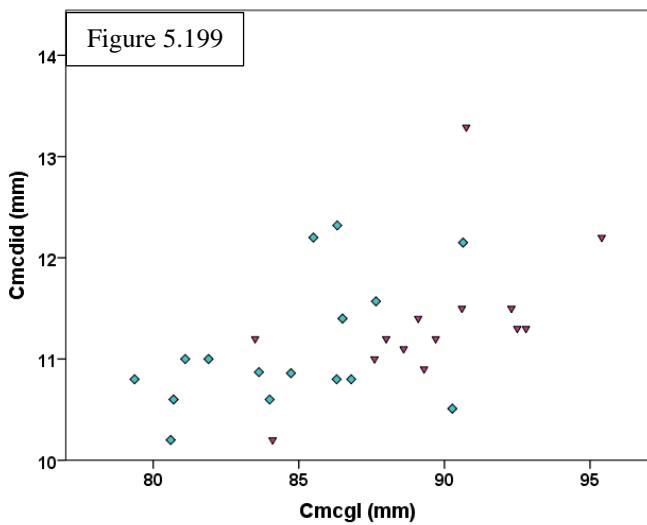
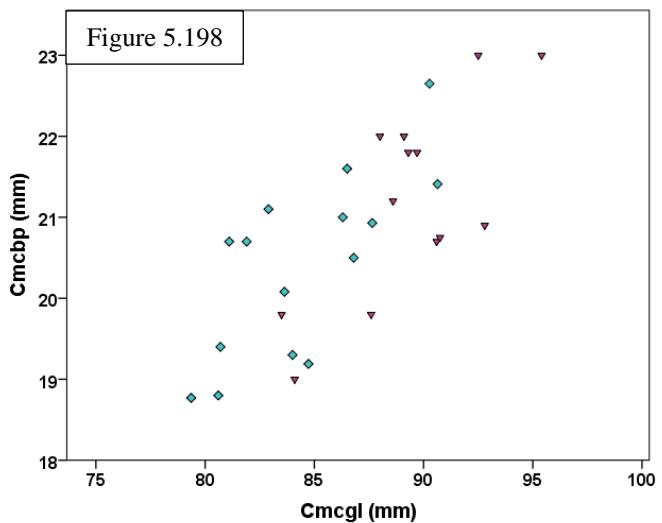
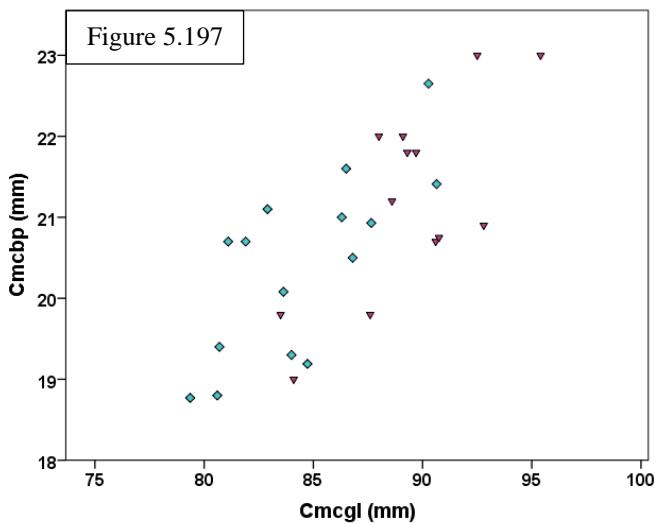
Anser anser (wild and domestic form)/Anser brachyrhynchus



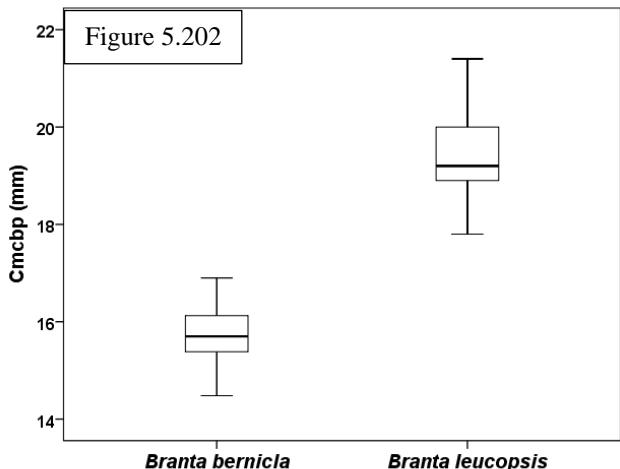
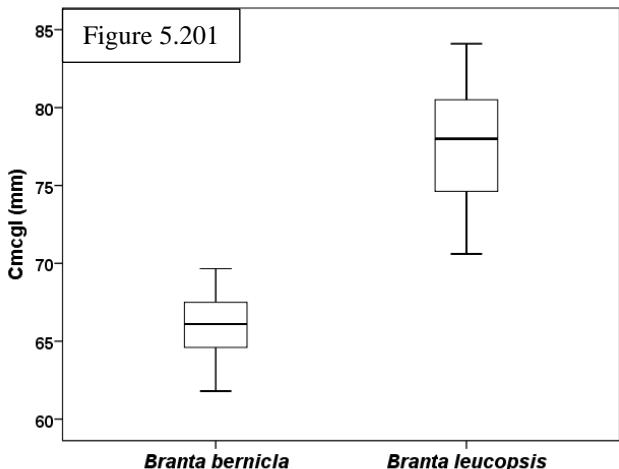
Anser anser (wild and domestic form)/Anser fabalis

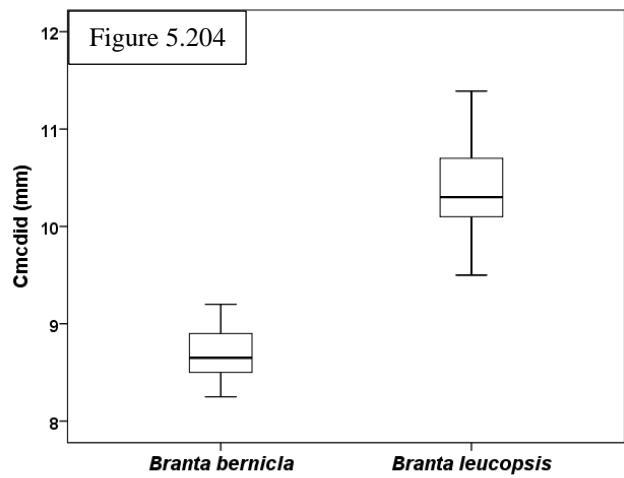
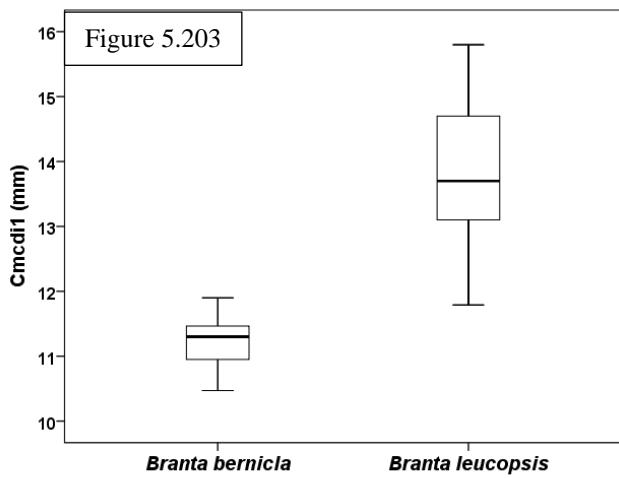


Anser brachyrhynchus/Anser fabalis



Branta bernicla/Branta leucopsis





Wild compared to domestic (*Anser anser*)

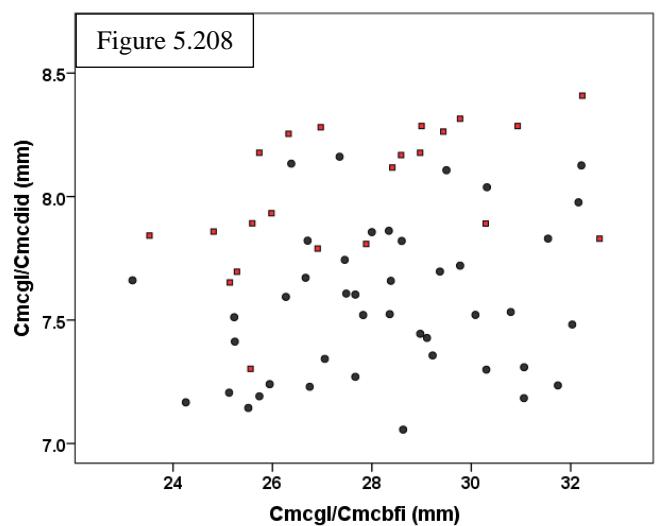
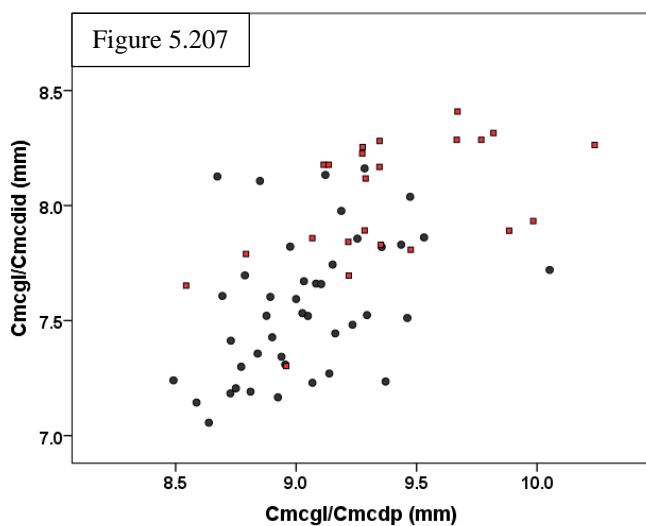
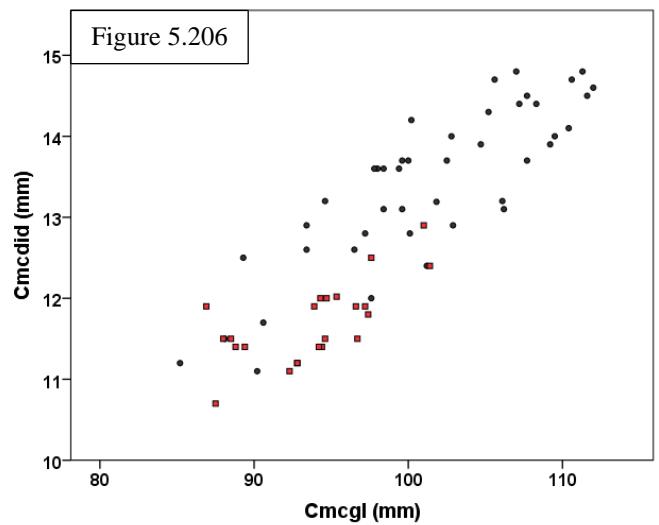
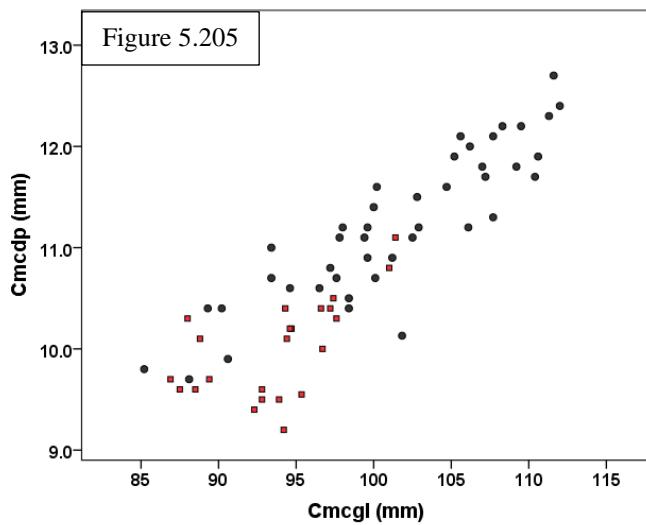
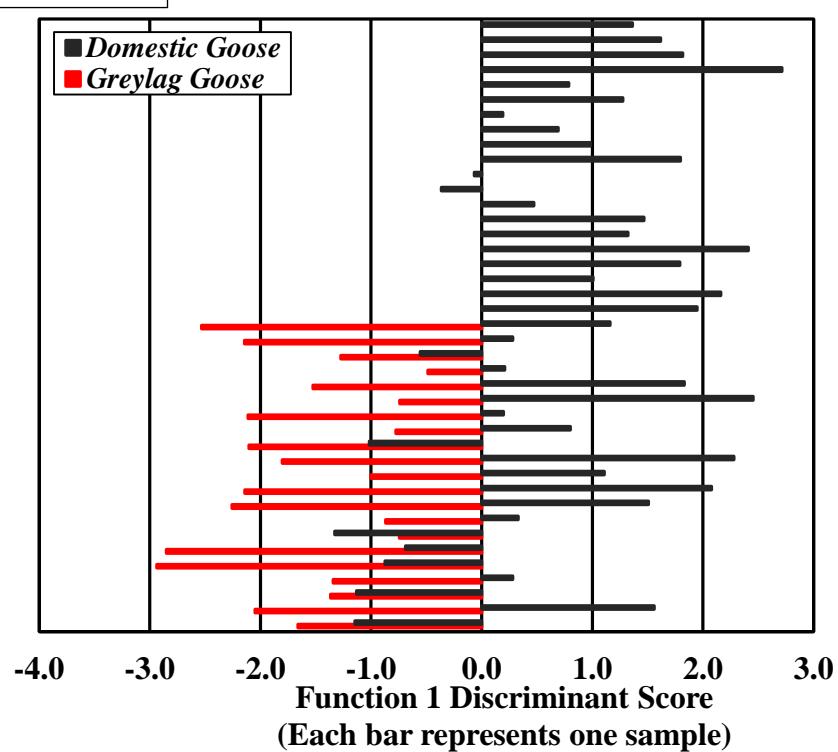


Figure 5.209



Measurements	Cmcgl Cmcgp Cmchp Cmcli Cmcdi1 Cmcbsf Cmcddid
Box's M sig.	0.027
Wilks' Lambda sig.	0.000
Function 1 % of Variance	100.0

Classification results summary

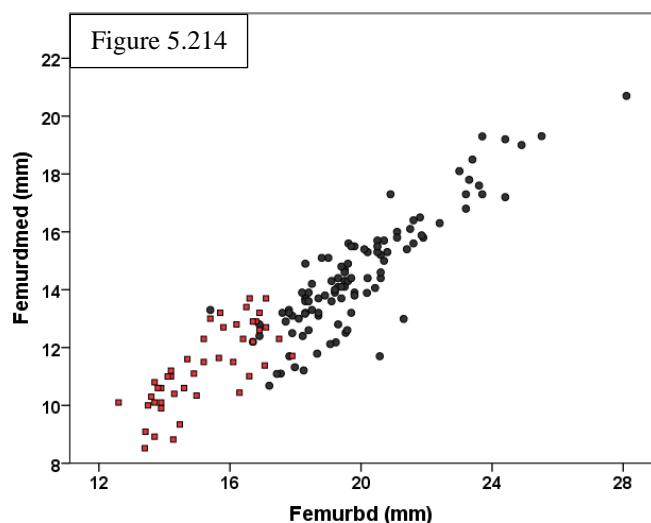
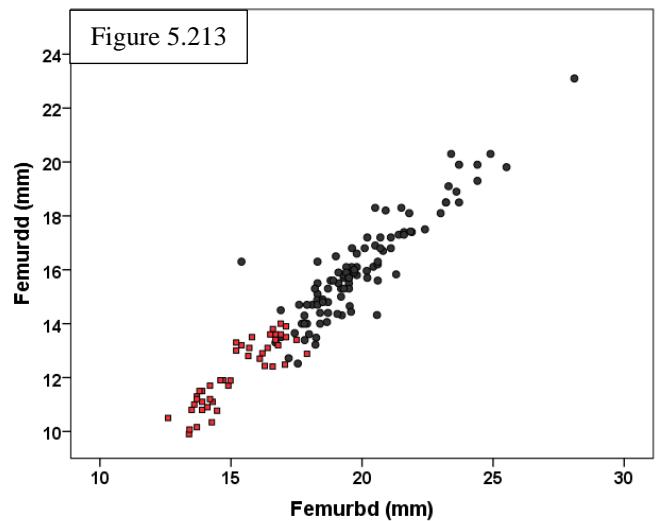
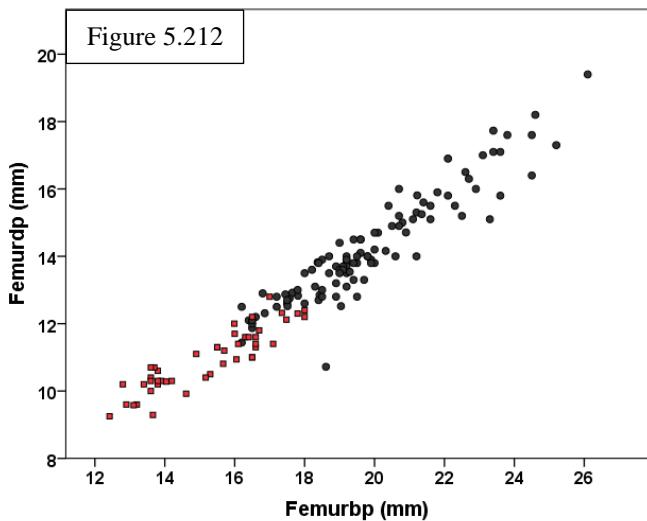
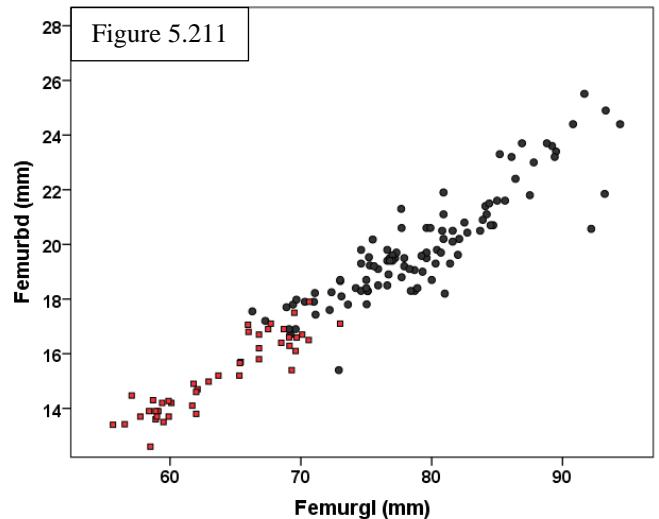
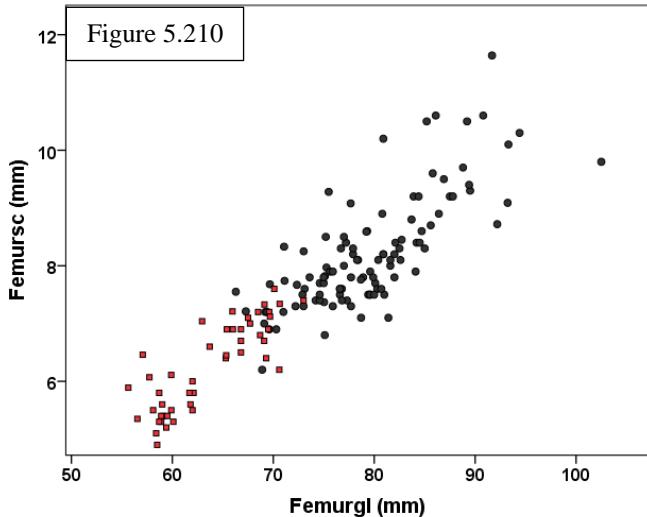
	Original group	Predicted Group Membership		Total
		Domestic Goose	Greylag Goose	
Count	Domestic Goose	35	6	41
	Greylag Goose	1	20	21
%	Domestic Goose	85.4	14.6	100
	Greylag Goose	4.8	95.2	100

88.7% of original grouped cases correctly classified.

