

9. Appendices

9.1 SITE INFORMATION

The following data sheets give the location (as NZMS 260 grid reference), physical features, and floristic details of the Malaise trap sites.

Pasture, young kanuka, and old kanuka sites were on Kaharoa Station (J.A. & S.L. Hall) beside the upper Kokakonui Stream. The forest site was in a forest remnant below Duncan Road on the flanks of Ngauotekaka, on land owned by Hikurangi Forest Farms Limited.

The pasture site was the only one shifted - to beside a farm dam 1 km S, by the Halls' woodshed - for the 1994 sample period (2 ECK) (see notes beneath data sheet). The grid reference is (Y17) 511893.

MALAISE TRAP SITES 1 ECK1 & 2
(pasture)

Date: 22 Nov 1993 Personnel: Dugdale, Hutcheson, King Grid. ref: (Y17) 516,904
 Altitude (m): 210 Aspect: 320° Slope: 5° Physiography: Midslope terrace
 Parent material: Papa mudstone Drainage: Fair Cultural: Pasture (heavy browse)
 Ground cover (%): Vascular plants 99 Moss - Litter - Rocks - Earth 1
 Mean top height (m): 0.1 Canopy cover (%): 99

	Tier 1 Emergent	Tier 2 12 m +	Tier 3 12 m - 5 m	Tier 4 5 m - 2 m	Tier 5 2 m - 30 cm	Tier 6 <30 cm
HT (m)					1	
DNSTY					1	7
DBH (cm)						
					JUN DIF	1
					DIG PUR	1
					CIR VUL	1
						1
						TRI REP
						4
						LOT
						3
						PLA LAN
						2
						ANT ODO
						4
						LOL PER
						3
						HOL LAN
						2
						RUM ACE
						1
						COP RAM
						1
EPIPH						

Notes. Farm site (for 20 years?). Debris: 3 old crumbly KUN ERI stumps within 5 m. Scattered 2 m KUN ERI on gully edge about 20 m downslope (bearing 320°), where broad midslope terrace drops into gully with old KUN ERI stand. Broken understorey 2 m high of OLE RAN, CYA DEA, CYA FAS, COP RAM. About 270° of surrounding land (mostly upslope) with heavy presence of JUN EFF, some CAR SEC, and CYP UST. Dead COR AUS stem 30 m north.

1ECK = 1st sampling series from East Coast kanuka study. Trap 1 = FRI, Trap 2 = Landcare Research.
 Codes include first three letters of generic and specific names; full names are listed in Appendix 2.
 Cover values after names: 1, <1%; 2, 1-5%; 3, 5-25%; 4, 25-50%; 5, 50-75%; 6, 75-95%; 7, 95-100%.

VEG PLOT FORM 2ECK 1&2

Date: 28 April 1993 Personnel: D, King, P.Broekhuizen

Altitude (m): 170 Aspect: 40°

Parent material: Papa mudstone

Ground cover (%): Vascular plants 100 Moss -

Mean top height (m): 0.3

Slope: 2°

Drainage: Poor

Litter - Rocks -

Canopy cover (%): 100

Grid. ref: (Yn) S13894

Physiography: Midslope-terrace

Cultural: Pasture, low browse

Earth -

	Tier 1 Emergent	Tier 2 12 m +	Tier 3 12 m - 5 m	Tier 4 5 m - 2 m	Tier 5 2 m - 30 cm	Tier 6 <30 cm	
HT (m)					2		
DNSTY							
				ACE MEA	1		
				POP YUN	1		
					ACH MIL	2	
					JUN EFF	3	
					POL PER	1	
					SPO AFR	1	
						LOL PER	4
						HOL LAN	4
						ANT ODO	2
						TRI REP	2
						LOT PED	2
						RAN REP	2
						RUM OBT	1
						PLA LAN	1
						PAS DIL	1
						RUM ACE	1
						PAS PAS	1
						POT CHE	1
EPIPH							

Notes. Farmsite (20 yrs?). Improved pasture 2 m from farm dams (10 m and 30 m long) with allyear water supply. Area C. 600 m from indigenous regrowth (kanuka) and fenced off from normal grazing. Some ornamental trees present.

