

Moth trapping 2014 - 2015

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This report shows the results of the moth monitoring programme from the beginning of 2014 until the end of September 2015. There were two separate programmes conducted, the first being the most frequent which occurred weekly at Cruzinha, using a Skinner 125W Trap. This occurred on Wednesday evenings before visitors day on Thursday mornings in order to show visitors the variety of species trapped and contribute towards environmental education. The trap, located in the front garden near the weather station, was set up at dusk and left on for the duration of the night, with moths being collected early in the morning just before sunrise. However, because of complications with equipment in 2014, this report will focus on moths caught in 2015 at Cruzinha.



Figure 1 - 5am collection of moths from the Eastern Marsh (Jack Devlin)



Figure 2 - Hyles livornica; the largest species of moth trapped (Henrienne Brink)

The second programme conducted was on a monthly basis in six different locations (See Figure 3) to compare the species found in different habitats. Once a month, with dates chosen according to lunar cycles, two consecutive nights would be monitored. Each night would consist of placing a Heath 6W Trap in three different habitats; dunes, marsh and field, with a different location for each habitat on the second night.

These six locations were used consistently throughout the two years, with the marsh and field traps being left overnight from just before sunset. Like with the trap at Cruzinha, the moths caught in these traps were then collected the following morning at dawn. However, for the dune habitats, to ensure equipment was not stolen, the traps would be set up before sunset and stayed with until between 11 and 12pm, depending on weather and temperature conditions.

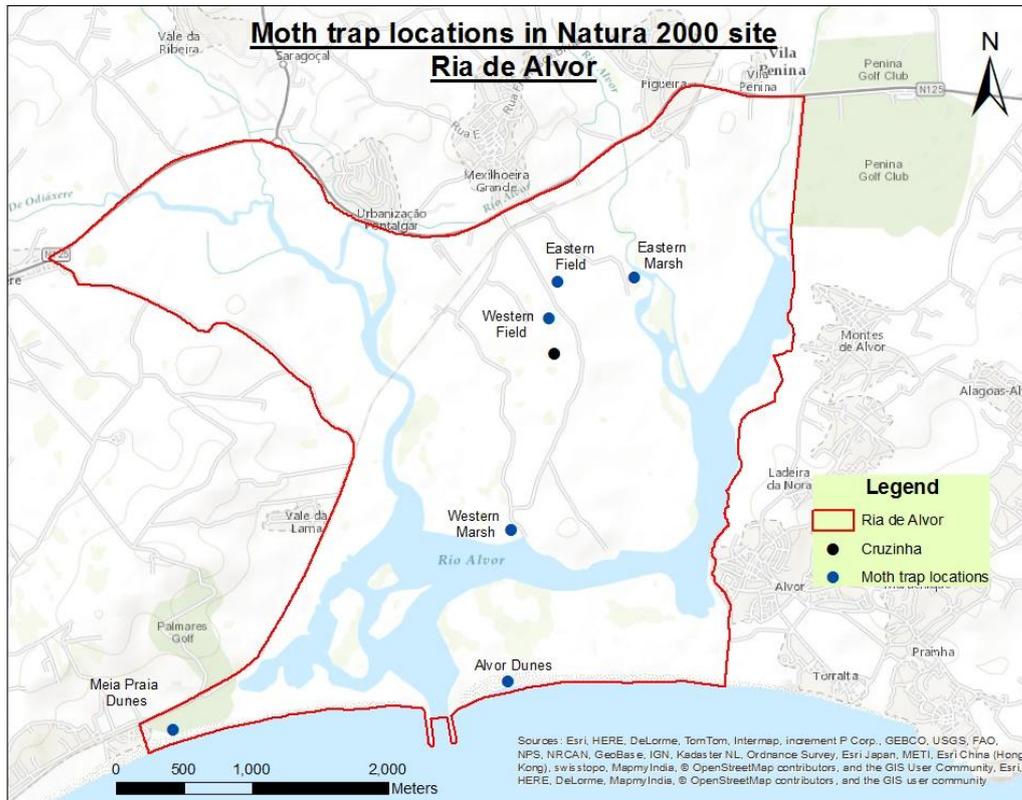


Figure 3 - Map showing the various locations of the moth traps used during the monitoring programme

Quick facts

Total number of species trapped at Cruzinha in 2015 - 279

Total number of individuals across both years: 11 155

Total number of species from 2014-2015 – 449

Most common family - Noctuidae

Most common species: 2014 - *Eilema caniola*

2015- *Ethmia bipunctella*

Most common five species across both years in order of frequency: *Ethmia Bipunctella*, *Eilema caniola*, *Lamoria anella*, *Bostra obsoletalis* and *Palpita vitrealis*.

Cruzinha 2015

For 2015, the fluctuations in numbers of trapped and identified during the weekly moth monitoring programme at Cruzinha are shown in Figure 4. Likewise, the percentage from each family are shown in Figure 5.

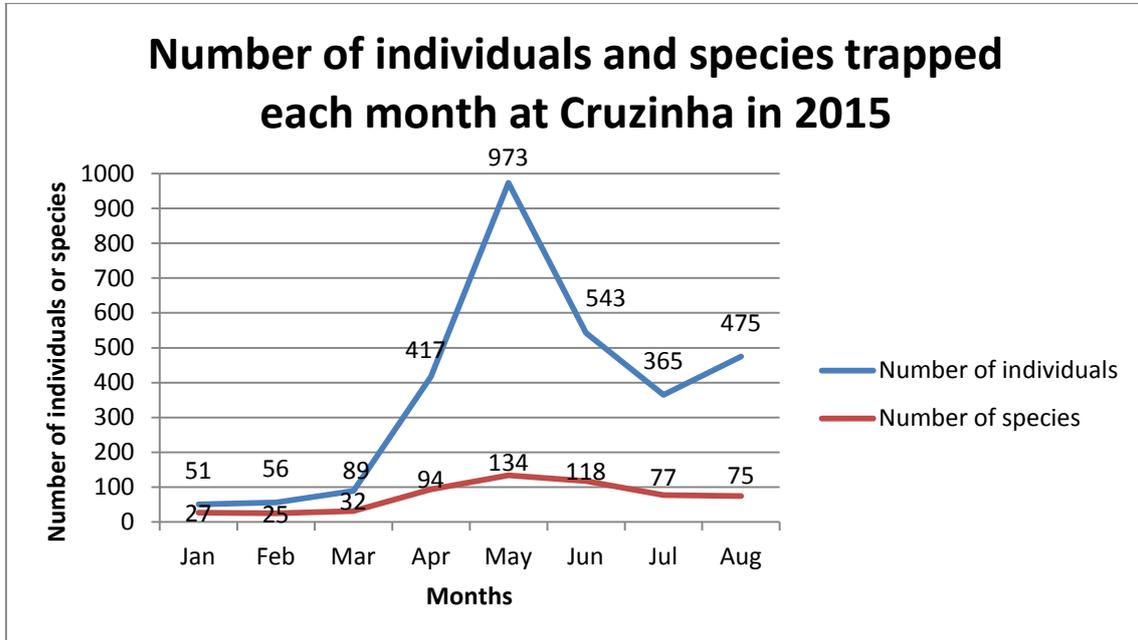


Figure 4 – Fluctuations of individual and species numbers trapped at Cruzinha in 2015

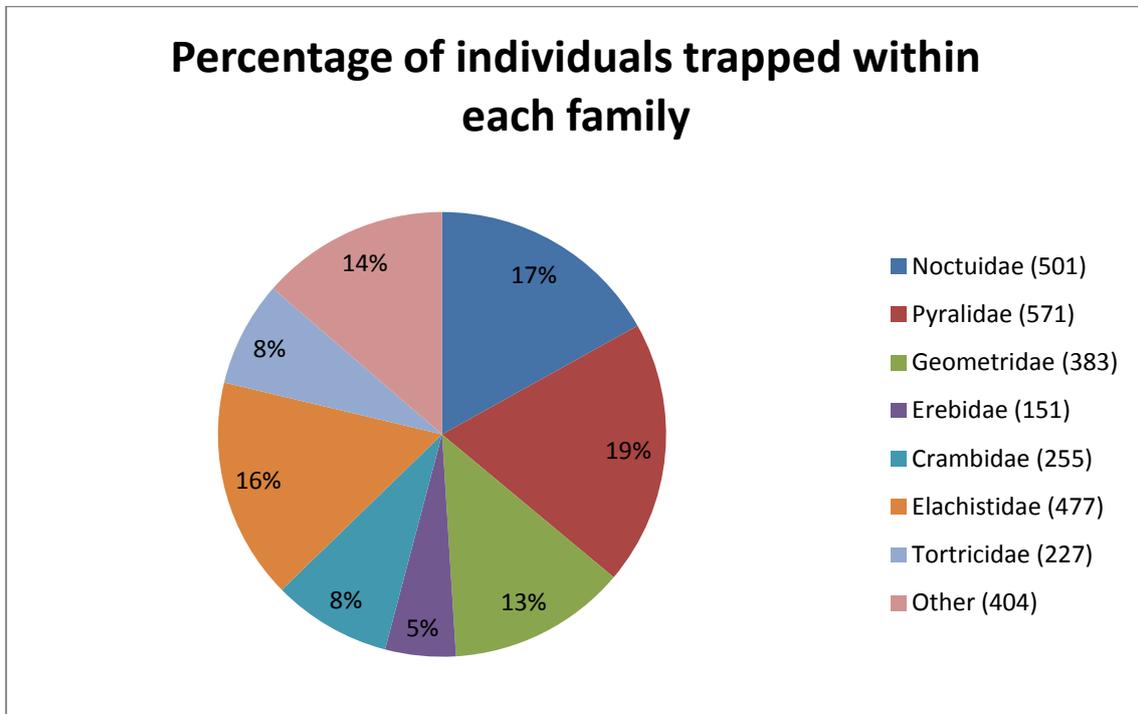


Figure 5- Percentage from each family trapped at Cruzinha

Total annual species lists

The two species lists as follows are for 2014 and 2015 respectively:

Table 1 – 2014 species list of individual moths trapped across all locations

Total 2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total
Alucitidae				35	6	16	9		2				68
<i>Alucita huebneri</i>					4								4
<i>Alucita palodactyla</i>				35	2	16	7		2				62
<i>Alucita sp.</i>							2						2
Autostichidae					2	53	21	13	7				96
<i>Dysspastus fallax</i>									2				2
<i>Oegoconia caradjai</i>							2						2
<i>Stibaromacha ratella</i>						32	3	9	5				49
<i>Symmoca signatella</i>						3	2	4					9
<i>Symmocoides oxybiella</i>					2	18	14						34
Blastobasidae	5					2		8	1		4		20
<i>Blastobasis maroccanella</i>						2							2
<i>Blastobasis phycidella</i>								2			3		5
<i>Blastobasis sp.</i>	5							6	1		1		13
Choreutidae										1			1
<i>Tebenna micalis</i>										1			1
Coleophoridae				2				3					5
<i>Coleophora sp.</i>				2				3					5
Cosmopterigidae					2			1					3
<i>Pyroderces argyrogrammos</i>					2			1					3
Crambidae	7	7	17	249	27	77	72	116	94	181	197	4	1048
<i>Achyra nudalis</i>						1							1
<i>Agriphila geniculea</i>								9	7				16
<i>Agriphila latistria</i>				158									158
<i>Agriphila sp.</i>							1	2	6				9
<i>Agriphila tersellus</i>								2	12	3			17
<i>Agriphila trabeatellus</i>										6			6
<i>Ancylolomia disparalis</i>									1				1
<i>Ancylolomia inornata</i>							6						6
<i>Ancylolomia palpella</i>							2		2	2			6
<i>Ancylolomia sp.</i>									9	2			11
<i>Ancylolomia tentaculella</i>							8		4				12
<i>Antigastra catalaunalis</i>										16	30		46
<i>Arnia nervosalis</i>				18		18	16	2					54

<i>Dolicharthria punctalis</i>				1	1	8		1	10				21
<i>Duponchelia fovealis</i>						2				2	1		5
<i>Euchromius gozmanyi</i>					6	9	21	19	3				58
<i>Eudonia angustea</i>	3		5	18	2					6	36		70
<i>Eudonia delunella</i>				2	1								3
<i>Eudonia lineola</i>		1	3	24	13					3	7		51
<i>Hellula undalis</i>								1	2	1	3		7
<i>Herpetogramma licarsisalis</i>							1			10	20		31
<i>Hodebertia testalis</i>								1					1
<i>Hydriris ornatalis</i>				1							1		2
<i>Mecyna asinalis</i>	1	1	2	1		3				1	2		11
<i>Metasia cuencalis</i>				4									4
<i>Metasia ibericalis</i>						6							6
<i>Metasia supbandalis</i>						6	2	58					66
<i>Nomophila noctuella</i>			2						2	17	3		24
<i>Ostrinia nubilalis</i>						1							1
<i>Palpita vitrealis</i>	3					4		1	2	92	66	1	169
<i>Pyrausta aurata</i>								1		1			2
<i>Pyrausta despicata</i>		1		1		4	2			1	2		11
<i>Pyrausta sanguinalis</i>							1	2	4	1			8
<i>Spoladea recurvalis</i>							2			4	3		9
<i>Udea ferrugalis</i>		1	1				2			1	22	3	30
<i>Udea numeralis</i>		3	4	21	4	15	7	17	30	8	1		110
<i>Uresiphita gilvata</i>							1			4			5
Drepanidae			2				3	2	3	3			13
<i>Cilix hispanica</i>								1					1
<i>Tethea ocularis</i>									2				2
<i>Watsonalla uncinula</i>			2				3	1	1	3			10
Elachistidae			8	48	5	19		10	98	59			247
<i>Agonopterix sp.</i>						1							1
<i>Depressaria beckmanni</i>										1			1
<i>Elachista nuraghella</i>				1									1
<i>Ethmia bipunctella</i>			8	38	3	18		10	98	58			233
<i>Ethmia terminella</i>				9	2								11
Erebidae		2		70	78	28	42	50	167	174	44		655
<i>Apaidia mesogona</i>				3	1				11	6			21
<i>Catocala elocata</i>							1		1				2
<i>Coscinia cribraria</i>				25	26			21	21	1			94
<i>Cymbalophora pudica</i>								1	24	36			61
<i>Dysgonia algira</i>								2					2

<i>Eilema caniola</i>				30	47	20	23	10	75	108	1		314
<i>Eilema marcida</i>					3		2	2	1				8
<i>Eublemma candidana</i>							2						2
<i>Eublemma cochylioides</i>								1					1
<i>Eublemma ostrina</i>				6	1	4	2	6	10	8	2		39
<i>Eublemma parva</i>							3	3	11	4	1		22
<i>Eublemma pura</i>							6	1					7
<i>Eublemma scitula</i>								1	2				3
<i>Lygephila cracca</i>						2							2
<i>Lymantria atlantica</i>							2						2
<i>Metachrostis velox</i>									3				3
<i>Nodaria nodosalis</i>		2					1			11	37		51
<i>Ocneria rubea</i>									2				2
<i>Ophiusa tirhaca</i>				1									1
<i>Phragmatobia fuliginosa</i>				2		2		2	4				10
<i>Schrankia costaestrigalis</i>											1		1
<i>Tathorhynchus exsiccata</i>				3									3
<i>Utetheisa pulchella</i>									2		2		4
Euteliidae										1			1
<i>Eutelia adulatrix</i>										1			1
Gelechiidae		2	7	44	15	6	33	38	13	7	22		187
<i>Aproaerema anthyllidella</i>								4					4
<i>Aristotelia ericinella</i>									1				1
<i>Bryotropa plebejella</i>							2						2
<i>Dichomeris alacella</i>							1	2	6				9
<i>Dichomeris lamprostoma</i>										3	3		6
<i>Epidola stigma</i>							4	3					7
<i>Isophrictis kefersteiniellus</i>				2	6		2						10
<i>Mesophleps silacella</i>								1					1
<i>Metzneria torosulella</i>				4	4		14	1					23
<i>Mirificarma eburnella</i>					3								3
<i>Nothris verbascella</i>				2									2
<i>Palumbina guerinii</i>										3	18		21
<i>Phthorimaea operculella</i>											1		1
<i>Platyedra subcinerea</i>		2	7	36		4				1			50

<i>Recurvaria nanella</i>							4						4
<i>Scrobipalpa ocellatella</i>					1								1
<i>Scrobipalpa sp.</i>					1			4	6				11
<i>Stomopteryx basalis</i>						2	6	21					29
<i>Stomopteryx deterrentella</i>								2					2
Geometridae	12	19	25	94	154	64	69	105	63	129	54		788
<i>Acanthovalva inconspicuaris</i>										1	1		2
<i>Afriberina tenietaria</i>							2	1					3
<i>Aleucis distinctata</i>		2	4										6
<i>Aspitates ochrearia</i>				16					6	1			23
<i>Brachyglossina hispanaria</i>							2	1					3
<i>Cabera sp.</i>					2								2
<i>Calamodes occitanaria</i>	1												1
<i>Catarhoe basochesiata</i>	4	3	10	7						3			27
<i>Chloroclysta siterata</i>	1	12	3										16
<i>Costaconvexa polygrammata</i>											1		1
<i>Cyclophora pupillaria</i>					2	2		1		2	1		8
<i>Eupithecia centaureata</i>				17	3	8	1	7	6	6	1		49
<i>Eupithecia phoeniceata</i>											1		1
<i>Gerinia honoraria</i>			3	4			1			7	5		20
<i>Gymnoscelis rufifasciata</i>	1	1		1	4	19	4	8					38
<i>Idaea belemiata</i>							4	18	1	2	7		32
<i>Idaea blaesii</i>									1				1
<i>Idaea carvalhoi</i>						3							3
<i>Idaea cervantaria</i>								1		2			3
<i>Idaea degeneraria</i>				10	2		1		4	1			18
<i>Idaea efflorata</i>						3				1			4
<i>Idaea elongaria</i>					2	2	2	15	9	2			32
<i>Idaea eugeniata</i>							10		6	5			21
<i>Idaea fractilineata</i>									1				1
<i>Idaea incisaria</i>						2	1				4		7
<i>Idaea litigiosaria</i>						2	2			3			7
<i>Idaea longaria</i>				6				3					9
<i>Idaea lutulentaria</i>				1	108								109
<i>Idaea mediaria</i>						4							4
<i>Idaea minuscularia</i>					4	2	2	5	5	1	2		21
<i>Idaea mustelata</i>						2	9	3					14
<i>Idaea obsoletaria</i>								2		1			3

<i>Idaea ochrata</i>					9	1	1						11
<i>Idaea straminata</i>									1				1
<i>Idaea subsericeata</i>			4			3			1				8
<i>Isturgia pulinda</i>									2				2
<i>Itame vincularia</i>			2			1		8	1	1			13
<i>Larentia malvata</i>										1	3		4
<i>Lycia hirtaria</i>			2										2
<i>Menophra abruptaria</i>	1			3			1	1	2		1		9
<i>Menophra japygiaria</i>			8	4	1	13	10	2	5	2			45
<i>Nycterosea obstipata</i>			2										2
<i>Pachycnemia hippocastanaria</i>										2			2
<i>Peribatodes ilicaria</i>			1	6	1	1		1		5			15
<i>Phaiogramma etruscaria</i>			2							6			8
<i>Phaiogramma faustinata</i>								1	1	1	1		4
<i>Pseudoterpna coronillaria</i>								1					1
<i>Rhodometra sacraria</i>	4			1	1		6	5	1	44	21		83
<i>Scopula decorata</i>								1					1
<i>Scopula imitaria</i>		1	1	1		7	1			3	1		15
<i>Scopula marginepunctata</i>			1							4			5
<i>Scopula minorata</i>				1	3		6	1		2			13
<i>Scopula ornata</i>										6			6
<i>Scopula submutata</i>								2					2
<i>Scotopteryx peribolata</i>										3			3
<i>Stegania trimaculata</i>									1				1
<i>Tephronia lhommara</i>					5	1		7	6	6			25
<i>Tephronia sepiaria</i>					4			2	9	1			16
<i>Xanthorhoe fluctuata</i>			2										2
Lasiocampidae									4	2			6
<i>Lasiocampa trifolii</i>									4	2			6
Lecithoceridae						3	1	9	4		1		18
<i>Eurodachtha canigella</i>						2	1	2	3				8
<i>Homaloxestis briantiella</i>						1		1			1		3
<i>Odites kollarella</i>								6	1				7
Noctuidae	15	2	22	409	127	50	34	132	303	221	257	17	1589
<i>Acontia lucida</i>						2		2	14	2			20
<i>Acrionicta euphorbiae</i>					2								2
<i>Acrionicta psi</i>										1			1
<i>Acrionicta rumicis</i>				18		2							20