Femur

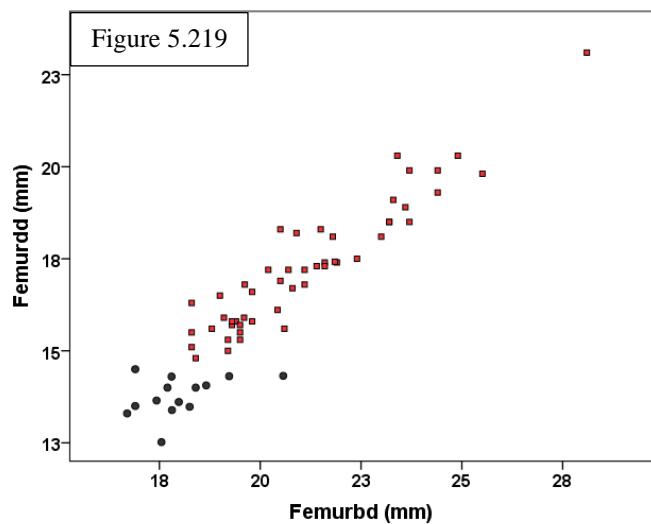
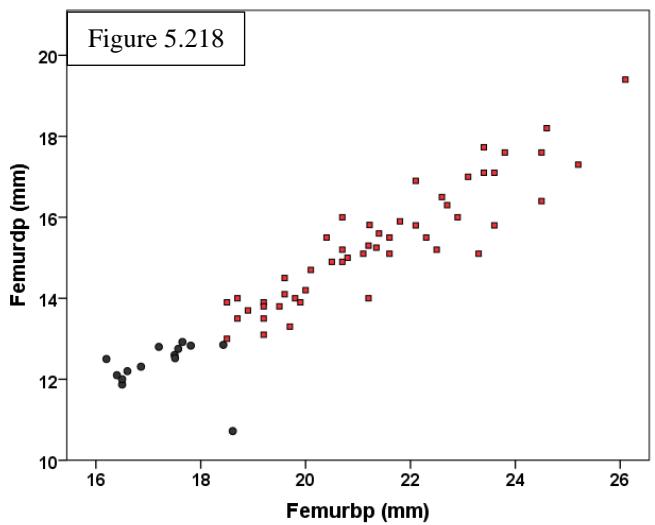
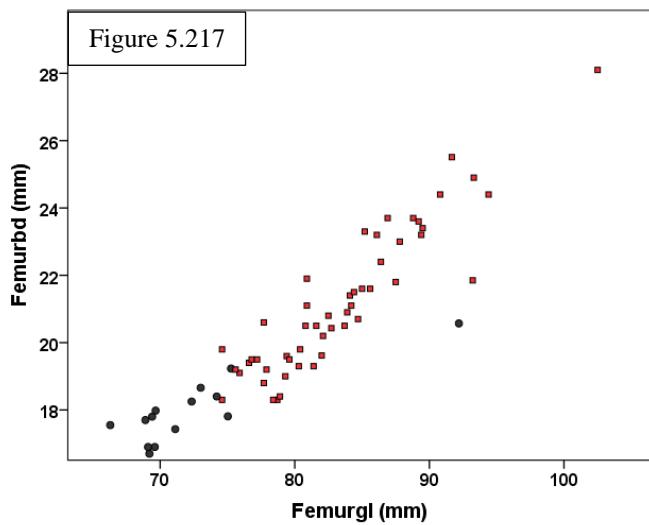
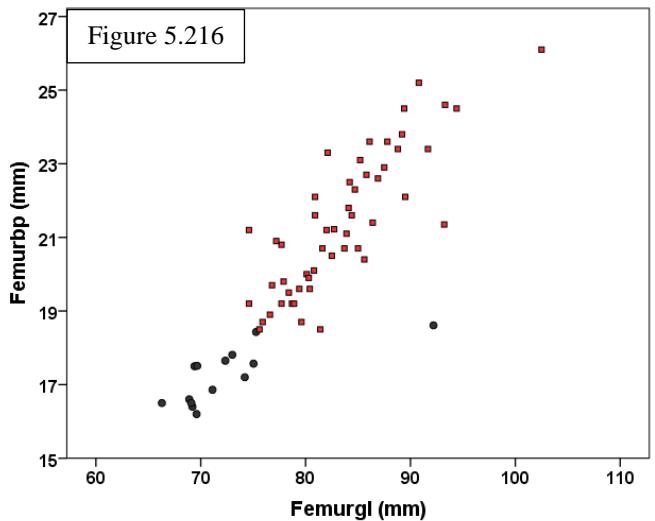
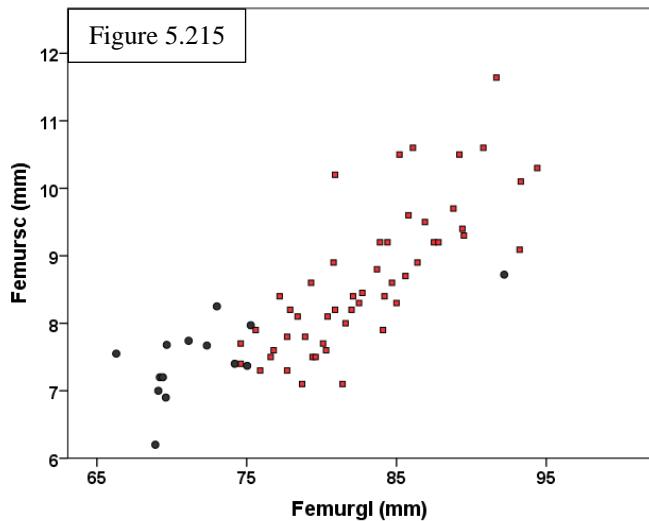
Genus

Anser/Branta

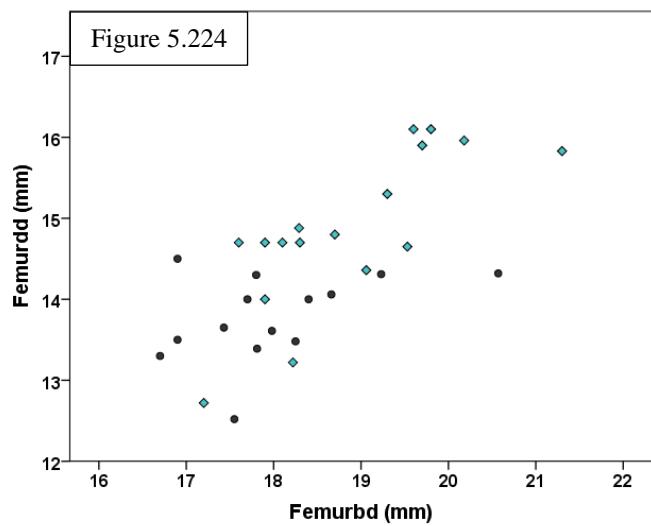
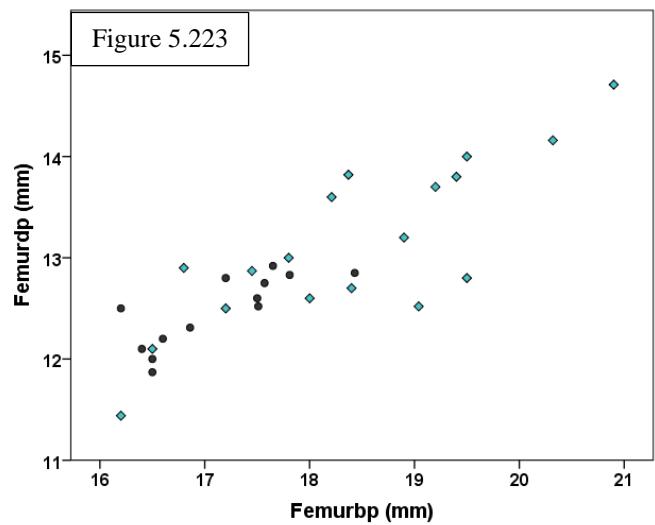
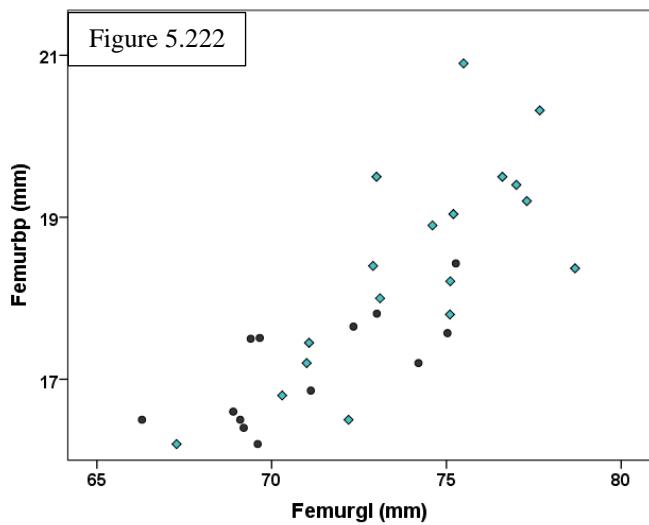
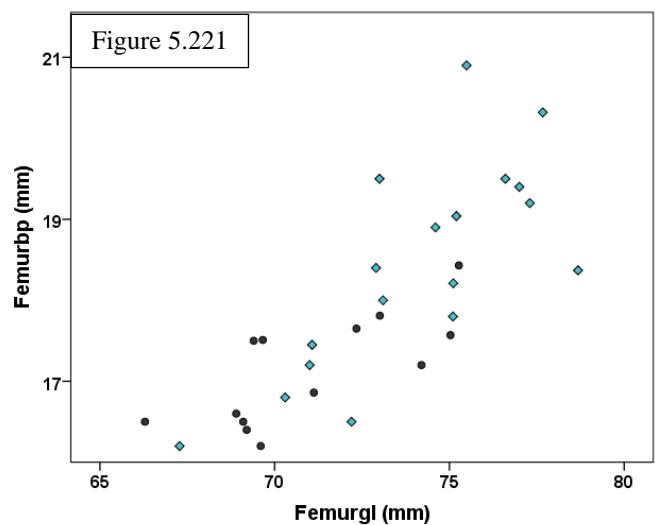
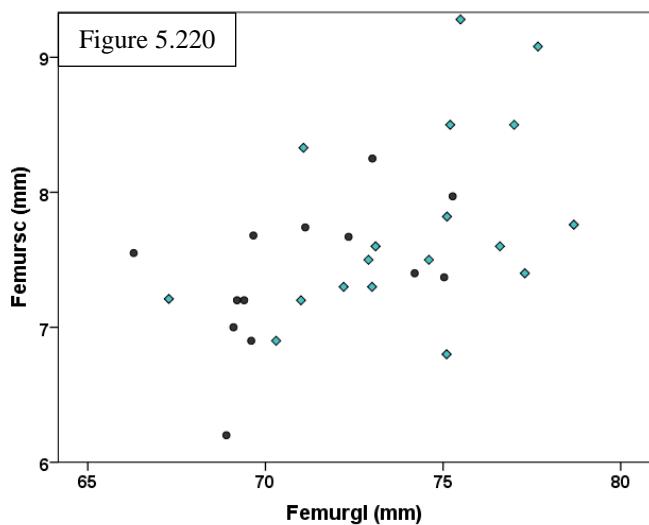


Species

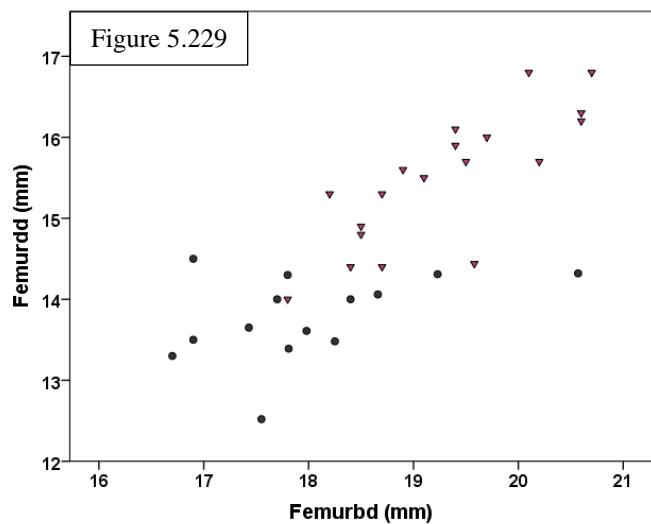
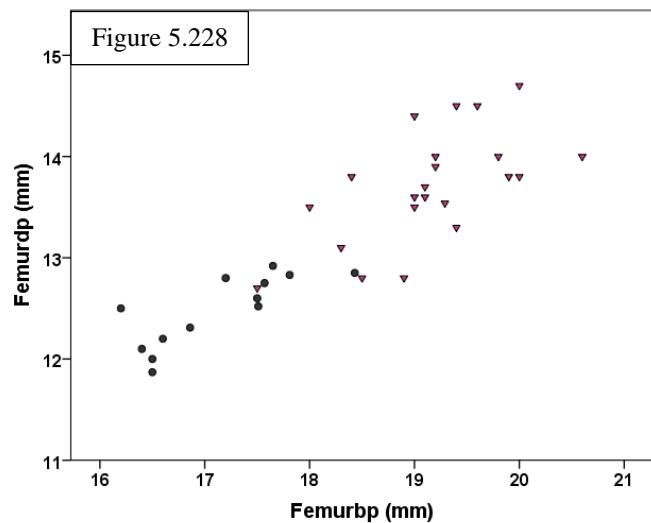
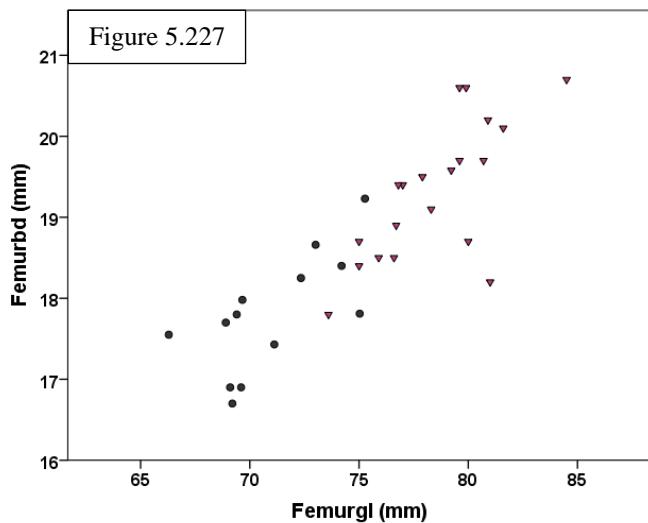
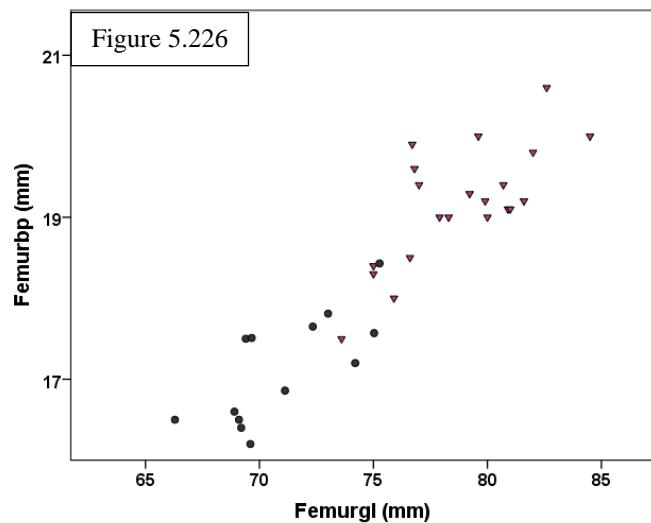
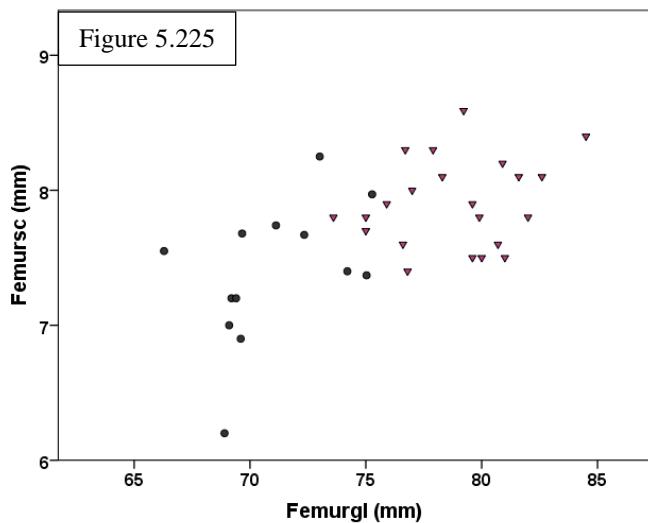
Anser albifrons/Anser anser (wild and domestic form)



Anser albifrons/Anser brachyrhynchus



Anser albifrons/*Anser fabalis*



Anser anser (wild and domestic form)/Anser brachyrhynchus

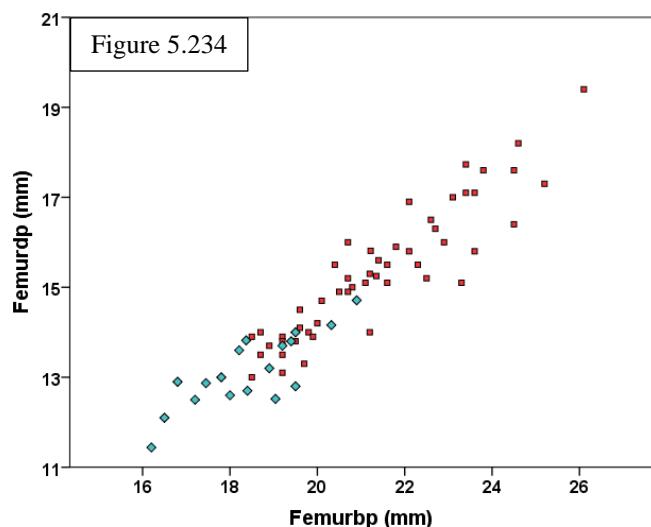
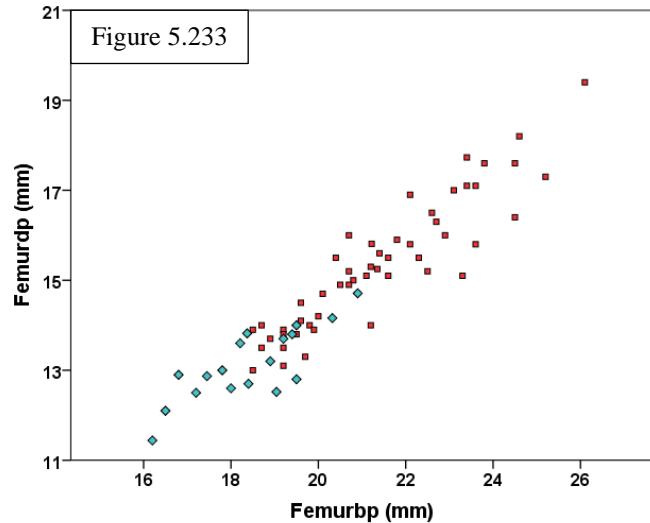
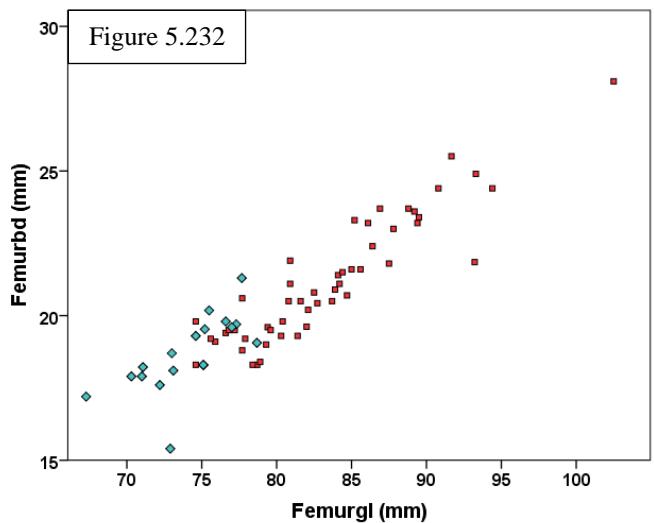
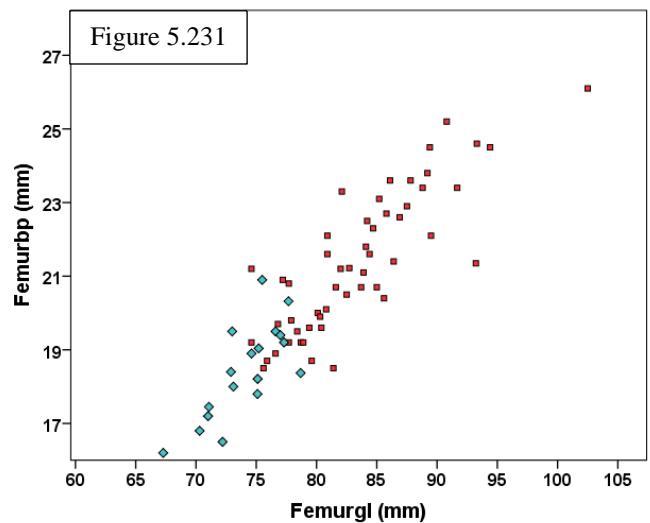
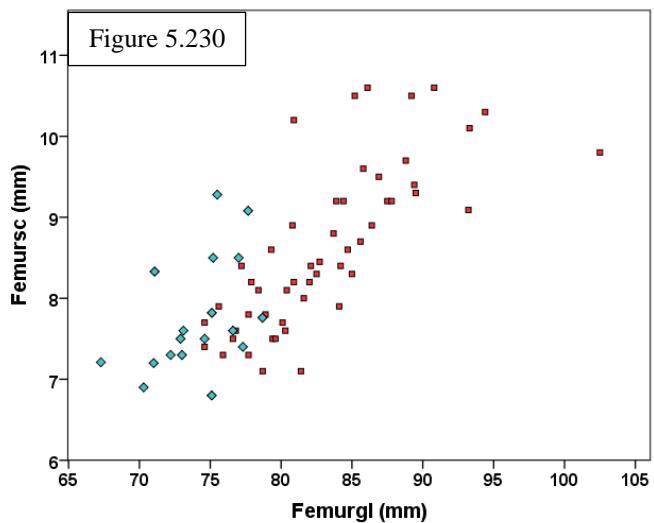
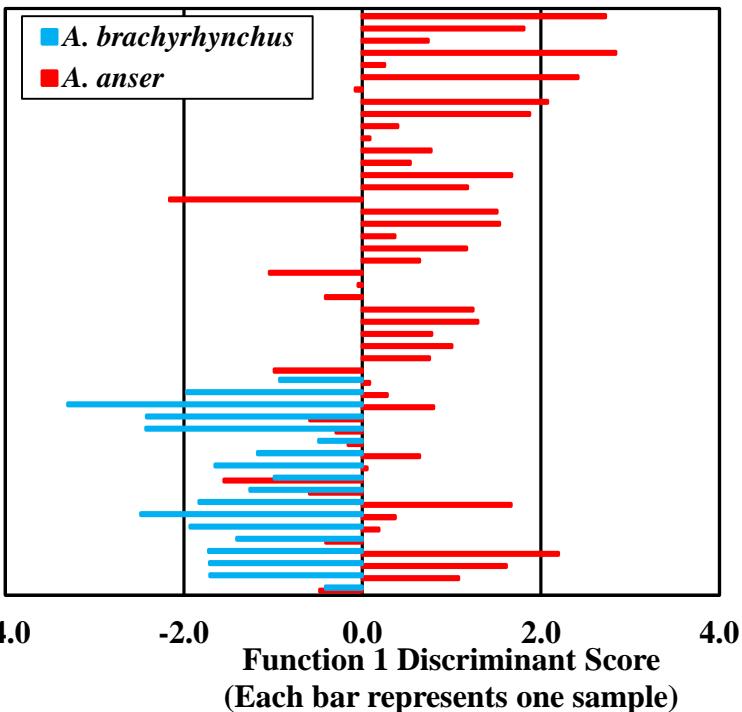