Unhealthy: No unhealthy material evident.

Dead Stems:

Fungi:

Leaf Litter:

2ECK = 2nd sampling series from East Coast Kanuka study, Balls Far, Waimate Valley, Gisborne.

Codes include first three letters of generic and specific names, full names are listed in Appendix 2.

Cover values after names signify: 1, <1%; 2, 1-5%; 3, 5-25%; 4, 25-50%; 5, 50-75%; 6, 75-95%; 7, 95-100%.

**MALAISE TRAP SITES 1ECK3 & 4, 2 ECK 3 & 4
(Young Kanuka)**

Date: 22 Nov 1993 **Personnel:** Dugdale, Hutcheson, King **Grid. ref:** (Y17) 512,905
Altitude (m): 235 **Aspect:** 200° **Slope:** flat **Physiography:** Knoll
Parent material: Papa mudstone **Drainage:** Fair **Cultural:** Old burn, moderately grazed
Ground cover (%): Vascular plants 50 Moss 50 Litter 20 Rocks - Earth 25
Mean top height (m): 8 **Canopy cover (%):** 80

	Tier 1 Emergent	Tier 2 12 m +	Tier 3 12 m - 5 m	Tier 4 5 m - 2 m	Tier 5 2 m - 30 cm	Tier 6 <30 cm
HT (m)			8			
DNSTY			6		4	4
DBH (cm)			8 cm			
			KUN ERI 6		1	
					COP RAM 4	1
					DIG PUR 1	CAR SEC 3
						ANT ODO 4
						UNC UNC 3
						RAN REP 1
						LIO FIL 1
						PRU VUL 1
						CRE CAP 1
						SEN JAC 1
						CLE PAN 1
						HYD SPE 1
						CAR DEB 1
						ACE ANS 1
						MOSESSES 2
EPIPH						
USNEA						

Notes. Some self-thinning occurring. Extensive fine debris from KUN ERI. Knoll between two bogs on midslope terrace. More diverse and older vegetation downslope.

1ECK = 1st sampling series from East Coast kanuka study. Trap 3 = FRI, Trap 4 = Landcare Research.
 Codes include first three letters of generic and specific names; full names are listed in Appendix 2.
 Cover values after names: 1, <1%; 2, 1-5%; 3, 5-25%; 4, 25-50%; 5, 50-75%; 6, 75-95%; 7, 95-100%.

MALAISE TRAP SITES 1ECK 5 & 6, 2ECK 5 & 6
(older kanuka)

Date: 22 Nov 1993 **Personnel:** Dugdale, Hutcheson, King **Grid. ref:** (Y17) 512,905
Altitude (m): 215 **Aspect:** 40° **Slope:** 30° **Physiography:** Knoll
Parent material: Papa mudstone **Drainage:** Good **Cultural:** Old burn, moderately grazed
Ground cover (%): Vascular plants 50 Moss 50 Litter - Rocks - **Earth -**
Mean top height (m): 12 **Canopy cover (%):** 80