<i>Aedia leucomelas</i>										3			3
<i>Agrochola lychnidis</i>											4	6	10
<i>Agrotis catalaunensis</i>				2									2
<i>Agrotis ipsilon</i>	1		2	4				1		2		2	12
<i>Agrotis lata</i>								6	58	2			66
<i>Agrotis puta</i>			7	12	2				2	5			28
<i>Agrotis segetum</i>	1									1		1	3
<i>Agrotis spinifera</i>								3	1		2		6
<i>Agrotis trux</i>			2				1	1	17	19	4		44
<i>Ammopolia witzenmanni</i>												1	1
<i>Anarta pugnax</i>				2				8					10
<i>Anarta sodae</i>			4	10	7	1	4	6	1				33
<i>Apamea anceps</i>			60										60
<i>Aporophyla chioleuca</i>											13		13
<i>Aporophyla nigra</i>	2									17	14		33
<i>Athetis hospes</i>			9	2		5	9	16	1	1			43
<i>Autographa gamma</i>									2			1	3
<i>Bryonycta pineti</i>				1							1		2
<i>Bryophila ravula</i>							1						1
<i>Caradrina aspersa</i>				2									2
<i>Caradrina clavipalpis</i>	1		1	73	4	2	3	14	3	3			104
<i>Caradrina flavirena</i>			5	13			1	2	2				23
<i>Caradrina proxima</i>				2							1		3
<i>Cardezia sociabilis</i>							2						2
<i>Cerastis faceta</i>	1	1											2
<i>Chrysodeixis chalcites</i>											1		1
<i>Cleonymia diffluens</i>				2									2
<i>Condica viscosa</i>			2		18	4	19	7	4	4			58
<i>Cryphia algae</i>				1	2	13	45	93	16				170
<i>Cryphia pallida</i>							2						2
<i>Ctenoplusia accentifera</i>	1									1			2
<i>Cucullia calendulae</i>				10									10
<i>Cucullia chamomillae</i>	1									2			3
<i>Dryobotodes monochroma</i>										1			1
<i>Dryobotodes roboris</i>											1		1
<i>Eremopola orana</i>											1		1
<i>Gortyna xanthenes</i>										1			1
<i>Hadena confusa</i>				1									1
<i>Hadena sancta</i>			1	6	24								31
<i>Hecatera weissi</i>				8	23	5							36
<i>Helicoverpa</i>							2	1		5			8

<i>Thalpophila vitalba</i>								2	1			3
<i>Thysanoplusia daubei</i>									1			1
<i>Tyta luctuosa</i>				24	2	2		16	2			46
<i>Xestia c-nigrum</i>		1								2		3
<i>Xestia xanthographa</i>									12	2		14
<i>Xylocampa areola</i>	1											1
Nolidae				3	2		1		5			11
<i>Earias insulana</i>									5			5
<i>Nola chlamitulalis</i>				3	2		1					6
Notodontidae								24	38	16		78
<i>Thaumatopoea pityocampa</i>								24	38	16		78
Plutellidae									1	1		2
<i>Plutella xylostella</i>									1	1		2
Psychidae								2				2
<i>Oiketicoides eganai</i>								2				2
Pterolonchidae				9	21	11	49	17	35	4		146
<i>Agdistis sp.</i>				9	21	3	22	13	35	4		107
<i>Pterolonche lutescentella</i>						8	27	4				39
Pyralidae			2	57	42	44	155	244	210	39	2	795
<i>Acrobasis obliqua</i>				13		2	1	4	3			23
<i>Aglossa brabanti</i>							12	7				19
<i>Alophia combustella</i>								4	2			6
<i>Ancylosis oblitella</i>				8					2			10
<i>Apomyelois ceratoniae</i>				25	1	7	8	18	26	18	1	104
<i>Bostra obsoletalis</i>					13	9	63	32	4			121
<i>Cadra figulilella</i>					4		3	4	2	1		14
<i>Cryptoblabes gnidiella</i>							2		1	1		4
<i>Endotricha flammealis</i>					10	4			5	1		20
<i>Ephestia unicolorella</i>							7	5	4			16
<i>Ephestia welseriella</i>						2		1	3			6
<i>Epischnia asteris</i>					2	8			5	6		21
<i>Epischnia illotella</i>							4	2		1		7
<i>Etiella zinckenella</i>										2		2
<i>Galleria mellonella</i>									2	1		3
<i>Homoeosoma nimbella</i>							2					2
<i>Homoeosoma sinuella</i>				6	2	2	26	17	5			58
<i>Hypotia corticalis</i>						4						4
<i>Hypotia</i>						2						2

<i>muscosalis</i>													
<i>Hypsopygia costalis</i>									2				2
<i>Hypsotropa vulneratella</i>							6						6
<i>Lamoria anella</i>			5	8		21	127	123	1				285
<i>Loryma egregialis</i>								2					2
<i>Oxybia transversella</i>						2		1	3	1			7
<i>Pempelia palumbella</i>							7	9	2				18
<i>Phycitodes saxicola</i>			2			4	3						9
<i>Psorosa dahliella</i>				2	2		2	4					10
<i>Pyralis farinalis</i>					2								2
<i>Stemmatophora brunnealis</i>							5	7					12
Scythrididae			7										7
<i>Enolmis acanthella</i>			7										7
Sphingidae			2						3	1			6
<i>Hippotion celerio</i>									3	1			4
<i>Smerinthus ocellata</i>			2										2
Tineidae			3	6	4	3	8	8		5			37
<i>Crassicornella agenjoi</i>				4						1			5
<i>Neurothaumasia ragusaella</i>							6	2					8
<i>Opogona omoscopa</i>					1								1
<i>Reisserita chrysopterella</i>				2	1								3
<i>Trichophaga bipartitella</i>			3		2	3	2	6		4			20
Tortricidae			7	45	81	12	25	21	22	11	3		227
<i>Acleris variegana</i>										2	2		4
<i>Acroclita subsequana</i>				4									4
<i>Aethes bilbaensis</i>						2		1					3
<i>Aphelia peramplana</i>			2	1									3
<i>Clepsis sp.</i>							1						1
<i>Cnephasia alfacarana</i>				2	1								3
<i>Cnephasia conspersana</i>				5									5
<i>Cnephasia longana</i>				23	1								24
<i>Cnephasia sp.</i>			3										3
<i>Cnephasia stephensiana</i>				20	2								22
<i>Cochyliomorpha decolorella</i>			1										1
<i>Crociosema plebejana</i>				9		1					1		11
<i>Cydia fagiglandana</i>						2	1						3

<i>Cydia pomonella</i>					2			2					4
<i>Cydia sp.</i>								1					1
<i>Cydia splendana</i>										1			1
<i>Endothenia gentianaeanana</i>				2									2
<i>Endothenia marginana</i>					21	4							25
<i>Epinotia thapsiana</i>			4	20	4	1	4	14	9				56
<i>Eucosma cana</i>				4			6						10
<i>Eucosma sp.</i>							3						3
<i>Lobesia botrana</i>							2		3				5
<i>Notocelia cynosbatella</i>				2									2
<i>Paramesia gnomana</i>						1		1	7	8			17
<i>Phalonidia contractana</i>						2							2
<i>Phtheochroa duponchelana</i>				2									2
<i>Pseudococcyx tessulatana</i>				2			2	2	2				8
<i>Rhyacionia buoliana</i>							2						2
Yponomeutidae				1									1
<i>Zelleria oleastrella</i>				1									1
Zygaenidae					3								3
<i>Aglaope infausta</i>					3								3
Grand Total	39	32	90	1075	572	391	516	804	1072	857	591	21	6060
Number of species	21	14	30	93	79	83	92	121	110	126	78	10	325

Table 2 – 2015 species list of individual moths trapped across all locations

Total 2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Grand Total
Adelidae					1				1
<i>Nemophora raddaella</i>					1				1
Alucitidae				2	1	4	10	1	18
<i>Alucita huebneri</i>					1				1
<i>Alucita palodactyla</i>				2					2
<i>Alucita sp.</i>						4	10	1	15
Autostichidae				1	20	27	16	65	129
<i>Apatema mediopallidum</i>					1	2	1	2	6
<i>Holcopogon bubulcellus</i>				1				1	2
<i>Stibaromacha ratella</i>					4	7	8	9	28
<i>Symmoca signatella</i>					4	7	1	20	32
<i>Symmocoides oxybiella</i>					11	11	6	33	61
Blastobasidae		1	2	3	30	16	17	14	83
<i>Blastobasis maroccanella</i>			1		4	12	3		20
<i>Blastobasis phycidella</i>				3	5			2	10

