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ภาคผนวก

ภาคผนวก ก

ข้อมูลที่ได้จากการวัดตัวอย่างเต่าหก (cm)

เต่าหกเหลือง

No.	cl	cw	h	nl	nw	v1l	v1w
1	39.20	29.00	16.50	2.64	1.42	8.18	9.57
2	39.70	28.00	15.30	2.43	1.57	8.21	9.15
3	41.00	31.20	18.10	.00	.00	7.96	9.80
4	42.50	32.20	19.60	2.67	3.47	8.38	11.83
5	43.70	31.30	20.40	1.85	2.06	8.78	11.41
6	46.00	32.00	19.20	4.00	1.46	8.92	11.81
7	39.00	28.50	16.00	2.04	1.61	7.83	9.69
8	42.00	28.50	16.50	2.41	2.53	8.35	9.35
9	38.00	27.00	15.80	2.14	2.41	7.76	10.47
10	46.40	33.20	20.10	3.20	2.18	9.20	12.20
11	41.20	30.50	17.50	2.45	2.85	8.43	10.87
12	46.50	35.50	19.00	3.21	3.48	8.84	11.62
13	43.00	31.90	19.00	2.68	2.45	9.64	12.02
14	37.60	27.00	15.50	2.24	1.84	7.38	9.41
15	42.90	30.60	17.80	3.07	2.15	8.51	9.62

No.	v21	v2w	v31	v3w	v41	v4w	v51
1	7.02	11.32	7.89	11.78	8.68	10.96	9.12
2	6.08	10.99	6.72	10.05	7.87	10.37	8.95
3	7.49	12.86	8.92	12.79	9.76	12.02	10.19
4	8.95	13.52	9.32	14.05	10.97	12.81	10.21
5	8.29	12.52	9.21	13.21	11.22	12.13	11.23
6	8.45	12.17	8.78	12.75	10.24	11.82	9.46
7	7.11	10.35	7.38	11.17	9.54	10.10	9.32
8	7.65	11.73	8.40	12.91	9.88	11.30	9.36
9	7.12	11.92	7.20	12.24	8.30	11.53	10.59
10	8.11	13.04	8.65	13.46	11.14	12.63	9.55
11	8.45	12.86	8.18	13.21	19.58	11.89	9.63
12	9.01	12.61	9.28	13.20	9.65	12.35	9.25
13	9.50	14.51	10.00	14.75	10.25	12.84	9.32
14	6.74	11.32	7.21	11.87	9.44	10.62	8.80
15	7.20	11.95	8.58	11.70	9.81	12.00	9.02

No.	v5w	c11	c1w	c21	c2w	c31	c3w
1	11.52	9.15	10.25	8.59	11.32	8.08	10.75
2	10.92	8.93	9.67	7.74	10.56	7.85	10.38
3	12.81	10.29	9.71	10.41	10.56	9.00	10.61
4	13.46	9.67	11.42	10.31	12.57	9.34	11.99
5	13.41	11.61	10.69	10.71	12.37	9.30	12.78
6	12.77	9.97	11.28	9.68	12.73	8.70	12.25
7	11.17	10.00	9.73	8.52	10.76	7.82	10.61
8	12.00	10.32	10.40	9.32	11.52	8.70	10.95
9	11.61	9.04	9.70	7.70	10.53	7.13	10.18
10	12.12	10.49	11.72	9.81	13.37	9.54	12.68
11	11.69	10.16	11.20	9.73	11.91	8.97	11.58
12	12.70	11.70	11.70	10.42	12.82	9.72	12.01
13	12.00	11.23	11.38	10.96	12.90	8.86	12.05
14	11.75	8.22	9.48	7.97	10.16	7.50	9.85
15	11.15	10.08	10.31	8.54	11.52	8.17	11.36

No.	c4l	c4w	sl	sw	pl	pw	gl
1	8.02	7.44	5.23	6.11	36.00	25.10	7.22
2	7.97	8.27	6.17	6.57	38.70	24.70	7.30
3	8.50	8.41	4.98	6.70	42.90	31.20	7.01
4	9.08	8.22	5.66	7.27	45.00	30.20	6.93
5	10.18	9.82	5.68	7.14	43.00	29.60	6.80
6	8.77	8.75	6.03	7.66	44.80	32.00	7.83
7	8.22	7.29	5.00	6.50	38.00	26.50	6.54
8	7.83	7.90	5.10	6.37	40.50	25.80	6.12
9	8.10	7.06	4.78	6.02	39.00	25.40	6.96
10	9.04	8.21	4.91	7.16	44.20	33.20	6.86
11	8.57	8.24	5.15	5.79	42.50	31.00	6.75
12	8.88	8.50	5.85	6.97	46.00	31.00	7.01
13	8.60	7.93	5.60	6.21	43.60	28.00	5.90
14	7.79	7.05	4.57	6.75	36.40	23.10	5.90
15	7.68	6.79	5.13	6.53	42.10	30.60	8.40

No.	gw	mg	hl	hw	mh	pel	pew
1	4.97	5.58	10.24	9.62	5.73	5.76	8.65
2	4.79	6.78	10.49	9.41	6.52	6.32	7.61
3	4.57	6.49	12.00	10.27	7.72	6.78	10.10
4	4.63	6.47	12.26	10.52	8.45	6.43	8.98
5	5.20	6.45	11.65	11.11	7.10	7.52	11.98
6	4.93	7.02	11.57	11.51	6.86	7.29	10.02
7	4.50	5.61	10.30	9.48	7.19	5.90	8.43
8	4.20	5.34	10.40	9.66	6.91	9.01	8.47
9	4.80	6.53	10.52	9.30	7.85	6.02	8.56
10	5.04	6.37	12.72	11.34	7.46	7.18	9.36
11	4.58	6.23	11.19	9.84	7.83	6.36	9.07
12	4.94	6.59	12.61	11.55	8.86	8.08	9.62
13	5.26	5.40	12.90	10.40	9.64	7.98	10.41
14	4.24	5.26	9.57	8.35	7.31	6.11	9.92
15	4.53	7.46	10.90	9.49	7.52	6.09	9.76

No.	minl	minr	antl	antw	posl	posw	tl
1	.91	.99	13.77	18.78	11.73	20.00	6.20
2	3.24	2.91	14.75	13.39	12.63	20.50	9.23
3	1.50	1.40	11.20	19.90	11.80	24.10	8.20
4	1.57	1.51	12.50	21.00	14.47	20.50	9.42
5	1.54	1.72	12.00	21.60	13.65	21.70	9.30
6	1.15	1.37	13.80	23.70	13.60	22.60	7.00
7	1.12	1.35	11.25	18.78	9.83	19.81	9.18
8	5.20	4.50	10.01	19.12	12.21	20.62	6.50
9	1.26	1.39	11.90	18.58	11.22	20.27	9.27
10	2.70	2.50	12.60	22.10	13.10	22.10	8.80
11	.82	.82	11.42	19.54	11.64	21.20	7.76
12	1.18	1.90	12.60	22.50	13.00	24.20	7.85
13	1.86	1.32	12.00	20.12	13.10	22.00	7.45
14	1.47	1.46	11.22	16.34	9.40	18.21	9.25
15	2.60	2.50	11.30	18.80	12.80	19.00	7.20

No.	mpe	abl	abw	mab	fl	fw	mf
1	.00	13.29	13.18	12.73	7.48	10.21	3.59
2	.00	13.06	13.19	12.45	8.06	9.26	5.78
3	.00	16.80	15.42	16.05	8.82	10.28	5.26
4	.00	16.52	15.19	15.19	9.02	11.32	5.51
5	.00	16.88	15.55	15.25	9.32	11.01	6.20
6	.00	17.30	15.10	16.70	9.74	10.73	4.71
7	.00	14.69	13.75	14.12	7.30	9.13	3.90
8	.00	16.55	13.21	15.78	8.17	9.54	3.40
9	.00	13.69	12.81	12.49	7.32	9.72	4.25
10	.00	17.50	15.12	17.45	9.54	11.26	5.30
11	.00	16.58	14.47	15.05	8.76	9.84	5.44
12	.00	18.74	15.70	16.90		11.40	5.16
13	.00	16.55	14.52	15.67	9.21	10.50	6.13
14	.00	13.91	12.19	13.07	8.89	8.95	3.98
15	.00	15.20	13.30	14.60	8.56	10.06	4.85