Figure 5.235



Measurements	Femurlm Femurbp Femurdp Femurdcap Femurbd Femurdd
Box's M sig.	0.004
Wilks' Lambda sig.	0.000
Function 1 % of Variance	100.0

Classification results summary

	Original group	Predicted Group Membership		Total
		A. anser	A. brachyrhynchus	
Count	A. anser	44	4	48
	A. brachyrhynchus	3	15	18
%	A. anser	91.7	8.3	100
	A. brachyrhynchus	16.7	83.3	100

89.4% of original grouped cases correctly classified.

Anser anser (wild and domestic form)/Anser fabalis

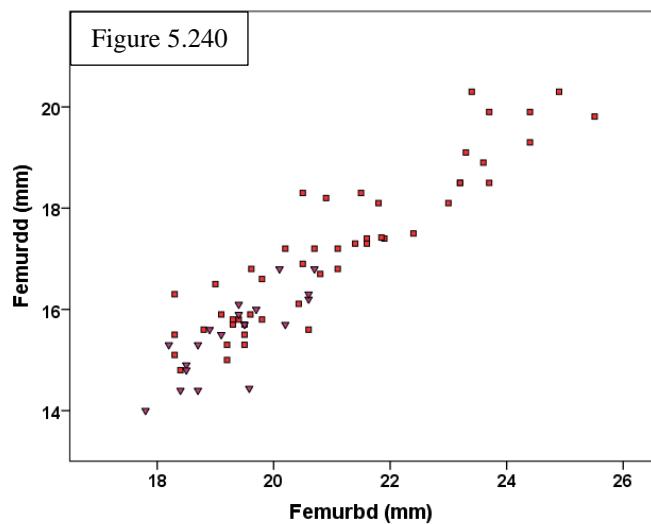
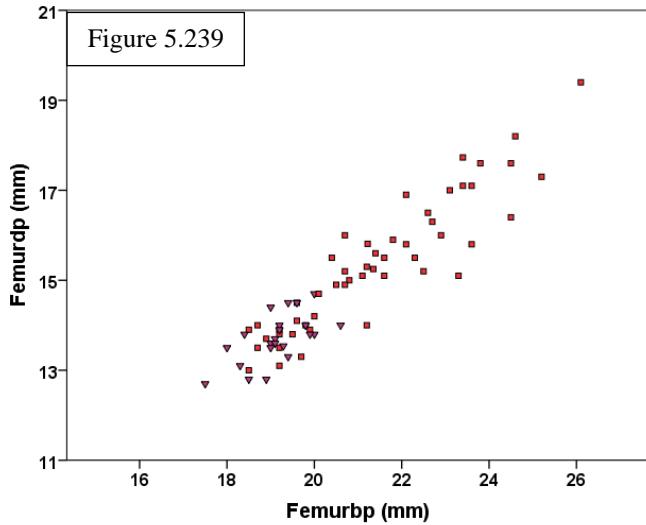
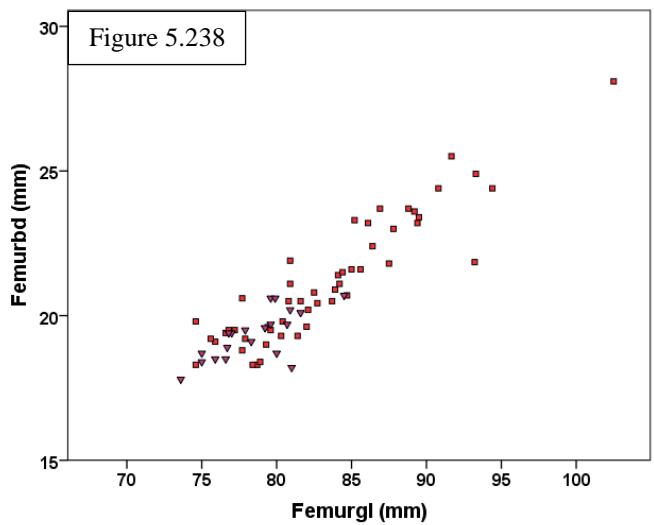
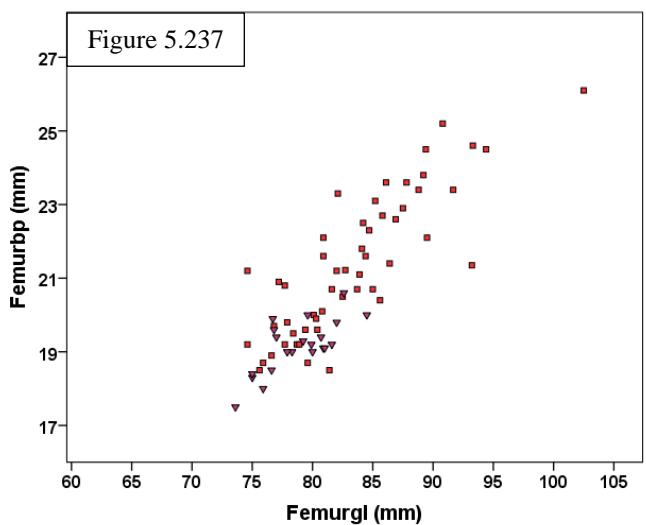
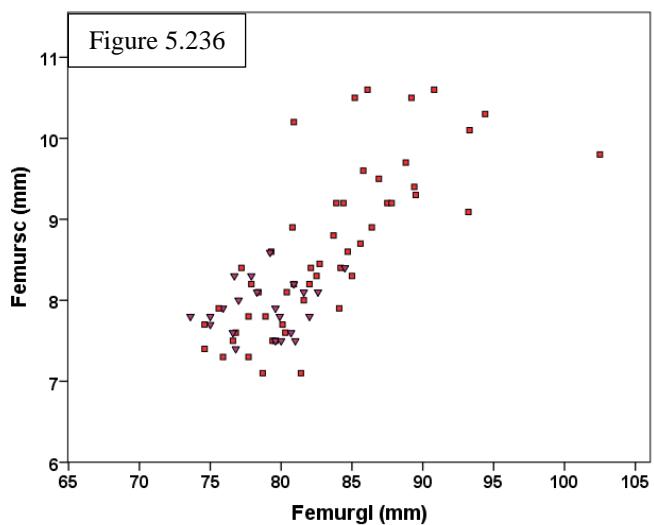
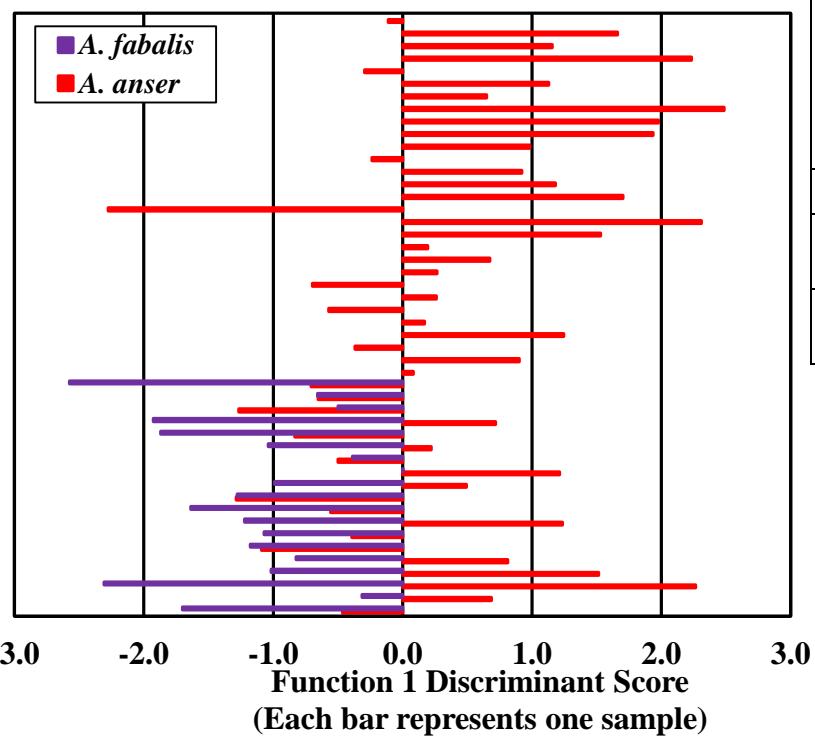


Figure 5.241



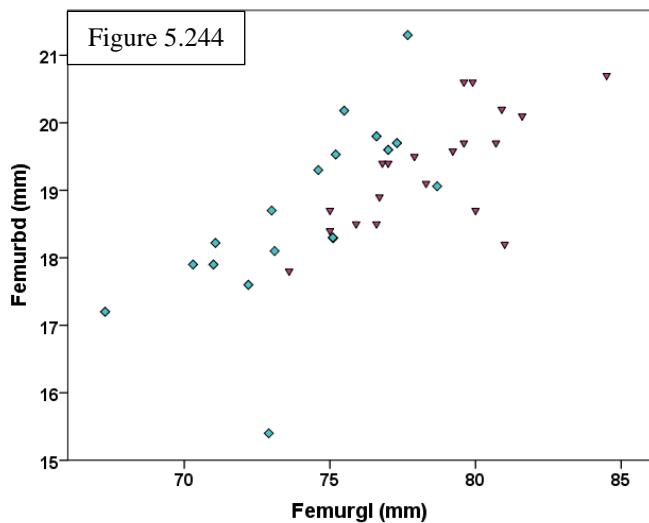
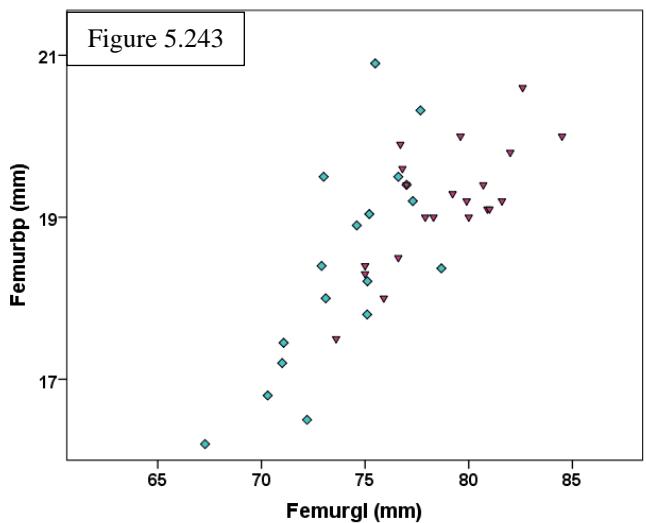
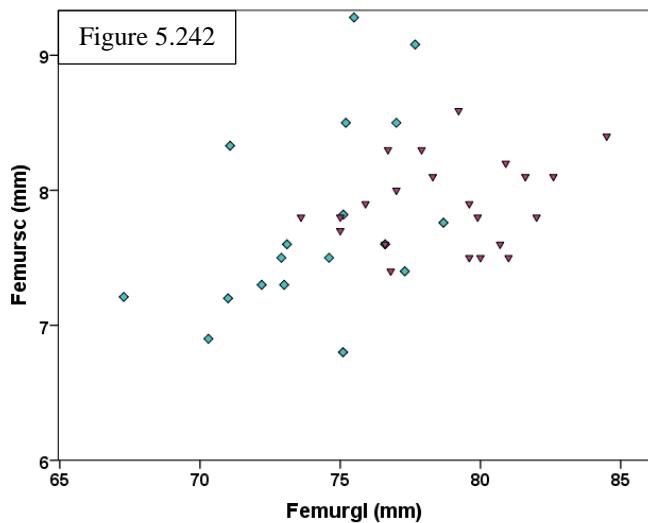
Measurements	Femurlm Femurbp Femurdp Femurdcap Femurbd Femurdd
Box's M sig.	0.038
Wilks' Lambda sig.	0.000
Function 1	100.0
% of Variance	

Classification results summary

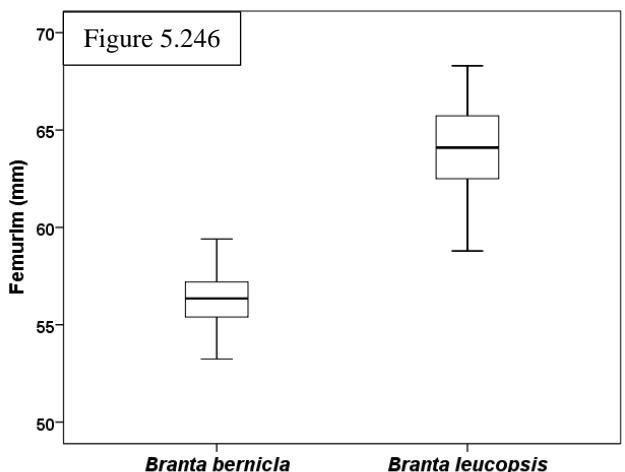
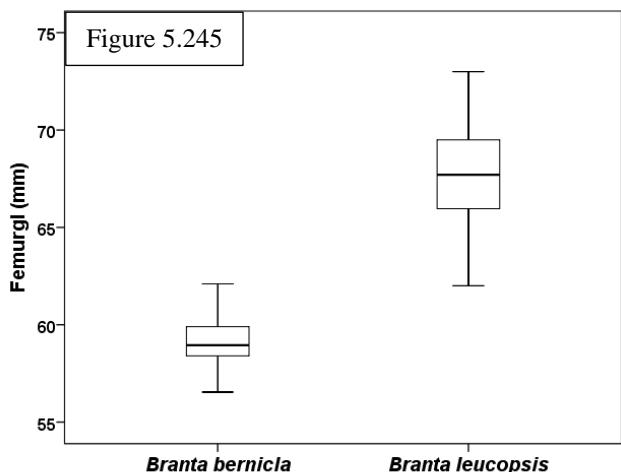
	Original group	Predicted Group Membership		Total
		A. anser	A. fabalis	
Count	A. anser	44	4	48
	A. fabalis	6	13	19
%	A. anser	91.7	8.3	100
	A. fabalis	3.16	68.4	100

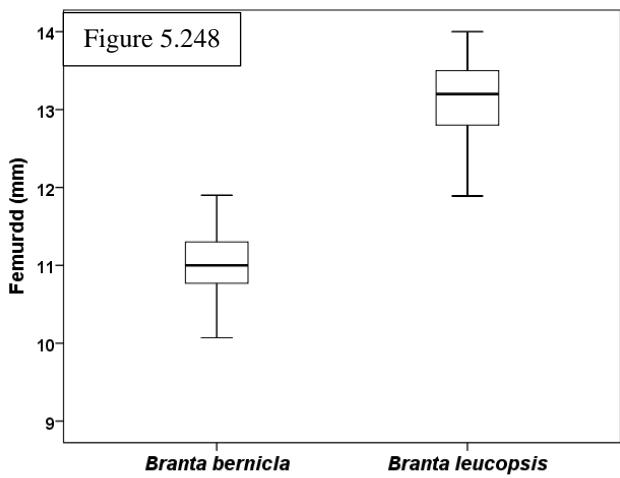
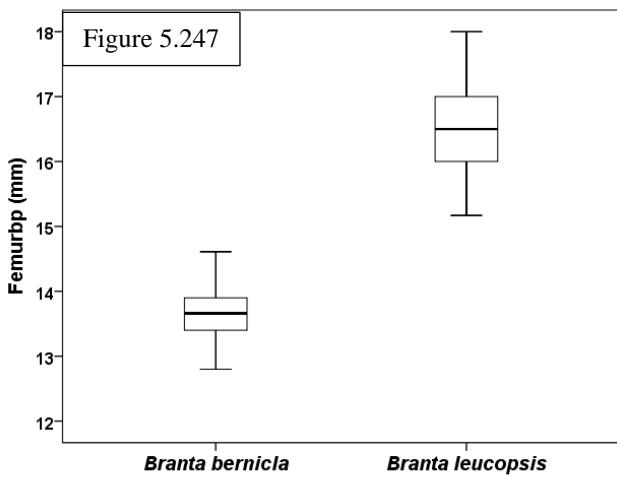
85.1% of original grouped cases correctly classified.