<i>Blastobasis sp.</i>		1	1		21	4	14	12	53
Choreutidae				1	1	3			5
<i>Tebenna micalis</i>				1	1	3			5
Coleophoridae				6	3	2	5	2	18
<i>Coleophora helianthemella</i>							3		3
<i>Coleophora hieronella</i>				4	1				5
<i>Coleophora semicinerea</i>				1					1
<i>Coleophora solidaginella</i>						1			1
<i>Coleophora sp.</i>				1	2	1	2	2	8
Cosmopterigidae					1	1	7	14	23
<i>Anatrachyntis sp.</i>							2	2	4
<i>Cosmopterix crassicervicella</i>								1	1
<i>Eteobalea dohrnii</i>								3	3
<i>Eteobalea intermediella</i>							1		1
<i>Pyroderces argyrogrammos</i>					1	1	4	8	14
Cossidae				3		2	2		7
<i>Dyspessa ulula</i>				3					3
<i>Zeuzera pyrina</i>						2	2		4
Crambidae	11	9	27	45	132	76	75	77	452
<i>Agriphila geniculea</i>					4			1	5
<i>Agriphila tersellus</i>					1	1			2
<i>Agriphila trabeatellus</i>						1		1	2
<i>Ancylolomia disparalis</i>						1			1
<i>Ancylolomia tentaculella</i>							1	2	3
<i>Antigastra catalaunalis</i>							2	8	10
<i>Arnia nervosalis</i>					2	1			3
<i>Diasemiopsis ramburialis</i>					3		1		4
<i>Dolicharthria punctalis</i>					2		2		4
<i>Duponchelia fovealis</i>					1		1	2	4
<i>Euchromius gozmanyi</i>					8	12	38	29	87
<i>Eudonia angustea</i>		4	11	14					29
<i>Eudonia lineola</i>					30				30
<i>Evergestis isatidalis</i>	1					1			2
<i>Herpetogramma licarsisalis</i>							1		1
<i>Mecyna asinalis</i>			1	3	2	2			8
<i>Metasia suppanalis</i>						3	2	10	15
<i>Nomophila noctuella</i>			3	4	23	6	2	1	39
<i>Palpita vitrealis</i>	5	2	8	9	52	33	12	16	137
<i>Pyrausta aurata</i>					2				2
<i>Pyrausta despicata</i>						1	5	3	9
<i>Pyrausta sanguinalis</i>						2			2
<i>Udea ferrugalis</i>		2	3	9					14
<i>Udea numeralis</i>	5	1		6	1	11	8	4	36
<i>Uresiphita gilvata</i>			1		1	1			3
Drepanidae				1				1	2
<i>Watsonalla uncinula</i>				1				1	2
Elachistidae	2	3	28	115	223	154	2	11	538
<i>Agonopterix purpurea</i>						1			1
<i>Agonopterix sp.</i>			1						1
<i>Agonopterix subpropinquella</i>	1			1					2

<i>Agonopterix thapsiella</i>				1	1	3			5
<i>Elachista nuraghella</i>			1	7					8
<i>Ethmia bipunctella</i>	1	3	26	101	219	150	2	11	513
<i>Ethmia terminella</i>				5	3				8
Erebidae		1	1	68	183	21	23	18	315
<i>Apaidia mesogona</i>				3	9	1			13
<i>Catocala nymphagoga</i>						1			1
<i>Clytie illunaris</i>				1	1				2
<i>Coscinia cribraria</i>				4	10			3	17
<i>Cymbalophora pudica</i>								1	1
<i>Dysgonia algira</i>					1		1		2
<i>Eilema caniola</i>				38	146	8	3	1	196
<i>Eilema marcida</i>					6	3			9
<i>Eublemma candidana</i>							4	2	6
<i>Eublemma ostrina</i>					2	2	5	2	11
<i>Eublemma parva</i>					3	1	3		7
<i>Eublemma polygramma</i>							1		1
<i>Eublemma pura</i>						2		4	6
<i>Eublemma scitula</i>					1	1	1	1	4
<i>Grammodes bifasciata</i>					1				1
<i>Hypena obsitalis</i>								1	1
<i>Lygephila craccae</i>				1					1
<i>Lymantria atlantica</i>				1			2	1	4
<i>Metachrostis velox</i>				1					1
<i>Nodaria nodosalis</i>				3	1			2	6
<i>Ocneria rubea</i>				10	1				11
<i>Ophiusa tirhaca</i>			1				1		2
<i>Orgyia trigotephras</i>							1		1
<i>Phragmatobia fuliginosa</i>		1		5	1	2	1		10
<i>Schrankia costaestrigalis</i>				1					1
Eriocottidae						1			1
<i>Eriocottis andalusiella</i>						1			1
Eutelidae				2		2	1		5
<i>Eutelia adulatatrix</i>				2		2	1		5
Gelechiidae	1	1	1	35	17	34	51	56	196
<i>Anarsia lineatella</i>				1		1			2
<i>Aproaerema anthyllidella</i>	1				1	1		3	6
<i>Aristotelia ericinella</i>						1	1		2
<i>Bryotropha plebejella</i>							5		5
<i>Dichomeris alacella</i>								6	6
<i>Dichomeris lamprostoma</i>				1		4	3	5	13
<i>Epidola stigma</i>						1	21	8	30
<i>Eulamprotes helotella</i>				2			5		7
<i>Helcystogramma lutatella</i>						1			1
<i>Helcystogramma triannulella</i>						1		1	2
<i>Isophrictis kefersteiniellus</i>				1	2				3
<i>Isophrictis lineatellus</i>				3				1	4
<i>Isophrictis striatella</i>				1					1
<i>Mesophleps corsicella</i>					2	2		1	5
<i>Mesophleps sp.</i>						1			1
<i>Mesophleps trinotella</i>								1	1
<i>Metzneria torosulella</i>					1	2			3

<i>Mirificarma eburnella</i>					2				2
<i>Palumbina guerinii</i>		1					1		2
<i>Phthorimaea operculella</i>				1					1
<i>Platyedra subcinerea</i>			1	5	1	10			17
<i>Pseudosphronia exustellus</i>							1		1
<i>Recurvaria nanella</i>							3		3
<i>Scrobipalpa ocellatella</i>				1				14	15
<i>Scrobipalpa phagnalella</i>				19					19
<i>Scrobipalpa sp.</i>					2				2
<i>Sophronia humerella</i>					1				1
<i>Stomopteryx basalis</i>					4	8	11	16	39
<i>Stomopteryx detersella</i>						1			1
<i>Stomopteryx remissella</i>					1				1
Geometridae	7	15	34	85	156	72	134	66	569
<i>Afriberina tenietaria</i>				1				1	2
<i>Agriopsis bajaria</i>	1								1
<i>Aleucis distinctata</i>			10						10
<i>Amygdaloptera testaria</i>				2					2
<i>Aplasta ononaria</i>						1		1	2
<i>Aspitates ochrearia</i>			4	1					5
<i>Brachyglossina hispanaria</i>							5		5
<i>Calamodes occitanaria</i>		1							1
<i>Catarhoe basochesiata</i>	2	4		1					7
<i>Charissa mucidaria</i>				1					1
<i>Chemerina caliginearia</i>			1						1
<i>Chiasmia aestimaria</i>						1			1
<i>Costaconvexa polygrammata</i>				1					1
<i>Cyclophora puppillaria</i>		1			5	8	1		15
<i>Dyscia penulataria</i>				2					2
<i>Eupithecia breviculata</i>						1			1
<i>Eupithecia centaureata</i>		4	5	10	16	6	1	1	43
<i>Eupithecia dodoneata</i>			2	5	1				8
<i>Eupithecia phoeniceata</i>							1		1
<i>Eupithecia scopariata</i>				1					1
<i>Eupithecia venosata</i>				1					1
<i>Gerinia honoraria</i>			2	6	3	1	1		13
<i>Gymnoscelis rufifasciata</i>	1	1		1	5	5	5	1	19
<i>Hypomecis punctinalis</i>				3					3
<i>Idaea belemiata</i>							11	2	13
<i>Idaea cervantaria</i>				1		1			2
<i>Idaea degeneraria</i>				8	11				19
<i>Idaea dimidiata</i>				1	1				2
<i>Idaea efflorata</i>					10			12	22
<i>Idaea elongaria</i>					4	3		7	14
<i>Idaea eugeniata</i>				1	4		12	4	21
<i>Idaea fractilineata</i>					1	2		2	5
<i>Idaea incisaria</i>					1		2	2	5
<i>Idaea infirmaria</i>							3		3
<i>Idaea litigiosaria</i>							2	4	6
<i>Idaea longaria</i>							2		2
<i>Idaea lutulentaria</i>				1	18				19
<i>Idaea minuscularia</i>		1		3	3	6	3	5	21
<i>Idaea mustelata</i>						12	52		64

<i>Idaea obsoletaria</i>							3		3
<i>Idaea ochrata</i>					6				6
<i>Idaea ostrinaria</i>			1			1			2
<i>Idaea sp.</i>							1		1
<i>Idaea straminata</i>							2		2
<i>Idaea subsericeata</i>			3	3					6
<i>Isturgia pulinda</i>								3	3
<i>Itame vincularia</i>			2	1		1	2	5	11
<i>Menophra abruptaria</i>	1			1					2
<i>Menophra japygiaria</i>	1	3	2	6	14		13	2	41
<i>Microloxia herbaria</i>						2	4		6
<i>Peribatodes ilicaria</i>				7	4				11
<i>Peribatodes rhomboidaria</i>				1	1	3			5
<i>Phaiogramma etruscaria</i>				1				3	4
<i>Rhodometra sacraria</i>			1	1	3	10	5	5	25
<i>Rhoptria asperaria</i>				2	1				3
<i>Scopula asellaria</i>						1			1
<i>Scopula imitaria</i>	1		1	2	1	4			9
<i>Scopula marginepunctata</i>			2						2
<i>Scopula minorata</i>				3	5	3	1		12
<i>Scopula ornata</i>					1				1
<i>Tephronia lhommaria</i>				3	32		1	5	41
<i>Tephronia sepiaria</i>					1		1	1	3
<i>Timandra comae</i>					1				1
<i>Toulgoetia cauteriata</i>			1	1					2
<i>Xanthorhoe fluctuata</i>			1	1					2
Glyphipterigidae					2				2
<i>Glyphipterix equitella</i>					1				1
<i>Glyphipterix umbilici</i>					1				1
Gracillariidae				5	4				9
<i>Dialectica scalariella</i>				5	4				9
Lecithoceridae					6	2	5		13
<i>Eurodachtha canigella</i>					6	2	4		12
<i>Odites kollarella</i>							1		1
Limacodidae							1		1
<i>Hoyosia codeti</i>							1		1
Noctuidae	27	57	70	248	376	131	36	63	1008
<i>Acontia lucida</i>					6	7		2	15
<i>Acontia trabealis</i>					2				2
<i>Acronicta psi</i>					2				2
<i>Acronicta rumicis</i>				2	4	3			9
<i>Aedia leucomelas</i>					2	1			3
<i>Aegle vespertinalis</i>					2				2
<i>Agrotis catalaunensis</i>			13	1					14
<i>Agrotis exclamationis</i>								1	1
<i>Agrotis ipsilon</i>	1			1	2	1			5
<i>Agrotis lata</i>								2	2
<i>Agrotis puta</i>		19	12		1				32
<i>Agrotis segetum</i>		1	2	1	2			3	9
<i>Agrotis spinifera</i>				1		1		1	3
<i>Agrotis trux</i>	3	4	3		1	2	1	1	15
<i>Anarta pugnax</i>				1		3	1	1	6
<i>Anarta sodae</i>			6	7	6	15	3	3	40
<i>Anarta trifolii</i>			1		1	1			3
<i>Athetis hospes</i>				13	45	3	9	2	72