No.	anl	anw	man	bll	blr	max	tt
1	6.43	6.66	4.44	15.89	11.82	5.68	9.39
2	6.32	6.31	4.05	15.44	15.95	6.16	10.72
3	7.20	7.05	3.28	20.10	20.60	5.60	8.20
4	8.07	7.18	4.21	19.40	19.50	6.17	9.22
5	7.01	7.18	3.59	18.92	19.78	5.46	7.70
6	8.88	6.98	4.50	18.10	18.60	4.90	8.00
7	6.75	6.62	10.30	16.69	16.81	4.30	9.00
8	8.79	6.31	5.18	17.85	17.82	5.06	8.85
9	6.78	6.45	4.17	17.38	17.50	4.64	7.48
10	7.32	7.40	4.15	18.70	18.80	6.20	8.60
11	7.94	6.25	4.36	21.47	21.68	4.78	8.33
12	9.12	7.21	4.60	20.82	20.58	6.42	9.10
13	7.85	7.84	4.13	19.88	19.50	5.68	9.37
14	6.77	6.10	4.40	17.27	17.57	4.63	8.37
15	7.30	6.86	4.08	16.50	16.90	6.00	9.50

เต่าหกดำ

No.	cl	cw	h	nl	nw	vll	vlw
1	55.00	41.00	21.00	3.17	6.02	10.16	12.72
2	58.00	43.00	23.50	2.67	5.51	10.80	12.45
3	56.00	41.00	23.30	2.74	3.25	10.78	12.65
4	33.50	25.00	11.00	1.39	1.76	7.05	8.22
5	54.50	41.00	9.50	2.25	4.52	10.57	10.60
6	56.00	41.50	22.00	2.43	2.91	11.10	12.97
7	56.20	40.00	25.00	3.17	3.00	11.07	11.97
8	52.50	37.00	22.20	3.04	2.97	10.65	12.56
9	53.00	36.50	22.50	4.15	13.71	10.88	11.89
10	48.00	37.00	25.50	2.50	3.39	11.70	12.65
11	27.00	19.50	12.50	1.26	1.71	5.87	7.07
12	45.40	33.40	19.70	1.85	2.05	9.95	11.26
13	55.50	40.30	23.00	2.72	4.38	11.03	13.11
14	54.00	40.80	24.10	3.50	4.75	11.98	11.90
15	45.10	33.20	20.30	2.20	3.55	9.48	11.58
16	50.60	37.10	21.40	2.81	2.59	10.15	11.35
17	49.70	39.70	21.10	2.95	3.24	12.50	12.45
18	53.00	39.00	23.20	2.39	1.62	11.49	11.32
19	39.40	31.30	17.90	1.85	3.91	8.66	9.68
20	47.50	36.20	19.20	2.51	2.60	10.30	11.97

No.	cl	cw	h	nl	nw	v1l	v1w
21	52.20	37.00	22.30	2.12	3.27	11.62	13.00
22	56.00	40.30	25.60	2.65	4.67	10.99	12.92
23	48.20	37.10	21.40	2.59	39.00	9.15	11.60
24	50.80	39.00	23.00	2.64	3.72	10.85	12.41
25	51.20	38.00	23.20	3.14	3.59	10.17	12.32
26	38.80	30.10	16.20	2.20	2.10	9.48	9.90
27	47.50	35.60	20.30	2.17	3.82	9.05	7.10

No.	v21	v2w	v31	v3w	v41	v4w
1	9.65	13.63	9.72	8.00	11.96	13.70
2	9.97	12.22	9.91	15.00	12.49	3.04
3	9.86	15.39	11.21	16.22	12.68	14.03
4	6.35	9.17	6.30	9.57	7.05	8.31
5	9.43	13.19	9.94	13.52	12.08	10.21
6	9.78	14.85	10.57	15.41	12.48	12.60
7	11.61	16.21	11.73	15.81	14.42	11.56
8	9.32	14.05	9.45	14.12	12.32	13.25
9	9.97	12.71	10.28	12.99	11.34	11.97
10	9.91	14.27	9.08	14.35	11.53	12.51
11	5.71	8.41	5.73	5.99	7.31	5.03
12	8.46	12.22	8.65	12.72	10.61	11.81
13	10.27	15.09	11.29	14.98	11.65	12.90
14	10.90	14.32	10.72	15.18	11.91	13.95
15	9.38	12.95	9.55	13.62	10.40	12.35
16	9.81	14.00	9.51	14.83	11.92	13.51
17	9.21	13.18	10.26	14.34	10.99	13.31
18	12.60	13.52	10.30	12.70	17.40	13.81
19	7.25	10.09	6.76	9.72	8.51	9.49
20	9.42	13.26	10.41	13.55	10.19	12.72

No.	v21	v2w	v31	v3w	v41	v4w
21	11.51	15.30	11.12	15.72	12.47	13.87
22	18.50	14.23	11.04	15.91	12.52	13.82
23	9.35	12.85	9.16	13.82	10.35	13.21
24	10.38	13.24	10.01	13.15	11.43	12.47
25	9.81	14.11	11.04	14.30	13.05	13.12
26	7.10	9.50	7.40	10.70	7.78	9.80
27	9.22	13.07	9.49	14.19	10.97	12.47

No.	v51	v5w	c11	c1w	c21	c2w	c31
1	12.13	14.77	2.07	13.95	10.76	15.77	10.76
2	12.77	14.65	13.09	14.54	12.25	15.83	11.03
3	11.86	14.07	12.88	13.00	12.48	15.31	11.47
4	7.39	8.93	7.86	9.30	6.95	9.50	7.30
5	11.80	14.71	11.75	12.67	11.32	14.45	10.55
6	12.00	14.60	13.13	13.83	11.77	15.41	10.85
7	11.85	14.48	12.51	15.27	12.67	16.40	11.77
8	14.34	15.88	14.83	13.21	10.46	15.21	14.51
9	11.70	14.35	12.71	13.87	10.48	14.59	10.67
10	13.24	14.44	12.30	13.92	10.58	14.85	10.68
11	5.99	7.62	6.24	7.13	5.82	8.41	5.62
12	11.73	13.47	10.65	12.35	9.75	13.06	9.46
13	10.71	13.52	13.72	14.23	12.22	15.15	11.42
14	11.98	13.97	12.33	13.93	11.97	15.08	12.02
15	9.65	12.55	10.35	11.50	10.00	12.95	10.10
16	11.60	14.68	11.85	12.60	11.16	14.21	11.20
17	11.95	14.65	11.92	13.32	15.13	15.53	10.80
18	11.83	15.15	12.77	13.08	11.82	17.50	11.81
19	9.43	11.86	9.31	13.26	7.41	11.32	8.30
20	10.51	13.12	11.38	12.12	10.84	13.95	9.83

No.	v5l	v5w	c1l	c1w	c2l	c2w	c3l
21	9.75	14.61	12.92	14.22	12.25	15.32	10.17
22	12.55	15.22	12.67	13.76	12.77	15.49	12.52
23	11.75	12.83	11.20	12.50	10.30	13.80	10.50
24	9.96	15.10	12.12	13.40	11.24	14.77	11.56
25	12.31	14.20	11.40	12.48	11.51	14.37	10.48
26	8.50	10.76	9.61	10.50	8.58	11.32	8.16
27	10.14	13.12	10.82	12.71	10.93	13.67	10.79

No.	c3w	c41	c4w	sl	sw	pl	pw
1	.98	9.77	.53	7.24	9.02	53.50	37.00
2	15.97	11.27	11.57	7.25	8.25	55.30	39.00
3	14.88	11.12	11.05	6.80	8.00	53.50	38.00
4	9.42	6.79	6.14	4.34	5.68	32.00	23.00
5	13.96	10.51	10.57	6.31	7.12	53.20	39.50
6	15.65	10.34	10.06	6.31	7.14	54.00	39.00
7	14.58	12.25	14.41	7.68	7.23	56.00	37.00
8	14.78	10.97	10.89	6.77	7.47	52.00	36.50
9	15.25	10.72	11.12	5.90	7.27	53.00	36.00
10	13.71	11.27	9.83	7.38	7.55	54.50	35.50
11	7.37	5.41	5.01	4.03	4.00	20.65	20.50
12	12.69	10.40	9.36	5.01	6.95	45.40	34.80
13	14.37	10.03	10.05	7.44	8.41	54.20	42.00
14	13.88	10.65	10.29	6.40	9.01	53.90	40.80
15	12.38	9.20	9.21	5.72	6.28	43.70	33.20
16	13.90	10.50	10.51	6.79	7.75	50.90	38.20
17	14.63	10.53	10.49	6.52	7.13	49.90	39.70
18	14.30	10.75	11.74	6.83	8.41	52.00	40.60
19	10.94	8.51	8.48	6.42	7.50	39.90	30.80
20	12.82	9.39	9.82	6.47	6.85	47.20	36.20