Anser brachyrhynchus/Anser fabalis

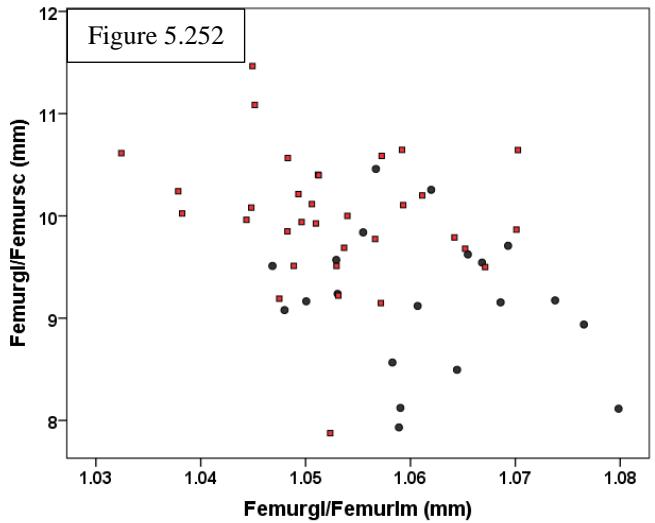
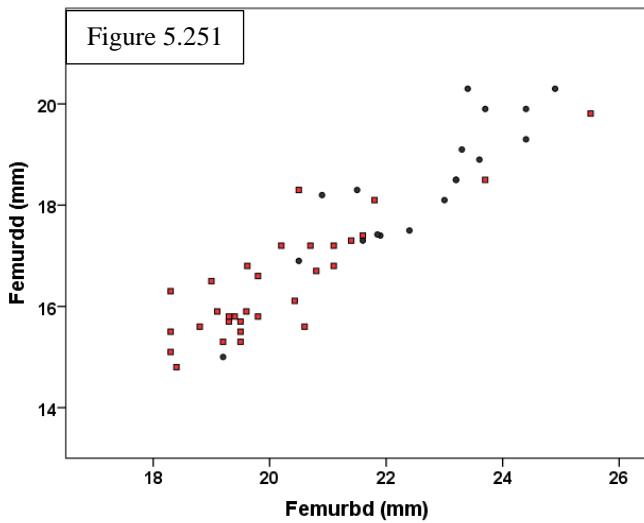
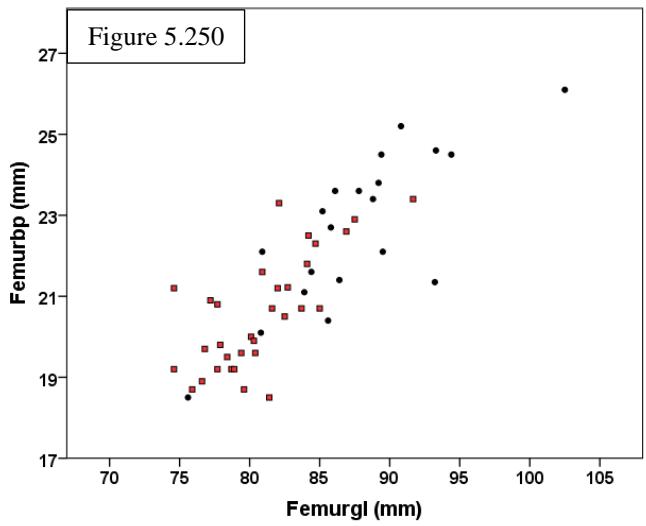
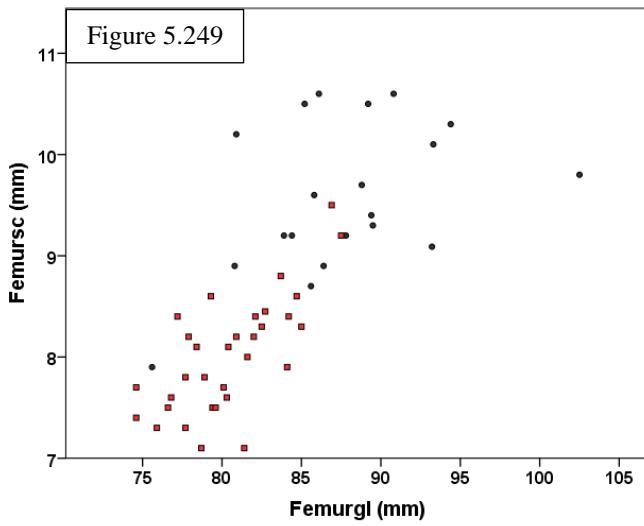


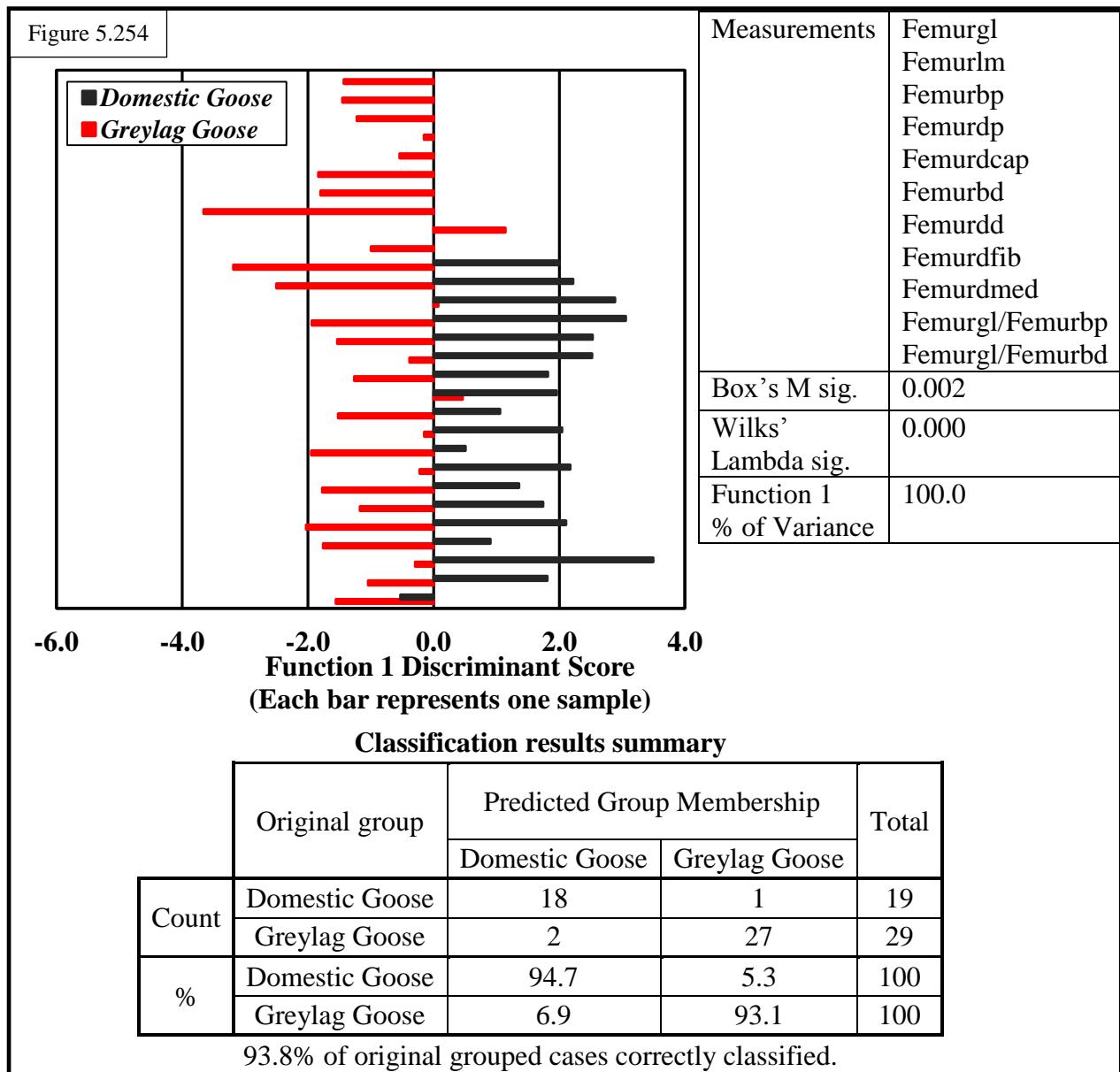
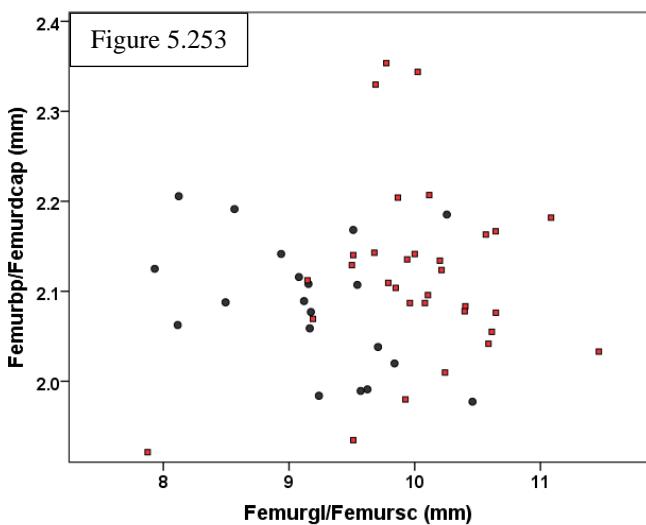
Branta bernicla/Branta leucopsis





Wild compared to domestic (*Anser anser*)

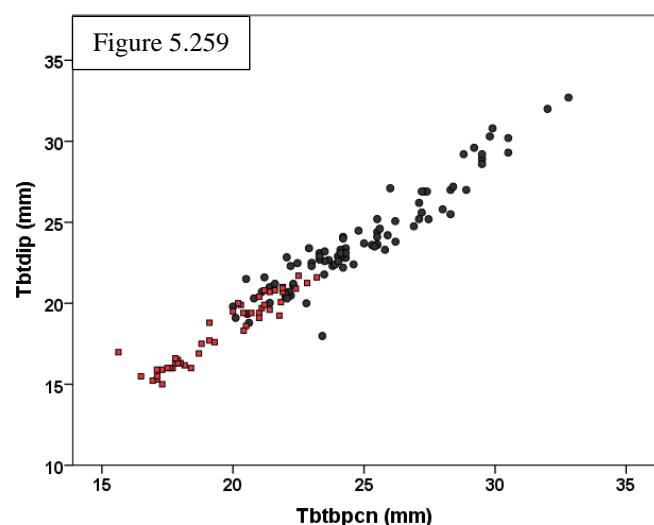
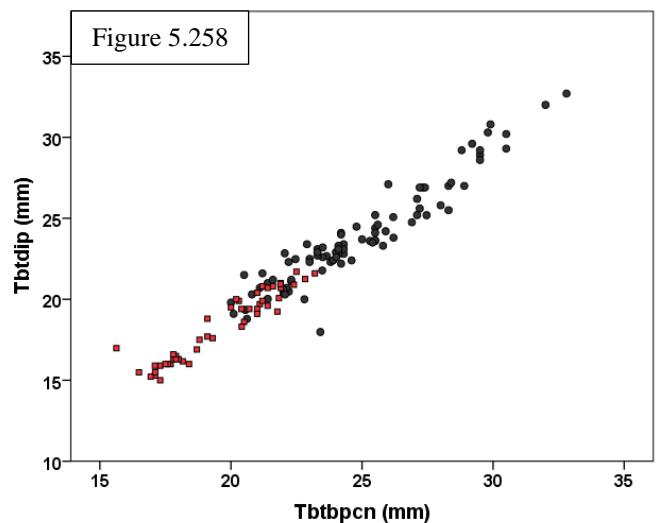
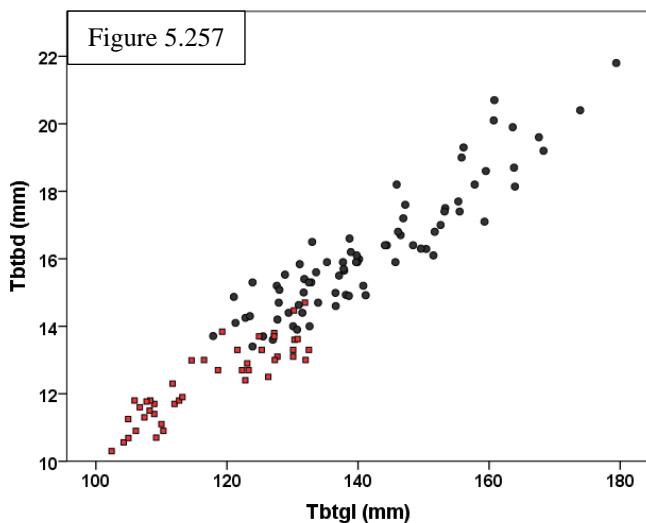
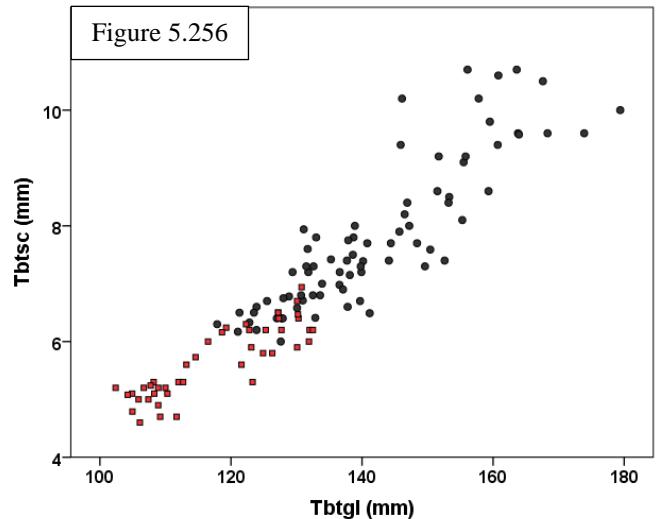
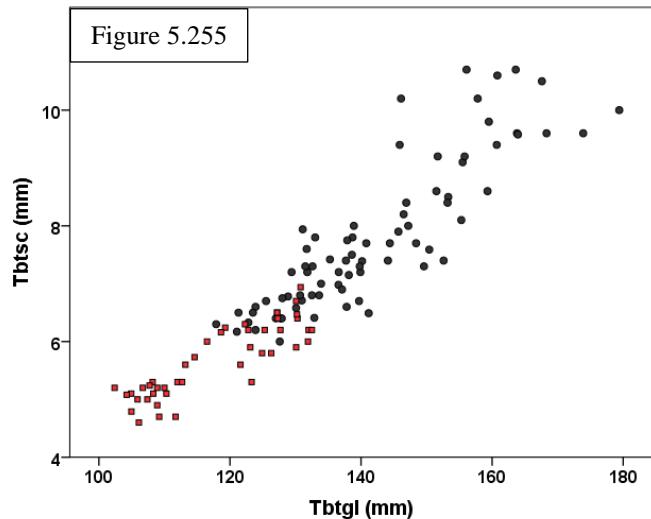




Tibiotarsus

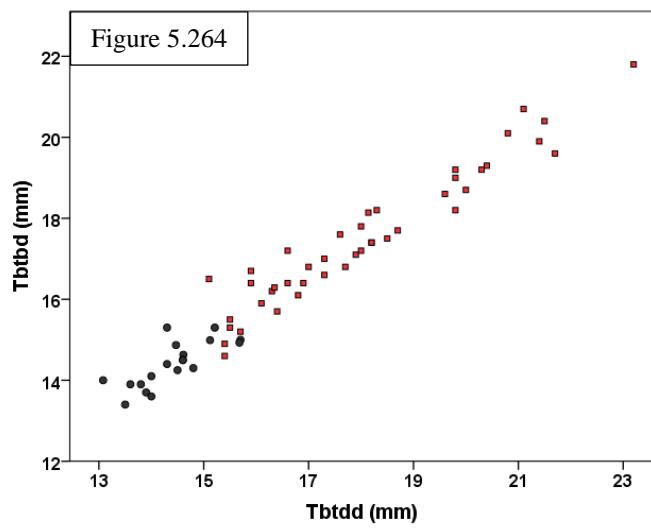
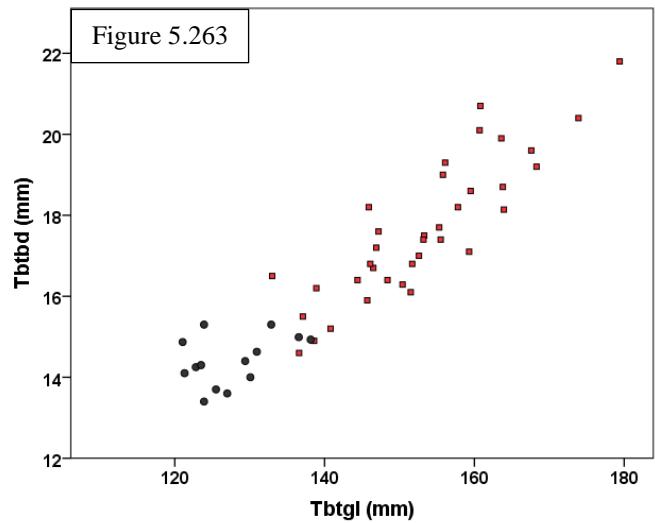
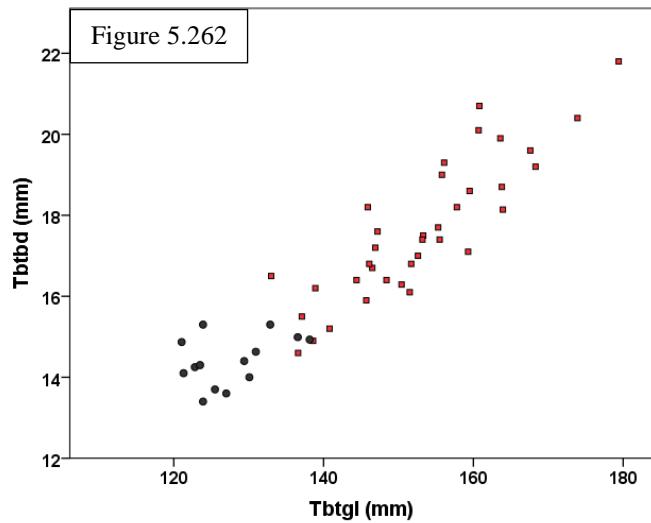
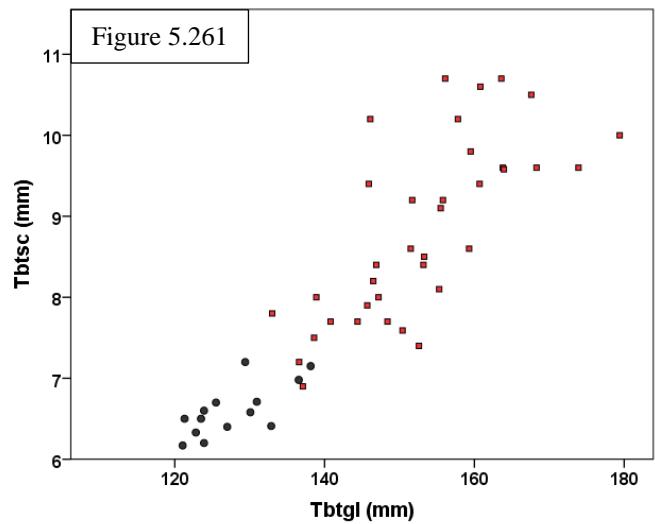
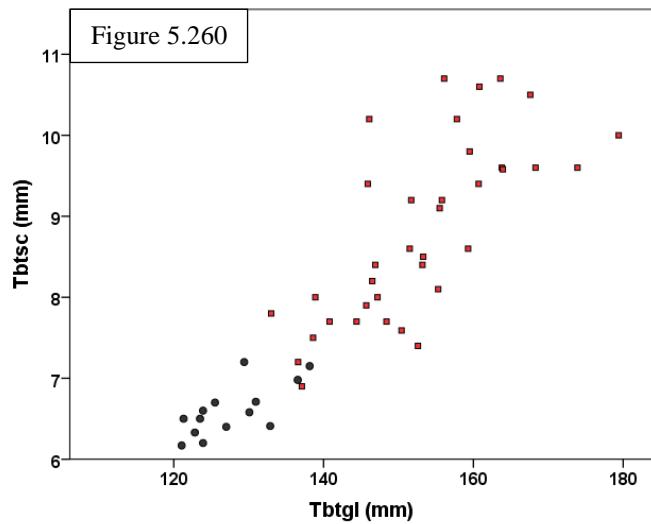
Genus