	Tier 1 Emergent	Tier 2 12 m +	Tier 3 12 m - 5 m	Tier 4 5 m - 2 m	Tier 5 2 m - 30 cm	Tier 6 <30 cm
HT (m)		12				
DNSTY		4	2	4	6	4
DBH (cm)		150				
		KUN ERI 4	2			1
			CAR SER 3	3		
			OLE RAN 2	3	2	1
			PIT TEN 2	3		
			CYA FAS 2	3		1
				WEI RAC 1		
				MYR AUS 1		1
				GEN RUP 1	1	1
				RUB CIS 2	2	1
				HEL AGR 2	2	1
				CYA DEA 1		
					COP RAM 6	1
					CLE PAN 1	1
					COP RUB	1
					LYC SCA 1	1
					KNI EXC 1	
					MEL RAM 1	
					ADI CUN 1	
EIPPH					BLE DIS 1	
					PHY DIV 1	
USNEA					PSE CRA 1	
					BLE CAP 1	
					POL RIC 1	
						ASP FLA 1
						UNC UNC 1
						ANT ODO 1
						CRE CAP 1
						BRA SP. 1
						PRU VUL 2
						SEN JAC 1
						SON OLE 1
						CAL CAR 1
						MEL 1
						ACE ANS 1
						COR TRI 1
						CAR DEB 1
						MOSESSES 2

Notes. Bearing approx. 250° from 1ECK 1 and 2. Lower canopy of KUN ERI mostly gone. Site 20 m above grassed terrace (5 m wide) above small stream; terrace with scattered COP RAM, KUN ERI. Browsing much lighter than 1ECK 1 and 2, but still pervasive. Access downslope and north along gully from 1ECK 1 and 2. Debris: few dead stems (5 cm) - many twigs on COP RAM (self thinning). Much fine litter (KUN ERI and COP RAM).

1ECK = 1st sampling series from East Coast kanuka study. Trap 5 = FRI, Trap 6 = Landcare Research.
Codes include first three letters of generic and specific names; full names are listed in Appendix 2.
Cover values after names: 1, <1%; 2, 1-5%; 3, 5-25%; 4, 25-50%; 5, 50-75%; 6, 75-95%; 7, 95-100%.

MALAISE TRAP SITES 1ECK7 & 8, 2 ECK 7 & 8
(tawa-pukatea forest)

Date: 23 Nov 1993 Personnel: Dugdale, Hutcheson, King
 Altitude (m): 450 Aspect: 100°
 Parent material: Papa mudstone
 Ground cover (%): Vascular plants 40 Moss 5
 Mean top height (m): 18

Slope: 20°
 Drainage: Good
 Litter 60 Rocks -
 Canopy cover (%): 70

Grid. ref: (Y17) 499,927
 Physiography: Mid-slope
 Cultural: Remnant, grazed in past
 Earth -

	Tier 1 Emergent	Tier 2 12 m +	Tier 3 12 m - 5 m	Tier 4 5 m - 2 m	Tier 5 2 m - 30 cm	Tier 6 <30 cm
HT (m)	400	15-20				
DNSTY	4	5	3	3	3	3
DBH (cm)	150					
	DAC DAC 4					
		LAU NOV 3			1	3
		MEL RAM 3	3			
		BEI TAW 4	4	3	1	2
		RIP SCA 3	3	2	1	1
		ELA DEN 2				1
			HED ARB 3		1	1
			TET TET 1			
				SCH DIG 2	1	1
				CYA MED 2		
				MAC EXC 1	1	
					POL RIC 2	
					PNE PEN 1	
					BLE CHA 2	
					LAS GLA 3	1
					PEL ROT 1	
					HOH SEX 1	1
					CAR SER 1	1
EPIPH.					ASP GRA 1	1
					PAR HET 1	1
BLE FIL					MUE AUS 1	
PYR ELA					BLE FIL 1	3
GRI LIT						WEI RAC 1
EAR AUT						MET DIF 2
ASP FLA						GEN RUP 1
AST						KNI EXC 1
LYC VOL						PIT TEN 1
LICHENS						COP RAM 1

Notes. Old forest remnant on midslope site, deep leaf litter, crumbly LAU NOV heartlog nearby. All-pervasive debris mostly <5 cm. Extensive larger MEL RAM debris. Traps beside 10-m-diameter regenerating patch under canopy gap. Other gaps at approx. 30 m scatter and at various (young) stages of regrowth. Trap 7 on old debris pile, trap 8 beside DAC DAC stem. Large amounts of dead RIP SCA in curtains surrounding patch. Site is 75 m downslope from forest edge. DAC DAC crown visible from road, bearing 130° from cattle stop.