No.	c3w	c41	c4w	sl	sw	pl	pw
21	15.72	11.02	10.75	6.37	7.90	50.40	39.10
22	14.61	11.78	12.07	7.52	8.30	54.90	40.30
23	12.96	10.12	9.33	6.64	7.08	49.50	37.10
24	14.42	10.37	11.47	6.31	7.40	49.50	39.00
25	14.06	10.55	11.10	6.17	7.02	50.30	38.00
26	10.65	8.32	7.92	4.62	5.85	38.10	30.10
27	13.45	9.55	9.92	6.30	7.32	47.20	35.60

No.	gl	gw	mg	hl	hw	mh	pel
1	7.33	6.33	5.57	13.79	13.30	10.16	9.74
2	8.25	5.90	7.11	15.17	14.02	10.45	9.61
3	8.34	5.38	6.94	13.53	13.47	8.89	10.44
4	4.37	3.97	3.78	8.79	7.68	6.39	6.00
5	7.34	5.12	5.80	13.52	12.95	9.56	9.45
6	6.75	5.32	6.10	14.83	13.09	9.31	11.05
7	6.67	5.56	5.36	13.60	14.27	11.35	9.25
8	8.59	5.22	7.49	13.92	13.95	10.35	8.21
9	8.11	8.70	7.22	14.05	15.51	9.77	8.77
10	9.62	6.37	8.23	14.80	13.35	10.80	9.50
11	4.00	3.51	3.12	6.97	6.64	5.00	5.54
12	4.04	4.04	5.61	11.29	10.71	8.93	8.08
13	8.61	6.27	6.27	14.43	13.76	9.49	11.90
14	7.53	5.51	6.17	12.61	13.72	9.88	10.94
15	5.60	5.23	5.02	11.15	11.15	8.65	7.73
16	5.62	5.85	4.20	14.50	12.40	14.82	17.20
17	5.81	6.10	5.10	12.85	13.35	10.24	9.70
18	7.42	4.91	6.41	13.18	13.39	11.56	9.24
19	6.53	4.69	5.69	11.60	10.80	8.13	6.81
20	5.50	5.47	5.17	11.74	12.32	8.98	16.32

No.	gl	gw	mg	hl	hw	mh	pel
21	6.82	5.85	5.76	12.90	12.92	9.60	9.67
22	8.21	7.12	6.31	13.98	13.90	11.11	17.25
23	8.25	5.85	6.89	11.80	11.78	9.82	8.45
24	6.11	5.75	5.09	13.40	14.54	12.54	9.20
25	6.52	5.42	4.37	13.31	12.55	10.25	9.65
26	5.75	5.45	5.00	10.65	10.60	7.82	6.05
27	5.77	5.27	4.95	9.17	17.27	2.38	16.75

No.	pew	mpe	abl	abw	mab	fl	fw
1	17.96	1.40	19.05	18.52	18.91	11.30	13.71
2	18.97	1.64	19.28	20.48	19.02	11.97	14.68
3	18.42	2.22	18.57	19.34	18.30	11.68	13.58
4	11.27	.53	10.92	11.00	10.58	6.80	8.13
5	19.57	2.28	19.07	19.95	18.44	13.02	13.45
6	18.92	2.17	18.90	19.42	18.61	11.95	13.72
7	18.20	2.70	17.97	19.13	17.72	11.77	13.61
8	11.42	.50	18.19	18.20	17.62	11.45	12.99
9	17.96	2.54	16.62	18.35	16.61	10.90	13.51
10	16.47	.00	9.64	18.15	19.04	10.83	13.32
11	9.54	.94	9.31	9.70	8.02	5.93	6.67
12	16.07	1.90	17.00	16.91	15.39	10.09	12.25
13	19.75	2.70	19.23	19.61	18.22	12.64	15.38
14	19.51	2.68	19.89	19.99	9.35	12.30	14.02
15	15.20	2.92	14.20	15.30	13.12	9.16	12.20
16	8.93	1.34	18.00	18.40	17.80	13.10	12.52
17	17.70	1.76	18.20	18.70	17.20	11.10	12.70
18	18.20	1.40	18.00	19.00	17.65	10.73	14.53
19	13.88	1.67	12.29	14.61	11.87	8.08	10.60
20	12.83	3.17	16.22	17.97	16.07	10.72	13.25

No.	pew	mpe	abl	abw	mab	fl	fw
21	18.57	1.62	18.36	19.05	17.49	10.82	11.95
22	20.15	2.76	18.29	20.30	17.81	11.32	12.25
23	16.00	1.61	15.25	16.80	15.20	9.87	2.35
24	18.82	3.10	16.65	19.89	16.35	11.22	14.21
25	18.10	1.75	17.35	19.46	15.93	10.52	13.62
26	13.96	1.28	16.70	14.20	13.45	8.40	10.58
27	16.62	1.65	10.32	11.87	5.78	10.38	11.59

No.	mf	anl	anw	man	bll	blr	max
1	5.05	10.06	9.54	5.50	21.60	21.17	6.75
2	5.65	10.96	9.12	5.47	24.50	23.00	7.07
3	6.06	10.08	9.32	5.57	23.00	23.50	7.08
4	3.83	6.42	5.12	4.13	13.68	13.67	4.24
5	4.89	10.01	8.18	4.95	24.00	24.00	7.08
6	7.40	8.76	8.20	4.52	24.00	24.00	6.52
7	7.15	10.29	8.35	4.02	24.00	24.00	8.81
8	4.83	10.22	9.32	10.22	21.50	21.00	6.11
9	7.33	18.50	24.50	4.04	20.50	20.50	6.58
10	6.55	8.22	10.08	5.56	23.00	22.00	7.37
11	3.98	4.26	4.80	2.95	11.80	11.80	3.70
12	5.17	7.09	7.65	5.38	17.50	18.80	5.31
13	6.83	9.57	8.06	5.87	23.50	23.60	8.03
14	6.36	9.90	8.70	5.68	24.40	24.90	7.23
15	5.71	8.38	7.25	5.42	18.30	18.70	5.43
16	6.13	9.81	7.95	5.72	22.50	23.00	6.75
17	4.22	10.72	8.50	6.32	21.80	21.70	6.45
18	6.54	10.49	8.41	4.92	22.00	22.30	6.32
19	3.91	8.49	6.55	5.44	16.00	16.70	4.70
20	5.99	9.42	9.47	4.87	20.09	19.94	6.01

No.	mf	anl	anw	man	bll	blr	max
21	5.84	10.01	7.92	6.42	20.34	20.33	7.31
22	6.38	9.92	8.40	6.27	20.54	20.55	7.57
23	5.50	9.25	8.35	5.32	19.50	19.00	16.20
24	5.27	10.34	8.60	5.11	21.50	21.00	8.27
25	5.77	10.05	8.28	5.05	22.00	21.90	6.90
26	4.12	8.23	7.40	5.22	15.80	16.00	5.10
27	6.02	8.37	8.37	5.81	20.13	20.10	4.82

No.	tt	minl	minr	antl	antw	posl	posw
1	10.27	1.90	1.78	17.93	27.00	16.15	28.00
2	9.03	1.46	2.37	20.00	26.00	16.64	29.50
3	10.12	2.45	2.53	17.50	26.50	16.50	28.00
4	6.49	1.52	1.27	10.72	15.00	9.99	17.45
5	9.66	2.37	2.17	17.50	26.00	15.00	29.00
6	9.52	1.80	1.11	17.00	26.50	16.30	27.50
7	9.67	3.02	3.18	18.00	27.50	17.00	30.00
8	9.57	2.62	2.41	19.00	24.00	16.00	26.50
9	10.36	2.88	3.16	18.50	24.50	15.50	28.00
10	9.92	3.44	2.77	20.50	27.00	15.00	27.00
11	5.30	2.75	1.54	8.98	13.04	8.88	13.63
12	8.50	3.15	2.83	15.15	24.00	13.09	24.00
13	8.57	2.59	2.94	16.30	27.60	15.20	28.50
14	9.01	3.52	3.37	13.00	28.10	15.20	29.10
15	8.79	1.08	.76	14.00	22.50	23.30	15.50
16	8.10	2.60	1.92	18.00	23.50	16.50	25.80
17	8.89	1.33	1.09	15.60	26.70	16.00	26.20
18	9.15	1.48	1.06	17.60	25.80	16.80	19.30
19	9.26	2.98	2.69	14.21	20.40	12.80	21.70
20	8.95	2.06	1.97	14.51	20.55	15.87	20.70