Anser/Branta

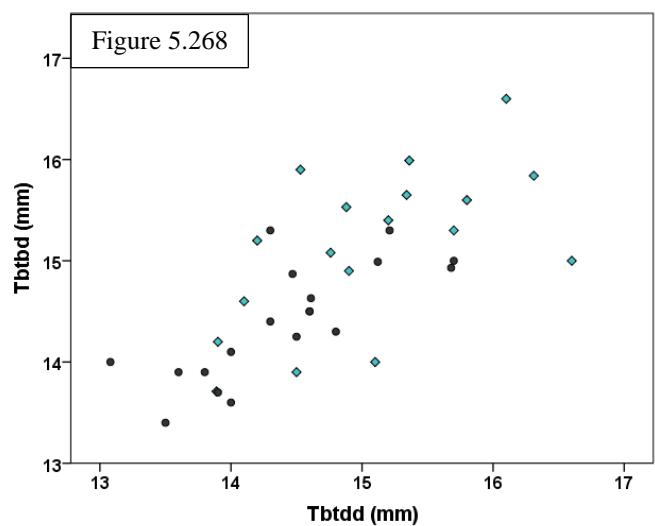
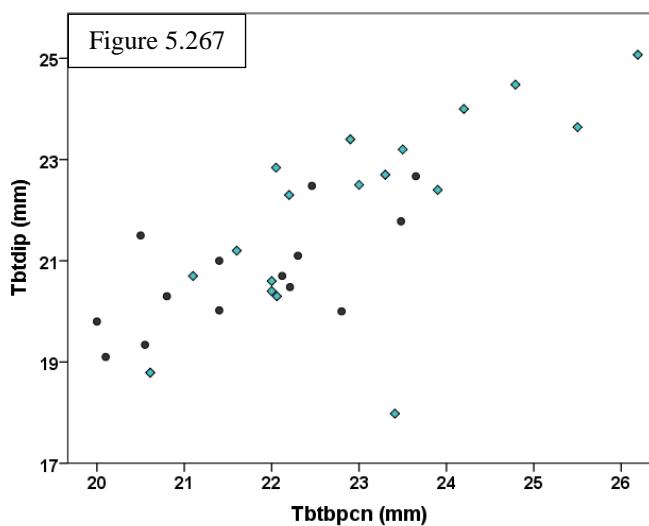
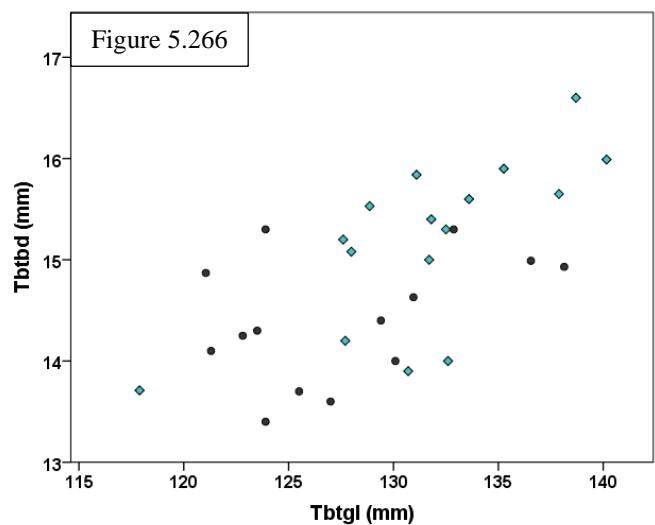
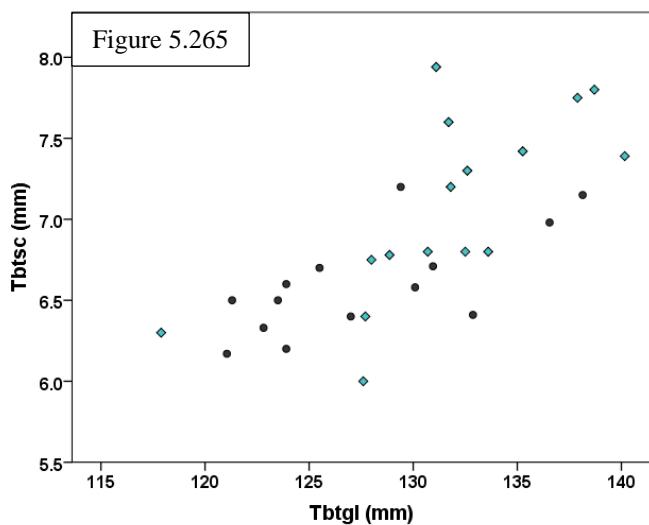


Species

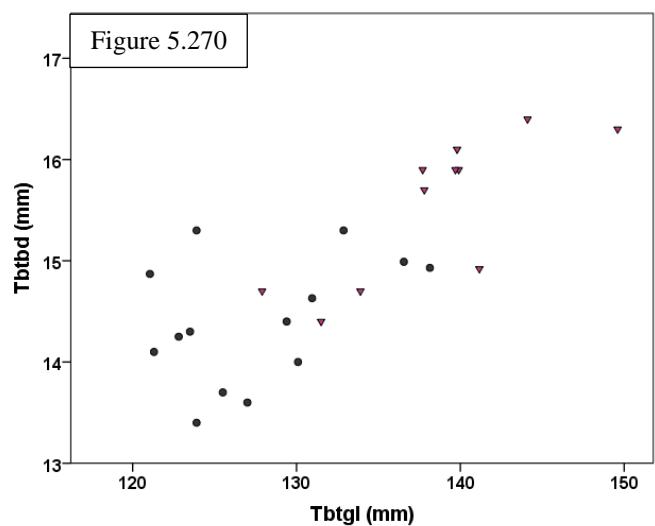
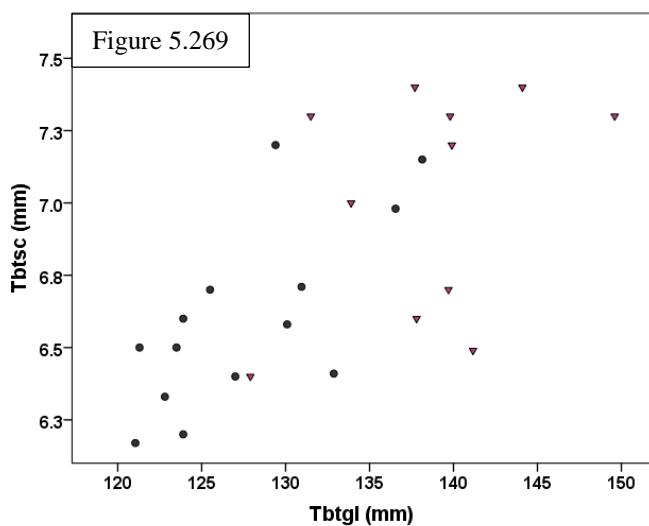
Anser albifrons/Anser anser (wild and domestic form)

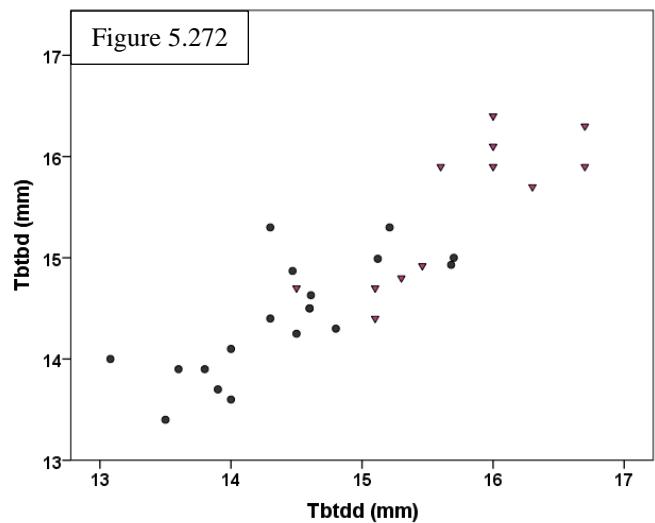
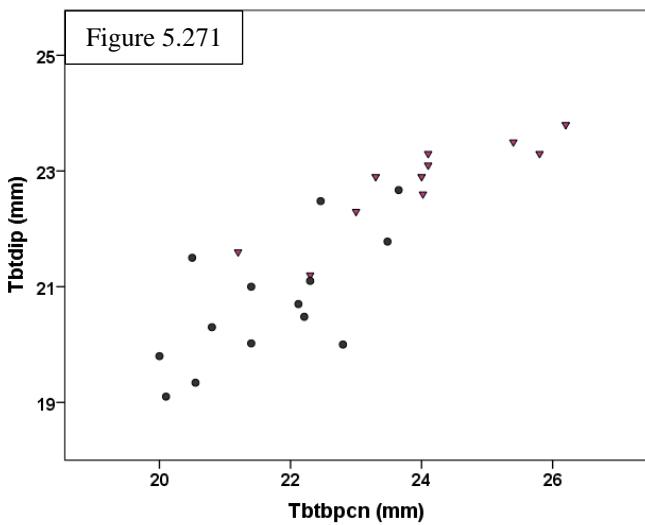


Anser albifrons/Anser brachyrhynchus



Anser albifrons/Anser fabalis





Anser anser (wild and domestic form)/Anser brachyrhynchus

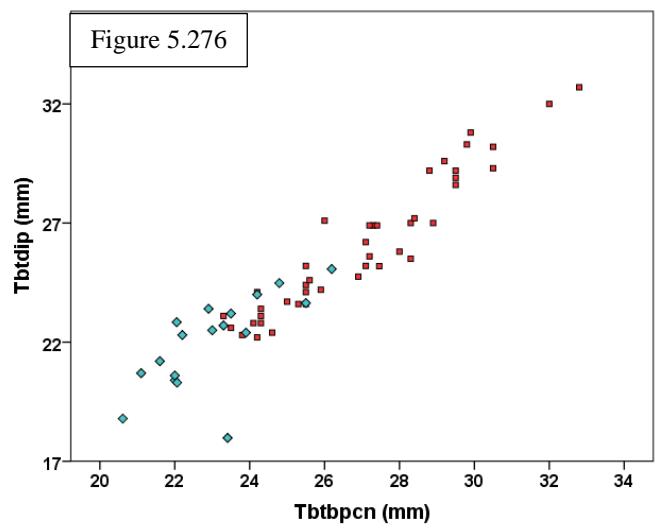
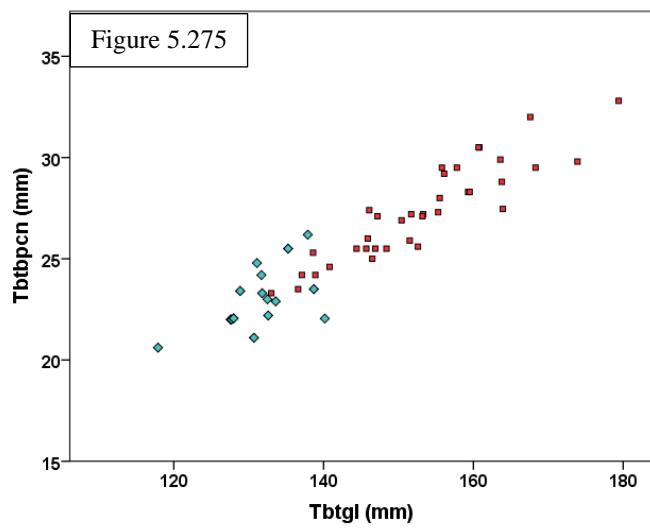
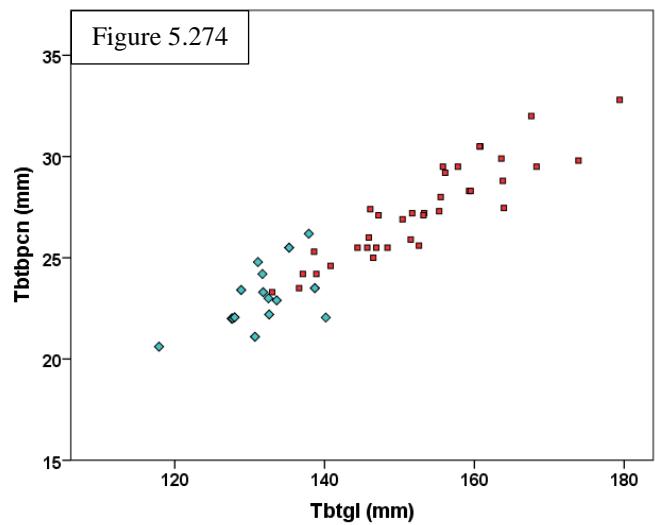
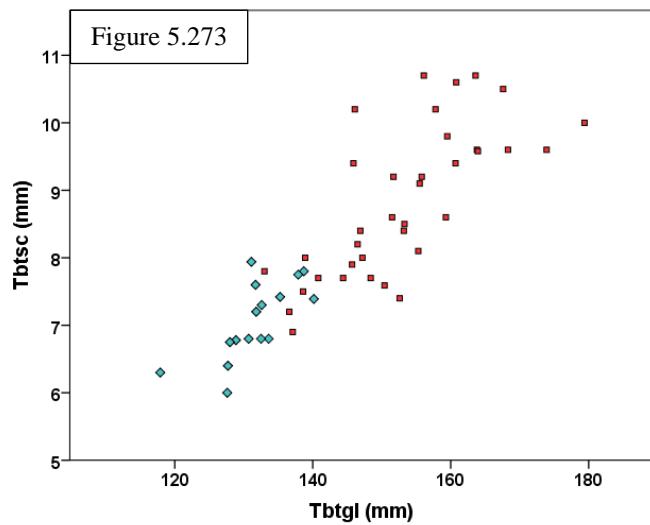
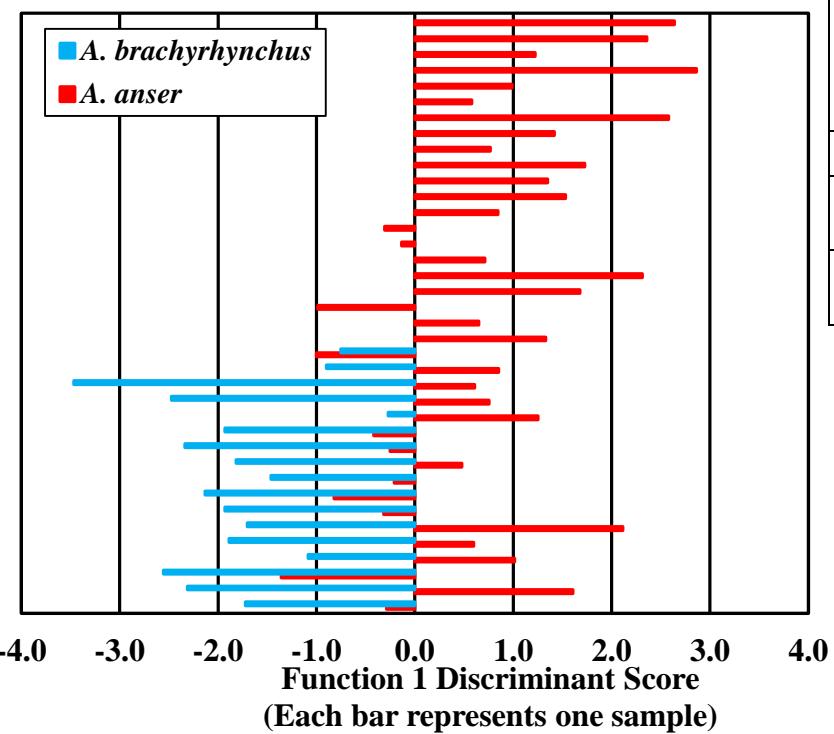


Figure 5.277



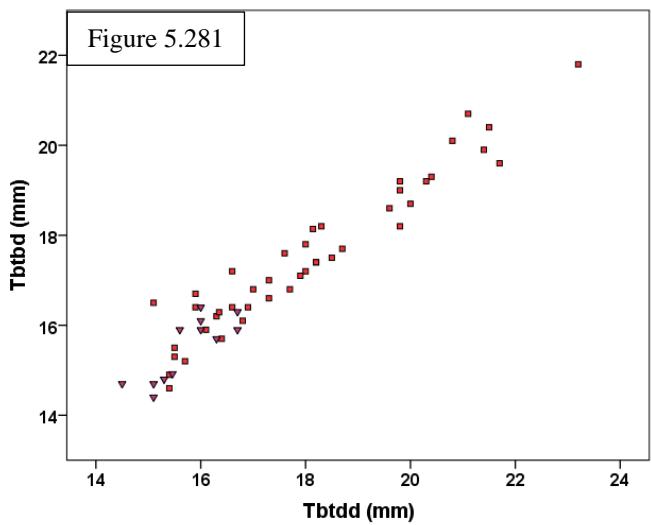
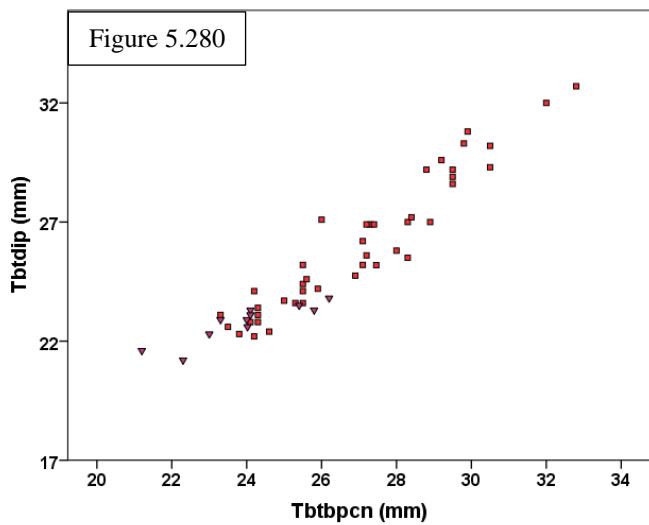
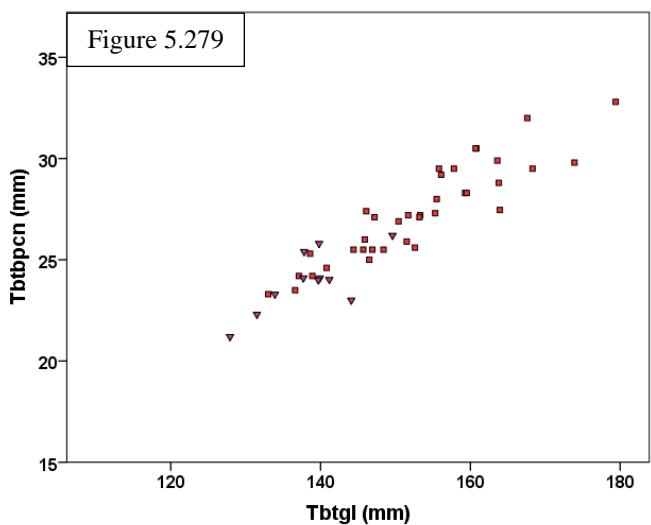
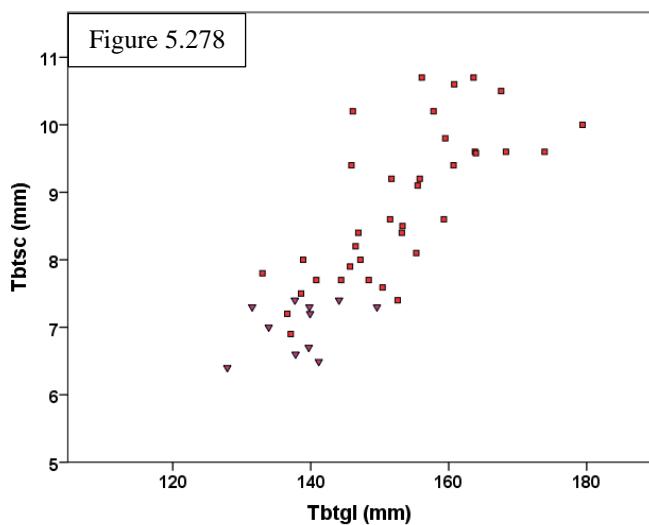
Measurements	Tbtla Tbtsc Tbtbpcn Tbtbd Tbtdd
Box's M sig.	0.000
Wilks' Lambda sig.	0.000
Function 1 % of Variance	100.0

Classification results summary

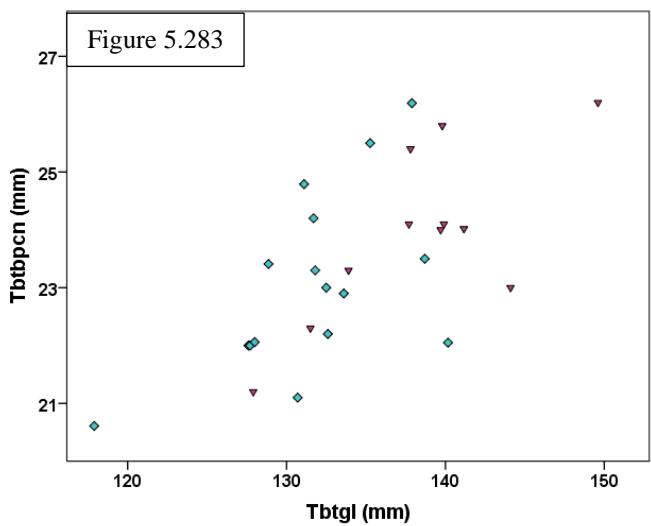
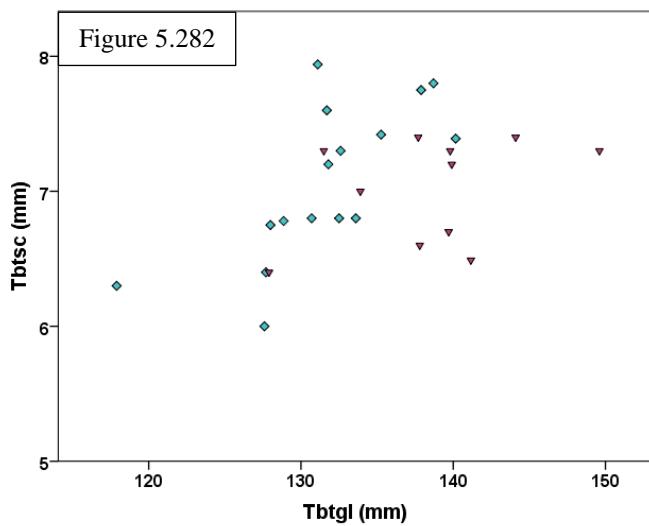
	Original group	Predicted Group Membership		Total
		A. anser	A. brachyrhynchus	
Count	A. anser	34	4	38
	A. brachyrhynchus	2	15	17
%	A. anser	89.5	10.5	100
	A. brachyrhynchus	1.8	88.2	100

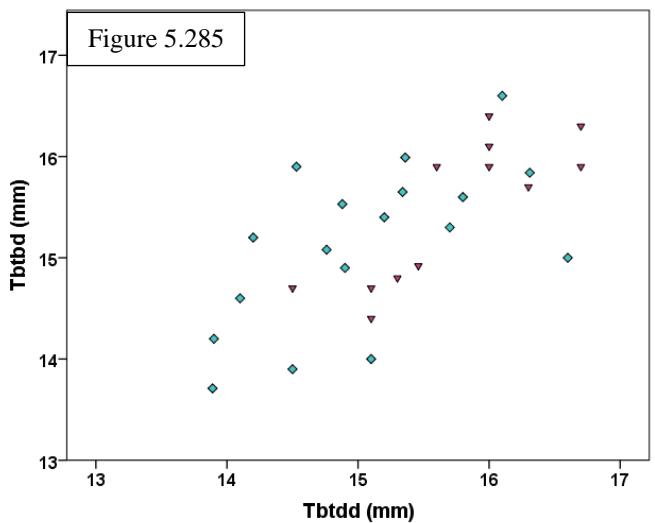
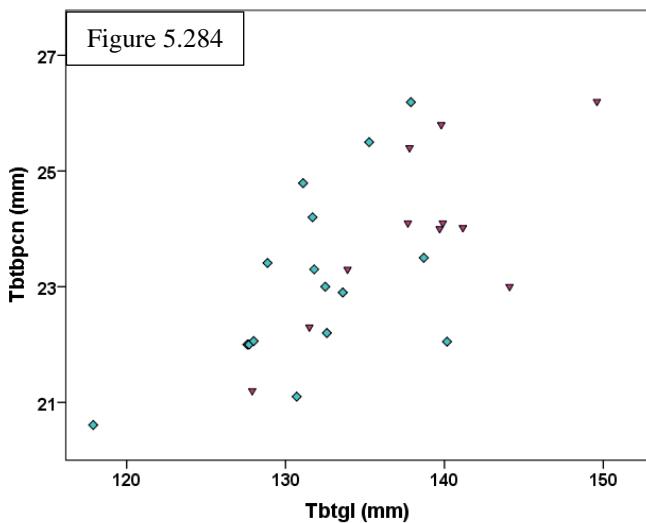
89.1% of original grouped cases correctly classified.