<i>Autographa gamma</i>	1	1	3	1	1				7
<i>Bryonycta pineti</i>					3		3	3	9
<i>Bryophila petrea</i>							1		1
<i>Calophasia platyptera</i>				1		1			2
<i>Caradrina clavipalpis</i>			3	15		3			21
<i>Caradrina flavirena</i>			1	5					6
<i>Cerastis faceta</i>	3	4							7
<i>Chrysodeixis chalcites</i>						1		1	2
<i>Condica viscosa</i>						2			2
<i>Conisania andalusica</i>				1					1
<i>Cryphia algae</i>							9	20	29
<i>Ctenoplusia limbirena</i>					2	1			3
<i>Cucullia chamomillae</i>		1	1						2
<i>Dryobota labecula</i>	1								1
<i>Hadena confusa</i>				4					4
<i>Hadena perplexa</i>				3					3
<i>Hadena sancta</i>			3	8	1				12
<i>Hecatera weissi</i>			1	12	14				27
<i>Helicoverpa armigera</i>				1	1				2
<i>Heliothis nubigera</i>				2		2			4
<i>Heliothis peltigera</i>				16	39	8		1	64
<i>Hoplodrina ambigua</i>				19	29	3			51
<i>Lacanobia oleracea</i>				5	1				6
<i>Leucania joannisi</i>								1	1
<i>Leucania loreyi</i>				1	3			1	5
<i>Lithophane leautieri</i>	1								1
<i>Mesoligia furuncula</i>								1	1
<i>Metopoceras felicina</i>				7	1				8
<i>Mniotype occidentalis</i>			2	3					5
<i>Mythimna languida</i>			1	1	1	3	1		7
<i>Mythimna litoralis</i>		2	9						11
<i>Mythimna prominens</i>						2	1		3
<i>Mythimna riparia</i>					35	1		3	39
<i>Mythimna sicula</i>			4	33	13	2		1	53
<i>Mythimna unipuncta</i>	3	3	1	3					10
<i>Mythimna vitellina</i>				1				1	2
<i>Noctua comes</i>					2				2
<i>Noctua pronuba</i>				4	5				9
<i>Ochropleura leucogaster</i>	6	16	2	2	2	1			29
<i>Omphalophana serrata</i>			1	6	1				8
<i>Orthosia cerasi</i>		1							1
<i>Peridroma saucia</i>	4	3	1	1	1				10
<i>Polyphaenis sericata</i>					3	1			4
<i>Rhizedra lutosa</i>						1			1
<i>Spodoptera cilium</i>				2				4	6
<i>Spodoptera exigua</i>				37	112	47	7	8	211
<i>Spodoptera littoralis</i>						2			2
<i>Spudaea ruticilla</i>		1							1
<i>Synthimia fixa</i>				4					4
<i>Thysanoplusia orichalcea</i>	1				1				2
<i>Trichoplusia ni</i>				1	4	6			11
<i>Tyta luctuosa</i>				18	25	7		1	51
<i>Xestia c-nigrum</i>	1			4					5
<i>Xestia xanthographa</i>								1	1
<i>Xylocampa areola</i>	2	1							3
Nolidae		1		4		6	7		18

<i>Nola chlamitulalis</i>		1		4		5	1		11
<i>Nola subchlamydula</i>						1	6		7
Notodontidae								10	10
<i>Thaumatopoea pityocampa</i>								10	10
Oecophoridae					12	4	5		21
<i>Batia lunaris</i>					12				12
<i>Pleurota ericella</i>						1	1		2
<i>Pleurota honorella</i>						3	4		7
Plutellidae			2	1	9	1			13
<i>Plutella xylostella</i>			2	1	9	1			13
Praydidae				1	13	3			17
<i>Prays citri</i>						1			1
<i>Prays oleae</i>				1		2			3
<i>Prays sp.</i>					13				13
Psychidae								1	1
<i>Oiketicoides eganai</i>								1	1
Pterolonchidae				10	2	5	7	9	33
<i>Agdistis sp.</i>				10		4	5	6	25
<i>Pterolonche lutescentella</i>					2	1	2	3	8
Pterophoridae					5	1	4	1	11
<i>Crombrugghia laetus</i>							2		2
<i>Emmelina monodactyla</i>					4		2	1	7
<i>Stenoptilia pterodactyla</i>						1			1
<i>Wheeleria spilodactylus</i>						1			1
Pyralidae			9	99	109	113	390	364	1084
<i>Acrobasis bithynella</i>				2					2
<i>Acrobasis glaucella</i>						1	1		2
<i>Acrobasis obliqua</i>			9	77	16	4			106
<i>Acrobasis romanella</i>					3	7	3	3	16
<i>Acrobasis sodalella</i>						4		1	5
<i>Acrobasis sp.</i>						1			1
<i>Aglossa brabanti</i>						1	2		3
<i>Aglossa caprealis</i>						1			1
<i>Aglossa pinguinalis</i>					1				1
<i>Alophia combustella</i>						1			1
<i>Apomyelois ceratoniae</i>				5	7	1	16	21	50
<i>Bostra obsoletalis</i>				2	11	3	177	60	253
<i>Bradyrrhoa cantenerella</i>								13	13
<i>Cadra figulilella</i>				1	1	49	50	101	202
<i>Cadra/Ephestia sp.</i>					11				11
<i>Cryptoblabes gnidiella</i>				2				3	5
<i>Dioryctria mendacella</i>				1	1	1			3
<i>Endotricha flammealis</i>					11				11
<i>Ephestia unicolorella</i>				1	2	3	45	20	71
<i>Ephestia welseriella</i>						2	3	2	7
<i>Epischnia asteris</i>						2	3	3	8
<i>Epischnia illotella</i>				2	2	1			5
<i>Epischnia sp.</i>					1				1
<i>Galleria mellonella</i>							1		1
<i>Homoeosoma sinuella</i>				1	5	15	74	57	152
<i>Hypotia corticalis</i>					1		1		2
<i>Hypotia muscosalis</i>							1		1
<i>Hypsopygia costalis</i>					2	2	1	1	6
<i>Hypsotropa vulneratella</i>						3	7	6	16

<i>Lamoria anella</i>				5	28	3	2	64	102
<i>Loryma egregialis</i>					1	1			2
<i>Phycitodes saxicola</i>						6		1	7
<i>Plodia interpunctella</i>						1	2	1	4
<i>Pyralis farinalis</i>					3	1	1		5
<i>Stemmatophora brunnealis</i>								7	7
<i>Synaphe lorquinalis</i>					1				1
Saturniidae					2				2
<i>Saturnia pavonia</i>					2				2
Scythrididae				1	13	5	4		23
<i>Enolmis acanthella</i>				1	3				4
<i>Episcythis triangulella</i>						5	4		9
<i>Scythis sp.</i>					10				10
Sesiidae					2				2
<i>Chamaesphecia mysiniiformis</i>					2				2
Sphingidae	1			2	10	12			25
<i>Hippotion celerio</i>					6				6
<i>Hyles livornica</i>				2	2	11			15
<i>Macroglossum stellatarum</i>	1				2	1			4
Tineidae	1			1	7	6	13	18	46
<i>Crassicornella agenjoi</i>					4				4
<i>Monopis imella</i>							10	15	25
<i>Neurothaumasia ragusaella</i>						1		2	3
<i>Opogona omoscopa</i>					2	3	3	1	9
<i>Reisserita chrysopterella</i>					1	1			2
<i>Trichophaga bipartitella</i>	1			1		1			3
Tortricidae	1	1	7	104	127	49	27	40	356
<i>Acleris variegana</i>					2				2
<i>Acroclita subsequana</i>		1	3	27	1				32
<i>Aethes francillana</i>						1	1		2
<i>Aethes sp.</i>							1		1
<i>Ancylis sparulana</i>						2			2
<i>Bactra lancealana</i>								1	1
<i>Bactra sp.</i>					2				2
<i>Cacoecimorpha pronubana</i>					1	2	2		5
<i>Clepsis consimilana</i>				4	9	2			15
<i>Clepsis siciliana</i>				1	2				3
<i>Cnephasia conspersana</i>					19				19
<i>Cnephasia longana</i>					4	1			5
<i>Cnephasia sp.</i>	1			2	54	17			74
<i>Cnephasia stephensiana</i>				1	7				8
<i>Cochylimorpha decolorella</i>				2					2
<i>Crociosema plebejana</i>				2	5	11		1	19
<i>Cydia pomonella</i>			1				4	2	7
<i>Cydia strigulatana</i>				23					23
<i>Cydia ulicetana</i>							1		1
<i>Endothenia marginana</i>			2		9	1	2	1	15
<i>Epinotia thapsiana</i>				13	5		14	33	65
<i>Eucosma cana</i>				4					4
<i>Lobesia botrana</i>					4	7			11
<i>Lozotaeniodes</i>				1	2	1			4