No.	tt	minl	minr	antl	antw	posl	posw
21	9.32	2.10	2,07	17.00	28.20	16.00	28.50
22	9.72	2.27	2.12	19.50	20.69	16.62	28.90
23	12.06	1.18	1.25	17.80	23.50	15.30	15.30
24	7.02	4.72	5.04	20.40	29.40	15.20	28.60
25	10.27	1.33	1.57	16.60	27.60	16.20	28.40
26	8.90	2.68	2.80	13.60	20.50	12.00	20.50
27	8.01	.80	.67	14.40	23.10	15.50	20.44

No.	tl
1	9.48
2	10.54
3	10.41
4	8.30
5	9.18
6	8.60
7	7.93
8	11.27
9	12.05
10	10.80
11	5.22
12	7.25
13	5.14
14	6.51
15	7.20
16	8.36
17	5.12
18	8.48
19	9.26
20	7.80

No.	tl
21	9.57
22	9.85
23	9.10
24	6.00
25	9.14
26	7.10
27	8.01

ภาคผนวก ข

ตัวอย่างการวิเคราะห์ข้อมูลโดยใช้สถิติ t-test

การวิเคราะห์ความแตกต่างระหว่างเต่าหกเหลืองและเต่าหกดำโดยใช้สถิติ t-test

t-tests for independent samples of TORTOISE

Variable	Number of Cases	Mean	SD	SE of Mean
CWCL				
Burmese black t.	27	.7433	.026	.005
Brown t.	15	.7259	.025	.006

Mean Difference = .0174

Levene's Test for Equality of Variances: F= .013 P= .911

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	2.10	40	.042	.008	(.001, .034)
Unequal	2.14	30.47	.041	.008	(.001, .034)

Variable	Number of Cases	Mean	SD	SE of Mean
FLCL				
Burmese black t.	27	.2158	.013	.003
Brown t.	15	.2075	.013	.003

Mean Difference = .0083

Levene's Test for Equality of Variances: F= .013 P= .910

	t-test for Equality of Means				95%
Variances	t-value	df	2-Tail Sig	SE of Diff	CI for Diff
Equal	1.94	40	.059	.004	(.000, .017)
Unequal	1.94	28.89	.062	.004	(.000, .017)

ภาคผนวก ค

ตัวอย่างการวิเคราะห์ข้อมูลโดยใช้สถิติ Discriminant Function Analysis

Discriminant Analysis ของเต่าหกเหลืองเพศเมียและเพศผู้

- - - - - - - - D I S C R I M I N A N T A N A L Y S I S - - - - - - - -

On groups defined by SEX sex

15 (Unweighted) cases were processed.
0 of these were excluded from the analysis.
15 (Unweighted) cases will be used in the analysis.

Number of cases by group

SEX	Number of cases Unweighted	Weighted	Label
1	9	9.0	male
2	6	6.0	female
Total	15	15.0	

On groups defined by SEX sex

Analysis number 1

Stepwise variable selection
Selection rule: minimize Wilks' Lambda
Maximum number of steps..... 112
Minimum tolerance level..... .00100
Minimum F to enter..... 3.84000
Maximum F to remove..... 2.71000

Canonical Discriminant Functions

Maximum number of functions..... 1
Minimum cumulative percent of variance... 100.00
Maximum significance of Wilks' Lambda.... 1.0000

Prior probability for each group is .50000

---------- Variables not in the Analysis after Step 0 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
ABL	1.0000000	1.0000000	.6783722	.9504055
ABW	1.0000000	1.0000000	.0009621	.9999260
ANL	1.0000000	1.0000000	4.9326023	.7249366
ANTL	1.0000000	1.0000000	.0522238	.9959989
ANTW	1.0000000	1.0000000	1.2407001	.9128765
ANW	1.0000000	1.0000000	.9116315	.9344698
BLL	1.0000000	1.0000000	.0414069	.9968250
BLR	1.0000000	1.0000000	.8205979	.9406250
C1L	1.0000000	1.0000000	1.3085626	.9085469
C1W	1.0000000	1.0000000	1.5067922	.8961319
C2L	1.0000000	1.0000000	.3909534	.9708047
C2W	1.0000000	1.0000000	1.7810919	.8795020
C3L	1.0000000	1.0000000	.2472734	.9813340
C3W	1.0000000	1.0000000	.5705760	.9579549
C4L	1.0000000	1.0000000	.7821019	.9432524
C4W	1.0000000	1.0000000	.1754460	.9866839
CL	1.0000000	1.0000000	2.3512860	.8468346
CW	1.0000000	1.0000000	1.1801722	.9167731
FL	1.0000000	1.0000000	.5726802	.9578064
FW	1.0000000	1.0000000	.5432124	.9598904
GL	1.0000000	1.0000000	.7027435	.9487151
GW	1.0000000	1.0000000	.3351367	.9748681
H	1.0000000	1.0000000	.1890984	.9856625
HL	1.0000000	1.0000000	.1910466	.9855169
HW	1.0000000	1.0000000	.6825652	.9501142
MAB	1.0000000	1.0000000	.9225201	.9337390
MAN	1.0000000	1.0000000	.0701485	.9946329
MAX	1.0000000	1.0000000	.6649712	.9513375
MF	1.0000000	1.0000000	.8114112	.9412507
MG	1.0000000	1.0000000	.0010478	.9999194
MH	1.0000000	1.0000000	.0328410	.9974801
MINL	1.0000000	1.0000000	.5512327	.9593223
MINR	1.0000000	1.0000000	.7225175	.9473480
MPE	.0000000	.0000000	.	.
NL	1.0000000	1.0000000	4.6801647	.7352873
NW	1.0000000	1.0000000	.2798837	.9789242
PEL	1.0000000	1.0000000	3.3601487	.7946138
PEW	1.0000000	1.0000000	.0382947	.9970629
PL	1.0000000	1.0000000	.3963870	.9704109
POSL	1.0000000	1.0000000	1.1106579	.9212894
POSW	1.0000000	1.0000000	.2628963	.9801781
PW	1.0000000	1.0000000	.0619284	.9952589
SL	1.0000000	1.0000000	1.2497242	.9122984
SW	1.0000000	1.0000000	.0023995	.9998155
TL	1.0000000	1.0000000	37.4683951	.2575870
TT	1.0000000	1.0000000	.8816065	.9364910
V1L	1.0000000	1.0000000	3.3563094	.7948003
V1W	1.0000000	1.0000000	.0431834	.9966892
V2L	1.0000000	1.0000000	1.1687130	.9175145
V2W	1.0000000	1.0000000	.1573536	.9880406
V3L	1.0000000	1.0000000	2.4167341	.8432396
V3W	1.0000000	1.0000000	.3940783	.9705782
V4L	1.0000000	1.0000000	.5937350	.9563229
V4W	1.0000000	1.0000000	.4488569	.9666249
V5L	1.0000000	1.0000000	3.0009309	.8124527
V5W	1.0000000	1.0000000	.0346320	.9973431

At step 1, TL was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.25759	1	1	13.0	
Equivalent F	37.46840		1	13.0	.0000

---------- Variables in the Analysis after Step 1 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
TL	1.0000000	37.4684	

