

Ecography

ECOG-01430

Truxa, C. and Fielder, K. 2015. Massive structural redundancies in species composition patterns of floodplain forest moths. – Ecography doi: 10.1111/ecog.01430

Supplementary material

Appendix 1: Details on vegetation and habitat structures at light trap positions for sampling moth assemblages in flooded and non-flooded floodplain forest regions in eastern Austria.

All woody plant species with DBH >2cm were recorded in a radius of 10m around each light trap.

L = Leitha floodplain forest

M = Morava floodplain forest

D = Danube floodplain forest

N = non flooded

F = annually flooded

1-5 = trap number

Size category according to DBH of trees:

Category 1 = 2-9cm

Category 2 = 10-19cm

Category 3 = 20-29cm

Category 4 = 30-40cm

Category 5 = >40cm

Figures in cells below denote numbers of stems per species and size category in 10m radius around each light trap.

Species	Category	LN1	LN2	LN3	LN4	LF1	LF2	LF3	LF4
<i>Acer campestre</i>	3								1
<i>Acer negundo</i>	1		4	2			2		
<i>Acer negundo</i>	2		7	3			11		
<i>Acer negundo</i>	3	1		1					
<i>Acer pseudoplatanus</i>	1	2							
<i>Acer pseudoplatanus</i>	2	1	2						
<i>Acer pseudoplatanus</i>	4	1							
<i>Alnus glutinosa</i>	1					1			
<i>Alnus glutinosa</i>	2				3				
<i>Alnus glutinosa</i>	3					1	1		
<i>Alnus glutinosa</i>	4							1	
<i>Clematis vitalba</i>	1	1				1			
<i>Cornus mas</i>	1	1				56	8	38	
<i>Cornus mas</i>	2					1			
<i>Corylus avellana</i>	1				2				
<i>Corylus avellana</i>	2				1				
<i>Fraxinus excelsior</i>	1		3	3	2	3	8	1	
<i>Fraxinus excelsior</i>	2	1	5	3	2	13	14		
<i>Fraxinus excelsior</i>	3	1		1	3	4	3		3
<i>Fraxinus excelsior</i>	4	1			1		4	2	1
<i>Fraxinus excelsior</i>	5	3						2	
<i>Juglans regia</i>	1						2		
<i>Juglans regia</i>	2						3		
<i>Juglans regia</i>	4	1							
<i>Populus alba</i>	3					1			
<i>Populus nigra</i>	4		1	3				1	
<i>Populus nigra</i>	5		2	2					3
<i>Prunus padus</i>	1	5	1	8		1			
<i>Prunus padus</i>	2		10	9		2		4	1
<i>Prunus padus</i>	3		1	2		1			
<i>Robinia pseudoacacia</i>	3			1					
<i>Salix sp.</i>	5				2				
<i>Ulmus minor</i>	3								1

Number of stems	19	36	38	16	85	56	49	10
Number of species	7	5	5	4	6	5	5	5
Herbaceous ground cover [%]	40	10	20	60	10	85	10	70
Mean tree height [m]	26	19	16	16	16	20	22	16
Canopy cover [%]	84	88	82	73	87	83	75	85

Species	Category	MN1	MN2	MN3	MN4	MN5	MF1	MF2	MF3	MF4	MF5
<i>Acer campestre</i>	1	5			5		2				2
<i>Acer campestre</i>	2	9			3		8			2	3
<i>Acer campestre</i>	3	3			3		3	1	1	4	1
<i>Acer campestre</i>	4				1				1	1	
<i>Acer pseudoplatanus</i>	3									6	
<i>Acer pseudoplatanus</i>	4									1	
<i>Alnus glutinosa</i>	2			3							
<i>Alnus glutinosa</i>	3			1							
<i>Carpinus betulus</i>	1					1					
<i>Cornus mas</i>	1									2	
<i>Cornus sanguinea</i>	1		18	22	14	7	5	23	12		10
<i>Cornus sanguinea</i>	2			1							
<i>Crataegus laevigata</i>	1						7	1	2	1	
<i>Crataegus laevigata</i>	2								1		
<i>Crataegus monogyna</i>	1	1				3	2				
<i>Crataegus monogyna</i>	3								1		
<i>Euonymus europaeus</i>	1						1				
<i>Fraxinus excelsior</i>	1		56		1			1			3
<i>Fraxinus excelsior</i>	2					1					
<i>Fraxinus excelsior</i>	3			1		2					
<i>Fraxinus excelsior</i>	4			1					36		
<i>Fraxinus excelsior</i>	5	4			1	2					
<i>Populus alba</i>	4		1			1					2
<i>Populus alba</i>	5									1	3
<i>Populus nigra</i>	4			3							
<i>Populus nigra</i>	5		2	4		2			3		
<i>Prunus domestica</i>	4		1								
<i>Prunus padus</i>	1		4						1		1
<i>Prunus padus</i>	2			1							
<i>Quercus petraea</i>	1					1					
<i>Quercus petraea</i>	3										1
<i>Quercus petraea</i>	4	2									
<i>Quercus petraea</i>	5				1			3			1
<i>Salix alba</i>	4					2					
<i>Ulmus minor</i>	1		1	1				8		2	
<i>Ulmus minor</i>	2				4		1	2			
<i>Ulmus minor</i>	3		1	1	1						
<i>Ulmus minor</i>	4				1						
Number of stems		24	84	39	35	22	29	39	58	20	27
Number of species		4	7	6	5	8	6	6	7	6	6
Herbaceous ground cover [%]		10	70	80	80	90	20	40	70	100	80
Mean tree height [m]		19	17	22	18	24	7	18	24	20	25
Canopy cover [%]		84	83	79	82	78	84	72	81	83	78

Species	Category	DN1	DN2	DN3	DN4	DN5	DF1	DF2	DF3	DF4	DF5
<i>Acer campestre</i>	1			1		1	12				
<i>Acer campestre</i>	2			3		2		1		1	6
<i>Acer campestre</i>	3	2	2	2	1						3
<i>Acer campestre</i>	4	1	1								
<i>Acer negundo</i>	2								1		
<i>Acer platanoides</i>	2				1	1					
<i>Aesculus hippocastanum</i>	5			1							
<i>Ailanthus altissima</i>	2		1								
<i>Carpinus betulus</i>	3	1									
<i>Carpinus betulus</i>	4	1									
<i>Cornus mas</i>	1	1	8	4	3	10	1				
<i>Cornus mas</i>	2			1							
<i>Cornus sanguinea</i>	1						1	15	1	7	1
<i>Corylus avellana</i>	1	9	6	5	3	14	8	1			
<i>Corylus avellana</i>	2	2						1		1	
<i>Crataegus laevigata</i>	1			4			5	1			
<i>Crataegus laevigata</i>	2							3		2	
<i>Crataegus monogyna</i>	1						5		1		2
<i>Crataegus monogyna</i>	2						2	2	2	4	1
<i>Fraxinus excelsior</i>	1		1			1					
<i>Fraxinus excelsior</i>	2							2			
<i>Fraxinus excelsior</i>	3		1					1			
<i>Fraxinus excelsior</i>	4			1	1			4			
<i>Fraxinus excelsior</i>	5		1			1	2	1			
<i>Juglans regia</i>	1	1	5	4	17	3					
<i>Juglans regia</i>	2		3		3	1					
<i>Populus alba</i>	4								2	2	
<i>Populus alba</i>	5	1						2	2	4	6
<i>Populus nigra</i>	5						1				
<i>Prunus padus</i>	1	9	16	4	5	2					
<i>Prunus padus</i>	2					3					
<i>Quercus robur</i>	5	1									
<i>Sambucus nigra</i>	1	1									1
<i>Tilia platyphyllos</i>	4		1								
<i>Tilia platyphyllos</i>	5			2							
<i>Ulmus laevis</i>	1			1							
<i>Ulmus minor</i>	1									1	
<i>Ulmus minor</i>	2								2	1	
<i>Ulmus minor</i>	3										1
<i>Ulmus minor</i>	4							1			

Number of stems	30	46	33	34	39	44	28	11	23	21
Number of species	9	8	10	7	7	8	8	5	7	6
Herbaceous ground cover [%]	60	90	100	70	100	40	90	80	80	30
Mean tree height [m]	19	18	18	18	25	29	31	19	18	16
Canopy cover [%]	86	79	81	77	89	75	86	71	73	84

Appendix 2: Detailed description of methodology used for moth sampling in flooded and non-flooded floodplain forest regions in eastern Austria.