<i>cupressana</i>									
<i>Phalonidia contractana</i>							2	2	4
<i>Phitheochroa duponchelana</i>				24	1				25
<i>Pseudococcyx tessulatana</i>			1			2			3
<i>Rhyacionia buoliana</i>						2			2
-Undefined-						1			1
<i>Unknown Micro</i>						1			1
Yponomeutidae					2	18	7	3	30
<i>Zelleria oleastrella</i>					2	18	7	3	30
Zygaenidae					7				7
<i>Aglaope infausta</i>					7				7
Grand Total	51	89	181	843	1476	772	849	834	5095
Number of species	27	30	52	147	175	157	122	120	357

Monthly moth monitoring

The following figures and tables show the differences between year and location in the variety of moths trapped:

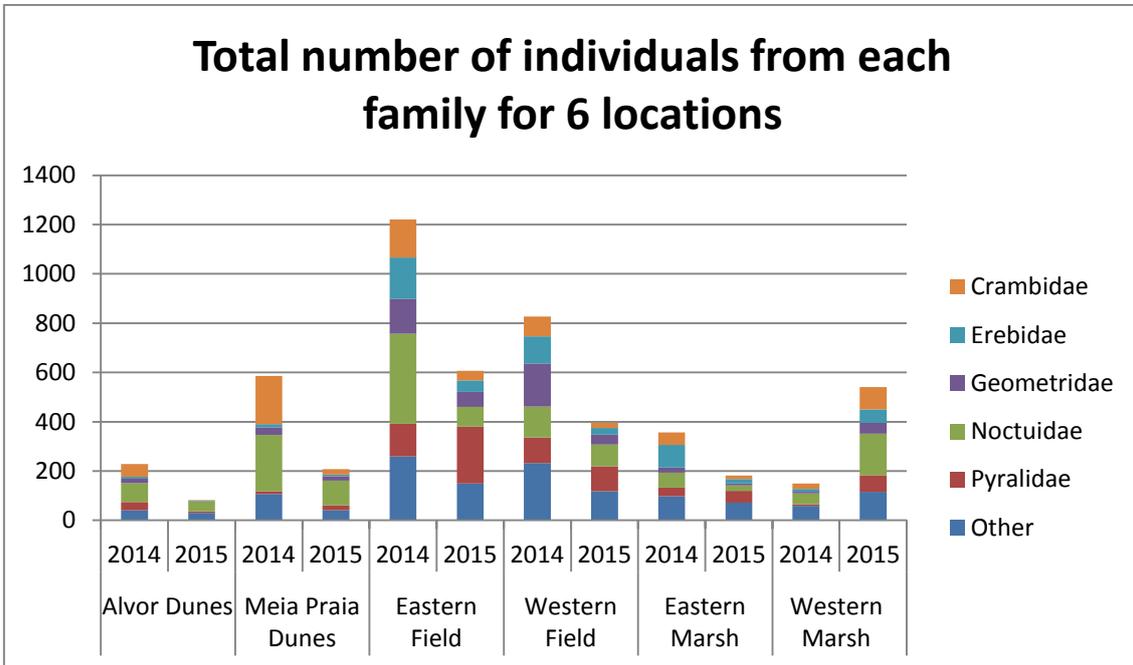


Figure 5 – Number of individuals from each family within each location for both 2014 and 2015

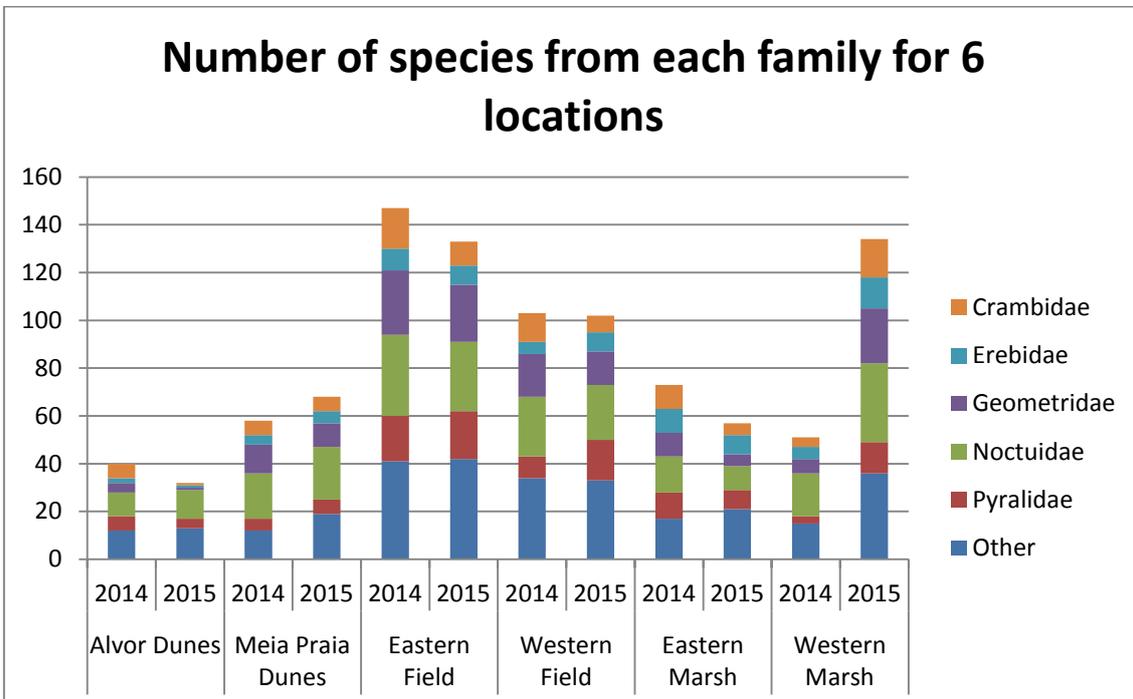


Figure 6 - Number of species from each family within each location for both 2014 and 2015

Table 3 – Species list showing numbers of individuals from each location within both 2014 and 2015

	2014						2014 Total	2015						2015 Total	Grand Total
	Alvor Dunes	Meia Praia Dunes	Eastern Field	Western Field	Eastern Marsh	Western Marsh		Alvor Dunes	Meia Praia Dunes	Eastern Field	Western Field	Eastern Marsh	Western Marsh		
Alucitidae	2	56	2	2	2	2	66	3	6	6				15	81
<i>Alucita huebneri</i>	2	2					4		1					1	5
<i>Alucita palodactyla</i>		54	2	2		2	60	2						2	62
<i>Alucita sp.</i>						2	2	1	5	6				12	14
Autostichidae		10	16	50	4		80	1	4	24	27	5	5	66	146
<i>Apatema mediopallidum</i>									3				1	4	4
<i>Dysspastus fallax</i>			2				2								2
<i>Holcopogon bubulcellus</i>								1						1	1
<i>Oegoconia caradjai</i>						2	2								2
<i>Stibaromacha ratella</i>			4	34			38			10	12			22	60
<i>Symmoca signatella</i>		2	2	2			6		1	4			1	6	12
<i>Symmocoides oxybiella</i>		8	8	14	2		32			10	15	5	3	33	65
Blastobasidae	8	2					10		6	2	2	1	2	13	23
<i>Blastobasis maroccanella</i>		2					2		4	1			1	6	8
<i>Blastobasis phycidella</i>	2						2								2
<i>Blastobasis sp.</i>	6						6		2	1	2	1	1	7	13
Choreutidae										1		2	1	4	4
<i>Tebenna micalis</i>										1		2	1	4	4
Coleophoridae	4					1	5		1	3	2	1	9	16	21
<i>Coleophora helianthemella</i>													3	3	3
<i>Coleophora hieronella</i>									1		2			3	3
<i>Coleophora semicinerea</i>													1	1	1
<i>Coleophora solidaginella</i>										1				1	1
<i>Coleophora sp.</i>	4					1	5			2		1	5	8	13

Cosmopterigidae				2			2		3	9	2		1	15	17
<i>Anatrachyntis sp.</i>									2					2	2
<i>Eteobalea dohrnii</i>											2		1	3	3
<i>Eteobalea intermediella</i>									1					1	1
<i>Pyroderces argyrogrammos</i>				2			2			9				9	11
Cossidae												3		3	3
<i>Dyspessa ulula</i>												3		3	3
Crambidae	52	196	154	80	51	22	555	2	21	39	21	14	91	188	743
<i>Agriphila geniculea</i>	8		6				14		4				1	5	19
<i>Agriphila latistria</i>	30	128					158								158
<i>Agriphila sp.</i>					2		2								2
<i>Agriphila tersellus</i>			4	2	10		16						1	1	17
<i>Agriphila trabeatellus</i>										1				1	1
<i>Ancylolomia disparalis</i>													1	1	1
<i>Ancylolomia inornata</i>			2	2	2		6								6
<i>Ancylolomia palpella</i>					2		2								2
<i>Ancylolomia sp.</i>			8				8								8
<i>Ancylolomia tentaculella</i>					12		12			2		1		3	15
<i>Antigastra catalaunalis</i>													1	1	1
<i>Arnia nervosalis</i>	4	50					54			1		2		3	57
<i>Dolicharthria punctalis</i>			12	1		1	14						2	2	16
<i>Duponchelia fovealis</i>		2					2		1				1	2	4
<i>Euchromius gozmanyi</i>	4		6	15	10	18	53			5	6	9	63	83	136
<i>Eudonia angustea</i>	4	8	5	2			19	2	2				4	8	27
<i>Eudonia delunella</i>			1	2			3								3
<i>Eudonia lineola</i>	2		22	6	7		37				3			3	40
<i>Hellula undalis</i>			2				2								2
<i>Herpetogramma licarsisalis</i>													1	1	1
<i>Hydriris ornatalis</i>				1			1								1
<i>Mecyna asinalis</i>			3				3				1		2	3	6
<i>Metasia cuencalis</i>				4			4								4
<i>Metasia suppannalis</i>			38	20		2	60			2	4			6	66