1ECK = 1st sampling series from East Coast kanuka study. Trap 7= FRI, Trap 8 = Landcare Research.
 Codes include first three letters of generic and specific names; full names are listed in Appendix 2.
 Cover values after names: 1, <1%; 2, 1-5%; 3, 5-25%; 4, 25-50%; 5, 50-75%; 6, 75-95%; 7, 95-100%.

9.2 PLANT CODES, NAMES, AND INCIDENCE IN KANUKA SURVEY

Malaise trapping site (+, present)

Plant code	Full name	Pasture	Young kanuka	Old kanuka	Forest
		1 & 2	3 & 4	5 & 6	7 & 8
ACA MEA	<i>Acacia mearnsii</i>	+			
ACE ANS	<i>Acaena anserinifolia</i>		+	+	
ACH MIL	<i>Achillea millefolium</i>	+			
ADI CUN	<i>Adiantum cunninghamii</i>	+	+	+	
ANT ODO	<i>Antboxanthum odoratum</i>			+	
ASP FLA	<i>Asplenium flaccidum</i>			+	+
ASP GRA	<i>Asplenium bulbiferum/gracillimum</i>				+
AST	<i>Astelia</i> sp.				+
BEI TAW	<i>Beilschmeidia tawa</i>				+
BLE CAP	<i>Blechnum</i> 'black spot'			+	
BLE CHA	<i>Blechnum chambersii</i>				+
BLE DIS	<i>Blechnum discolor</i>			+	
BLE FIL	<i>Blechnum filiforme</i>				+
BRA	<i>Brachycome</i> sp.			+	
CAL CAR	<i>Caladenia carnea</i>			+	
CAR DEB	<i>Cardamine debilis</i>		+	+	
CAR SER	<i>Carpodetus serratus</i>			+	+
CAR SEC	<i>Carex secta</i>		+		
CIR VUL	<i>Cirsium vulgare</i>	+			
CLE PAN	<i>Clematis paniculata</i>		+	+	
COP RAM	<i>Coprosma rhamnoides</i>	+	+	+	+
COP RUB	<i>Coprosma rubra</i>			+	
COR TRI	<i>Corybas trilobus</i>			+	
CRE CAP	<i>Crepis capillaris</i>		+	+	
CYA DEA	<i>Cyathea dealbata</i>			+	
CYA MED	<i>Cyathea medullaris</i>				+
CYA FAS	<i>Cyatbodes fasciculata</i>			+	
CYP ERU	<i>Cyperus</i> sp.	+			
DAC DAC	<i>Dacrycarpus dacrydioides</i>				+
DIG PUR	<i>Digitalis purpurea</i>	+	+		
EAR AUT	<i>Earina autumnalis</i>				+
ELA DEN	<i>Elaeocarpus dentatus</i>				+
GEN RUP	<i>Gentostoma rupestre</i>			+	+
GRI LIT	<i>Griselinia littoralis</i>				+
HED ARB	<i>Hedycarya arborea</i>				+
HEL AGR	<i>Helichrysum aggregatum</i>			+	
HOH SEX	<i>Hoberia sexstylosa</i>				+
HOL LAN	<i>Holcus lanatus</i>	+			
HYD ROC	<i>Hydrocotyle</i> sp.		+		
JUN EFF	<i>Juncus effusus</i>	+			
KNI EXC	<i>Knightsia excelsa</i>			+	+
KUN ERI	<i>Kunzea ericoides</i>			+	
LAS GLA	<i>Lastreopsis glabella</i>				+
LAU NOV	<i>Laurelia novae-zelandiae</i>				+
LOL PER	<i>Lolium perenne</i>	+			
LOTUS	<i>Lotus</i> sp.	+			