Traps were of a type similar to that used by Wirooks (2005, source: www.fiebig-lehrmittel.de), equipped with two 15W tubes (Sylvania Blacklight-Blue, F15W/BLB-T8; and Philips TLD, 15W/05) and powered by a 12V car battery. At dusk the light was automatically switched on and run for about 6 hours. All 4-5 light traps within a habitat were operated simultaneously. All 6 forest habitats were sampled on consecutive days, or as soon as possible if spells of unfavourable weather had to be avoided. Traps were never run during the 5 days before and after full moon to avoid any negative impact of moonlight on trap catches (Yela and Holyoak 1997). Sampling did not take place during rainy weather, in which cases sampling was postponed until conditions improved, i.e. sampling was carried out on the next possible night with better weather conditions. Altogether, sampling was conducted over two complete annual cycles on 103 nights between 20.VIII.2006 and 24.VIII.2008. The sampling season ended with the first incidence of frost in autumn (last sampling dates: 26.XI.2006 and 08.XI.2007) and started again at spring time (first sampling dates: 26.III.2007 and 07.IV.2008). In all, data from 442 nightly trap samples were analysed. The number of moths caught during a single trap night ranged from 0 to 1092 (site MF5, 08.VIII.2007) individuals. Eighteen nightly trap samples did not contain any moths, likely due to cold temperatures and generally low moth activity in March, April, October and November. Three further samples did not contain moths due to equipment failure. Further details can be found in Truxa (2012).

References:

Truxa, C. 2012. Community ecology of moths in floodplain forests of Eastern Austria. – PhD dissertation, University of Vienna. Available at: <http://othes.univie.ac.at/25605/>.

Wirooks, L. 2005. Die ökologische Aussagekraft des Lichtfangs: Eine Studie zur Habitatbindung und kleinräumigen Verteilung von Nachtfaltern und ihren Raupen. – Wolf & Kreuels.

Yela, J.L. and Holyoak, M. 1997. Effects of moonlight and meteorological factors on light and bait trap catches of noctuid moths (Lepidoptera: Noctuidae). – Environ. Entomol. 26: 1283–1290.

Appendix 3: Classification of moth species (alphabetically sorted within families) into 12 functional groups according to larval feeding relationships. In addition, numbers of specimens per region and forest habitat type are reported.

Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Phragmataecia castaneae</i>	Cossidae	(semi-)aquatic herbivore	0	0	0	1	4	15
<i>Agriphila inquinatella</i>	Crambidae	grass herbivore	3	5	3	8	3	7
<i>Agriphila straminella</i>	Crambidae	grass herbivore	2	0	3	3	0	2
<i>Agriphila tolli</i>	Crambidae	grass herbivore	1	2	0	1	0	1
<i>Agriphila tristella</i>	Crambidae	grass herbivore	0	0	0	0	0	1
<i>Agrotera nemoralis</i>	Crambidae	generalist tree herbivore	4	1	0	0	0	0
<i>Anania coronata</i>	Crambidae	generalist tree herbivore	11	14	11	21	8	28
<i>Anania crocealis</i>	Crambidae	specialist herb feeder	0	0	0	0	2	0
<i>Anania hortulata</i>	Crambidae	generalist herb feeder	2	2	20	14	2	6
<i>Anania lancealis</i>	Crambidae	generalist herb feeder	0	2	5	7	0	0
<i>Anania stachydalis</i>	Crambidae	generalist herb feeder	0	4	4	0	2	3
<i>Anania terrealis</i>	Crambidae	specialist herb feeder	0	0	0	0	0	1
<i>Anania verbascalis</i>	Crambidae	generalist herb feeder	0	7	3	1	2	8
<i>Catoptria falsella</i>	Crambidae	lichen/moss feeder	6	14	3	2	9	56
<i>Catoptria permutatella</i>	Crambidae	lichen/moss feeder	0	0	2	0	0	0
<i>Catoptria verella</i>	Crambidae	lichen/moss feeder	11	27	1	1	5	32
<i>Chilo phragmitella</i>	Crambidae	(semi-)aquatic herbivore	3	3	2	0	0	2
<i>Chrysoteuchia culmella</i>	Crambidae	grass herbivore	0	1	0	2	0	0
<i>Crambus pratella</i>	Crambidae	grass herbivore	0	0	0	0	1	0
<i>Donacaula forficella</i>	Crambidae	grass herbivore	0	0	1	0	0	0
<i>Ecpyrrhorrhoe rubiginalis</i>	Crambidae	specialist herb feeder	1	1	24	25	5	11
<i>Elophila lemnata</i>	Crambidae	(semi-)aquatic herbivore	3	5	24	40	21	23
<i>Elophila nymphaeata</i>	Crambidae	(semi-)aquatic herbivore	5	3	1	0	4	26
<i>Elophila rivularis</i>	Crambidae	(semi-)aquatic herbivore	0	0	0	0	1	0
<i>Eudonia lacustrata</i>	Crambidae	lichen/moss feeder	1	3	0	0	0	3
<i>Eudonia laetella</i>	Crambidae	lichen/moss feeder	0	4	0	2	0	3
<i>Eudonia mercurella</i>	Crambidae	lichen/moss feeder	1	1	0	0	0	0
<i>Eudonia pallida</i>	Crambidae	lichen/moss feeder	0	6	5	3	2	5
<i>Eudonia truncicolella</i>	Crambidae	lichen/moss feeder	3	0	0	1	0	1
<i>Evergestis aenealis</i>	Crambidae	specialist herb feeder	0	0	0	0	1	0
<i>Evergestis extimalis</i>	Crambidae	specialist herb feeder	2	1	2	6	1	7
<i>Evergestis forficalis</i>	Crambidae	specialist herb feeder	0	0	4	4	3	4
<i>Evergestis limbata</i>	Crambidae	specialist herb feeder	1	1	0	0	0	0

Appendix 3: Classification of moth species (alphabetically sorted within families) into 12 functional groups according to larval feeding relationships. In addition, numbers of specimens per region and forest habitat type are reported.

Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Evergestis pallidata</i>	Crambidae	specialist herb feeder	2	3	6	9	15	28
<i>Loxostege sticticalis</i>	Crambidae	generalist herb feeder	0	0	1	0	1	0
<i>Microstega hyalinalis</i>	Crambidae	generalist herb feeder	0	0	0	0	2	0
<i>Microstega pandalis</i>	Crambidae	generalist herb feeder	1	0	0	0	0	0
<i>Ostrinia nubilalis</i>	Crambidae	generalist herb feeder	3	2	19	1	1	4
<i>Parapoinx stratiotata</i>	Crambidae	(semi-)aquatic herbivore	3	4	6	0	4	44
<i>Pediasia contaminella</i>	Crambidae	grass herbivore	0	0	0	1	3	1
<i>Pleuroptya ruralis</i>	Crambidae	generalist herb feeder	36	199	645	409	32	96
<i>Pyrausta aurata</i>	Crambidae	specialist herb feeder	0	1	1	2	0	1
<i>Pyrausta purpuralis</i>	Crambidae	specialist herb feeder	0	0	0	0	1	0
<i>Sclerocona acutellus</i>	Crambidae	grass herbivore	0	0	0	1	0	1
<i>Scoparia basistrigalis</i>	Crambidae	lichen/moss feeder	5	3	8	4	1	1
<i>Scoparia subfusca</i>	Crambidae	lichen/moss feeder	0	0	0	0	1	0
<i>Udea elutalis</i>	Crambidae	root feeder	0	0	0	0	0	1
<i>Udea ferrugalis</i>	Crambidae	generalist herb feeder	0	3	13	12	0	10
<i>Udea fulvalis</i>	Crambidae	specialist herb feeder	0	0	1	0	3	0
<i>Cilix glaucatus</i>	Drepanidae	specialist tree herbivore	0	1	0	0	0	0
<i>Drepana falcataria</i>	Drepanidae	specialist tree herbivore	0	1	1	8	2	0
<i>Habrosyne pyritoides</i>	Drepanidae	specialist tree herbivore	2	1	6	4	3	6
<i>Ochropacha duplaris</i>	Drepanidae	softwood tree herbivore	1	5	0	0	0	0
<i>Sabra harpagula</i>	Drepanidae	generalist tree herbivore	1	0	0	0	0	0
<i>Tethea ocularis</i>	Drepanidae	softwood tree herbivore	1	2	3	0	2	5
<i>Tethea or</i>	Drepanidae	softwood tree herbivore	30	111	23	6	4	9
<i>Thyatira batis</i>	Drepanidae	specialist tree herbivore	4	6	9	9	2	4
<i>Watsonalla binaria</i>	Drepanidae	generalist tree herbivore	0	1	0	1	4	9
<i>Arctia villica</i>	Erebidae	generalist herb feeder	0	0	0	0	0	1
<i>Calliteara pudibunda</i>	Erebidae	generalist tree herbivore	16	13	12	9	1	1
<i>Catephia alchymista</i>	Erebidae	specialist tree herbivore	0	1	0	0	0	0
<i>Catocala electa</i>	Erebidae	softwood tree herbivore	0	1	0	0	0	0
<i>Catocala nupta</i>	Erebidae	softwood tree herbivore	1	0	0	0	1	0
<i>Colobochoyla salicalis</i>	Erebidae	softwood tree herbivore	0	0	1	4	4	4
<i>Cybosia mesomella</i>	Erebidae	lichen/moss feeder	1	0	0	1	0	0
<i>Diacrisia sannio</i>	Erebidae	generalist herb feeder	0	0	0	0	1	0

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Diaphora mendica</i>	Erebidae	generalist herb feeder	0	1	0	0	4	0
<i>Dysauxes ancilla</i>	Erebidae	detritivore	0	0	2	2	4	1
<i>Eilema complana</i>	Erebidae	lichen/moss feeder	1	0	10	2	0	1
<i>Eilema griseola</i>	Erebidae	lichen/moss feeder	59	45	37	86	17	29
<i>Eilema sororcula</i>	Erebidae	lichen/moss feeder	6	2	2	0	0	3
<i>Euplagia quadripunctaria</i>	Erebidae	generalist herb feeder	6	0	1	0	1	0
<i>Euproctis similis</i>	Erebidae	generalist tree herbivore	24	32	4	2	22	27
<i>Herminia grisealis</i>	Erebidae	detritivore	42	26	88	39	22	21
<i>Herminia tarsicrinalis</i>	Erebidae	detritivore	33	84	35	43	14	19
<i>Herminia tarsipennalis</i>	Erebidae	detritivore	0	3	1	5	1	0
<i>Hypena proboscidalis</i>	Erebidae	specialist herb feeder	12	46	75	40	11	32
<i>Laspeyria flexula</i>	Erebidae	lichen/moss feeder	2	4	1	3	9	1
<i>Leucoma salicis</i>	Erebidae	softwood tree herbivore	4	5	1	0	16	25
<i>Lithosia quadra</i>	Erebidae	lichen/moss feeder	26	5	4	18	2	21
<i>Lygephila pastinum</i>	Erebidae	specialist herb feeder	3	1	1	1	0	0
<i>Lymantria dispar</i>	Erebidae	generalist tree herbivore	0	6	0	1	1	2
<i>Macrochilo cribrumalis</i>	Erebidae	detritivore	0	0	0	1	0	2
<i>Miltochrista miniata</i>	Erebidae	lichen/moss feeder	0	0	1	0	0	0
<i>Orgyia antiqua</i>	Erebidae	generalist tree herbivore	0	1	0	4	0	0
<i>Paracolax tristalis</i>	Erebidae	detritivore	1	0	0	1	0	1
<i>Pechipogo strigilata</i>	Erebidae	detritivore	35	0	7	8	0	0
<i>Pelosia muscerda</i>	Erebidae	lichen/moss feeder	16	95	617	240	2541	5234
<i>Phragmatobia fuliginosa</i>	Erebidae	generalist herb feeder	1	1	1	6	0	7
<i>Polypogon tentacularia</i>	Erebidae	detritivore	1	0	0	2	0	1
<i>Rivula sericealis</i>	Erebidae	grass herbivore	27	51	54	123	26	77
<i>Schrankia costaestrigalis</i>	Erebidae	generalist herb feeder	0	0	1	0	2	1
<i>Scoliopteryx libatrix</i>	Erebidae	softwood tree herbivore	0	0	1	1	0	1
<i>Spilosoma lubricipeda</i>	Erebidae	generalist herb feeder	12	24	18	38	28	55
<i>Spilosoma lutea</i>	Erebidae	generalist herb feeder	23	13	16	21	14	16
<i>Thumatha senex</i>	Erebidae	lichen/moss feeder	0	0	1	0	0	0
<i>Trisateles emortualis</i>	Erebidae	detritivore	9	2	12	4	0	0
<i>Abraxas grossulariata</i>	Geometridae	generalist tree herbivore	0	0	5	6	0	0
<i>Abraxas sylvata</i>	Geometridae	generalist tree herbivore	0	0	27	6	0	0