<i>Nomophila noctuella</i>					2		2		12	8			6	26	28
<i>Palpita vitrealis</i>		2	4				6		1	1	1		3	6	12
<i>Pyrausta aurata</i>									1				1	2	2
<i>Pyrausta despicata</i>			2	1			3			2	4			6	9
<i>Pyrausta sanguinalis</i>			2		2	1	5						1	1	6
<i>Spoladea recurvalis</i>					2		2								2
<i>Udea ferrugalis</i>			2				2			4			1	5	7
<i>Udea numeralis</i>		6	35	24			65			13	2	1	2	18	83
<i>Uresiphita gilvata</i>												1		1	1
Drepanidae		2		2			4								4
<i>Tethea ocularis</i>		2					2								2
<i>Watsonalla uncinula</i>				2			2								2
Elachistidae	2	6	90	18	8	1	125	1	1	18	28	1	11	60	185
<i>Agonopterix sp.</i>										1				1	1
<i>Agonopterix subpropinquella</i>											1			1	1
<i>Agonopterix thapsiella</i>								1	1			1		3	3
<i>Elachista nuraghella</i>			1				1				6			6	7
<i>Ethmia bipunctella</i>	2	6	82	14	8	1	113			15	21		11	47	160
<i>Ethmia terminella</i>			7	4			11			2				2	13
Erebidae	7	12	169	110	92	12	402	3	7	47	28	19	55	159	561
<i>Apaidea mesogona</i>			10		4	1	15		1	1			1	3	18
<i>Coscinia cribraria</i>	4		24	49	12		89			4		3	2	9	98
<i>Cymbalophora pudica</i>			20	6	4	1	31			1				1	32
<i>Dysgonia algira</i>													1	1	1
<i>Eilema caniola</i>		4	101	45	42	3	195		1	32	16	8	35	92	287
<i>Eilema marcida</i>				5			5			2	1	2	1	6	11
<i>Eublemma candidana</i>			2				2			2			3	5	7
<i>Eublemma cochylioides</i>						1	1								1
<i>Eublemma ostrina</i>		2	2	5	10		19			3		2	4	9	28
<i>Eublemma parva</i>			4		8	6	18			2	1		1	4	22
<i>Eublemma polygramma</i>													1	1	1
<i>Eublemma pura</i>			4		2		6					1		1	7

<i>Eublemma scitula</i>					2		2				2	1	1	4	6
<i>Hypena obsitalis</i>									1					1	1
<i>Lymantria atlantica</i>		2					2				1			1	3
<i>Metachrostis velox</i>			2				2								2
<i>Nodaria nodosalis</i>									2		1	1		4	4
<i>Ocneria rubea</i>					2		2	3			5		3	11	13
<i>Ophiusa tirhaca</i>													1	1	1
<i>Orgyia trigotephras</i>												1		1	1
<i>Phragmatobia fuliginosa</i>			4		6		10		2		1		1	4	14
<i>Tathorhynchus exsiccata</i>	3						3								3
Gelechiidae	10	8	58	37	8	14	135	3	3	40	8	39	22	115	250
<i>Aproaerema anthyllidella</i>	4						4	1					1	2	6
<i>Aristotelia ericinella</i>										1				1	1
<i>Bryotropha plebejella</i>			2				2					5		5	7
<i>Dichomeris alacella</i>										1				1	1
<i>Epidola stigma</i>			2	2	2		6	1	2	9	3	2	1	18	24
<i>Eulamprotes helotella</i>										2			3	5	5
<i>Helcystogramma triannulella</i>											1		1	2	2
<i>Isophrictis kefersteiniellus</i>	2		5	2	1		10						1	1	11
<i>Isophrictis lineatellus</i>													3	3	3
<i>Isophrictis striatella</i>													1	1	1
<i>Mesophleps corsicella</i>										3		1		4	4
<i>Mesophleps trinotella</i>											1			1	1
<i>Metzneria torosulella</i>			12	8	2		22			2				2	24
<i>Mirificarma eburnella</i>			1		2		3								3
<i>Nothris verbascella</i>			2				2								2
<i>Platyedra subcinerea</i>			8	6	12		13	39	1		7	1		7	55
<i>Recurvaria nanella</i>				2	2			4			1			1	5
<i>Scrobipalpa ocellatella</i>					1			1		1			11	12	13
<i>Scrobipalpa phagnalella</i>													19	19	19
<i>Scrobipalpa sp.</i>	4			6		1		11					1	1	12

<i>Stomopteryx basalis</i>			20	8		1	29			14	2		4	20	49
<i>Stomopteryx detersella</i>				2			2								2
Geometridae	18	32	141	175	20	6	392	1	18	61	39	7	43	169	561
<i>Aleucis distinctata</i>										1	4			5	5
<i>Amygdaloptera testaria</i>												1		1	1
<i>Aplasta ononaria</i>										2				2	2
<i>Aspitates ochrearia</i>	2		8	10	2		22				3	1		4	26
<i>Brachyglossina hispanaria</i>			2				2								2
<i>Cabera sp.</i>				2			2								2
<i>Catarhoe basochesiata</i>			2	4			6						1	1	7
<i>Chemerina caliginearia</i>									1					1	1
<i>Chiasmia aestimaria</i>											1			1	1
<i>Cyclophora puppillaria</i>		2	1		1		4		3	2			2	7	11
<i>Eupithecia centaureata</i>	2	2	16	10		1	31		1	3	5		5	14	45
<i>Eupithecia dodoneata</i>										1	1			2	2
<i>Eupithecia phoeniceata</i>											1			1	1
<i>Gerinia honoraria</i>			4				4				1			1	5
<i>Gymnoscelis rufifasciata</i>	8	8		1			17		6	2			2	10	27
<i>Idaea belemiata</i>			10				10		1	3				4	14
<i>Idaea carvalhoi</i>		2				1	3								3
<i>Idaea cervantaria</i>										1				1	1
<i>Idaea degeneraria</i>		4	6	1	1		12				4		2	6	18
<i>Idaea dimidiata</i>													1	1	1
<i>Idaea elongaria</i>		2	8	6	2		18			2			1	3	21
<i>Idaea eugeniata</i>			4	2	2		8		1	3			6	10	18
<i>Idaea fractilineata</i>										1			4	5	5
<i>Idaea incisaria</i>		2					2								2
<i>Idaea infirmaria</i>										3				3	3
<i>Idaea litigiosaria</i>			2				2						1	1	3
<i>Idaea longaria</i>	6						6	1						1	7
<i>Idaea lutulentaria</i>			2	103	4		109		1	1	8	1	2	13	122
<i>Idaea minuscularia</i>		2	7	2	1		12			4			1	5	17

<i>Idaea mustelata</i>			2				2		2	2			2	6	8
<i>Idaea obsoletaria</i>			2				2			2				2	4
<i>Idaea ochrata</i>				9			9		1		2			3	12
<i>Idaea sp.</i>													1	1	1
<i>Idaea straminata</i>													1	1	1
<i>Idaea subsericeata</i>		2	2	2			6						1	1	7
<i>Itame vincularia</i>			2			1	3			2	1		3	6	9
<i>Lycia hirtaria</i>			2				2								2
<i>Menophra abruptaria</i>			5			1	6								6
<i>Menophra japygiaria</i>			22	1	4		27			13	4		1	18	45
<i>Microloxia herbaria</i>										1	1		2	4	4
<i>Nycterosea obstipata</i>				2			2								2
<i>Peribatodes ilicaria</i>			7				7			1				1	8
<i>Phaiogramma etruscaria</i>		2					2			1			1	2	4
<i>Rhodometra sacraria</i>			5	4		1	10			3		3	1	7	17
<i>Scopula imitaria</i>		2	3				5			2			1	3	8
<i>Scopula marginepunctata</i>									1					1	1
<i>Scopula minorata</i>		2	4	1		1	8					1		1	9
<i>Scopula submutata</i>			2				2								2
<i>Tephronia lhommaria</i>			8	11	2		21			5	3			8	29
<i>Tephronia sepiaria</i>			3	4	1		8						1	1	9
<i>Glyphipterigidae</i>												1		1	1
<i>Glyphipterix equitella</i>												1		1	1
Gracillariidae										3				3	3
<i>Dialectica scalarrella</i>										3				3	3
Lasiocampidae			4				4								4
<i>Lasiocampa trifolii</i>			4				4								4
Lecithoceridae			8	2		1	11			1	3			4	15
<i>Eurodachtha canigella</i>			2	2		1	5			1	3			4	9
<i>Odites kollarella</i>			6				6								6
Noctuidae	77	228	366	126	61	44	902	39	100	80	89	22	169	499	1401
<i>Acontia lucida</i>			14		2	1	17		1		5		3	9	26

<i>Acronicta euphorbiae</i>			1		1		2								2
<i>Acronicta rumicis</i>		12	4	2		1	19								19
<i>Aegle vespertinalis</i>												2	2		2
<i>Agrotis catalaunensis</i>	2						2	6	4			2	12		14
<i>Agrotis ipsilon</i>		4					4					2	2		6
<i>Agrotis lata</i>		2	28	4	14		48				1			1	49
<i>Agrotis puta</i>		12	2	1			15	8	3	1	2		2	16	31
<i>Agrotis segetum</i>										1	1	1	2	5	5
<i>Agrotis spinifera</i>			2				2			1				1	3
<i>Agrotis trux</i>			14	2		2	18	1	2	2			2	7	25
<i>Anarta pugnax</i>					2	7	9				1	1		2	11
<i>Anarta sodae</i>			1	7	14	1	23	1		5	1	9	4	20	43
<i>Anarta trifolii</i>									1					1	1
<i>Apamea anceps</i>	34	26					60								60
<i>Athetis hospes</i>			21	3	1	4	29		10	3	4		12	29	58
<i>Autographa gamma</i>										1			3	4	4
<i>Bryonycta pineti</i>			1				1			1				1	2
<i>Bryophila petrea</i>										1				1	1
<i>Caradrina aspersa</i>				2			2								2
<i>Caradrina clavipalpis</i>	6	56	15	2	7	2	88	1	2	2	1		2	8	96
<i>Caradrina flavirena</i>		6	5			1	12			1			2	3	15
<i>Caradrina proxima</i>		2					2								2
<i>Cardezia sociabilis</i>						2	2								2
<i>Cerastis faceta</i>													2	2	2
<i>Cleonymia diffluens</i>		2					2								2
<i>Condica viscosa</i>		6	22		2		30		1	1				2	32
<i>Conisania andalusica</i>										1				1	1
<i>Cryphia algae</i>			94	5		2	101			6	13	1	1	21	122
<i>Cryphia pallida</i>				2			2								2
<i>Ctenoplusia limbirena</i>											2		1	3	3
<i>Cucullia calendulae</i>		8	2				10								10
<i>Cucullia chamomillae</i>									1					1	1