---------- Variables not in the Analysis after Step 1 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
ABL	.9969856	.9969856	.3207521	.2508811
ABW	.9943643	.9943643	.0439062	.2566479
ANL	.9954073	.9954073	1.6595013	.2262926
ANTL	.9703463	.9703463	.4031053	.2492153
ANTW	.9983994	.9983994	.4396871	.2484824
ANW	.8782614	.8782614	2.5858466	.2119207
BLL	.9884923	.9884923	.1779564	.2538228
BLR	.9923730	.9923730	.0330309	.2568799
C1L	.9733134	.9733134	1.1228156	.2355473
C1W	.9892322	.9892322	.8339624	.2408487
C2L	.9999587	.9999587	.1050267	.2553521
C2W	.9698456	.9698456	1.4092286	.2305161
C3L	.9992806	.9992806	.0263988	.2570215
C3W	.9766415	.9766415	.6960762	.2434645
C4L	.9512488	.9512488	.0545513	.2564213
C4W	.9996007	.9996007	.0209173	.2571387
CL	.9606505	.9606505	1.8685756	.2228811
CW	.9597842	.9597842	1.3263892	.2319491
FL	.9185026	.9185026	1.6233841	.2268925
FW	.9529904	.9529904	1.0631037	.2366240
GL	.9992017	.9992017	.1053449	.2553453
GW	.9342203	.9342203	1.1752165	.2346104
H	.9724840	.9724840	.5142229	.2470024
HL	.9549022	.9549022	.7512723	.2424106
HW	.9726036	.9726036	.8270825	.2409779
MAB	.9997096	.9997096	.1743406	.2538982
MAN	.9894000	.9894000	.0320790	.2569002
MAX	.9357503	.9357503	1.4236525	.2302684
MF	.9214486	.9214486	.1713101	.2539614
MG	.9681303	.9681303	.2761547	.2517925
MH	.8125507	.8125507	2.3459150	.2154651
MINL	.9982001	.9982001	.0555138	.2564008
MINR	.9969325	.9969325	.3371957	.2505467
MPE	.0000000	.0000000	.	.
NL	.8943133	.8943133	4.5863069	.1863612
NW	.8463764	.8463764	2.4088152	.2145245
PEL	.9856587	.9856587	1.5884951	.2274750
PEW	.9622244	.9622244	.2441568	.2524505
PL	.9571539	.9571539	.8936006	.2397347
POSL	.9544430	.9544430	1.3879560	.2308824
POSW	.9984105	.9984105	.0171935	.2572184
PW	.9912149	.9912149	.0253174	.2570446
SL	.8825990	.8825990	2.7850149	.2090660
SW	.8159081	.8159081	1.9358288	.2218055
TT	.9768590	.9768590	.8512529	.2405247
V1L	.9746553	.9746553	1.9215153	.2220335
V1W	.9145780	.9145780	1.0366338	.2371044
V2L	.9720752	.9720752	1.0827696	.2362683
V2W	.9972062	.9972062	.1236827	.2549591
V3L	.9832465	.9832465	1.3319248	.2318527
V3W	.9992750	.9992750	.1494691	.2544180

V4L	.7345476	.7345476	4.9849671	.1819870
V4W	.9856156	.9856156	.4756139	.2477668
V5L	.9965690	.9965690	.4502825	.2482709
V5W	.9725849	.9725849	.1673699	.2540437

At step 2, V4L was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.18199	2	1	13.0	
Equivalent F	26.96939		2	12.0	.0000

---------- Variables in the Analysis after Step 2 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
TL	.7345476	51.0588	.9563229
V4L	.7345476	4.9850	.2575870

---------- Variables not in the Analysis after Step 2 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
ABL	.6877037	.5066784	3.0755691	.1422221
ABW	.8273760	.6111915	.9842080	.1670413
ANL	.6473676	.4777163	6.7754339	.1126193
ANTL	.9366161	.7090140	.0320721	.1814579
ANTW	.8236914	.6060105	2.0022236	.1539627
ANW	.8462788	.6220686	2.7809444	.1452627
BLL	.5101241	.3790727	1.6062592	.1587987
BLR	.5163263	.3821811	2.3180208	.1503119
C1L	.7434810	.5610959	3.8993843	.1343584
C1W	.5111914	.3795817	7.6169500	.1075287
C2L	.7685708	.5645751	1.6470188	.1582869
C2W	.6218478	.4709789	6.4373571	.1148028
C3L	.7537793	.5540854	1.3828928	.1616631
C3W	.6430423	.4836423	4.5012143	.1291420
C4L	.7708283	.5952281	1.1622591	.1645958
C4W	.9113663	.6697093	.1911242	.1788790
CL	.7562528	.5782577	4.7261108	.1272951
CW	.7237388	.5538959	4.3825366	.1301383
FL	.6519711	.5213962	5.5972782	.1206136
FW	.8481127	.6405991	2.2843658	.1506927
GL	.9925510	.7296584	.0132233	.1817685
GW	.9172977	.6740862	1.2644385	.1632245
H	.7664824	.5789481	2.5011966	.1482726
HL	.7968642	.6129786	2.4452974	.1488890
HW	.8608270	.6501296	2.0317758	.1536135
MAB	.8236369	.6051763	1.4422851	.1608914
MAN	.9869547	.7316275	.0030118	.1819372
MAX	.9354531	.7019693	.8618081	.1687649
MF	.7019442	.5521184	1.9220898	.1549174
MG	.9541295	.7009159	.4142833	.1753818
MH	.5467769	.4218230	7.5916028	.1076753
MINL	.9307515	.6849140	.0825561	.1806314
MINR	.9317932	.6865524	.0000689	.1819859
MPE	.0000000	.0000000	.	.
NL	.7285882	.5533940	7.6526715	.1073228
NW	.4253176	.3572327	12.6003786	.0848231
PEL	.9344309	.6963708	2.1386462	.1523640
PEW	.8928435	.6663501	.8348135	.1691499
PL	.6466669	.4962708	4.7112518	.1274155
POSL	.8749713	.6540422	2.3461762	.1499948
POSW	.9741634	.7167086	.1523333	.1795012
PW	.7476097	.5540220	.7712575	.1700632
SL	.8464435	.6218675	3.0371368	.1426115
SW	.8157152	.6335660	1.1928913	.1641823
TT	.9490335	.7136242	.1985927	.1787597
V1L	.7339086	.5531091	5.3575893	.1223809
V1W	.6024607	.4838691	5.3029322	.1227912
V2L	.4839669	.3657091	8.9475338	.1003561
V2W	.7518552	.5538207	1.8288698	.1560431
V3L	.7687416	.5742987	3.9980068	.1334749

V3W	.7125671	.5237942	2.2745843	.1508038
V4W	.7482576	.5576523	2.7190352	.1459182
V5L	.9846667	.7257747	.1195260	.1800308
V5W	.9152376	.6820970	.6227650	.1722359

At step 3, NW was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.08482	3	1	13.0	
Equivalent F	39.56055		3	11.0	.0000

---------- Variables in the Analysis after Step 3 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
NW	.4253176	12.6004	.1819870
TL	.3572327	106.6527	.9072421
V4L	.3691219	16.8199	.2145245

---------- Variables not in the Analysis after Step 3 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
ABL	.6715689	.2737143	2.2902501	.0690166
ABW	.7586429	.2846188	1.8766199	.0714202
ANL	.6289047	.3167775	1.7507533	.0721852
ANTL	.9309326	.3540853	.0884903	.0840791
ANTW	.8095886	.3132347	1.5228390	.0736130
ANW	.7833564	.2831869	3.1795942	.0643594
BLL	.5071365	.2379153	1.0095541	.0770450
BLR	.4747246	.2001800	2.9501109	.0654999
C1L	.7032624	.2776635	3.5126793	.0627730
C1W	.4875583	.2841982	1.7710843	.0720606
C2L	.7280982	.2795825	1.9686083	.0708713
C2W	.6181446	.3006346	2.1834667	.0696215
C3L	.7537381	.3160496	.6124522	.0799279
C3W	.6319645	.2693967	2.8866456	.0658225
C4L	.7436548	.2932705	1.3367146	.0748216
C4W	.8484495	.3136217	.8540692	.0781487
CL	.7353271	.2970131	3.3302692	.0636319
CW	.7056651	.2898729	3.0619445	.0649391
FL	.5822083	.2364271	5.9026154	.0533391
FW	.8450616	.3400946	.7170220	.0791480
GL	.9461833	.3528713	.3459483	.0819868
GW	.8728272	.3130077	1.6178262	.0730112
H	.7330006	.2889972	2.3918453	.0684507
HL	.7820670	.3071872	1.8098893	.0718238
HW	.8323034	.3136449	1.8806560	.0713960
MAB	.7866970	.2980773	1.6915315	.0725509
MAN	.9866037	.3560521	.0062906	.0847698
MAX	.9073262	.3569847	.0427484	.0844620
MF	.5909320	.2291697	3.9405274	.0608464
MG	.9012892	.3220142	.9812112	.0772438
MH	.5467581	.2635378	3.1683876	.0644142
MINL	.8204600	.3042276	1.0949203	.0764522
MINR	.8047515	.2995513	.8322078	.0783064
MPE	.0000000	.0000000	.	.
NL	.6743000	.3419525	1.4790926	.0738936
PEL	.9273183	.3539699	.5673419	.0802691
PEW	.6904079	.2530148	3.7153978	.0618452
PL	.6302518	.2686890	3.2546878	.0639948
POSL	.8691988	.3451539	.6594436	.0795755
POSW	.8987291	.3346831	.8722334	.0780181
PW	.6776060	.2590744	1.8040547	.0718593
SL	.8187163	.3006697	2.4922663	.0679005
SW	.7448612	.2829439	2.1218304	.0699755
TT	.9248332	.3494826	.0063874	.0847689
V1L	.7109749	.2859821	3.7861254	.0615279
V1W	.6018144	.2840872	2.4822506	.0679550
V2L	.4839042	.2468192	3.6900279	.0619598
V2W	.7516760	.3146914	.8392171	.0782557
V3L	.7419039	.2916680	3.1129606	.0646865