Plant code	Full name	Pasture	Young	Old	Forest
		1 & 2	kanuka 3 & 4	kanuka 5 & 6	7 & 8
LOT PED	<i>Lotus pedunculatus</i>	+			
LYC SCA	<i>Lycopodium scandens</i>			+	
LYC VOL	<i>Lycopodium volubile</i>				+
MAC EXC	<i>Macropiper excelsum</i>				+
MEL RAM	<i>Meliccytus ramiflorus</i>			+	+
MEL	<i>Melilotus</i> sp.			+	
MET DIF	<i>Metrosideros diffusa</i>				+
MUE AUS	<i>Muehlenbeckia australis</i>				+
MYR AUS	<i>Myrsine australis</i>			+	
OLE RAN	<i>Olearia rani</i>			+	
PAR HET	<i>Parsonsia heterophylla</i>				+
PAS DIL	<i>Paspalum dilatatum</i>	+			
PAS PAS	<i>Paspalum paspaloides</i>	+			
PEL ROT	<i>Pellaea rotundifolia</i>				+
PHY DIV	<i>Phymatosorus diversifolius</i>			+	
PIT TEN	<i>Pittosporum tenuifolium</i>			+	+
PLA LAN	<i>Plantago lanceolata</i>	+			
PNE PEN	<i>Pneumatopteris pennigera</i>				+
POL PER	<i>Polygonum persicaria</i>	+			
POL RIC	<i>Polystichum richardii</i>			+	+
POP YUN	<i>Populus yunnanensis</i>	+			
POT CHE	<i>Potamogeton cheesmani</i>	+			
PRU VUL	<i>Prunus vulgaris</i>		+	+	
PSE CRA	<i>Pseudopanax crassifolium</i>			+	
PYR ELA	<i>Pyrrhosia eleagnifolia</i>				+
RAN REP	<i>Ranunculus repens</i>		+		
RIP SCA	<i>Ripogonum scandens</i>				+
RUB CIS	<i>Rubus cissoides</i>			+	
RUM ACE	<i>Rumex acetosella</i>	+			
RUM OBT	<i>Rumex obtusifolius</i>	+			
SEN JAC	<i>Senecio jacobaea</i>		+	+	
SCH DIG	<i>Schefflera digitata</i>				+
SON OLE	<i>Sonchus oleraceus</i>			+	
SPO AFR	<i>Sporobolus africanus</i>	+			
TET TET	<i>Tetrapathaea tetrandra</i>				+
TRI REP	<i>Trifolium repens</i>	+	+		
UNC UNC	<i>Uncinia uncinata</i>		+	+	
USNEA	<i>Usnea</i> sp. (lichen)		+	+	
VIO FIL	<i>Viola filicaulis</i>				
WEI RAC	<i>Weinmannia racemosa</i>			+	+

9.3 LEPIDOPTERA COLLECTED AT KANUKA SURVEY SITES

29 Nov 1993 - 10 Jan 1994. Key: Trophic niche categories - C, canopy; SC, subcanopy; W, wood; P, predator; L, litter; H, herb layer; B, fungi. Sites - P, pasture; KY, young kanuka; KO, older kanuka; F, forest. Status - R, resident; V, vagrant at site; +, not collected but clearly resident at site.