<i>Hadena confusa</i>			1				1				1			1		2
<i>Hadena perplexa</i>													1	1		1
<i>Hadena sancta</i>	5	12	4	8	1		30		1	1	2		6	10		40
<i>Hecatera weissi</i>	2		11	18			31	3	1	2			4	10		41
<i>Helicoverpa armigera</i>	2					1	3									3
<i>Heliothis incarnata</i>		4					4									4
<i>Heliothis nubigera</i>									1					1		1
<i>Heliothis peltigera</i>								3	5	1	6		24	39		39
<i>Hoplodrina ambigua</i>		2	6	1	2		11		1	3		1	3	8		19
<i>Lacanobia oleracea</i>			7				7				1	1		2		9
<i>Leucania joannisi</i>											1			1		1
<i>Leucania loreyi</i>				1			1		1				3	4		5
<i>Leucania putrescens</i>			2		4	2	8									8
<i>Luperina dumerilii</i>				10		2	12									12
<i>Mesoligia furuncula</i>											1			1		1
<i>Metopoceras felicina</i>	8	4	8	8	2		30		4		1	2	1	8		38
<i>Mniotype occidentalis</i>								5						5		5
<i>Mythimna languida</i>									1		1		1	3		3
<i>Mythimna litoralis</i>	8	50	2	2			62	2	9					11		73
<i>Mythimna prominens</i>			12	2			14			1	1		1	3		17
<i>Mythimna riparia</i>				2	2	1	5			1			32	33		38
<i>Mythimna sicula</i>	4		31	5	1	11	52	4		11	1	2	5	23		75
<i>Mythimna unipuncta</i>			2	1			3	1		1		1		3		6
<i>Mythimna vitellina</i>		8	2				10						1	1		11
<i>Noctua comes</i>									1				1	2		2
<i>Noctua janthe</i>			2				2									2
<i>Noctua pronuba</i>						1	1			3				3		4
<i>Ochropleura leucogaster</i>						1	1		1				5	6		7
<i>Omphalophana serrata</i>	6	10	20	19		2	57			2	3			5		62
<i>Oria musculosa</i>				1			1									1
<i>Peridroma saucia</i>		2					2			1				1		3
<i>Rhizedra lutosa</i>										1				1		1

<i>Spodoptera ciliun</i>			4				4								4
<i>Spodoptera exigua</i>			2				2	4	48	20	11	3	33	119	121
<i>Spudaea ruticilla</i>			4				4								4
<i>Synthimia fixa</i>				2			2			1				1	3
<i>Thalpophila vitalba</i>			2				2								2
<i>Trichoplusia ni</i>												1	1		1
<i>Tyta luctuosa</i>			18	16	6		40			4	28		4	36	76
<i>Xestia c-nigrum</i>									1					1	1
<i>Xestia xanthographa</i>													1	1	1
Nolidae			2	3			5						2	2	7
<i>Nola chlamitulalis</i>			2	3			5						2	2	7
Notodontidae	2	2	12				16								16
<i>Thaumetopoea pityocampa</i>	2	2	12				16								16
Oecophoridae										2				2	2
<i>Batia lunaris</i>										1				1	1
<i>Pleurota ericella</i>										1				1	1
Plutellidae									2	1	3		1	7	7
<i>Plutella xylostella</i>									2	1	3		1	7	7
Praydidae											1			1	1
<i>Prays oleae</i>											1			1	1
Psychidae						2	2			1				1	3
<i>Oiketicooides eganai</i>						2	2			1				1	3
Pterolonchidae	2		27	21	57	23	130	1		1	6	7	17	32	162
<i>Agdistis sp.</i>	2		5	7	57	22	93	1			1	6	17	25	118
<i>Pterolonche lutescentella</i>			22	14		1	37			1	5	1		7	44
Pterophoridae										3	1	3		7	7
<i>Crombrugghia laetus</i>										1				1	1
<i>Emmelina monodactyla</i>										2		3		5	5
<i>Wheeleria spilodactylus</i>											1			1	1
Pyralidae	34	12	131	104	35	6	322	7	20	231	101	48	68	475	797
<i>Acrobasis bithynella</i>										2				2	2
<i>Acrobasis obliqua</i>	2	4	13				19	2	6	4	3	3	4	22	41

<i>Acrobasis romanella</i>											1		4	5	5
<i>Acrobasis sodalella</i>											1			1	1
<i>Acrobasis sp.</i>											1			1	1
<i>Aglossa brabanti</i>		2	8	4	2	16			1	2				3	19
<i>Aglossa caprealis</i>									1					1	1
<i>Aglossa pinguinalis</i>									1					1	1
<i>Alophia combustella</i>			2			2									2
<i>Ancylosis oblitella</i>	8		2			10									10
<i>Apomyelois ceratoniae</i>		2	21	29	2	54			2	4			3	9	63
<i>Bostra obsoletalis</i>			30	27	5	3	65	2		106	34	18	33	193	258
<i>Bradyrrhoa cantenerella</i>										1		12		13	13
<i>Cadra figulilella</i>	4		2	2	4	12	1	3	6	4	10	3	27		39
<i>Endotricha flammealis</i>			1	8	1	10		3		1	1	1	6		16
<i>Ephestia unicolorella</i>	4			2	2	8	2	3	20	1	2	6	34		42
<i>Ephestia welseriella</i>			2			1	3			1	1		2	4	7
<i>Epischnia asteris</i>	2	2	10			14			4				4		18
<i>Epischnia illotella</i>			6			6			2	1			3		9
<i>Galleria mellonella</i>										1				1	1
<i>Homoeosoma nimbella</i>				2		2									2
<i>Homoeosoma sinuella</i>			13	29	2	44			67	34		1	102		146
<i>Hypotia corticalis</i>									1		1		2		2
<i>Hypsotropa vulneratella</i>			6			6			6	8	1		15		21
<i>Lamoria anella</i>	14		3	1	7	25		4	1	3		8	16		41
<i>Loryma egregialis</i>			2			2									2
<i>Oxybia transversella</i>					2	2									2
<i>Pempelia palumbella</i>			2			2									2
<i>Phycitodes saxicola</i>			2		2	4			2			1	3		7
<i>Plodia interpunctella</i>								1		1			2		2
<i>Psorosa dahliella</i>		2			6	2	10								10
<i>Pyralis farinalis</i>			2			2			1			1	2		4
<i>Stemmatophora brunnealis</i>			4			4			2				2		6
<i>Synaphe lorquinialis</i>												1	1		1

Scythrididae	6		1				7			1	3		10	14	21
<i>Enolmis acanthella</i>	6		1				7				2			2	9
<i>Episcythis triangulella</i>										1	1			2	2
<i>Scythis sp.</i>													10	10	10
Sphingidae			2				2	2	1	3			7	13	15
<i>Hippotion celerio</i>													4	4	4
<i>Hyles livornica</i>							2	1	3				2	8	8
<i>Macroglossum stellatarum</i>													1	1	1
<i>Smerinthus ocellata</i>			2				2								2
Tineidae	4		8	4	5		21		6	7	5		3	21	42
<i>Crassicornella agenjoi</i>			2		2		4								4
<i>Monopis imella</i>									6	2			3	11	11
<i>Neurothaumasia ragusaella</i>	4						4			1	1			2	6
<i>Opogona omoscopa</i>									6		1			7	7
<i>Reisserita chrysopterylla</i>			1		1		2								2
<i>Trichophaga bipartitella</i>			5	4	2		11				1			1	12
Tortricidae		20	30	88	14	14	166	19	8	25	18	9	24	103	269
<i>Acroclita subsequana</i>						4	4	16	2		1		8	27	31
<i>Aethes bilbaensis</i>			2				2								2
<i>Aethes francillana</i>												1		1	1
<i>Aethes sp.</i>							1							1	1
<i>Bactra lancealana</i>											1			1	1
<i>Bactra sp.</i>									2					2	2
<i>Cacoecimorpha pronubana</i>									3			1		4	4
<i>Clepsis consimilana</i>										1				1	1
<i>Cnephasia alfacarana</i>				2			2								2
<i>Cnephasia conspersana</i>			1	4			5								5
<i>Cnephasia longana</i>				23			23					1		1	24
<i>Cnephasia sp.</i>			1	2			3		3	7	4	1		15	18
<i>Cnephasia stephensiana</i>			4	11	4	1	20		3					3	23
<i>Crociosema plebejana</i>		4		2		3	9		1				1	2	11
<i>Cydia fagiglandana</i>			2				2								2

<i>Cydia pomonella</i>				2			2						2	2	4
<i>Cydia ulicetana</i>										1				1	1
<i>Endothenia gentianaeana</i>			2				2								2
<i>Endothenia marginana</i>		4	8	7	4		23	1		9			1	11	34
<i>Epinotia thapsiana</i>		12	4	27		3	46			7	6	2	9	24	70
<i>Eucosma cana</i>			2	4	4		10				2			2	12
<i>Eucosma sp.</i>						3	3								3
<i>Lobesia botrana</i>					2		2								2
<i>Notocelia cynosbatella</i>			2				2								2
<i>Paramesia gnomana</i>			2				2								2
<i>Phalonidia contractana</i>								1					1	2	2
<i>Phitheochroa duponchelana</i>				2			2						1	1	3
<i>Pseudococcyx tessulatana</i>				2			2								2
<i>Rhyacionia buoliana</i>										1	1			2	2
Yponomeutidae						1	1								1
<i>Zelleria oleastrella</i>						1	1								1
Zygaenidae				3			3				6			6	9
<i>Aglaope infausta</i>				3			3				6			6	9
Grand Total of individuals	228	586	1221	827	357	149	3368	82	207	607	396	182	541	2015	5383
Number of species	40	58	147	103	73	51	221	32	68	132	102	58	134	258	329