Anser anser (wild and domestic form)/*Anser fabalis*

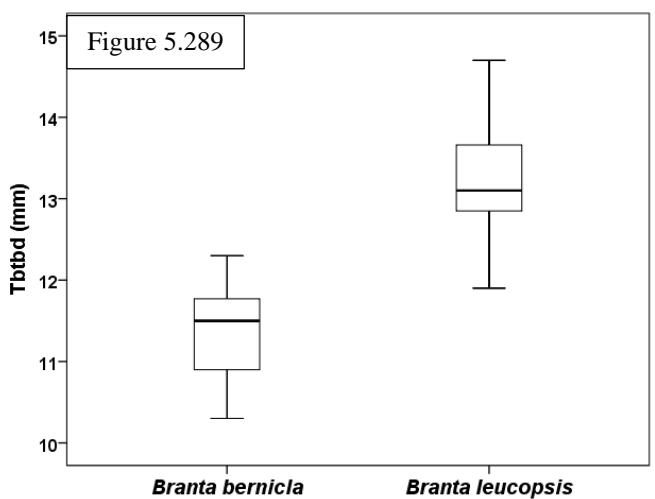
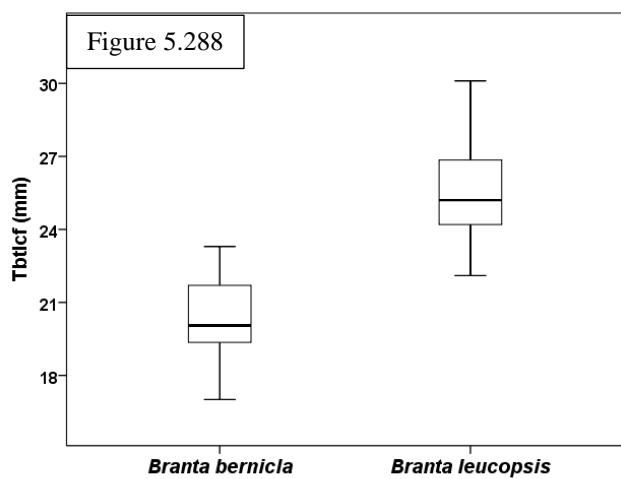
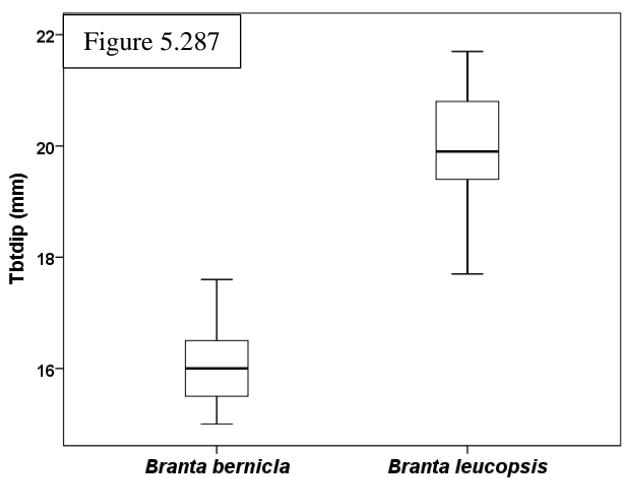
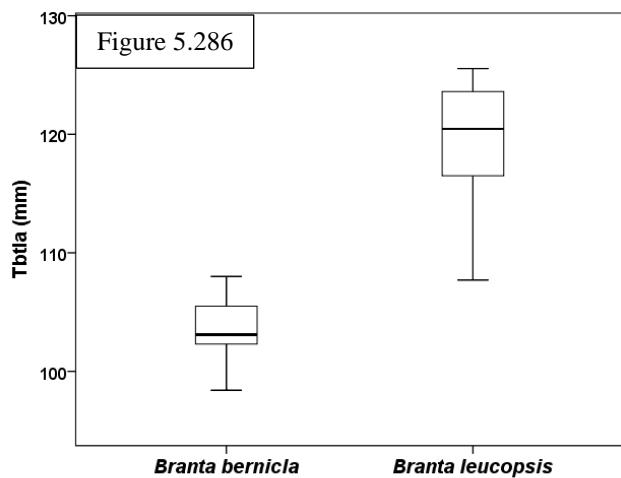


Anser brachyrhynchus/*Anser fabalis*





Branta bernicla/Branta leucopsis



Wild compared to domestic (*Anser anser*)

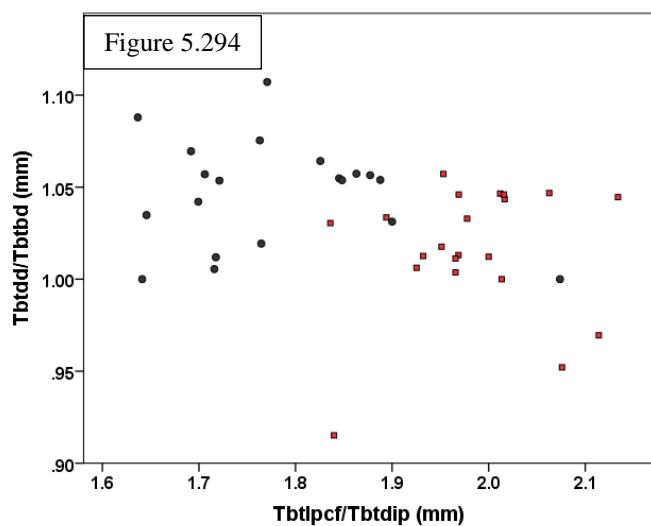
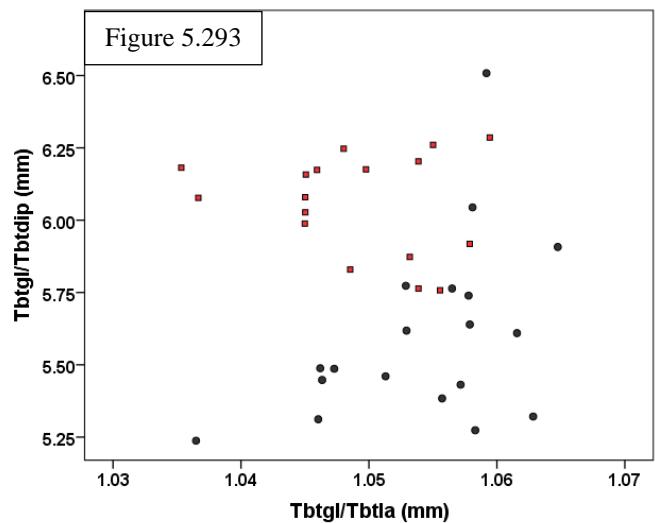
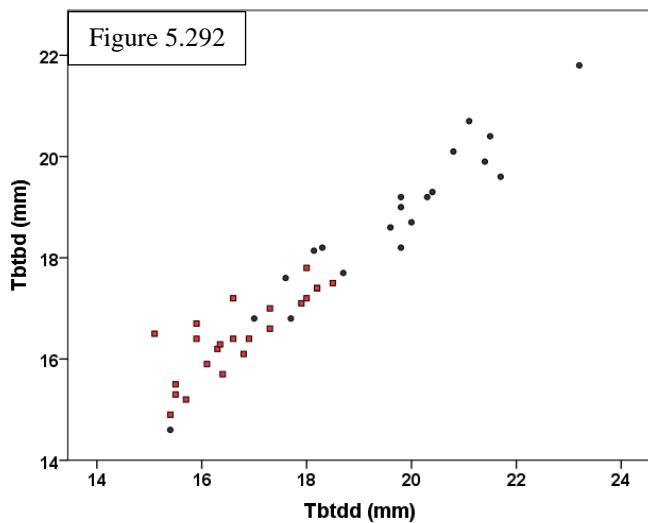
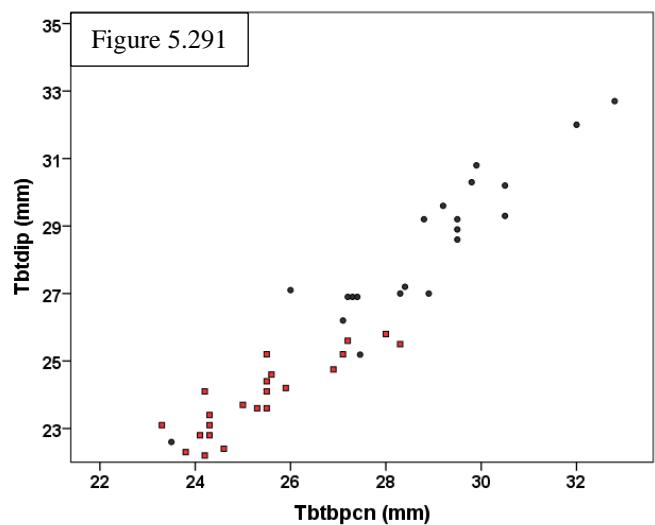
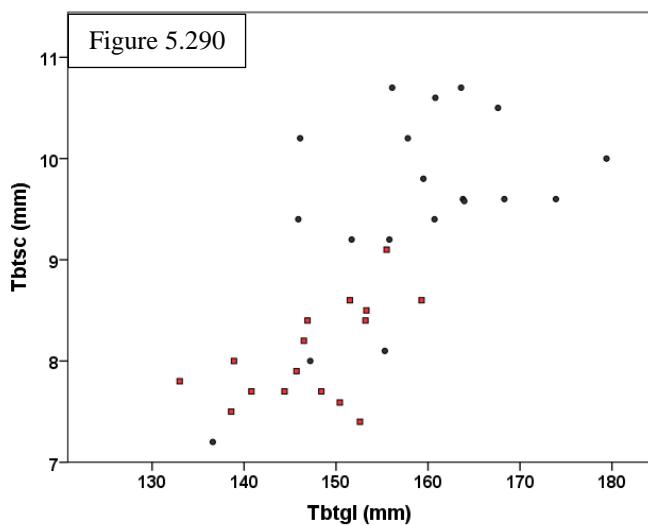
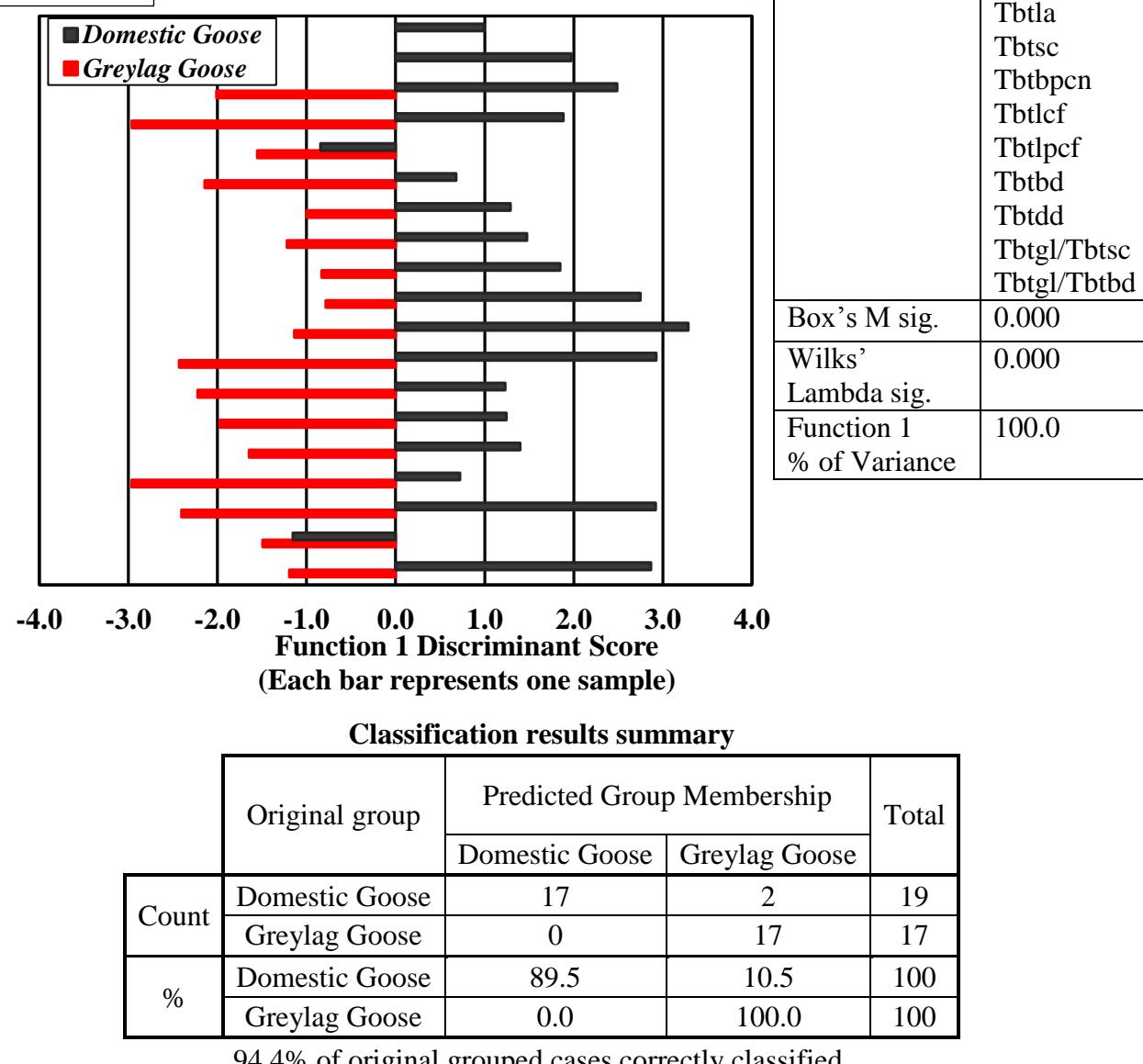


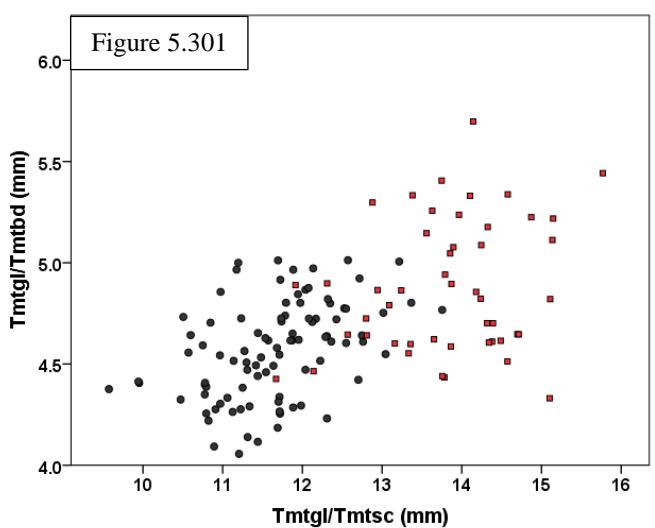
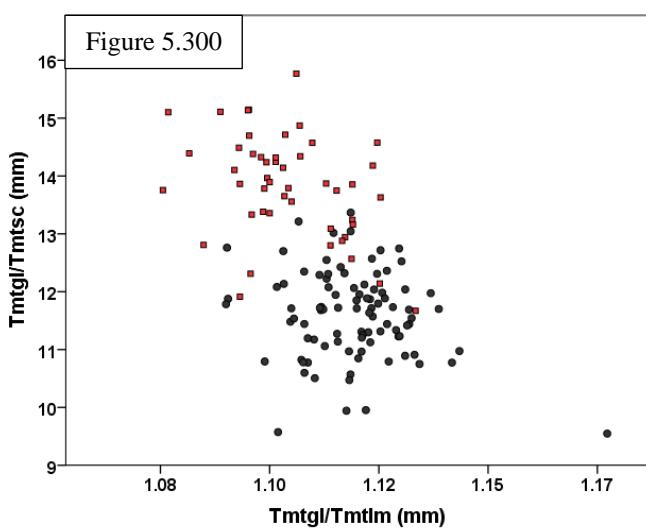
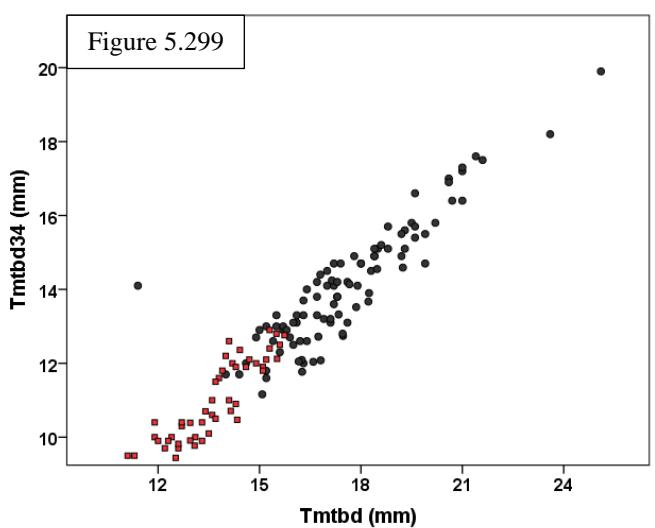
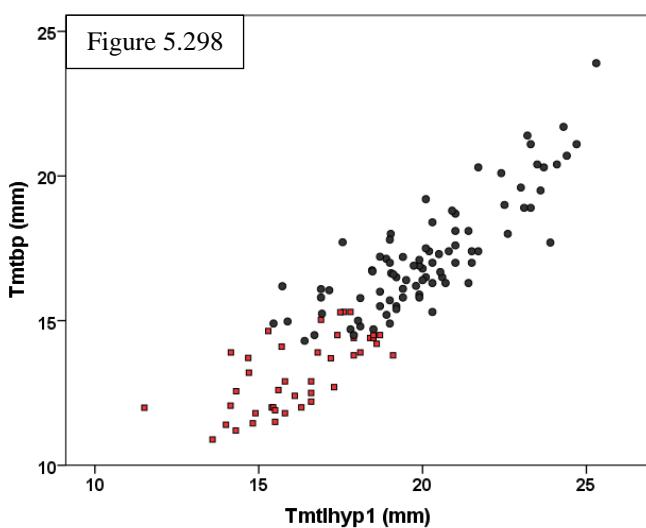
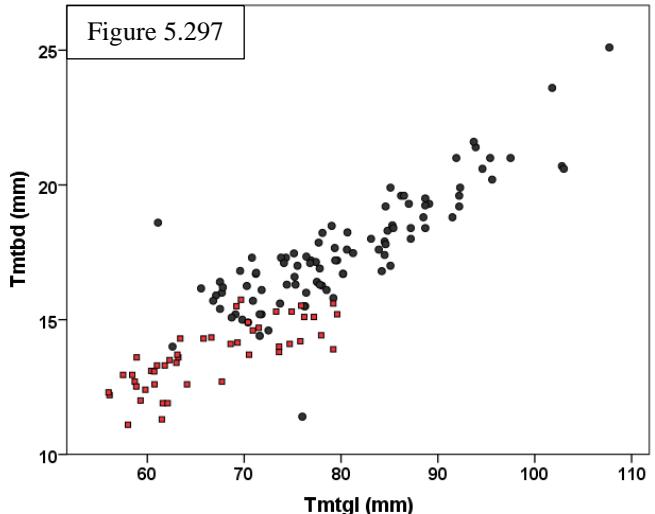
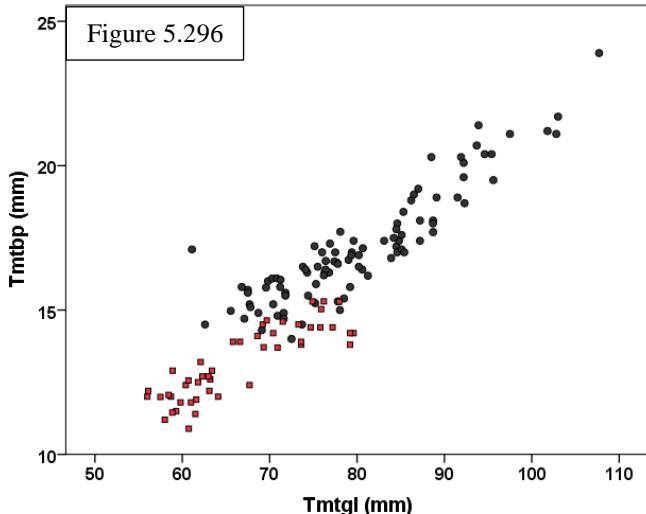
Figure 5.295