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Acasis viretata</i>	Geometridae	generalist tree herbivore	0	0	0	1	0	0
<i>Aethalura punctulata</i>	Geometridae	generalist tree herbivore	0	0	0	3	0	0
<i>Agriopsis aurantiaria</i>	Geometridae	generalist tree herbivore	6	10	4	0	1	8
<i>Agriopsis bajaria</i>	Geometridae	generalist tree herbivore	1	2	0	0	0	0
<i>Agriopsis marginaria</i>	Geometridae	generalist tree herbivore	0	0	0	0	1	0
<i>Alcis repandata</i>	Geometridae	generalist tree herbivore	1	1	1	0	1	0
<i>Alsophila aescularia</i>	Geometridae	generalist tree herbivore	9	0	1	0	0	0
<i>Angerona prunaria</i>	Geometridae	generalist tree herbivore	16	4	0	1	0	1
<i>Anticollix sparsata</i>	Geometridae	specialist herb feeder	1	0	0	0	0	0
<i>Apeira syringaria</i>	Geometridae	generalist tree herbivore	1	1	0	1	1	2
<i>Aplocera plagiata</i>	Geometridae	specialist herb feeder	0	1	0	1	0	2
<i>Artiora evonymaria</i>	Geometridae	specialist tree herbivore	1	0	0	0	2	1
<i>Ascotis selenaria</i>	Geometridae	generalist herb feeder	1	2	6	0	14	18
<i>Asthenes anseraria</i>	Geometridae	specialist tree herbivore	0	0	0	3	1	1
<i>Biston betularia</i>	Geometridae	generalist tree herbivore	3	0	5	0	1	1
<i>Cabera exanthemata</i>	Geometridae	generalist tree herbivore	17	7	22	46	22	32
<i>Cabera pusaria</i>	Geometridae	generalist tree herbivore	3	4	2	20	0	1
<i>Campaea margaritata</i>	Geometridae	generalist tree herbivore	96	50	86	166	20	38
<i>Campptogramma bilineata</i>	Geometridae	generalist herb feeder	0	0	1	3	0	0
<i>Catarhoe cuculata</i>	Geometridae	specialist herb feeder	0	0	0	0	1	0
<i>Cepphis advenaria</i>	Geometridae	generalist herb feeder	10	3	0	0	0	0
<i>Chiasmia clatratha</i>	Geometridae	specialist herb feeder	3	9	1	2	0	2
<i>Chlorissa cloraria</i>	Geometridae	generalist tree herbivore	0	0	0	0	1	2
<i>Chloroclysta siterata</i>	Geometridae	generalist tree herbivore	2	0	1	1	1	3
<i>Chloroclysta truncata</i>	Geometridae	generalist herb feeder	1	0	1	1	1	0
<i>Chloroclystis v-ata</i>	Geometridae	generalist tree herbivore	1	0	0	2	0	0
<i>Colostygia pectinataria</i>	Geometridae	generalist herb feeder	1	7	6	4	5	9
<i>Colotois pennaria</i>	Geometridae	generalist tree herbivore	6	5	0	0	2	4
<i>Comibaena bajularia</i>	Geometridae	specialist tree herbivore	1	0	0	0	0	5
<i>Cosmorhoe ocellata</i>	Geometridae	specialist herb feeder	1	1	4	5	2	1
<i>Costaconvexa polygrammata</i>	Geometridae	specialist herb feeder	0	0	2	0	0	0
<i>Crocallis elinguaris</i>	Geometridae	generalist tree herbivore	1	1	1	0	0	0
<i>Cyclophora annularia</i>	Geometridae	specialist tree herbivore	357	91	52	18	77	114

Appendix 3: Classification of moth species (alphabetically sorted within families) into 12 functional groups according to larval feeding relationships. In addition, numbers of specimens per region and forest habitat type are reported.

Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Cyclophora linearia</i>	Geometridae	generalist herb feeder	0	1	0	0	0	0
<i>Cyclophora punctaria</i>	Geometridae	generalist tree herbivore	4	0	5	1	7	21
<i>Ecliptopera silaceata</i>	Geometridae	specialist herb feeder	48	68	226	220	9	24
<i>Ectropis crepuscularia</i>	Geometridae	generalist tree herbivore	23	42	49	73	23	39
<i>Electrophaes corylata</i>	Geometridae	generalist tree herbivore	3	0	0	0	0	0
<i>Ennomos autumnaria</i>	Geometridae	generalist tree herbivore	0	5	2	5	4	14
<i>Ennomos fuscantaria</i>	Geometridae	specialist tree herbivore	0	0	0	0	0	5
<i>Epione repandaria</i>	Geometridae	generalist tree herbivore	0	0	0	1	1	1
<i>Epirrhoe alternata</i>	Geometridae	specialist herb feeder	15	74	69	34	30	43
<i>Epirrita dilutata</i>	Geometridae	generalist tree herbivore	5	0	0	1	0	1
<i>Erannis defoliaria</i>	Geometridae	generalist tree herbivore	7	41	9	17	10	67
<i>Euchoeca nebulata</i>	Geometridae	softwood tree herbivore	1	11	3	23	0	0
<i>Eulithis mellinata</i>	Geometridae	specialist tree herbivore	0	0	1	0	0	0
<i>Eulithis pyraliata</i>	Geometridae	specialist herb feeder	12	52	21	11	0	5
<i>Eupithecia absinthiata</i>	Geometridae	generalist herb feeder	1	1	0	0	0	0
<i>Eupithecia assimilata</i>	Geometridae	generalist tree herbivore	1	1	0	0	0	2
<i>Eupithecia centaureata</i>	Geometridae	generalist herb feeder	2	2	7	2	3	13
<i>Eupithecia haworthiata</i>	Geometridae	liana herbivore	1	0	0	0	0	0
<i>Eupithecia inturbata</i>	Geometridae	specialist tree herbivore	6	3	1	0	0	0
<i>Eupithecia satyrata</i>	Geometridae	generalist herb feeder	1	0	1	0	0	0
<i>Eupithecia selinata</i>	Geometridae	specialist herb feeder	0	0	1	1	1	7
<i>Eupithecia tenuiata</i>	Geometridae	softwood tree herbivore	0	0	0	0	0	1
<i>Eupithecia virgaureata</i>	Geometridae	generalist herb feeder	2	4	20	20	10	9
<i>Gymnoscelis rufifasciata</i>	Geometridae	generalist herb feeder	0	0	2	2	1	0
<i>Heliomata glarearia</i>	Geometridae	specialist herb feeder	1	0	0	0	2	0
<i>Hemistola chrysoprasaria</i>	Geometridae	liana herbivore	10	12	1	10	0	0
<i>Hemitheia aestivaria</i>	Geometridae	generalist tree herbivore	32	10	7	16	11	16
<i>Horisme corticata</i>	Geometridae	liana herbivore	1	1	0	1	0	0
<i>Horisme tersata</i>	Geometridae	liana herbivore	2	0	0	0	0	0
<i>Horisme vitalbata</i>	Geometridae	liana herbivore	0	1	0	0	0	0
<i>Hydrelia flammeolaria</i>	Geometridae	softwood tree herbivore	0	0	1	0	0	0
<i>Hydriomena furcata</i>	Geometridae	generalist tree herbivore	0	0	0	2	0	0
<i>Hydriomena impluviata</i>	Geometridae	softwood tree herbivore	0	2	0	0	0	0