V3W	.7010499	.3261602	.4810765	.0809298
V4W	.7459296	.3266731	.8948332	.0778563
V5L	.9843926	.3558278	.0695037	.0842376
V5W	.9122262	.3385551	.4189932	.0814120

At step 4, FL was included in the analysis.

		Degrees of Freedom			Signif.	Between Groups
Wilks' Lambda	.05334	4	1	13.0		
Equivalent F	44.36995		4	10.0	.0000	

---------- Variables in the Analysis after Step 4 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
FL	.5822083	5.9026	.0848231
NW	.3798074	12.6126	.1206136
TL	.2364271	151.3066	.8603944
V4L	.2422269	27.5849	.2004742

---------- Variables not in the Analysis after Step 4 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' 'Lambda
ABL	.2781823	.2279970	.1636606	.0523865
ABW	.4366790	.2361850	.0445377	.0530764
ANL	.4101899	.2247795	.0104201	.0532774
ANTL	.9050255	.2358234	.0067679	.0532990
ANTW	.5897175	.2349054	.0007998	.0533343
ANW	.6368144	.2288128	.3733684	.0512144
BLL	.3131953	.2217205	.2269657	.0520270
BLR	.3129587	.1945522	.0769360	.0528870
C1L	.6210175	.2244561	.6976969	.0495016
C1W	.2488362	.2232466	.1511542	.0524581
C2L	.4660193	.2357467	.0026308	.0533235
C2W	.3880817	.2344271	.0000184	.0533390
C3L	.2867864	.1908095	1.8981917	.0440488
C3W	.4416118	.2324891	.1082695	.0527050
C4L	.5469331	.2343451	.0067146	.0532993
C4W	.5653137	.2345844	.1951491	.0522071
CL	.3049202	.2328375	.0015638	.0533298
CW	.3021045	.2343685	.0101089	.0532792
FW	.4398787	.2163057	.7590189	.0491906
GL	.9459371	.2340939	.2228001	.0520505
GW	.8402853	.2275754	.3788910	.0511843
H	.4097707	.2363622	.0045148	.0533123
HL	.4761470	.2359430	.0282051	.0531724
HW	.4588241	.2332775	.0673363	.0529430
MAB	.3501278	.2207284	.3298019	.0514536
MAN	.6727302	.1960316	1.7442302	.0446800
MAX	.6079649	.1864384	1.1935897	.0470935
MF	.5084607	.2007727	.7635751	.0491676
MG	.8766966	.2293710	.2020098	.0521681
MH	.5324000	.2043670	1.1169629	.0474502
MINL	.8060946	.2005710	1.0777801	.0476347
MINR	.7741363	.1915060	1.1303773	.0473874
MPE	.0000000	.0000000	.	.
NL	.6725242	.2317336	.6760331	.0496125
PEL	.6692423	.2204538	.2190038	.0520720
PEW	.6346765	.2076540	.9424396	.0482831
PL	.3238857	.2362321	.0133700	.0532600
POSL	.6590850	.2309797	.1091689	.0526998
POSW	.5234851	.2240637	.3929433	.0511077
PW	.4302311	.2312385	.0138828	.0532569
SL	.7889129	.2228915	.7303732	.0493354
SW	.3606728	.2137269	.0970745	.0527699
TT	.9010747	.2362743	.0556350	.0530114
V1L	.5871995	.2318629	.5953311	.0500297
V1W	.4174523	.2336417	.0434656	.0530827
V2L	.3606485	.2200116	.3665670	.0512516
V2W	.5635937	.2341578	.0675733	.0529416
V3L	.5159470	.2362883	.1460027	.0524876

V3W	.5241930	.2281939	.2099554	.0521231
V4W	.4808203	.2287738	.2216401	.0520571
V5L	.9704714	.2363491	.1752715	.0523202
V5W	.5056427	.2209347	.9699756	.0481497

F level or tolerance or VIN insufficient for further computation.

Summary Table

Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	Label
1	TL		1	.25759	.0000	
2	V4L		2	.18199	.0000	
3	NW		3	.08482	.0000	
4	FL		4	.05334	.0000	

Canonical Discriminant Functions

Fcn	Eigenvalue	Pct of Variance	Cum Pct	Canonical Corr	After Fcn	Wilks' Lambda	Chi-square	df	Sig
1*	17.7480	100.00	100.00	.9730	0	.053339	32.242	4	.0000

* Marks the 1 canonical discriminant functions remaining in the analysis.

Standardized canonical discriminant function coefficients

	Func 1
FL	-.82064
NW	-1.24551
TL	2.04718
V4L	1.78904

Structure matrix:

Pooled within-groups correlations between discriminating variables and canonical discriminant functions
(Variables ordered by size of correlation within function)

	Func 1
TL	.40298
MAN	.38855
MINR	-.37644
MINL	-.36821
MAX	-.34553
C3L	-.28551
PEW	.27785
MF	.27277

	Func 1
MH	.25226
PEL	-.25184
FW	-.24648
V5W	-.22768
POSW	-.18914
SL	.18646
MAB	-.17965
ANL	-.16861
POSL	-.16128
V4W	-.15595
GW	.15520
V3W	-.15498
C1L	.15020
C1W	-.14726
MG	.14631
ABL	-.12732
HW	-.11461
BLR	.11280
CL	-.10843
ANW	.10420
GL	.10209
V2W	-.09297
CW	-.09045
C2W	-.08878
NL	.08858
C4W	-.08622
V1L	.08195
ANTW	-.08077
BLL	-.07795
HL	-.06848
SW	-.06088
V2L	.05339
C2L	-.05316
V4L	.05073
FL	-.04982
ABW	-.04574
H	-.04336
PW	-.04286
ANTL	-.04186
C4L	.03746
NW	-.03483
V1W	.03247
V5L	-.02725
C3W	.02518
PL	-.01890
TT	.01489
V3L	-.00832

Case Number	Mis Val	Sel	Actual Group	Highest Probability Group	P(D/G)	P(G/D)	2nd Highest Group	P(G/D)	Discrim Scores
1			2	2	.2496	1.0000	2	1.0000	-5.9546
2			1	1	.9064	1.0000	2	.0000	3.3199
3			1	1	.4703	1.0000	2	.0000	2.4802
4			1	1	.4802	1.0000	2	.0000	2.4963
5			1	1	.4618	1.0000	1	1.0000	3.9381
6			2	2	.5650	1.0000	1	.0000	-4.2279
7			1	1	.0988	1.0000	1	1.0000	4.8529
8			2	2	.1367	1.0000	2	1.0000	-6.2915
9			1	1	.9798	1.0000	2	.0000	3.2276
10			1	1	.1568	1.0000	2	.0000	1.7862
11			1	1	.8251	1.0000	2	.0000	3.4233
12			2	2	.7987	1.0000	1	.0000	-5.0584
13			2	2	.2155	1.0000	1	.0000	-3.5647
14			1	1	.9255	1.0000	2	.0000	3.2958
15			2	2	.2801	1.0000	1	.0000	-3.7232