Tarsometatarsus

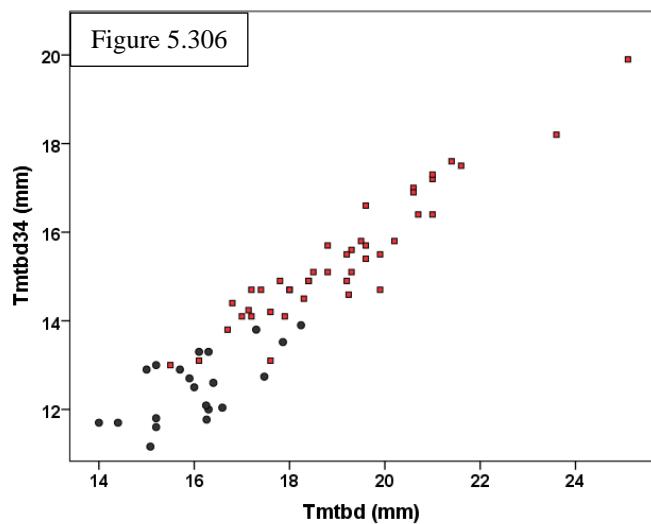
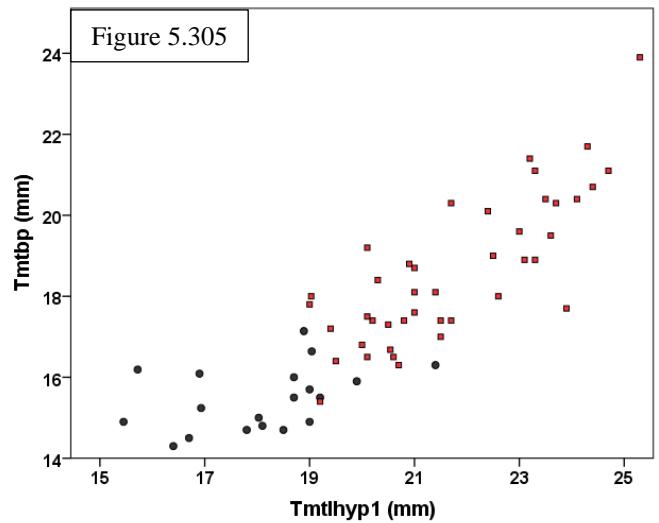
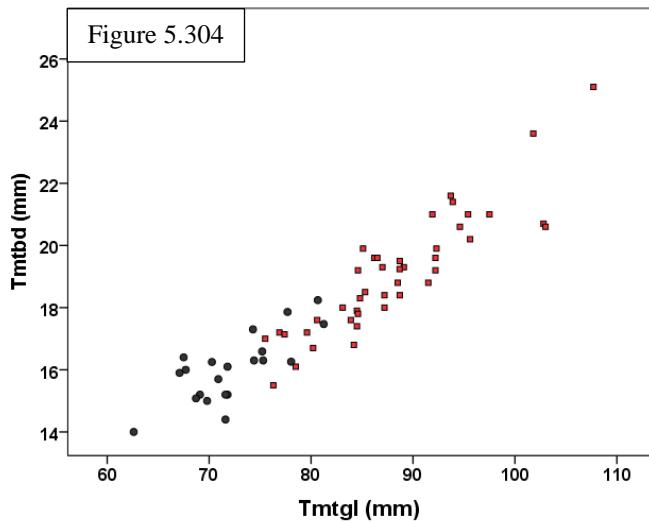
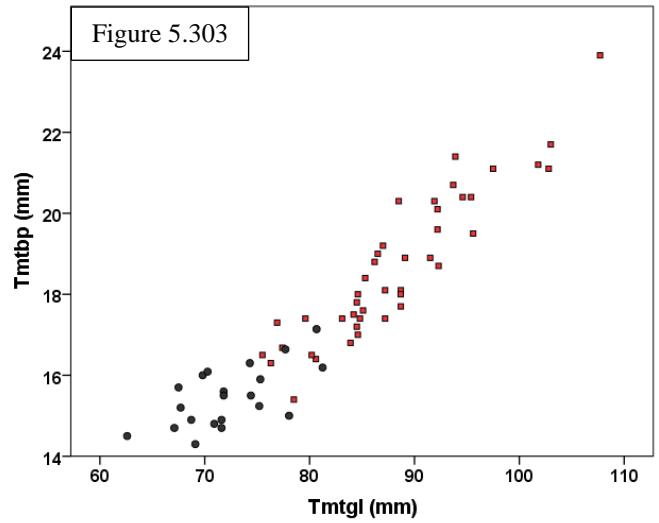
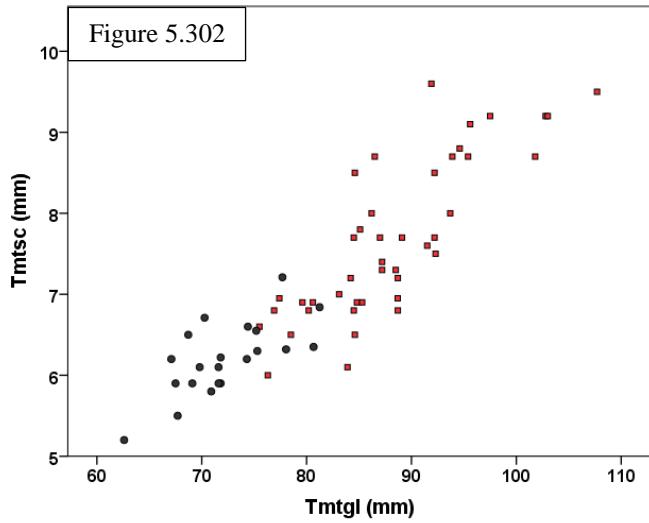
Genus

Anser/Branta

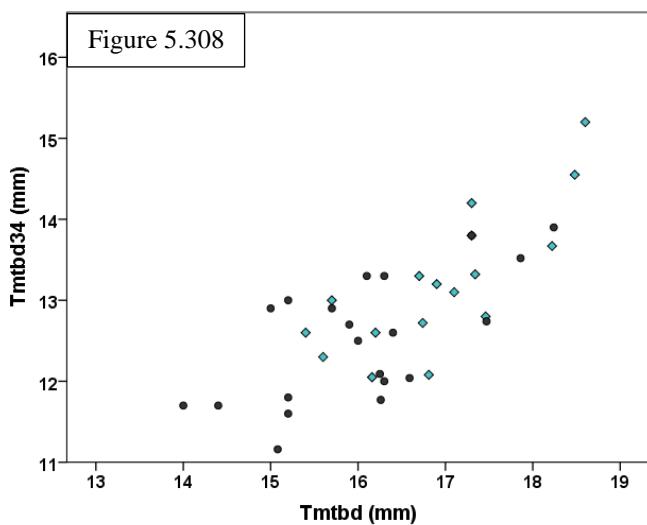
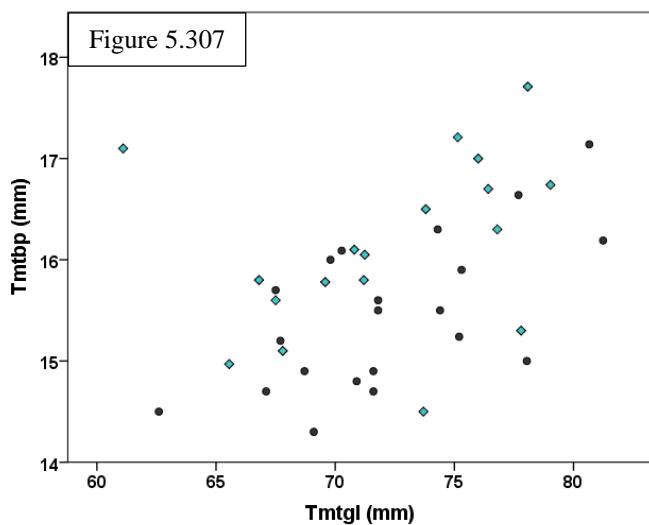


Species

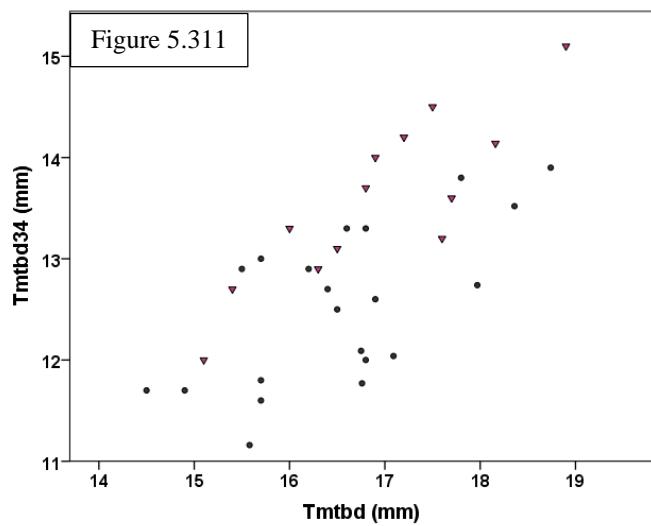
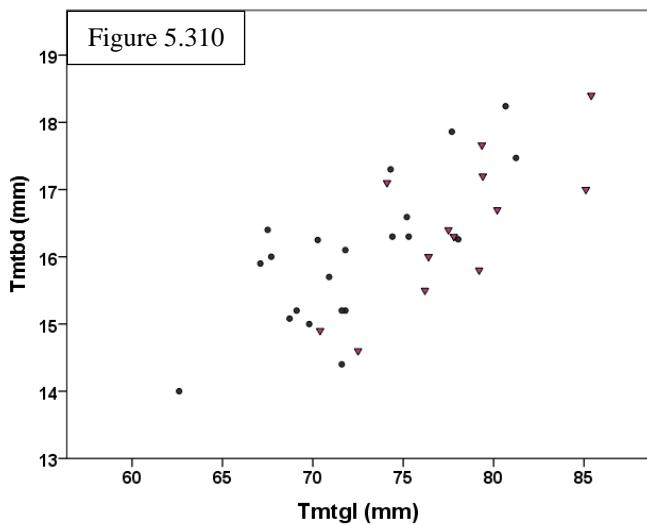
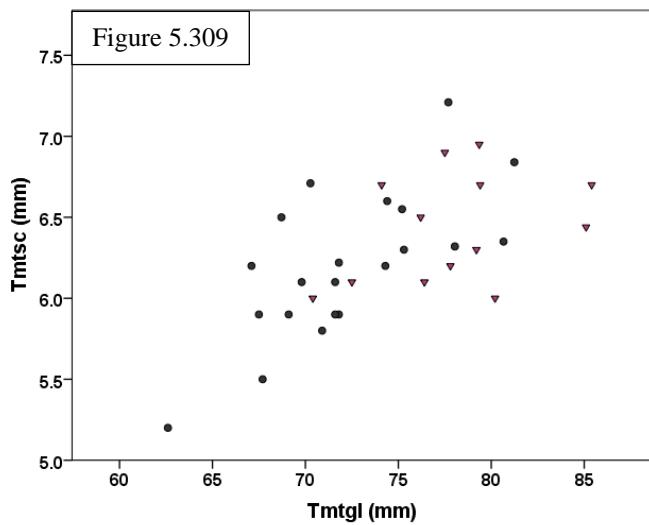
Anser albifrons/Anser anser (wild and domestic form)



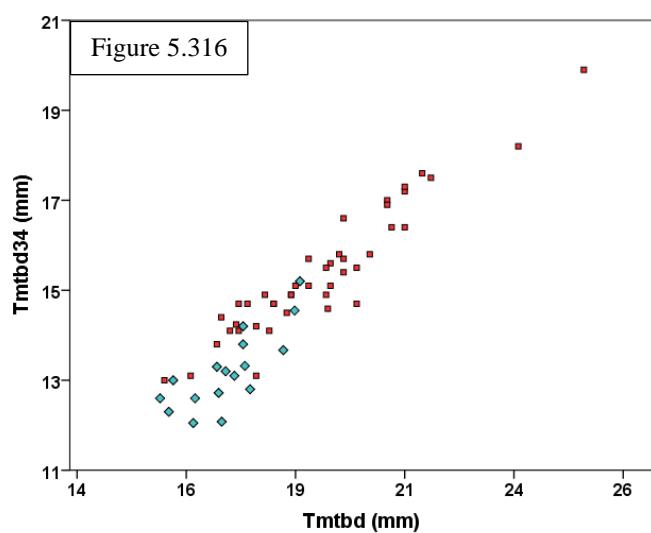
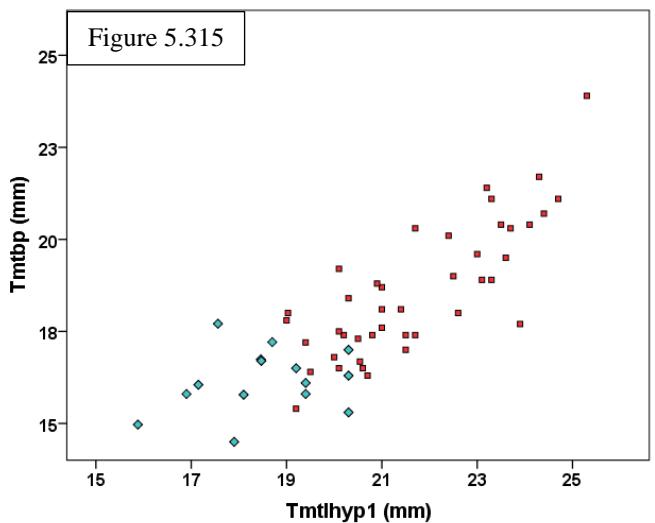
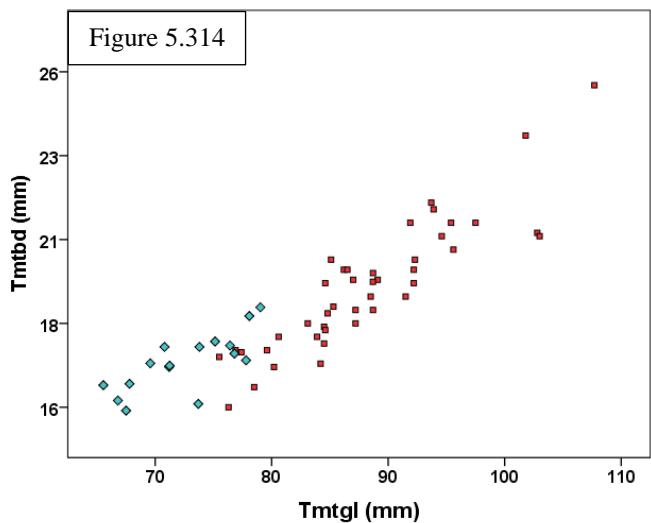
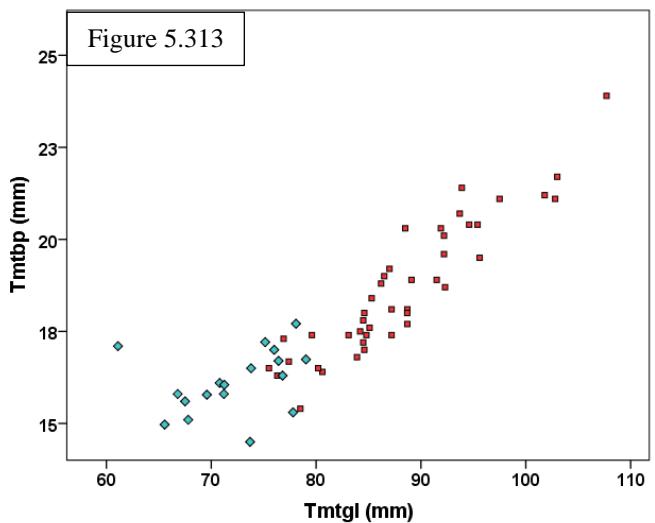
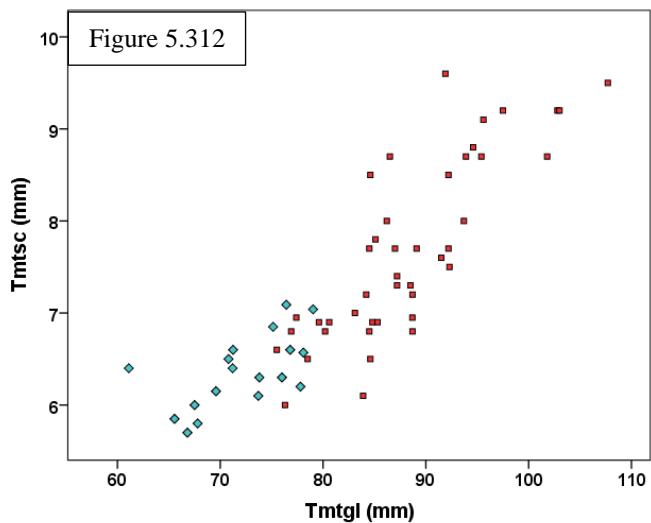
Anser albifrons/Anser brachyrhynchus