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Hydriomena ruberata</i>	Geometridae	softwood tree herbivore	1	4	0	8	0	0
<i>Hypomecis punctinalis</i>	Geometridae	generalist tree herbivore	18	20	7	10	40	17
<i>Hypomecis roboraria</i>	Geometridae	generalist tree herbivore	27	12	12	8	13	14
<i>Idaea aversata</i>	Geometridae	detritivore	26	1	37	14	17	25
<i>Idaea biselata</i>	Geometridae	detritivore	40	13	4	8	1	8
<i>Idaea degeneraria</i>	Geometridae	detritivore	4	0	24	4	2	11
<i>Idaea dimidiata</i>	Geometridae	detritivore	13	62	72	60	105	137
<i>Idaea fuscovenosa</i>	Geometridae	detritivore	0	0	0	1	0	0
<i>Idaea humiliata</i>	Geometridae	detritivore	0	0	0	1	1	0
<i>Idaea muricata</i>	Geometridae	detritivore	0	0	1	0	0	0
<i>Idaea pallidata</i>	Geometridae	detritivore	0	0	0	1	0	0
<i>Idaea rubraria</i>	Geometridae	detritivore	2	0	2	0	0	1
<i>Idaea rusticata</i>	Geometridae	detritivore	2	1	0	0	1	2
<i>Idaea subsericeata</i>	Geometridae	detritivore	1	0	0	0	0	1
<i>Idaea trigeminata</i>	Geometridae	detritivore	2	0	2	3	2	0
<i>Jodis lactearia</i>	Geometridae	generalist tree herbivore	1	0	1	3	0	0
<i>Lampropteryx suffumata</i>	Geometridae	specialist herb feeder	0	0	0	1	0	0
<i>Ligdia adustata</i>	Geometridae	specialist tree herbivore	56	89	24	30	52	93
<i>Lomaspilis marginata</i>	Geometridae	softwood tree herbivore	58	89	26	33	54	93
<i>Lomographa bimaculata</i>	Geometridae	generalist tree herbivore	39	40	12	1	0	0
<i>Lomographa temerata</i>	Geometridae	generalist tree herbivore	3	5	3	0	0	3
<i>Lycia hirtaria</i>	Geometridae	generalist tree herbivore	3	6	6	0	4	6
<i>Lythria purpuraria</i>	Geometridae	specialist herb feeder	0	0	0	1	0	0
<i>Macaria alternata</i>	Geometridae	generalist tree herbivore	10	2	19	7	40	19
<i>Macaria liturata</i>	Geometridae	conifer feeder	0	0	0	0	1	1
<i>Macaria notata</i>	Geometridae	generalist tree herbivore	0	0	0	1	0	0
<i>Melanthia procellata</i>	Geometridae	liana herbivore	5	7	0	1	0	0
<i>Mesoleuca albicillata</i>	Geometridae	specialist tree herbivore	2	1	1	1	1	0
<i>Operophtera brumata</i>	Geometridae	generalist tree herbivore	8	15	29	7	42	103
<i>Orthonama obstipata</i>	Geometridae	generalist herb feeder	0	1	0	0	1	1
<i>Orthonama vittata</i>	Geometridae	specialist herb feeder	0	0	0	0	0	2
<i>Ourapteryx sambucaria</i>	Geometridae	generalist tree herbivore	4	6	0	2	0	0
<i>Paradarisa consonaria</i>	Geometridae	generalist tree herbivore	0	0	0	1	0	0

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Parectropis similaria</i>	Geometridae	generalist tree herbivore	1	0	0	0	0	0
<i>Pasiphila rectangulata</i>	Geometridae	specialist tree herbivore	5	5	35	24	3	3
<i>Peribatodes rhomboidaria</i>	Geometridae	generalist tree herbivore	36	38	53	107	37	37
<i>Peribatodes secundaria</i>	Geometridae	generalist tree herbivore	0	3	2	2	8	3
<i>Perizoma affinitata</i>	Geometridae	specialist herb feeder	0	0	0	0	1	0
<i>Perizoma alchemillata</i>	Geometridae	specialist herb feeder	0	1	3	32	4	5
<i>Perizoma hydrata</i>	Geometridae	specialist herb feeder	0	0	1	0	0	0
<i>Perizoma lugdunaria</i>	Geometridae	specialist herb feeder	0	0	0	1	0	0
<i>Philereme vetulata</i>	Geometridae	generalist tree herbivore	3	1	0	0	4	23
<i>Plagodis dolabraria</i>	Geometridae	generalist tree herbivore	1	0	0	0	0	0
<i>Plagodis pulveraria</i>	Geometridae	generalist tree herbivore	61	43	4	3	16	7
<i>Plemyria rubiginata</i>	Geometridae	generalist tree herbivore	4	6	14	7	0	0
<i>Pterapherapteryx sexalata</i>	Geometridae	softwood tree herbivore	0	0	0	3	0	0
<i>Rhodostrophia vibicaria</i>	Geometridae	specialist herb feeder	0	0	0	0	1	0
<i>Scopula flaccidaria</i>	Geometridae	generalist herb feeder	0	0	1	0	1	0
<i>Scopula floslactata</i>	Geometridae	generalist herb feeder	2	0	0	0	0	0
<i>Scopula immorata</i>	Geometridae	generalist herb feeder	1	4	0	5	6	2
<i>Scopula immutata</i>	Geometridae	generalist herb feeder	5	6	4	11	10	15
<i>Scopula marginepunctata</i>	Geometridae	generalist herb feeder	0	1	0	0	1	0
<i>Scopula nigropunctata</i>	Geometridae	generalist herb feeder	1	1	0	2	2	3
<i>Scopula ornata</i>	Geometridae	specialist herb feeder	0	0	0	0	1	0
<i>Scopula rubiginata</i>	Geometridae	specialist herb feeder	0	0	0	0	0	1
<i>Scopula virgulata</i>	Geometridae	generalist herb feeder	5	6	1	2	5	2
<i>Selenia dentaria</i>	Geometridae	generalist tree herbivore	9	3	0	0	0	1
<i>Selenia lunularia</i>	Geometridae	generalist tree herbivore	1	0	0	1	1	1
<i>Selenia tetralunaria</i>	Geometridae	generalist tree herbivore	30	109	25	54	22	30
<i>Siona lineata</i>	Geometridae	generalist herb feeder	0	1	0	0	0	0
<i>Stegania cararia</i>	Geometridae	softwood tree herbivore	0	0	9	1	8	3
<i>Stegania dilectaria</i>	Geometridae	softwood tree herbivore	1	1	3	0	4	14
<i>Thera juniperata</i>	Geometridae	conifer feeder	1	0	0	0	0	0
<i>Therapis flavicaria</i>	Geometridae	specialist herb feeder	0	1	1	0	0	0
<i>Thetidia smaragdaria</i>	Geometridae	specialist herb feeder	0	0	1	0	0	0
<i>Timandra comae</i>	Geometridae	specialist herb feeder	8	9	5	20	33	51

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Xanthorhoe biriviata</i>	Geometridae	specialist herb feeder	0	1	1	0	0	0
<i>Xanthorhoe designata</i>	Geometridae	specialist herb feeder	1	1	0	1	1	6
<i>Xanthorhoe ferrugata</i>	Geometridae	generalist herb feeder	8	11	5	22	12	16
<i>Xanthorhoe fluctuata</i>	Geometridae	specialist herb feeder	1	0	0	0	0	2
<i>Xanthorhoe quadrifasiata</i>	Geometridae	generalist herb feeder	0	0	0	1	0	0
<i>Xanthorhoe spadicearia</i>	Geometridae	generalist herb feeder	0	0	0	2	4	0
<i>Triodia sylvina</i>	Hepialidae	root feeder	1	2	0	1	0	0
<i>Euthrix potatoria</i>	Lasiocampidae	grass herbivore	1	1	0	0	0	0
<i>Malacosoma neustria</i>	Lasiocampidae	generalist tree herbivore	0	3	0	0	1	5
<i>Poecilocampa populi</i>	Lasiocampidae	generalist tree herbivore	2	2	2	3	3	3
<i>Trichiura crataegi</i>	Lasiocampidae	generalist tree herbivore	3	3	0	1	1	0
<i>Apoda limacodes</i>	Limacodidae	generalist tree herbivore	7	1	0	1	1	2
<i>Abrostola tripartita</i>	Noctuidae	specialist herb feeder	0	2	2	2	0	0
<i>Abrostola triplasia</i>	Noctuidae	specialist herb feeder	7	4	10	9	1	5
<i>Acosmetia caliginosa</i>	Noctuidae	specialist herb feeder	0	0	0	0	0	2
<i>Acronicta alni</i>	Noctuidae	generalist tree herbivore	2	1	0	0	0	0
<i>Acronicta auricoma</i>	Noctuidae	generalist tree herbivore	1	0	0	2	0	0
<i>Acronicta cuspis</i>	Noctuidae	softwood tree herbivore	0	3	0	0	0	0
<i>Acronicta megacephala</i>	Noctuidae	softwood tree herbivore	0	23	14	3	1	7
<i>Acronicta psi</i>	Noctuidae	generalist tree herbivore	0	0	0	1	0	0
<i>Acronicta rumicis</i>	Noctuidae	generalist herb feeder	5	4	5	2	2	2
<i>Acronicta strigosa</i>	Noctuidae	specialist tree herbivore	0	2	2	0	0	0
<i>Actinotia polyodon</i>	Noctuidae	specialist herb feeder	0	0	1	0	0	0
<i>Agrochola circellaris</i>	Noctuidae	softwood tree herbivore	0	13	1	3	7	6
<i>Agrochola litura</i>	Noctuidae	generalist herb feeder	0	0	0	1	0	0
<i>Agrochola lychnidis</i>	Noctuidae	generalist herb feeder	1	0	0	2	0	0
<i>Agrochola nitida</i>	Noctuidae	generalist herb feeder	8	0	1	1	0	1
<i>Agrotis cinerea</i>	Noctuidae	root feeder	0	0	0	1	0	0
<i>Agrotis crassa</i>	Noctuidae	root feeder	2	1	1	0	0	0
<i>Agrotis exclamationis</i>	Noctuidae	specialist herb feeder	19	0	64	5	2	6
<i>Agrotis ipsilon</i>	Noctuidae	root feeder	6	0	8	3	2	2
<i>Agrotis segetum</i>	Noctuidae	root feeder	411	6	719	90	41	54
<i>Agrotis trux</i>	Noctuidae	root feeder	1	0	0	0	0	0