Symbols used in plots

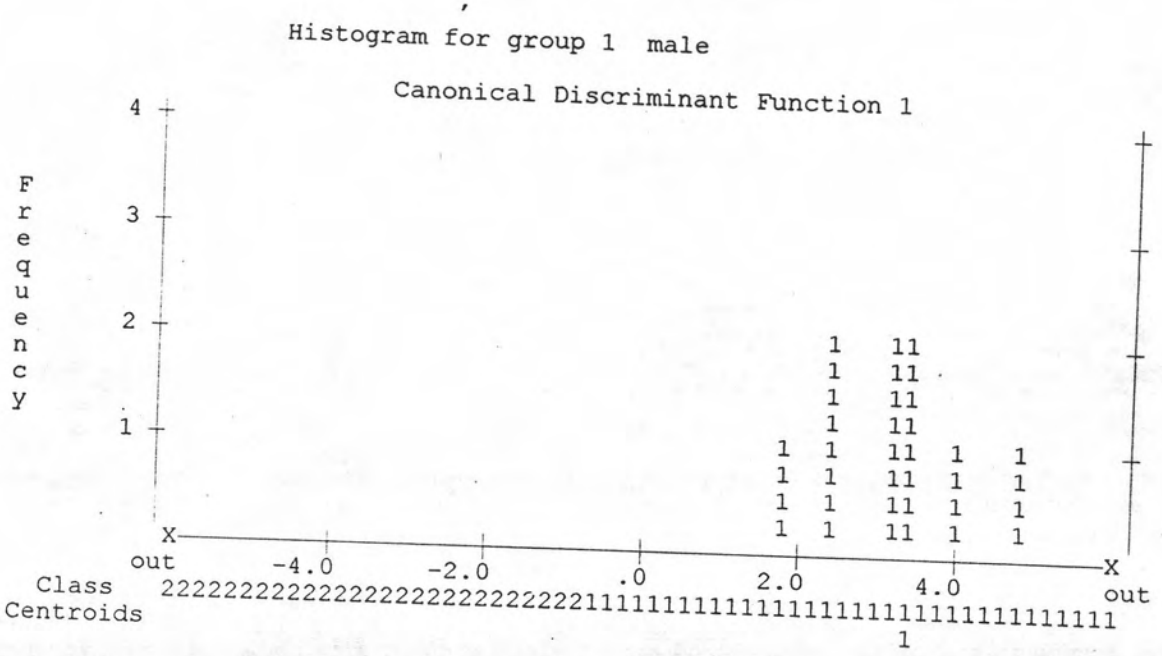
Symbol	Group	Label
1	1	male
2	2	female

Unstandardized canonical discriminant function coefficients

	Func 1
FL	-.8899609
NW	-1.3922330
TL	3.4740081
V4L	.6503184
(Constant)	-24.5043277

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1
1	3.20225
2	-4.80337


Histogram for group 1 male
Canonical Discriminant Function 1
Frequency
4
3
2
1
X
out
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-2.0
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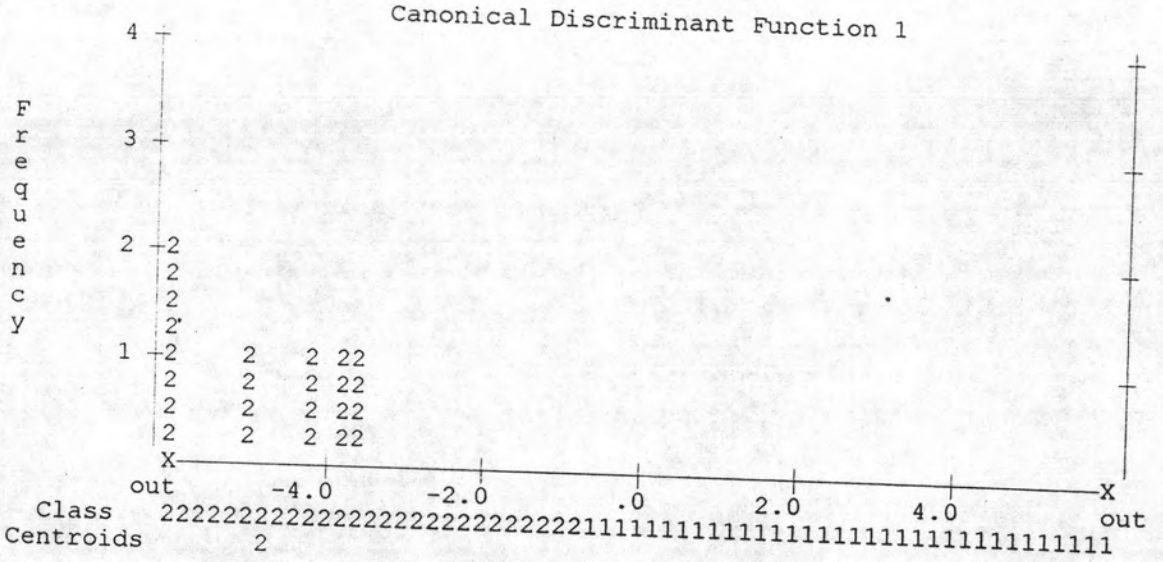
2.0
4.0
X
out
Class
Centroids
1


Histogram for group 2 female
Canonical Discriminant Function 1
Frequency
4
3
2
1
X
out
-4.0
-2.0
.0
2.0
4.0
X
out
Class
Centroids
2

ภาคผนวก ง

ตัวอย่างการวิเคราะห์ข้อมูลโดยใช้สถิติ Cluster Analysis

Cluster Analysis ของเต่าหกดำ

* * * * * * * * * * * * * P R O X I M I T I E S * * * * * * * * * * * * * * *

Data Information

27 unweighted cases accepted.
0 cases rejected because of missing value.

Squared Euclidean measure used.

- -

Squared Euclidean Dissimilarity Coefficient Matrix

	Case 1	Case 2	Case 3	Case 4	Case 5
Case 2	.0002				
Case 3	.0004	.0001			
Case 4	.0057	.0045	.0042		
Case 5	.0000	.0002	.0005	.0063	
Case 6	.0005	.0013	.0019	.0090	.0004
Case 7	.0012	.0022	.0029	.0115	.0010
Case 8	.0027	.0015	.0010	.0022	.0030
Case 9	.0034	.0022	.0017	.0009	.0038
Case 10	.0073	.0053	.0042	.0054	.0075
Case 11	.0007	.0002	.0001	.0033	.0008
Case 12	.0021	.0033	.0043	.0095	.0022
Case 13	.0068	.0081	.0087	.0247	.0062
Case 14	.0027	.0037	.0044	.0163	.0023
Case 15	.0002	.0008	.0013	.0078	.0002
Case 16	.0005	.0012	.0019	.0072	.0006
Case 17	.0051	.0068	.0079	.0211	.0046
Case 18	.0002	.0005	.0008	.0078	.0001
Case 19	.0050	.0034	.0027	.0014	.0054
Case 20	.0004	.0010	.0016	.0072	.0004
Case 21	.0001	.0001	.0003	.0042	.0002
Case 22	.0002	.0001	.0001	.0054	.0002
Case 23	.0017	.0009	.0005	.0051	.0017
Case 24	.0031	.0045	.0054	.0169	.0027
Case 25	.0001	.0002	.0005	.0048	.0002
Case 26	.0003	.0000	.0000	.0045	.0004
Case 27	.0002	.0006	.0011	.0063	.0002

	Case 6	Case 7	Case 8	Case 9	Case 10
Case 7	.0002				
Case 8	.0056	.0074			
Case 9	.0065	.0086	.0003		
Case 10	.0115	.0137	.0015	.0023	
Case 11	.0023	.0036	.0007	.0012	.0037
Case 12	.0010	.0012	.0086	.0087	.0167

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Squared Euclidean Dissimilarity Coefficient Matrix (Cont.)