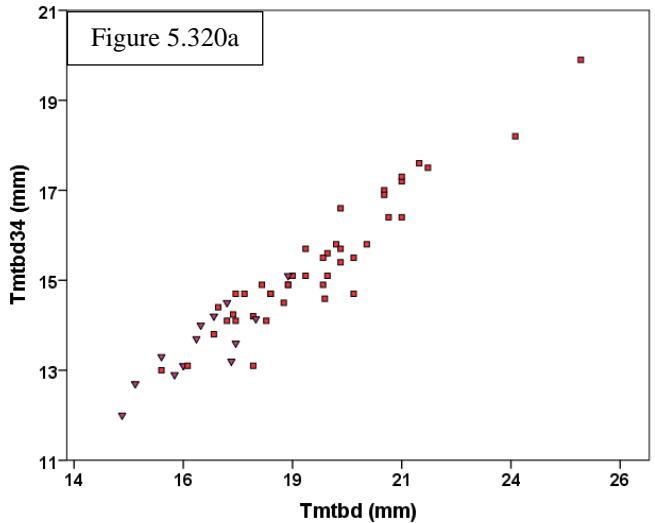
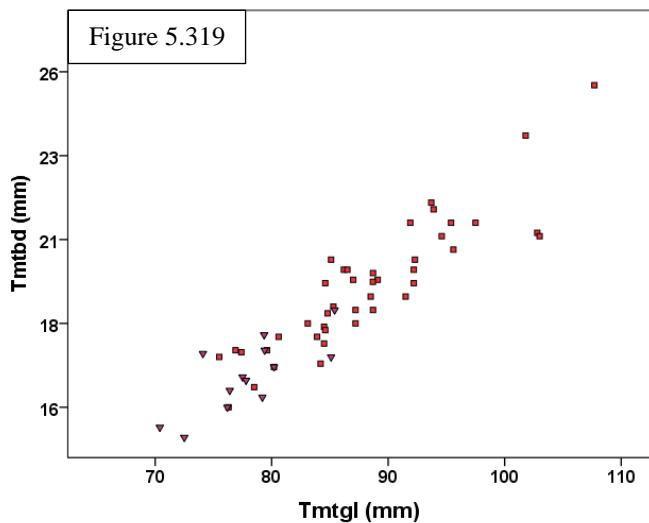
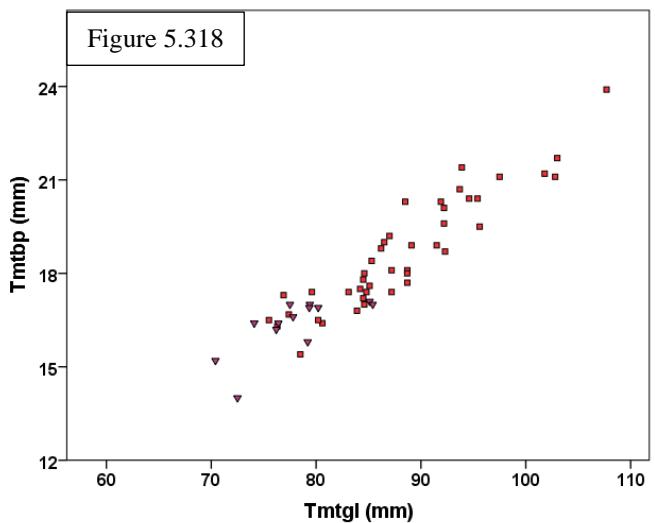
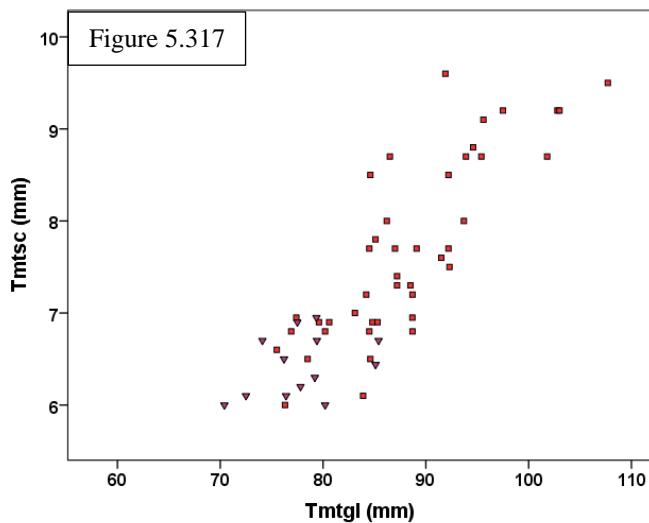
Anser albifrons/Anser fabalis



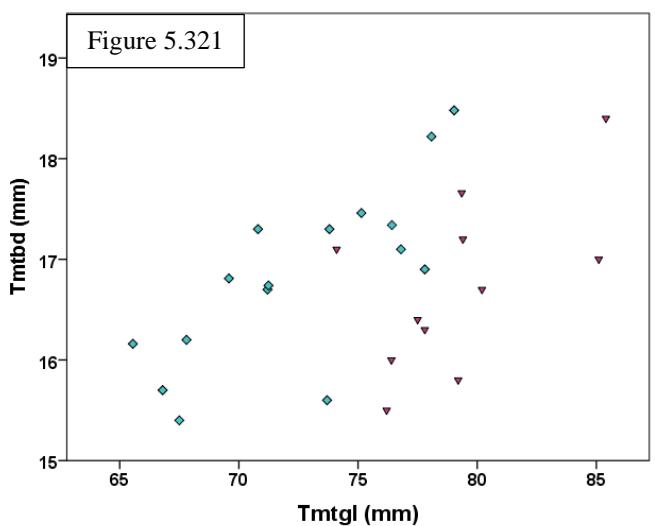
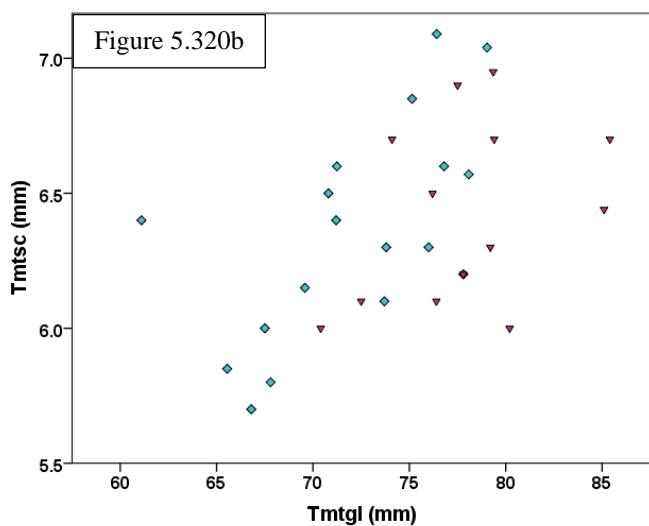
Anser anser (wild and domestic form)/Anser brachyrhynchus

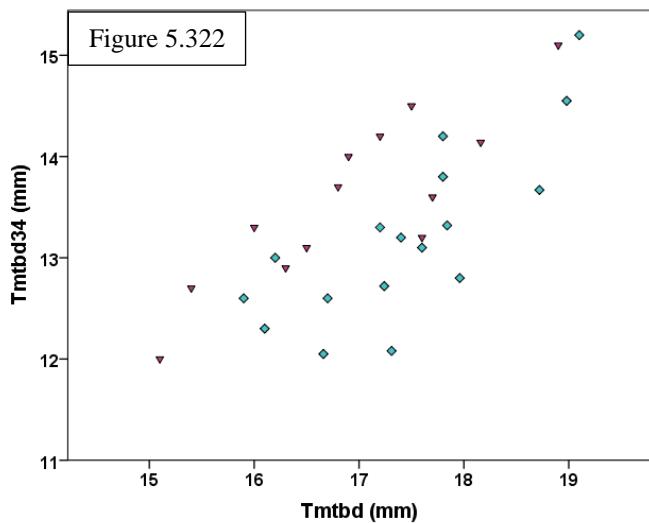


Anser anser (wild and domestic form)/*Anser fabalis*

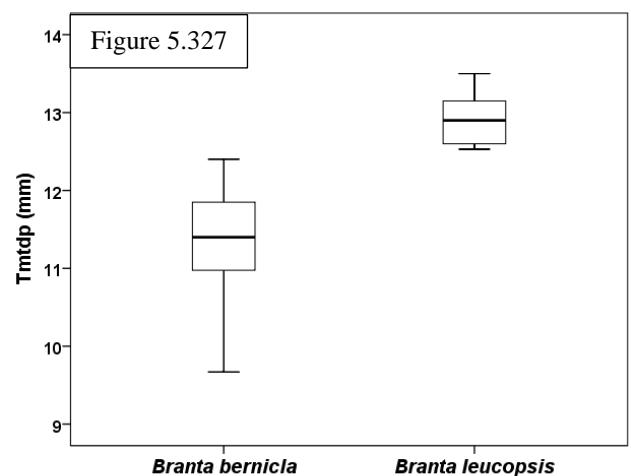
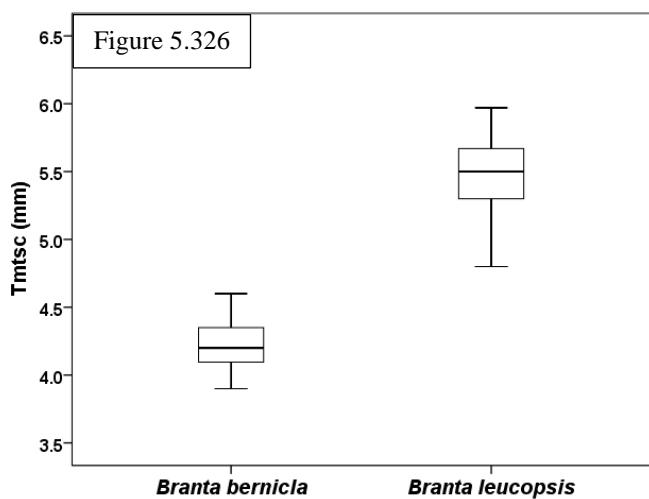
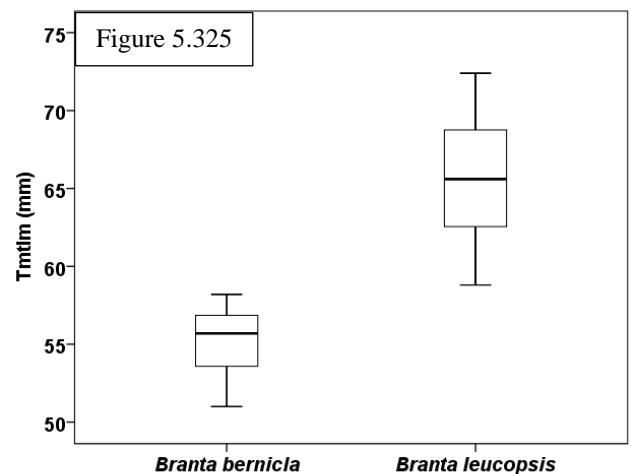
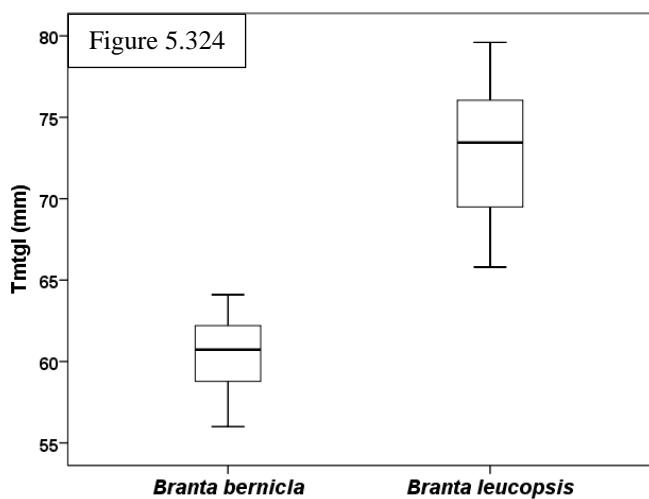
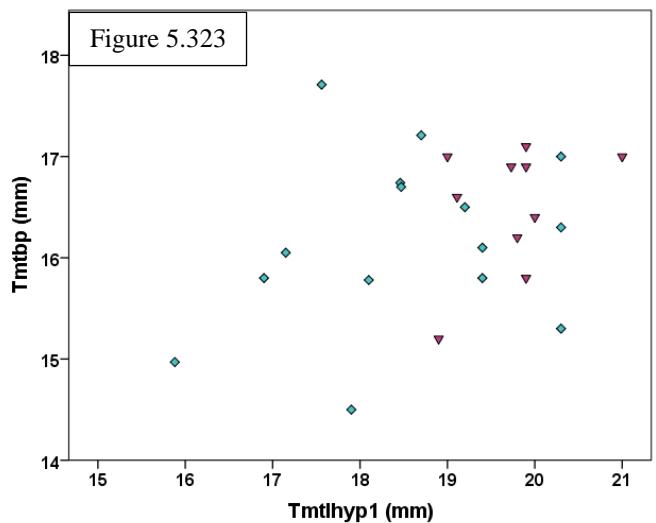


Anser brachyrhynchus/Anser fabalis





Branta bernicla/Branta leucopsis



Wild compared to domestic (*Anser anser*)

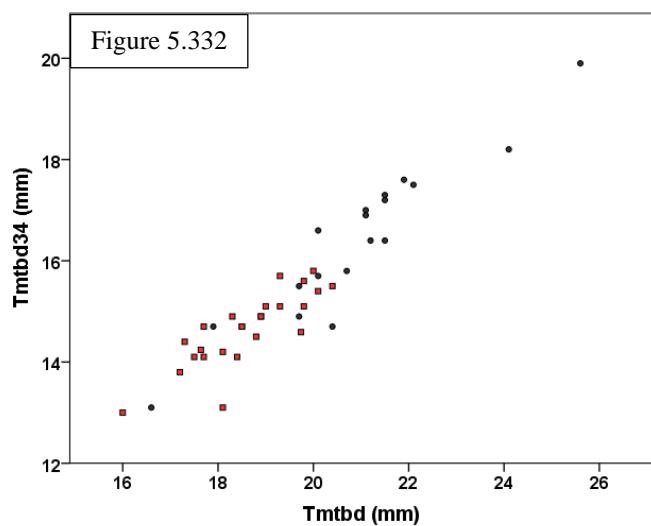
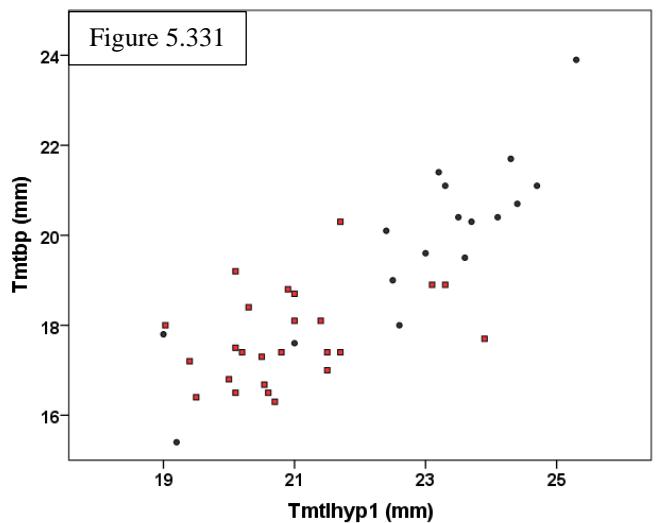
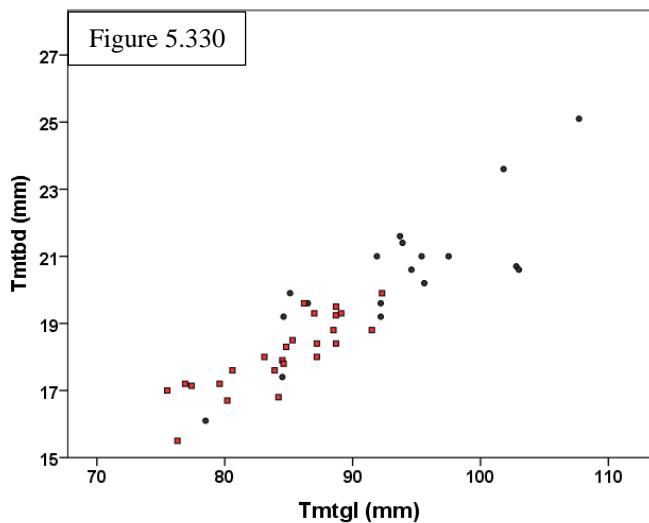
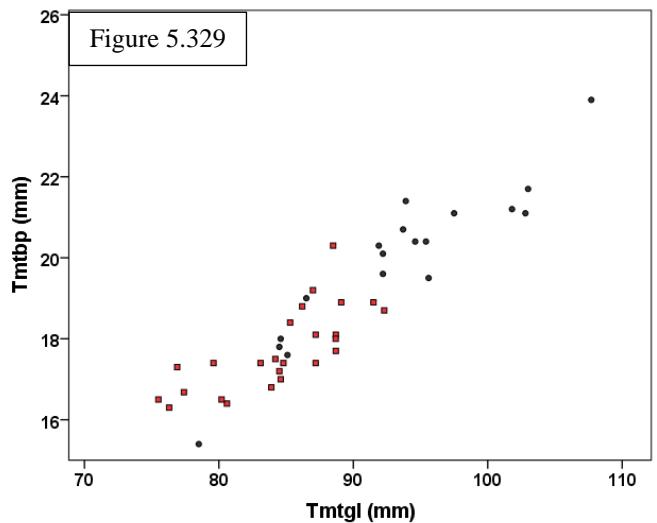
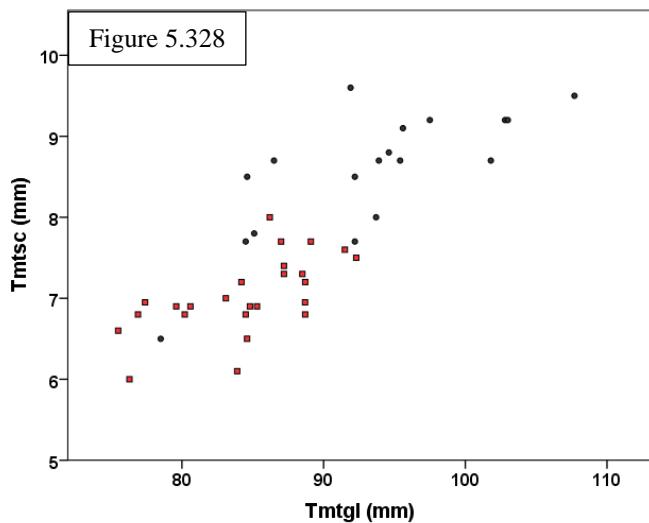
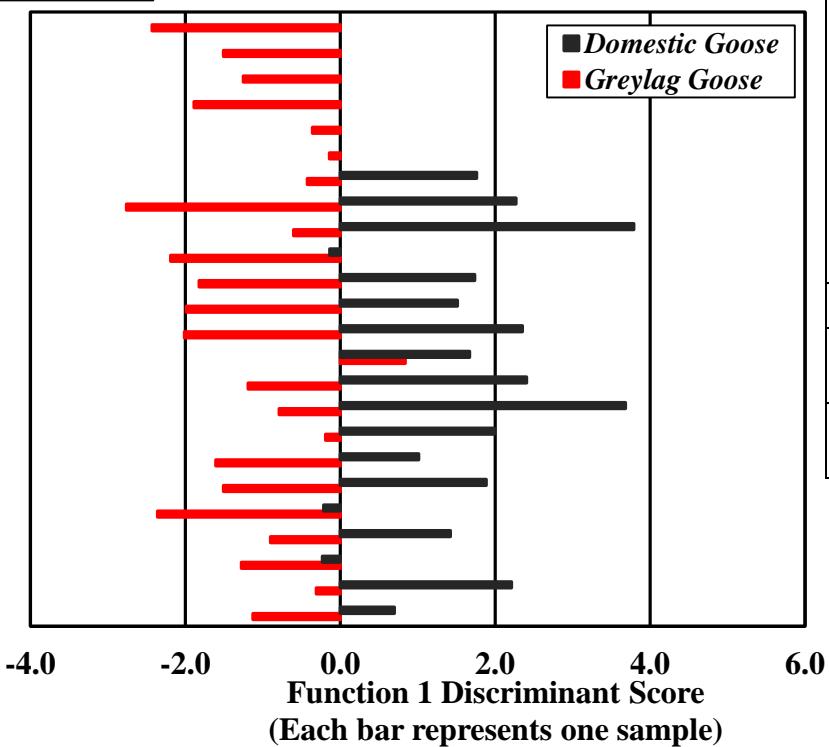


Figure 5.331



Function 1 Discriminant Score
(Each bar represents one sample)

Classification results summary

	Original group	Predicted Group Membership		Total
		Domestic Goose	Greylag Goose	
Count	Domestic Goose	15	3	18
	Greylag Goose	1	23	24
%	Domestic Goose	83.3	16.7	100
	Greylag Goose	4.2	95.8	100

90.5% of original grouped cases correctly classified.

Measurements	Tmtgl Tmtlm Tmtsc Tmtbp Tmtbd Tmtbd34 Tmtgl/Tmtsc Tmtgl/Tmtbp Tmtgl/Tmtbd
Box's M sig.	0.000
Wilks' Lambda sig.	0.000
Function 1	100.0
% of Variance	