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<i>Allophyes oxyacanthae</i>	Noctuidae	generalist tree herbivore	2	3	0	1	0	1
<i>Ammoconia caecimacula</i>	Noctuidae	generalist herb feeder	0	1	0	0	1	0
<i>Amphipyra livida</i>	Noctuidae	generalist herb feeder	0	0	0	0	0	4
<i>Amphipyra pyramidea</i>	Noctuidae	generalist tree herbivore	8	3	1	0	4	0
<i>Amphipyra tragopoginis</i>	Noctuidae	generalist herb feeder	1	0	1	0	1	0
<i>Anaplectoides prasinus</i>	Noctuidae	generalist herb feeder	0	0	1	0	0	0
<i>Apamea caracterea</i>	Noctuidae	grass herbivore	0	0	0	2	0	0
<i>Apamea crenata</i>	Noctuidae	grass herbivore	0	0	1	0	0	0
<i>Apamea monoglypha</i>	Noctuidae	grass herbivore	5	0	0	0	0	1
<i>Apamea scolopacina</i>	Noctuidae	grass herbivore	0	0	0	0	0	1
<i>Apamea unanimitis</i>	Noctuidae	grass herbivore	0	1	0	0	0	0
<i>Arenostola semicana</i>	Noctuidae	(semi-)aquatic herbivore	0	1	0	0	0	0
<i>Asteroscopus sphinx</i>	Noctuidae	generalist tree herbivore	4	8	8	0	6	10
<i>Atethmia centrago</i>	Noctuidae	specialist tree herbivore	5	0	5	2	1	0
<i>Athetis gluteosa</i>	Noctuidae	generalist herb feeder	0	0	0	0	0	2
<i>Atypha pulmonaris</i>	Noctuidae	specialist herb feeder	17	10	1	0	0	0
<i>Autographa gamma</i>	Noctuidae	generalist herb feeder	0	2	0	0	1	2
<i>Axylia putris</i>	Noctuidae	generalist herb feeder	48	19	610	33	13	32
<i>Blepharita satura</i>	Noctuidae	generalist herb feeder	2	0	0	1	1	1
<i>Caradrina morpheus</i>	Noctuidae	generalist herb feeder	20	5	34	20	35	52
<i>Charanyca trigrammica</i>	Noctuidae	generalist herb feeder	7	4	8	11	3	4
<i>Cleoceris scoriacea</i>	Noctuidae	specialist herb feeder	0	0	0	0	2	1
<i>Colocasia coryli</i>	Noctuidae	generalist tree herbivore	67	32	22	9	5	4
<i>Conistra eurythrocephala</i>	Noctuidae	generalist tree herbivore	0	3	0	0	1	1
<i>Conistra vaccinii</i>	Noctuidae	generalist tree herbivore	4	1	0	0	1	2
<i>Cosmia affinis</i>	Noctuidae	generalist tree herbivore	0	2	0	0	0	1
<i>Cosmia diffinis</i>	Noctuidae	specialist tree herbivore	0	0	0	0	1	0
<i>Cosmia pyralina</i>	Noctuidae	generalist tree herbivore	0	0	2	0	2	2
<i>Cosmia trapezina</i>	Noctuidae	generalist tree herbivore	50	8	3	5	2	19
<i>Craniophora ligustri</i>	Noctuidae	generalist tree herbivore	25	5	169	63	44	77
<i>Cryphia algae</i>	Noctuidae	lichen/moss feeder	0	2	4	5	1	6
<i>Deltote bankiana</i>	Noctuidae	grass herbivore	0	1	0	2	3	0
<i>Diachrysis chrysitis</i>	Noctuidae	generalist herb feeder	3	4	2	1	1	2

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<i>Diarsia brunnea</i>	Noctuidae	generalist herb feeder	0	0	1	0	0	0
<i>Diarsia rubi</i>	Noctuidae	generalist herb feeder	0	0	3	1	0	1
<i>Diloba caeruleocephala</i>	Noctuidae	generalist tree herbivore	3	3	0	1	0	5
<i>Discestra trifolii</i>	Noctuidae	generalist herb feeder	3	0	6	0	0	0
<i>Dypterygia scabriuscula</i>	Noctuidae	specialist herb feeder	1	0	2	3	13	19
<i>Egira conspicillaris</i>	Noctuidae	generalist tree herbivore	0	1	0	0	0	0
<i>Elaphria venustula</i>	Noctuidae	generalist herb feeder	1	0	2	1	7	9
<i>Emmelia trabealis</i>	Noctuidae	specialist herb feeder	0	2	1	0	2	0
<i>Enargia paleacea</i>	Noctuidae	softwood tree herbivore	0	0	1	0	0	0
<i>Episema tersa</i>	Noctuidae	specialist herb feeder	0	0	0	0	1	0
<i>Eucarta virgo</i>	Noctuidae	specialist herb feeder	0	0	1	0	0	0
<i>Eugnorisma depuncta</i>	Noctuidae	generalist herb feeder	38	5	18	18	3	3
<i>Euplexia lucipara</i>	Noctuidae	generalist herb feeder	7	6	17	15	5	6
<i>Eupsilia transversa</i>	Noctuidae	generalist tree herbivore	3	1	2	0	4	8
<i>Euxoa distinguenda</i>	Noctuidae	root feeder	2	0	0	0	0	0
<i>Euxoa vitta</i>	Noctuidae	root feeder	0	0	9	2	0	0
<i>Gortyna flavago</i>	Noctuidae	generalist herb feeder	0	0	1	1	2	1
<i>Hadena bicurris</i>	Noctuidae	specialist herb feeder	0	0	0	0	0	1
<i>Hadena luteago</i>	Noctuidae	specialist herb feeder	0	0	1	1	0	0
<i>Hadena perplexa</i>	Noctuidae	specialist herb feeder	0	1	0	0	0	0
<i>Hadena rivularis</i>	Noctuidae	specialist herb feeder	1	2	4	3	1	5
<i>Helicoverpa armigera</i>	Noctuidae	generalist herb feeder	1	1	2	1	2	1
<i>Hoplodrina ambigua</i>	Noctuidae	generalist herb feeder	36	5	418	105	42	64
<i>Hoplodrina blanda</i>	Noctuidae	generalist herb feeder	17	1	108	8	3	2
<i>Hoplodrina octogenaria</i>	Noctuidae	generalist herb feeder	52	1	7	2	1	1
<i>Hydraecia micacea</i>	Noctuidae	root feeder	0	3	0	0	0	2
<i>Ipimorpha retusa</i>	Noctuidae	softwood tree herbivore	1	6	1	8	0	2
<i>Ipimorpha subtusa</i>	Noctuidae	softwood tree herbivore	3	1	39	4	2	1
<i>Lacanobia oleracea</i>	Noctuidae	generalist herb feeder	23	2	101	38	25	27
<i>Lacanobia suasa</i>	Noctuidae	generalist herb feeder	1	0	1	3	0	1
<i>Lacanobia thalassina</i>	Noctuidae	generalist herb feeder	8	4	26	12	3	12
<i>Lacanobia w-latinum</i>	Noctuidae	generalist herb feeder	0	0	0	1	0	0
<i>Leucania obsoleta</i>	Noctuidae	(semi-)aquatic herbivore	7	1	3	0	14	41

Appendix 3: Classification of moth species (alphabetically sorted within families) into 12 functional groups according to larval feeding relationships. In addition, numbers of specimens per region and forest habitat type are reported.

Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Lithophane hepatica</i>	Noctuidae	generalist tree herbivore	0	0	2	3	1	2
<i>Lithophane ornitopus</i>	Noctuidae	generalist tree herbivore	0	0	0	0	4	10
<i>Luperina testacea</i>	Noctuidae	grass herbivore	0	0	0	0	4	0
<i>Macdunnoughia confusa</i>	Noctuidae	generalist herb feeder	0	1	1	0	2	0
<i>Mamestra brassicae</i>	Noctuidae	generalist herb feeder	28	3	87	5	4	13
<i>Melanchra persicariae</i>	Noctuidae	generalist herb feeder	0	0	0	1	0	0
<i>Mesapamea didyma</i>	Noctuidae	grass herbivore	0	0	5	4	1	0
<i>Mesapamea secalis</i>	Noctuidae	grass herbivore	1	0	2	6	0	2
<i>Mesoligia furuncula</i>	Noctuidae	grass herbivore	1	0	0	0	1	0
<i>Mesoligia literosa</i>	Noctuidae	grass herbivore	1	0	1	0	0	0
<i>Moma alpium</i>	Noctuidae	generalist tree herbivore	0	0	2	0	0	1
<i>Mormo maura</i>	Noctuidae	generalist tree herbivore	0	0	0	1	0	0
<i>Mythimna albipuncta</i>	Noctuidae	grass herbivore	9	5	74	34	14	11
<i>Mythimna conigera</i>	Noctuidae	grass herbivore	0	0	1	0	0	0
<i>Mythimna impura</i>	Noctuidae	grass herbivore	0	0	0	0	3	0
<i>Mythimna l-album</i>	Noctuidae	grass herbivore	4	1	7	2	1	0
<i>Mythimna pallens</i>	Noctuidae	grass herbivore	2	3	33	3	4	8
<i>Mythimna straminea</i>	Noctuidae	grass herbivore	0	0	0	0	0	2
<i>Mythimna turca</i>	Noctuidae	grass herbivore	2	11	7	63	3	7
<i>Mythimna vitellina</i>	Noctuidae	grass herbivore	1	0	29	12	0	1
<i>Noctua comes</i>	Noctuidae	generalist herb feeder	4	0	4	2	1	2
<i>Noctua fimbriata</i>	Noctuidae	generalist herb feeder	1	3	11	0	0	1
<i>Noctua interposita</i>	Noctuidae	generalist herb feeder	1	1	9	2	0	1
<i>Noctua janthe</i>	Noctuidae	generalist tree herbivore	1	1	5	19	0	2
<i>Noctua janthina</i>	Noctuidae	generalist tree herbivore	0	1	7	8	0	8
<i>Noctua orbona</i>	Noctuidae	generalist herb feeder	0	1	3	0	0	0
<i>Noctua pronuba</i>	Noctuidae	generalist herb feeder	23	8	106	58	13	11
<i>Ochroleura plecta</i>	Noctuidae	generalist herb feeder	31	17	197	56	52	118
<i>Oligia latruncula</i>	Noctuidae	grass herbivore	0	0	2	0	0	0
<i>Oligia strigilis</i>	Noctuidae	grass herbivore	7	0	14	0	0	0
<i>Oligia versicolor</i>	Noctuidae	grass herbivore	0	0	1	1	0	0
<i>Orthosia cerasi</i>	Noctuidae	generalist tree herbivore	0	1	0	0	3	3
<i>Orthosia cruda</i>	Noctuidae	generalist tree herbivore	0	0	0	0	0	1

Appendix 3: Classification of moth species (alphabetically sorted within families) into 12 functional groups according to larval feeding relationships. In addition, numbers of specimens per region and forest habitat type are reported.

Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Orthosia gothica</i>	Noctuidae	generalist tree herbivore	5	6	0	4	8	7
<i>Orthosia incerta</i>	Noctuidae	generalist tree herbivore	1	2	1	0	0	1
<i>Orthosia munda</i>	Noctuidae	generalist tree herbivore	0	0	0	0	1	1
<i>Paradrina clavipalpis</i>	Noctuidae	detritivore	2	0	4	0	0	2
<i>Parastichtis suspecta</i>	Noctuidae	softwood tree herbivore	1	0	2	0	0	1
<i>Parastichtis ypsilon</i>	Noctuidae	softwood tree herbivore	0	3	0	0	0	0
<i>Phlogophora meticulosa</i>	Noctuidae	generalist herb feeder	0	0	2	2	0	1
<i>Platyperigea kadenii</i>	Noctuidae	generalist herb feeder	3	0	11	15	3	3
<i>Polia nebulosa</i>	Noctuidae	generalist tree herbivore	1	0	1	1	0	0
<i>Polyphaenis sericata</i>	Noctuidae	generalist tree herbivore	0	0	0	0	1	0
<i>Protodeltote pygarga</i>	Noctuidae	grass herbivore	15	23	6	5	2	7
<i>Proxenus lepigone</i>	Noctuidae	generalist herb feeder	0	0	0	0	1	0
<i>Pseudeustrotia candidula</i>	Noctuidae	grass herbivore	0	0	3	3	1	0
<i>Pyrrhia umbra</i>	Noctuidae	generalist herb feeder	0	0	1	0	0	1
<i>Rusina ferruginea</i>	Noctuidae	generalist herb feeder	0	0	1	0	1	0
<i>Thalpophila matura</i>	Noctuidae	grass herbivore	2	0	0	1	0	0
<i>Trachea atriplicis</i>	Noctuidae	generalist herb feeder	8	2	34	12	3	5
<i>Tyta luctuosa</i>	Noctuidae	specialist herb feeder	0	1	0	0	2	0
<i>Xanthia aurago</i>	Noctuidae	generalist tree herbivore	0	1	0	0	0	0
<i>Xanthia gilvago</i>	Noctuidae	specialist tree herbivore	0	0	0	0	0	2
<i>Xanthia ocellaris</i>	Noctuidae	softwood tree herbivore	0	0	0	0	1	0
<i>Xestia baja</i>	Noctuidae	generalist herb feeder	0	1	6	13	0	3
<i>Xestia c-nigrum</i>	Noctuidae	generalist herb feeder	113	37	1753	504	172	362
<i>Xestia ditrapezium</i>	Noctuidae	generalist tree herbivore	0	0	0	5	1	1
<i>Xestia rhomboidea</i>	Noctuidae	generalist herb feeder	1	0	1	2	0	0
<i>Xestia sexstrigata</i>	Noctuidae	generalist herb feeder	1	0	0	1	1	0
<i>Xestia triangulum</i>	Noctuidae	generalist herb feeder	13	4	7	3	1	0
<i>Xestia xanthographa</i>	Noctuidae	grass herbivore	1	0	2	6	4	3
<i>Meganola albula</i>	Nolidae	specialist tree herbivore	0	0	0	1	0	1
<i>Nola confusalis</i>	Nolidae	generalist tree herbivore	0	0	0	0	0	2
<i>Nola cucullatella</i>	Nolidae	specialist tree herbivore	5	3	6	17	1	3
<i>Nycteola asiatica</i>	Nolidae	softwood tree herbivore	2	8	1	7	1	3
<i>Cerura erminea</i>	Notodontidae	softwood tree herbivore	0	2	0	0	0	0