Species (family)	Niche	P (Status)	KY (Status)	KO (Status)	F (Status)	Total
<i>Acrocerops aetbalota</i> (Gracillariidae)	C	1 (V)		+ (R)	+ (R)	1
<i>Anisoplaca pyoptera</i> (Gelechiidae)	C				1 (R)	1
<i>Archyala tigrina</i> (Tineidae)	SC	2 (V)	-	+ (R)	+ (R)	2
<i>Austrocidaria gobiata</i> (Geometridae)	SC	1 (V)	2 (R)	1 (R)	+ (R)	2
<i>Barea exarcha</i> (Oecophoridae)	W	1 (R)	-	-	-	1
<i>Batrachedra agaura</i> (Batrachedridae)	P	1		+ (R)	1 R	1
<i>Batrachedra filicicola</i> (Batrachedridae)	SC			1 (R)	+ R	1
<i>Capua semifera</i> (Tortricidae)	L	3 (R)	1 (R)	+ (R)	1 R	5
<i>Chalastra pellurgata</i> (Geometridae)	SC	-	-	-	1 R	1
<i>Chloroclystis filata</i> (Geometridae)	C			1 (R)	1 R	2
<i>Chloroclystis inductata</i> (Geometridae)	C			+ (R)	2 R	2
<i>Cleora scriptaria</i> (Geometridae)	C				4 R	4
<i>'Cnephasia' incessana</i> (Tortricidae)	L			1 (R)	+ R	1
<i>Coleophora spissicornis</i> (Coleophoridae)	H	50 (R)			1 V	>50
<i>Coleophora versurella</i> (Coleophoridae)	H	+ (R)			1 V	1
<i>Compstis bifaciella</i> (Lecithoceridae)	L	2 (V)	-	7 (R)	14 R	23
<i>Cosmiotes archaeonoma</i> (Elachistidae)	H	>100 (R)	16 (V)	71 (V)	41 V	>200
<i>Cosmiotes carex</i> (Elachistidae)	H	>50 R			-	>50
<i>Crociosema plebejana</i> (Tortricidae)	H	+ R		1 V		1
<i>Crysitricha</i> sp. (Tineidae)	B			1 R	5 R	6
<i>Cryptaspasma querula</i> (Tortricidae)	L		1 V		20 R	21
<i>Ctenopseustis obliquana</i> (Tortricidae)	C	1 V		+ R	12 R	

Species (family)	Niche	P (Status)	KY (Status)	KO (Status)	F (Status)	Total
<i>Declana floccosa</i> (Geometridae)	C		5 R	2 R	+ R	7
<i>Declana junctilinea</i> (Geometridae)	C		+ R	1 R		1
<i>Declana leptomera</i> (Geometridae)	C		+ R	1 R	1 R	2
<i>Ecclitica hemiclistra</i> (Tortricidae)	SC			1 R	+ R	1
<i>Elachista gerasmia</i> (Elachistidae)	H	+ R			1 V	1
<i>Epalxiphora axenana</i> (Tortricidae)	SC				4 R	4
<i>Epiphryne undosata</i> (Geometridae)	C			+ R	1 R	1
<i>Erebthias chasmatias</i> (Tineidae)	W				3 R	3
<i>'Epichorista' siriana</i> (Tortricidae)	H	+ R	1 R			1
<i>Eschatotypa melichrysa</i> (Tineidae)	W	1 V			+ R	1
<i>Euchersadaula</i> sp. (Oecophoridae)	L			4 R	+ R	4
<i>Eudonia asterisca</i> (Crambidae)	H				1 R	1
<i>Eudonia chlamydota</i> (Crambidae)	H		1 R	+ R	R	1
<i>Eudonia colpota</i> (Crambidae)	H		1 R	1 R	+ R	1
<i>Eudonia sabulosella</i> (Crambidae)	H	> 100 R		1 V	13 V	> 115
<i>Eudonia submarginalis</i> (Crambidae)	H	1 R		1 V		2
<i>Eudonia</i> sp. (small, dark, uniform) (Crambidae)	H	1 V		1 R		2
<i>Feredayia graminosa</i> (Noctuidae)	SC		1 V	+ R	+ R	1
<i>Glaucobaris auriscriptella</i> (Crambidae)	H		1 R	3 R	1 R	5
<i>Glyphipterix achlyoessa</i> (Glyphipterigidae)	H	50 R	2 V	1 V	4 V	>60
<i>Glyphipterix erastis</i> (Glyphipterigidae)	H	1 V	4 R	10 R		15
<i>Glyphipterix iocheaera</i> (Glyphipterigidae)	H	> 100 R			11 V	> 110
<i>Glyphipterix scintellella</i> (Glyphipterigidae)	H		1 R			1
<i>Glyphipterix tungella</i> (Glyphipterigidae)	H		8 R	22 R	2 R	32
<i>Glyphipterix zelota</i> (Glyphipterigidae)	H		1 R	5 R		6
<i>Graphania lignana</i> (Noctuidae)	H	1 R	+ R	+ R		1