	Case 6	Case 7	Case 8	Case 9	Case 10
Case 13	.0049	.0037	.0150	.0182	.0196
Case 14	.0014	.0009	.0094	.0116	.0146
Case 15	.0001	.0004	.0046	.0054	.0101
Case 16	.0002	.0006	.0052	.0056	.0116
Case 17	.0026	.0015	.0146	.0168	.0219
Case 18	.0004	.0008	.0035	.0047	.0079
Case 19	.0087	.0110	.0004	.0002	.0013
Case 20	.0001	.0005	.0048	.0054	.0109
Case 21	.0010	.0019	.0021	.0024	.0066
Case 22	.0012	.0020	.0018	.0027	.0053
Case 23	.0038	.0050	.0007	.0018	.0022
Case 24	.0013	.0005	.0112	.0130	.0178
Case 25	.0007	.0015	.0026	.0030	.0075
Case 26	.0016	.0026	.0012	.0020	.0045
Case 27	.0002	.0008	.0039	.0044	.0094

	Case 11	Case 12	Case 13	Case 14	Case 15
Case 12	.0046				
Case 13	.0102	.0089			
Case 14	.0054	.0041	.0010		
Case 15	.0017	.0012	.0055	.0018	
Case 16	.0022	.0005	.0072	.0028	.0002
Case 17	.0091	.0040	.0016	.0008	.0033
Case 18	.0012	.0026	.0048	.0016	.0003
Case 19	.0020	.0116	.0204	.0138	.0074
Case 20	.0019	.0007	.0067	.0025	.0001
Case 21	.0004	.0023	.0088	.0040	.0006
Case 22	.0003	.0036	.0070	.0031	.0008
Case 23	.0006	.0076	.0095	.0057	.0031
Case 24	.0064	.0027	.0019	.0004	.0017
Case 25	.0007	.0018	.0082	.0035	.0004
Case 26	.0001	.0040	.0082	.0040	.0011
Case 27	.0013	.0011	.0069	.0026	.0001

	Case 16	Case 17	Case 18	Case 19	Case 20
Case 17	.0039				
Case 18	.0009	.0038			
Case 19	.0079	.0198	.0063		
Case 20	.0000	.0037	.0006	.0075	
Case 21	.0007	.0066	.0006	.0039	.0006
Case 22	.0014	.0062	.0003	.0039	.0011
Case 23	.0042	.0103	.0018	.0022	.0037

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Squared Euclidean Dissimilarity Coefficient Matrix (Cont.)

	Case 16	Case 17	Case 18	Case 19	Case 20
Case 24	.0023	.0002	.0021	.0157	.0021
Case 25	.0004	.0058	.0005	.0047	.0003
Case 26	.0017	.0074	.0006	.0030	.0014
Case 27	.0001	.0043	.0004	.0064	.0001

	Case 21	Case 22	Case 23	Case 24	Case 25
Case 22	.0003				
Case 23	.0017	.0008			
Case 24	.0044	.0040	.0076		
Case 25	.0000	.0004	.0020	.0037	
Case 26	.0003	.0001	.0006	.0050	.0005
Case 27	.0003	.0007	.0029	.0026	.0001

	Case 26
Case 27	.0009

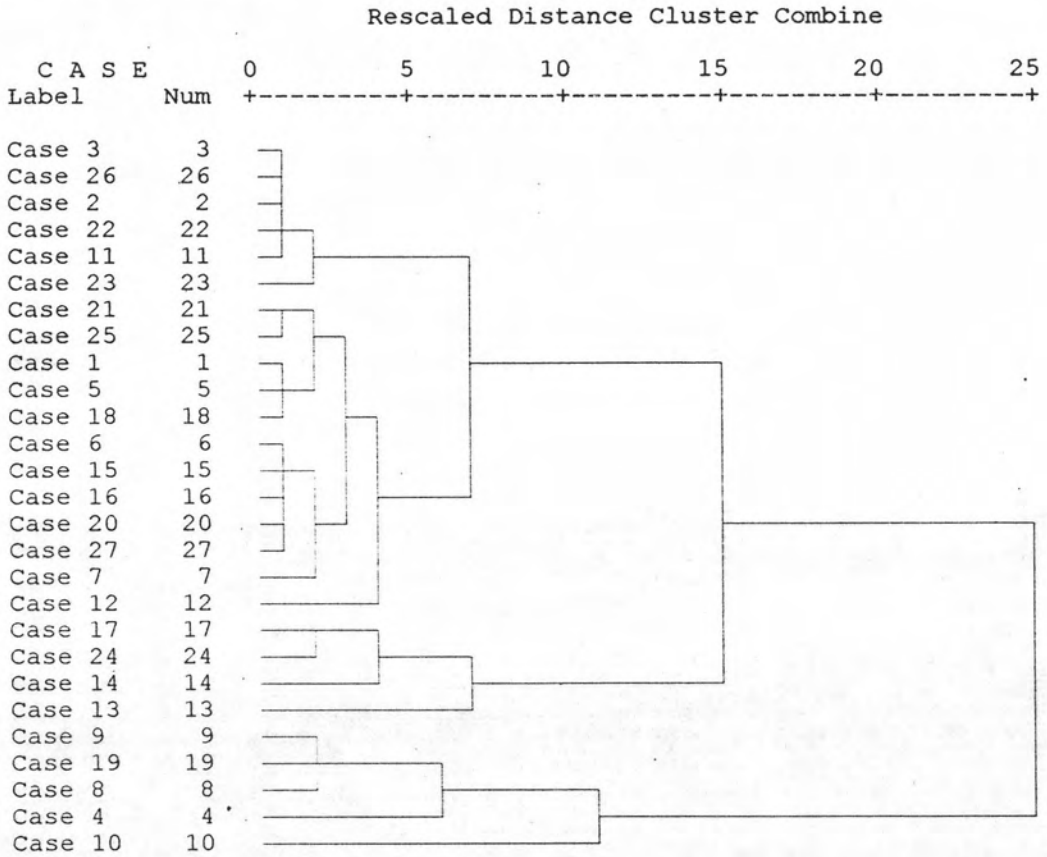
* * * * * * HIERARCHICAL CLUSTER ANALYSIS * * * * * *

Agglomeration Schedule using Average Linkage (Within Group)

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster 1st Appears Cluster 1	Cluster 2	Next Stage
1	3	26	.000009	0	0	5
2	1	5	.000017	0	0	10
3	16	20	.000023	0	0	8
4	21	25	.000034	0	0	12
5	2	3	.000036	0	1	7
6	6	15	.000050	0	0	11
7	2	22	.000053	5	0	9
8	16	27	.000065	3	0	11
9	2	11	.000096	7	0	16
10	1	18	.000105	2	0	12
11	6	16	.000122	6	8	15
12	1	21	.000208	10	4	18
13	9	19	.000221	0	0	17
14	17	24	.000239	0	0	19
15	6	7	.000246	11	0	18
16	2	23	.000282	9	0	23
17	8	9	.000304	0	13	21
18	1	6	.000426	12	15	20
19	14	17	.000476	0	14	22
20	1	12	.000611	18	0	23
21	4	8	.000907	0	17	24
22	13	14	.000982	0	19	25
23	1	2	.001057	20	16	25
24	4	10	.001587	21	0	26
25	1	13	.002223	23	22	26
26	1	4	.003873	25	24	0

* * * * * * H I E R A R C H I C A L C L U S T E R A N A L Y S I S * * * * * *

Dendrogram using Average Linkage (Within Group)



ภาคผนวก จ

ตัวอย่างการใช้สถิติ Simple Linear Regression ในการวิเคราะห์ข้อมูล

Simple linear regression ของเต่าหกเหลืองเพศเมีย

Dependent variable.. FL Method.. LINEAR

Listwise Deletion of Missing Data

Multiple R	.96476
R Square	.93076
Adjusted R Square	.91345
Standard Error	.31446

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	5.3167991	5.3167991
Residuals	4	.3955342	.0988836

F = 53.76829 Signif F = .0018

---------- Variables in the Equation ----------

Variable	B	SE B	Beta	T	Sig T
CL	.382852	.052212	.964758	7.333	.0018
(Constant)	-7.638081	2.262673		-3.376	.0279

Dependent variable.. CW Method.. LINEAR

Listwise Deletion of Missing Data

Multiple R	.83499
R Square	.69720
Adjusted R Square	.62151
Standard Error	1.55870

Analysis of Variance:

	DF	Sum of Squares	Mean Square
Regression	1	22.376772	22.376772
Residuals	4	9.718228	2.429557

F = 9.21023 Signif F = .0386

---------- Variables in the Equation ----------

Variable	B	SE B	Beta	T	Sig T
CL	.785425	.258803	.834988	3.035	.0386
(Constant)	-2.732742	11.215623		-.244	.8195

ประวัติผู้เขียน

นางสาววรัญญา อรัญวาลัย เกิดวันที่ 18 พฤษภาคม พ.ศ. 2513 ที่จังหวัดกรุงเทพมหานคร สำเร็จการศึกษาปริญญาตรีวิทยาศาสตรบัณฑิต สาขาชีววิทยา ภาควิชาชีววิทยา คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ในปีการศึกษา 2535 และเข้าศึกษาต่อในหลักสูตรวิทยาศาสตรมหาบัณฑิต ที่จุฬาลงกรณ์มหาวิทยาลัย เมื่อ พ.ศ. 2536