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Clostera anastomosis</i>	Notodontidae	softwood tree herbivore	0	0	3	0	0	0
<i>Clostera curtula</i>	Notodontidae	softwood tree herbivore	2	8	5	3	3	10
<i>Drymonia dodonaea</i>	Notodontidae	specialist tree herbivore	19	8	0	0	2	7
<i>Drymonia querna</i>	Notodontidae	specialist tree herbivore	0	0	0	0	2	0
<i>Furcula bifida</i>	Notodontidae	softwood tree herbivore	1	1	1	0	1	2
<i>Furcula furcula</i>	Notodontidae	softwood tree herbivore	0	0	1	0	0	0
<i>Gluphisia crenata</i>	Notodontidae	softwood tree herbivore	3	2	1	0	4	0
<i>Notodonta dromedarius</i>	Notodontidae	softwood tree herbivore	0	1	0	1	0	0
<i>Notodonta tritophus</i>	Notodontidae	softwood tree herbivore	0	2	1	0	1	1
<i>Notodonta ziczac</i>	Notodontidae	softwood tree herbivore	0	0	1	0	2	0
<i>Phalera bucephala</i>	Notodontidae	softwood tree herbivore	1	4	2	3	1	2
<i>Pheosia tremula</i>	Notodontidae	softwood tree herbivore	16	182	165	48	45	94
<i>Pterostoma palpina</i>	Notodontidae	softwood tree herbivore	2	12	8	4	9	7
<i>Ptilodon capucina</i>	Notodontidae	generalist tree herbivore	2	11	3	5	1	7
<i>Ptilodon cucullina</i>	Notodontidae	specialist tree herbivore	16	12	3	3	7	15
<i>Ptilophora plumigera</i>	Notodontidae	specialist tree herbivore	3	36	1	2	256	706
<i>Spatialia argentina</i>	Notodontidae	specialist tree herbivore	1	1	4	0	1	1
<i>Stauropus fagi</i>	Notodontidae	generalist tree herbivore	12	5	8	10	1	2
<i>Thaumetopoea processionea</i>	Notodontidae	specialist tree herbivore	2	0	0	0	1	1
<i>Acrobasis advenella</i>	Pyralidae	specialist tree herbivore	5	27	0	1	2	18
<i>Acrobasis legatea</i>	Pyralidae	specialist tree herbivore	0	1	0	0	0	0
<i>Acrobasis sodalella</i>	Pyralidae	specialist tree herbivore	0	0	0	0	1	1
<i>Acrobasis suavella</i>	Pyralidae	specialist tree herbivore	1	0	0	0	2	4
<i>Acrobasis tumidana</i>	Pyralidae	specialist tree herbivore	0	0	1	0	1	4
<i>Actenia brunnealis</i>	Pyralidae	generalist herb feeder	0	0	0	1	1	0
<i>Aphomia sociella</i>	Pyralidae	detritivore	2	1	1	0	2	0
<i>Asalebria fumella</i>	Pyralidae	softwood tree herbivore	0	0	0	1	0	0
<i>Cadra furcatella</i>	Pyralidae	detritivore	0	0	2	0	2	1
<i>Ematheudes punctella</i>	Pyralidae	grass herbivore	0	0	0	0	0	1
<i>Endotricha flammealis</i>	Pyralidae	detritivore	0	0	3	9	3	2
<i>Ephestia parasitella</i>	Pyralidae	detritivore	1	1	1	0	0	0
<i>Etiella zinckenella</i>	Pyralidae	specialist herb feeder	0	0	1	0	0	7
<i>Galleria mellonella</i>	Pyralidae	detritivore	1	1	2	0	0	7

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Species	Family	Functional type	Danube non-flooded	Danube flooded	Leitha non-flooded	Leitha flooded	Morava non-flooded	Morava flooded
<i>Gymnancyla hornigi</i>	Pyralidae	specialist herb feeder	0	0	0	0	1	0
<i>Hypsopygia costalis</i>	Pyralidae	detritivore	0	0	1	3	0	0
<i>Laodamia faecella</i>	Pyralidae	unknown	0	1	0	0	0	0
<i>Nephoterix angustella</i>	Pyralidae	specialist tree herbivore	1	0	2	0	0	0
<i>Oncocera semirubella</i>	Pyralidae	specialist herb feeder	6	5	15	18	11	10
<i>Orthopygia glaucinalis</i>	Pyralidae	detritivore	0	1	0	1	0	1
<i>Pempeliella dilutella</i>	Pyralidae	generalist herb feeder	2	4	1	0	0	0
<i>Phycita roborella</i>	Pyralidae	generalist tree herbivore	0	0	0	1	0	1
<i>Phycitodes binaevella</i>	Pyralidae	specialist herb feeder	0	0	0	1	0	0
<i>Pyralis farinalis</i>	Pyralidae	detritivore	0	0	0	1	0	0
<i>Pyralis regalis</i>	Pyralidae	detritivore	0	0	0	0	0	1
<i>Sciota adelphella</i>	Pyralidae	softwood tree herbivore	0	0	1	0	0	0
<i>Sciota rhenella</i>	Pyralidae	softwood tree herbivore	1	1	1	1	0	1
<i>Synaphe punctalis</i>	Pyralidae	lichen/moss feeder	1	0	0	0	0	0
<i>Trachonitis cristalis</i>	Pyralidae	generalist tree herbivore	0	1	0	0	0	0
<i>Deilephila porcellus</i>	Sphingidae	specialist herb feeder	0	0	0	0	1	0
<i>Laothoe populi</i>	Sphingidae	softwood tree herbivore	0	2	1	0	0	1
<i>Mimas tiliae</i>	Sphingidae	generalist tree herbivore	0	0	0	0	0	2
<i>Smerinthus ocellata</i>	Sphingidae	softwood tree herbivore	0	1	0	0	0	1

Appendix 4: List of references used to score moth species into the 12 recognized functional types.

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Appendix 5: one-way ANOSIM results (= R statistics) for flood effects on moth species composition within each of three riverine regions

	Danube	Leitha	Morava
all moth species	0.999	0.999	0.288
BVSTEP best subset #1	0.876	0.958	0.560
BVSTEP best subset #2	0.788	0.927	0.440
BVSTEP best subset #3	0.876	0.646	0.464
BVSTEP best subset #4	0.960	0.823	0.440
BVSTEP best subset #5	0.940	0.656	0.516
BVSTEP best subset #6	0.908	0.656	0.516
BVSTEP best subset #7	0.968	0.885	0.512
BVSTEP best subset #8	0.828	0.781	0.656
15 most abundant species	0.999	0.719	0.524
15 most abundant resident species	0.999	0.656	0.552
15 species with most prominent abundance variation	0.999	0.563	0.380
8 most abundant species	0.999	0.729	0.428
8 most abundant resident species	0.964	0.677	0.600
8 species with most prominent abundance variation	0.999	0.594	0.460
most abundant species of each functional type	0.896	0.781	0.600