Species (family)	Niche	P (Status)	KY (Status)	KO (Status)	F (Status)	Total
<i>Graphania mutans</i> (Noctuidae)	H	+ R	5 R	1 R		6
<i>Gymnobatbra callixyla</i> (Oecophoridae)	L				2 R	2
<i>Gymnobatbra dinocosma</i> (Oecophoridae)	W	2 V		3 R	4 R	9
<i>Gymnobatbra flavidella</i> (Oecophoridae)	W		1 R	+ R	+ R	1
<i>Gymnobatbra ompbalota</i> (Oecophoridae)	SC	1 V			1 R	2
<i>Hendecasticha aethaliana</i> (Tortricidae)	H	1 R				1
<i>Homodotis megaspilata</i> (Geometridae)	L				1 R	1
<i>Hydromena deltoidata</i> (Geometridae)	H	1 R	+ R	+ R	3 V	4
<i>Ischalis variabilis</i> (Geometridae)	SC			1 R	= R	1
<i>Izatha attactella</i> (Geometridae)	W		1 V	+ R	1 R	2
<i>Izatha austera</i> (Oecophoridae)	W		1 V	2 R	1 R	4
<i>Izatha convulsella</i> (Oecophoridae)	W		5 R	+ R	+ R	5
<i>Izatha epiphanes</i> (Oecophoridae)	W			1 R	+ R	1
<i>Kiwaia parapleura</i> (Gelechiidae)	H	2 R	1 R	2 R		5
<i>Kiwaia</i> 'pale, speckled' (Gelechiidae)	H				1 R	1
<i>Liothula omnivora</i> (Psychidae)	C		+ R	+ R	1 R	1
<i>Lecithocera leucomela</i> (Lecithoceridae)	L	>10 R				>10
<i>Leptocroca asphaltis</i> (Oecophoridae)	L		17 R			17
<i>Leptocroca aquilonaris</i> (Oecophoridae)	L		2 R	5 R	+ R	7
<i>Lysipbragma mixochlora</i> (Tineidae)	W			1 V	+ R	1
<i>Micropardalis doroxena</i> (Micropterigidae)	H	2 V	+ R	6 R	+ R	8
<i>Monopis etbelella</i> (Tineidae)	K	1 R				1
<i>Mallobatbra cratea</i> (Psychidae)	L	7 V		1 R	+ R	8
<i>Orocrambus apicellus</i> (Crambidae)	H	2 R				2
<i>Orocrambus flexuosellus</i> (Crambidae)	H	1 R	+ R	+ R		1
<i>Orocrambus ramosellus</i> (Crambidae)	H	R		3 V	4 V	7

Species (family)	Niche	P (Status)	KY (Status)	KO (Status)	F (Status)	Total
<i>Orocrambus vitellus</i> (Crambidae)	H	3 R				
<i>Paramorpha marginata</i> (Carposinidae)	C		1 R	+ R		1
<i>Pasiphila bilineolata</i> (Geometridae)	C				2 R	2
<i>Pasiphila sandycias</i> (Geometridae)	SC		1 R	+ R	+ R	1
<i>Pbaeosaces compsotypa</i> (Oecophoridae)	W		1 R	1 R	+ R	2
<i>Planotortrix notopbaea</i> (Tortricidae)	C		1 R	+ R	+ R	1
<i>Plutella xylostella</i> (Plutellidae)	H	+ R	+ R	+ R	1 V	1
<i>Poecilastbena pulchraria</i> (Geometridae)	C	-	1 R	6 R	2 R	9
<i>Poecilastbena subpurpureata</i> (Geometridae)	C	1 V	50 R	32 R	53 R	135
<i>Protosynaema steropucha</i> (Plutellidae)	H	1 R				1
<i>Pseudocoremia fenerata</i> (Geometridae)	C	1 V			1 R	2
<i>Pseudocoremia lupinata</i> (Geometridae)	C		10 R	7 R		17
<i>Pseudocoremia suavis</i> (Geometridae)	C	2 V		+ R	2 R	4
<i>Pterophorus innotatalis</i> (Pterophoridae)	H	+ R	1 V			1
<i>Pyrgotis plagiatama</i> (Tortricidae)	C				1 R	1
<i>Reductoderces virginiella</i> (Psychidae)	SC				1 R	1
<i>Rhapsa scotosialis</i> (Noctuidae)	L			1 R	+ R	1
<i>Rbigognostis sera</i> (Plutellidae)	H	+ R	1 V			1
<i>Rictonis comma</i> (Noctuidae)	H	1 R	+ R	+ R	1 V	2
<i>Scieropepla typhicola</i> (Xyloryctidae)	H	1 R				1
<i>Sperchia intractana</i> (Tortricidae)	L		1 R	+ R	+ R	1
<i>Stathmopoda coracodes</i> (Oecophoridae)	P		1 R	+ R	+ R	1
<i>Stathmopoda borticola</i> (Oecophoridae)	SC	1 V		+ R	+ R	1
<i>Stigmella</i> sp. 'whitehead' (Nepticulidae)	SC		1 V	1 R		2
<i>Stigmella</i> sp. 'yellowhead' (Nepticulidae)	SC			1 R		1
<i>Strepsicrates zopherana</i> (Tortricidae)	C		1 R	+ R		1

Species (family)	Niche	P (Status)	KY (Status)	KO (Status)	F (Status)	Total
<i>Thallostoma eurygrapha</i> (Tortricidae)	W				1 R	1
<i>Thamnosara sublitella</i> (Oecophoridae)	L	1 V	1 R	2 R	16 R	20
<i>Thylacosceles acridomima</i> (Oecophoridae)	SC	5 V		+ R	15 R	20
<i>Tinea argodelta</i> (Tineidae)	W	1 V			11 R	12
<i>Tinea conferta</i> (Tineidae)	W	2 V			3 R	5
<i>Tingena actinas</i> (Oecophoridae)	L		4 R	2 R	4 R	10
<i>Tingena armigerella</i> (Oecophoridae)	L	1 V		+ R	3 R	4
<i>Tingena crotala</i> (Oecophoridae)	L				2 R	2
<i>Tingena plagiata</i> (Oecophoridae)	L		1 R	+ R	+ R	1
<i>Tingena 'politis'</i> (Oecophoridae)	L	1 V	1 R	+ R	+ R	2
<i>Tingena siderodeta</i> (Oecophoridae)	L				1 R	1
<i>Tingena 'small grey'</i> (Oecophoridae)	L		2 R	+ R		2
<i>Tingena 'small yellow'</i> (Oecophoridae)	L			1 R	2 R	3
<i>Tmetolophota atristiga</i> (Noctuidae)	H	+ R	2 R	-	1 V	3
<i>Trachypepla anastrella</i> (Oecophoridae)	L	-	-	-	1 R	1
<i>Trachypepla aspidophora</i> (Oecophoridae)	W				4 R	4
<i>Trachypepla euryleucota</i> (Oecophoridae)	W		1 R	+ R	+ R	1
<i>Trachypepla galaxias</i> (Oecophoridae)	L		1 R	+ R	+ R	1
<i>Trachypepla hieropis</i> (Oecophoridae)	L	-	-	-	1 R	1
<i>Trigonistis anticlina</i> (Noctuidae)	L	-	2 R	2 R	+ R	4
<i>Zizina labradus</i> (Lycaenidae)	H	>50 R	-	-	1 V	>50